REGULAR CITY COUNCIL MEETING
MEETING AGENDA
WEDNESDAY, NOVEMBER 30, 2016

Regular Meeting - 6:30 PM

City Hall – Beryl P. Robinson, Jr. Conference Room
317 Broad Street, Nevada City, CA 95959

MISSION STATEMENT
The City of Nevada City is dedicated to preserving and enhancing its small town character and historical architecture while providing quality public services for our current and future residents, businesses and visitors.

Evans Phelps, Mayor

Reinette Senum, Council Member | **Duane Strawser, Vice Mayor**
David Parker, Council Member | **Valerie Moberg, Council Member**

The City Council welcomes you to its meetings which are scheduled at 6:30 PM on the 2nd and 4th Wednesdays of each month. Your interest is encouraged and appreciated. This meeting is recorded on DVD and is televised on local public television Channel 17. Other special accommodations may be requested to the City Clerk 72 hours in advance of the meeting. Please turn off all cell phones or similar devices. Action may be taken on any agenda item. Agenda notices are available at City Hall. Materials related to an item on this Agenda submitted to the Council after distribution of the agenda packet are available for public inspection in the City Hall at 317 Broad Street, Nevada City, CA during normal business hours.

ANY MEMBER OF THE PUBLIC DESIRING TO ADDRESS THE COUNCIL ON ANY ITEM ON THIS AGENDA: After receiving recognition from the Mayor, give your name and address, and then your comments or questions. Please direct your remarks to the Councilmembers. In order that all interested parties have an opportunity to speak, please limit your comments to the specific item under discussion. All citizens will be afforded an opportunity to speak, consistent with their Constitutional rights. Time limits shall be at the Mayor's discretion. **IF YOU CHALLENGE** the Council's decision on any matter in court, you will be limited to raising only those issues you or someone else raised at the meeting or Public Hearing described on this agenda, or in written correspondence delivered to the City Council at, or prior to, the meeting or Public Hearing.

REGULAR MEETING – 6:30 PM - Call to Order

Roll Call: Moberg, Parker, Senum, Vice Mayor Strawser, & Mayor Phelps

PLEDGE OF ALLEGIANCE

PROCLAMATION: Nevada County Food & Toy Run – 25th Anniversary – Dec 10, 2016

PRESENTATION:

BUSINESS FROM THE FLOOR

1. PUBLIC COMMENT

Under Government Code Section 54954.3, members of the public are entitled to address the City Council concerning any item within the Nevada City Council's subject matter

jurisdiction. Comments on items NOT ON THE AGENDA are welcome at this time. Normally, public comments are limited to no more than three minutes each. **Except for certain specific exceptions, the City Council is prohibited from discussing or taking action on any item not appearing on the posted agenda.**

2. COUNCIL MEMBERS REQUESTED ITEMS AND COMMITTEE REPORTS:

3. CONSENT ITEMS:

All matters listed under the Consent Calendar are to be considered routine by the City Council and will be enacted by one motion in the form listed. There will be no separate discussion of these items unless, before the City Council votes on the motion to adopt, members of the Council, City staff or the public request specific items to be removed from the Consent Calendar for separate discussion and action.

A. **Subject:** Automatic Aid Agreements with Higgins Fire District, Ophir Hill Fire District, Penn Valley Fire District and North San Juan Fire District
Recommendation: Pass a Motion 1) approving agreements providing Automatic Aid from the City of Nevada City to Higgins Fire District, Ophir Hill Fire District, Penn Valley Fire District and North San Juan Fire District; and 2) authorizing the Fire Chief and City Manager to sign agreements and to edit non-substantial items within the agreement pending approval from the other affected agencies.

B. **Subject:** Interim Staffing at Nevada City Water and Wastewater Treatment Plants
Recommendation: Pass a Motion approving Amendment No. 3 in the amount of $56,000 to City agreement with Fishers Wastewater Services for a total not to exceed agreement amount of $80,000 to provide interim management staffing for the City's water and wastewater plants thru June 30, 2017.

C. **Subject:** Environmental Protection Agency (EPA) Brownfields Assessment Coalition Grant
Recommendation: Pass a Motion authorizing the Mayor to sign a Letter of Commitment to participate in the Brownfields Assessment Coalition Grant funded by the EPA.

D. **Subject:** 4th Quarter Financial Update, Fiscal Year 15/16
Recommendation: Staff recommends that the City Council review and accept the enclosed 4th Quarter Financial Reports for Fiscal Year 15/16.

E. **Subject:** Approval of Regional Transportation Mitigation Fee Program and Agreement with Nevada County Transportation Commission
Recommendation: Pass Resolution 2016-XX approving the Regional Transportation Mitigation Fee (RTMF) and RTMF Agreement with Nevada County Transportation Commission.

4. APPROVAL OF ACTION MINUTES:

A. City Council Meeting – November 9, 2016

5. DEPARTMENT REQUESTED ACTION ITEMS AND UPDATE REPORTS:

A. Subject: Deer Creek Restoration Project and Flood Mitigation Project at Pioneer Park
Recommendation: No action required. This is a presentation with an opportunity for public feedback on the project and CEQA documentation.

6. PUBLIC HEARINGS:

7. OLD BUSINESS:

A. Subject: Presentation of Preliminary Findings of Comprehensive Water and Wastewater System Assessment (Oral Report)
Recommendation: Receive and file.

B. Subject: Ordinance: Adding Section 3.26 to the Nevada City Municipal Code Relating to a Hotel Investment Incentive Program (First Reading)
Recommendation: Pass an Ordinance adding Section 3.26 to the Nevada City Municipal Code relating to a Nevada City Hotel Investment Incentive Program.

8. NEW BUSINESS:

A. Subject: Agreement between the City of Nevada City and Inn Town Development LLC to Convey Property and Allow Parking on City Property
Recommendation: Pass a Motion authorizing the Mayor to sign an Agreement between the CITY OF NEVADA CITY, owner of Railroad Museum property, and INN TOWN DEVELOPMENT LLC, owner of the Inn Town Campground, to convey property and allow parking on City property.

B. Subject: Request for Continuance for the Appeal of the Planning Commission Decision to Deny the Use Permit Application by Verizon Wireless to Install eight (8) cellular antennas to various points of the rooftop of 109 North Pine Street
Recommendation: Provide direction to either: 1) If the City Council is satisfied that Verizon's request to continue the appeal of their Use Permit is necessary to investigate alternative sites, continue the Verizon Appeal to be heard at the requested March 8, 2017 City Council Meeting; or 2) Set the date to hear the appeal of the Planning Commission's decision to deny the Use Permit on December 14, 2016.

9. CORRESPONDENCE:

10. ANNOUNCEMENTS:

11. CITY MANAGER'S REPORT:

12. ADJOURNMENT

Certification of Posting of Agenda

I, Corey Shaver, Administrative Supervisor for the City of Nevada City, declare that the foregoing agenda for the November 30, 2016 Regular Meeting of the Nevada City City Council was posted November 23, 2016 at the office of the City of Nevada City (City Hall). The agenda is also posted on the City's website www.nevadacityca.gov.

Signed November 23, 2016 at Nevada City, California

_____, Corey Shaver, Administrative Supervisor

CITY OF NEVADA CITY
City Council
Long Range Calendar

December 14, 2016	Regular Council Meeting
December 28, 2016	Meeting Canceled
January 11, 2016	Regular Council Meeting
January 25, 2016	Regular Council Meeting

NOTE: This list is for planning purposes; items may shift depending on timing and capacity of a meeting.

NOTICE: *As presiding officer, the Mayor has the authority to preserve order at all City Council meetings, to remove or cause the removal of any person from any such meeting for disorderly conduct, or for making personal, impertinent, or slanderous remarks, using profanity, or becoming boisterous, threatening or personally abusive while addressing said Council and to enforce the rules of the Council.*

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Automatic Aid Agreements with Higgins Fire District, Ophir Hill Fire District, Penn Valley Fire District and North San Juan Fire District

RECOMMENDATION: Pass a Motion 1) approving agreements providing Automatic Aid from the City of Nevada City to Higgins Fire District, Ophir Hill Fire District, Penn Valley Fire District and North San Juan Fire District; and 2) authorizing the Fire Chief and City Manager to sign agreements and to edit non-substantial items within the agreement pending approval from the other affected agencies.

CONTACT: Sam Goodspeed, Fire Chief

BACKGROUND / DISCUSSION: The City of Nevada City Fire Department operates in a Joint Operations Area (JOA) with the Nevada County Consolidated Fire District and the City of Grass Valley Fire Department. The seven fire stations in the Joint Operational Area, one of those being Fire Station 54 in Nevada City, provide fire protection, emergency medical services, rescue and other services to the community. The Fire Service has a long history of assisting each other; no one agency is capable of providing exclusive service without assistance. When large scale or multiple incidents are occurring our partner agencies in western Nevada County may require assistance.

Through automatic aid the JOA agencies will provide one closest resource fire engine to the emergency outside of the JOA. Additional resources from the JOA may be requested by the Incident Commander subject to the discretion of the JOA Battalion Chief on duty at the time of request. In turn, the JOA agencies benefit by having an additional response capability during large-scale incidents or when multiple incidents deplete the dynamic response system in the JOA. The new agreements standardize auto aid responses to incidents outside of the JOA and City of Nevada City.

ENVIRONMENTAL CONSIDERATIONS: Not applicable.

FISCAL IMPACT: Not Applicable.

ATTACHMENTS:

- ✓ Agreement for Automatic Aid to Higgins Fire District
- ✓ Agreement for Automatic Aid to Ophir Hill Fire District
- ✓ Agreement for Automatic Aid to Penn Valley Fire District
- ✓ Agreement for Automatic Aid to North San Juan Fire District.

AUTOMATIC AID AGREEMENT

AMONG THE HIGGINS AREA FIRE PROTECTION DISTRICT
and
NEVADA COUNTY CONSOLIDATED FIRE DISTRICT
and
GRASS VALLEY FIRE DEPARTMENT
and
NEVADA CITY FIRE DEPARTMENT

This Agreement, made the ( ), among the Higgins Area Fire Protection District, hereinafter referred to as HGF, the Nevada County Consolidated Fire District, hereinafter referred to as NCC, the Grass Valley Fire Department, hereinafter referred to as GRS and the Nevada City Fire Department hereinafter referred to as NEV. Each party may be referred to as "Agency" or collectively as "Agencies" or "Parties."

WITNESSETH

WHEREAS, HGF maintains and operates a Fire Protection Organization covering the Higgins Fire Protection District; and

WHEREAS, NCC maintains and operates a Fire Protection Organization covering Nevada County Consolidated Fire District; and

WHEREAS, GRS maintains and operates a Fire Protection Organization covering the City of Grass Valley; and

WHEREAS, NEV maintains and operates a Fire Protection Organization covering the City of Nevada City; and

WHEREAS, it is the desire of HGF, NCC, GRS and NEV to enter into an Automatic Aid agreement amongst the agencies. This will provide for the time closest appropriate apparatus responds to the emergency.

WHEREAS, Automatic Aid, is defined, as “responding to an emergency in an adjacent fire jurisdiction without being requested by the agency with jurisdiction over that area”

NOW, THEREFORE, it is agreed among the parties hereto pursuant to this document that:

1. The above recitals are true and correct and incorporated herein as a part of this Agreement.

2. Upon receipt of any fire incident, vehicle accident, or medical emergency within HGF jurisdiction, NCC, NEV and/or GRS will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

3. Upon receipt of any fire incident, vehicle accident, or medical emergency within NCC, NEV and/or GRS jurisdiction, HGF will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

4. Resources necessary for Coverage will be requested using the mutual aid system. All parties to this Agreement may request a resource to cover their area of responsibility using the following guidelines:

    a. The requesting agency's resources are depleted.

    b. The agency receiving the request is the closest resource available as determined by CAD.

    c. The agency receiving the request ("Providing Agency") for coverage has the final decision on whether or not they can fulfill the request without depleting resources within their jurisdiction.

5. A Regular Mutual Aid request by a Duty Chief or a Company Officer will be handled by the Emergency Communication Center ("ECC") in the usual manner using closest resource. With regard to Regular Mutual Aid requests, the Providing Agency has the final decision on whether or not they can provide the response without depleting resources within their jurisdiction.

6. When operating an incident, each Agency shall utilize the command and tactical frequency assigned by the ECC.

7. The Agency with jurisdiction should be the Incident Commander.

8. As soon as adequate resources arrive at scene, as determined by the Incident Commander, and the NCC/HGF/GRS/NEV resource is no longer needed, it will be released.

9. Full protective safety clothing and equipment shall be worn by all firefighters when exposed to hazardous elements on the scene of a fire.

10. All four Agencies should train together at least twice (2) annually on Standard Operating Procedures/Guidelines, which apply to each Agency. Standard Operating Procedures must be utilized on all incidents.

11. The Requesting Agency, whether that be HGF, NEV, NCC and/or GRS shall indemnify, defend and hold harmless the Providing Agency, its officials, officers, employees, agents or consultants from any and all liabilities, costs, losses and expenses, including without limitation court costs and reasonable attorneys' fees arising out of or in connection with this Agreement or the automatic or mutual aid, or coverage, provided by the Providing Agency, except such loss or damage which was caused by the sole negligence or willful misconduct of the Providing Agency.

12. The Agencies enter into this Agreement as independent contractors and not as employees of the other Agencies. The Agencies shall have no power or authority by this Agreement to bind the other Agencies in any respect. Nothing in this Agreement shall be construed to be inconsistent with this relationship or status.

13. This Agreement shall supersede all other agreements between the four (4) parties. Any and all other agreements for Aid are null and void.

This Agreement shall remain in effect from this date indefinitely, unless terminated by any of the Parties hereto giving to the others thirty (30) days notice in writing of such termination, or until amended by mutual agreement of the Parties. HGF, NCC, NEV and GRS agree to review this Agreement annually to ensure general public benefit.

IN WITNESS WHEREOF, the parties have set their hands this ( )

_____	_____
FIRE CHIEF, HGF	BOARD PRESIDNET HGF
_____	_____
FIRE CHIEF, NCC	BOARD PRESIDENT, NCC
_____	_____
FIRE CHIEF, GRS	CITY MANAGER, GRS
_____	_____
FIRE CHIEF, NEV	CITY MANAGER, NEV

AUTOMATIC AID AGREEMENT

AMONG THE OPHIR HILL FIRE DISTRICT
and
NEVADA COUNTY CONSOLIDATED FIRE DISTRICT
and
GRASS VALLEY FIRE DEPARTMENT
and
NEVADA CITY FIRE DEPARTMENT

This Agreement, made the ( ), among the Ophir Hill Fire District, hereinafter referred to as OPH, the Nevada County Consolidated Fire District, hereinafter referred to as NCC, the Grass Valley Fire Department, hereinafter referred to as GRS and the Nevada City Fire Department hereinafter referred to as NEV. Each party may be referred to as "Agency" or collectively as "Agencies" or "Parties."

WITNESSETH

WHEREAS, OPH maintains and operates a Fire Protection Organization covering the Ophir Hill Fire Protection District; and

WHEREAS, NCC maintains and operates a Fire Protection Organization covering Nevada County Consolidated Fire District; and

WHEREAS, GRS maintains and operates a Fire Protection Organization covering the City of Grass Valley; and

WHEREAS, NEV maintains and operates a Fire Protection Organization covering the City of Nevada City; and

WHEREAS, it is the desire of OPH, NCC, GRS and NEV to enter into an Automatic Aid agreement amongst the agencies. This will provide for the time closest appropriate apparatus responds to the emergency.

WHEREAS, Automatic Aid, is defined, as “responding to an emergency in an adjacent fire jurisdiction without being requested by the agency with jurisdiction over that area”

NOW, THEREFORE, it is agreed among the parties hereto pursuant to this document that:

1. The above recitals are true and correct and incorporated herein as a part of this Agreement.

2. Upon receipt of any fire incident, vehicle accident, or medical emergency within OPH jurisdiction, NCC, NEV and/or GRS will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

3. Upon receipt of any fire incident, vehicle accident, or medical emergency within NCC, NEV and/or GRS jurisdiction, OPH will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

4. Resources necessary for Coverage will be requested using the mutual aid system. All parties to this Agreement may request a resource to cover their area of responsibility using the following guidelines:

    a. The requesting agency's resources are depleted.

    b. The agency receiving the request is the closest resource available as determined by CAD.

    c. The agency receiving the request ("Providing Agency") for coverage has the final decision on whether or not they can fulfill the request without depleting resources within their jurisdiction.

5. A Regular Mutual Aid request by a Duty Chief or a Company Officer will be handled by the Emergency Communication Center ("ECC") in the usual manner using closest resource. With regard to Regular Mutual Aid requests, the Providing Agency has the final decision on whether or not they can provide the response without depleting resources within their jurisdiction.

6. When operating an incident, each Agency shall utilize the command and tactical frequency assigned by the ECC.

7. The Agency with jurisdiction should be the Incident Commander.

8. As soon as adequate resources arrive at scene, as determined by the Incident Commander, and the NCC/OPH/GRS/NEV resource is no longer needed, it will be released.

9. Full protective safety clothing and equipment shall be worn by all firefighters when exposed to hazardous elements on the scene of a fire.

10. All four Agencies should train together at least twice (2) annually on Standard Operating Procedures/Guidelines, which apply to each Agency. Standard Operating Procedures must be utilized on all incidents.

11. The Requesting Agency, whether that be OPH, NCC, NEV and/or GRS shall indemnify, defend and hold harmless the Providing Agency, its officials, officers, employees, agents or consultants from any and all liabilities, costs, losses and expenses, including without limitation court costs and reasonable attorneys' fees arising out of or in connection with this Agreement or the automatic or mutual aid, or coverage, provided by the Providing Agency, except such loss or damage which was caused by the sole negligence or willful misconduct of the Providing Agency.

12. The Agencies enter into this Agreement as independent contractors and not as employees of the other Agencies. The Agencies shall have no power or authority by this Agreement to bind the other Agencies in any respect. Nothing in this Agreement shall be construed to be inconsistent with this relationship or status.

13. This Agreement shall supersede all other agreements between the four (4) parties.

This Agreement shall remain in effect from this date indefinitely, unless terminated by any of the Parties hereto giving to the others thirty (30) days notice in writing of such termination, or until amended by mutual agreement of the Parties. OPH, NCC NEV and GRS agree to review this Agreement annually to ensure general public benefit.

IN WITNESS WHEREOF, the parties have set their hands this ( )

_____	_____
FIRE CHIEF, OPH	BOARD PRESIDENT, OPH
_____	_____
FIRE CHIEF, NCC	BOARD PRESIDENT, NCC
_____	_____
FIRE CHIEF, GRS	CITY MANAGER, GRS
_____	_____
FIRE CHIEF, NEV	CITY MANAGER, NEV

AUTOMATIC AID AGREEMENT

AMONG THE PENN VALLEY FIRE PROTECTION DISTRICT
and
NEVADA COUNTY CONSOLIDATED FIRE DISTRICT
and
GRASS VALLEY FIRE DEPARTMENT
and
NEVADA CITY FIRE DEPARTMENT

This Agreement, made the ( ), among the Penn Valley Fire Protection District, hereinafter referred to as PNV, the Nevada County Consolidated Fire District, hereinafter referred to as NCC, the Grass Valley Fire Department, hereinafter referred to as GRS and the Nevada City Fire Department hereinafter referred to as NEV. Each party may be referred to as "Agency" or collectively as "Agencies" or "Parties."

WITNESSETH

WHEREAS, PNV maintains and operates a Fire Protection Organization covering the Penn Valley Fire Protection District; and

WHEREAS, NCC maintains and operates a Fire Protection Organization covering Nevada County Consolidated Fire District; and

WHEREAS, GRS maintains and operates a Fire Protection Organization covering the City of Grass Valley; and

WHEREAS, NEV maintains and operates a Fire Protection Organization covering the City of Nevada City; and

WHEREAS, it is the desire of PNV, NCC, GRS and NEV to enter into an Automatic Aid agreement amongst the agencies. This will provide for the time closest appropriate apparatus responds to the emergency.

WHEREAS, Automatic Aid, is defined, as “responding to an emergency in an adjacent fire jurisdiction without being requested by the agency with jurisdiction over that area”

NOW, THEREFORE, it is agreed among the parties hereto pursuant to this document that:

1. The above recitals are true and correct and incorporated herein as a part of this Agreement.

2. Upon receipt of any fire incident, vehicle accident, or medical emergency within PNV jurisdiction, NCC, NEV and/or GRS will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

3. Upon receipt of any fire incident, vehicle accident, or medical emergency within NCC, NEV and/or GRS jurisdiction, PNV will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

4. Resources necessary for Coverage will be requested using the mutual aid system. All parties to this Agreement may request a resource to cover their area of responsibility using the following guidelines:

    a. The requesting agency's resources are depleted.

    b. The agency receiving the request is the closest resource available as determined by CAD.

    c. The agency receiving the request ("Providing Agency") for coverage has the final decision on whether or not they can fulfill the request without depleting resources within their jurisdiction.

5. A Regular Mutual Aid request by a Duty Chief or a Company Officer will be handled by the Emergency Communication Center ("ECC") in the usual manner using closest resource. With regard to Regular Mutual Aid requests, the Providing Agency has the final decision on whether or not they can provide the response without depleting resources within their jurisdiction.

6. When operating an incident, each Agency shall utilize the command and tactical frequency assigned by the ECC.

7. The Agency with jurisdiction should be the Incident Commander.

8. As soon as adequate resources arrive at scene, as determined by the Incident Commander, and the NCC/PNV/GRS/NEV resource is no longer needed, it will be released.

9. Full protective safety clothing and equipment shall be worn by all firefighters when exposed to hazardous elements on the scene of a fire.

10. All four Agencies should train together at least twice (2) annually on Standard Operating Procedures/Guidelines, which apply to each Agency. Standard Operating Procedures must be utilized on all incidents.

11. The Requesting Agency, whether that be PNV, NCC, NEV and/or GRS shall indemnify, defend and hold harmless the Providing Agency, its officials, officers, employees, agents or consultants from any and all liabilities, costs, losses and expenses, including without limitation court costs and reasonable attorneys' fees arising out of or in connection with this Agreement or the automatic or mutual aid, or coverage, provided by the Providing Agency, except such loss or damage which was caused by the sole negligence or willful misconduct of the Providing Agency.

12. The Agencies enter into this Agreement as independent contractors and not as employees of the other Agencies. The Agencies shall have no power or authority by this Agreement to bind the other Agencies in any respect. Nothing in this Agreement shall be construed to be inconsistent with this relationship or status.

13. This Agreement shall supersede all other agreements between the four (4) parties except the "Agreement between Rough & Ready FPD, NCC, GRS and PNV Automatic Aid" dated 15th of April, 2009. Any and all other agreements for Aid are null and void.

This Agreement shall remain in effect from this date indefinitely, unless terminated by any of the Parties hereto giving to the others thirty (30) days notice in writing of such termination, or until amended by mutual agreement of the Parties. PNV, NCC NEV and GRS agree to review this Agreement annually to ensure general public benefit.

IN WITNESS WHEREOF, the parties have set their hands this ( )

_____ FIRE CHIEF, PNV	
_____ FIRE CHIEF, NCC	_____ BOARD PRESIDENT, NCC
_____ FIRE CHIEF, GRS	_____ CITY MANAGER, GRS
_____ FIRE CHIEF, NEV	_____ CITY MANAGER, NEV

AUTOMATIC AID AGREEMENT

AMONG THE NORTH SAN JUAN FIRE PROTECTION DISTRICT
and
NEVADA COUNTY CONSOLIDATED FIRE DISTRICT
and
GRASS VALLEY FIRE DEPARTMENT
and
NEVADA CITY FIRE DEPARTMENT

This Agreement, made the ( ), among the North San Juan Fire Protection District, hereinafter referred to as NSJ, the Nevada County Consolidated Fire District, hereinafter referred to as NCC, the Grass Valley Fire Department, hereinafter referred to as GRS and the Nevada City Fire Department hereinafter referred to as NEV. Each party may be referred to as "Agency" or collectively as "Agencies" or "Parties."

WITNESSETH

WHEREAS, NSJ maintains and operates a Fire Protection Organization covering the North San Juan Fire Protection District; and

WHEREAS, NCC maintains and operates a Fire Protection Organization covering Nevada County Consolidated Fire District; and

WHEREAS, GRS maintains and operates a Fire Protection Organization covering the City of Grass Valley; and

WHEREAS, NEV maintains and operates a Fire Protection Organization covering the City of Nevada City; and

WHEREAS, it is the desire of NSJ, NCC, GRS and NEV to enter into an Automatic Aid agreement amongst the agencies. This will provide for the time closest appropriate apparatus responds to the emergency.

WHEREAS, Automatic Aid, is defined, as “responding to an emergency in an adjacent fire jurisdiction without being requested by the agency with jurisdiction over that area”

NOW, THEREFORE, it is agreed among the parties hereto pursuant to this document that:

1. The above recitals are true and correct and incorporated herein as a part of this Agreement.

2. Upon receipt of any fire incident, vehicle accident, or medical emergency within NSJ jurisdiction, NCC, NEV and/or GRS will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

3. Upon receipt of any fire incident, vehicle accident, or medical emergency within NCC, NEV and/or GRS jurisdiction, NSJ will provide Automatic Aid by responding with one (1) apparatus with a minimum staffing of two (2) personnel as determined by CAD as the closest available resource.

4. Resources necessary for Coverage will be requested using the mutual aid system. All parties to this Agreement may request a resource to cover their area of responsibility using the following guidelines:

    a. The requesting agency's resources are depleted.

    b. The agency receiving the request is the closest resource available as determined by CAD.

    c. The agency receiving the request ("Providing Agency") for coverage has the final decision on whether or not they can fulfill the request without depleting resources within their jurisdiction.

5. A Regular Mutual Aid request by a Duty Chief or a Company Officer will be handled by the Emergency Communication Center ("ECC") in the usual manner using closest resource. With regard to Regular Mutual Aid requests, the Providing Agency has the final decision on whether or not they can provide the response without depleting resources within their jurisdiction.

6. When operating an incident, each Agency shall utilize the command and tactical frequency assigned by the ECC.

7. The Agency with jurisdiction should be the Incident Commander.

8. As soon as adequate resources arrive at scene, as determined by the Incident Commander, and the NCC/NSJ/GRS/NEV resource is no longer needed, it will be released.

9. Full protective safety clothing and equipment shall be worn by all firefighters when exposed to hazardous elements on the scene of a fire.

10. All four Agencies should train together at least twice (2) annually on Standard Operating Procedures/Guidelines, which apply to each Agency. Standard Operating Procedures must be utilized on all incidents.

11. The Requesting Agency, whether that be NSJ, NCC, NEV and/or GRS shall indemnify, defend and hold harmless the Providing Agency, its officials, officers, employees, agents or consultants from any and all liabilities, costs, losses and expenses, including without limitation court costs and reasonable attorneys' fees arising out of or in connection with this Agreement or the automatic or mutual aid, or coverage, provided by the Providing Agency, except such loss or damage which was caused by the sole negligence or willful misconduct of the Providing Agency.

12. The Agencies enter into this Agreement as independent contractors and not as employees of the other Agencies. The Agencies shall have no power or authority by this Agreement to bind the other Agencies in any respect. Nothing in this Agreement shall be construed to be inconsistent with this relationship or status.

13. This Agreement shall supersede all other agreements between the four (4) parties.

This Agreement shall remain in effect from this date indefinitely, unless terminated by any of the Parties hereto giving to the others thirty (30) days notice in writing of such termination, or until amended by mutual agreement of the Parties. NSJ, NCC NEV and GRS agree to review this Agreement annually to ensure general public benefit.

IN WITNESS WHEREOF, the parties have set their hands this ( )

_____	_____
FIRE CHIEF, NSJ	BOARD PRESIDENT, NSJ
_____	_____
FIRE CHIEF, NCC	BOARD PRESIDENT, NCC
_____	_____
FIRE CHIEF, GRS	CITY MANAGER, GRS
_____	_____
FIRE CHIEF, NEV	CITY MANAGER, NEV

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Interim Staffing at Nevada City Water and Wastewater Treatment Plants

RECOMMENDATION: Pass a Motion approving Amendment No. 3 in the amount of $56,000 to City agreement with Fishers Wastewater Services for a total not to exceed agreement amount of $80,000 to provide interim management staffing for the City's water and wastewater plants thru June 30, 2017.

CONTACT: Mark Prestwich, City Manager

BACKGROUND / DISCUSSION: Due to an unanticipated staffing vacancy at the City's water and wastewater treatment plants that occurred September 28, 2016, the City required the immediate services of qualified Grade 3 operators to assist with management of these critical facilities and to comply with State regulations. On September 29, 2016, the City Manager entered into an agreement with Fishers Wastewater Services in an amount not to exceed $11,000 to provide temporary staffing assistance. The City Council ratified this agreement at their October 12 meeting. Amendment No. 1 in the amount of $8,000 extended interim staffing services through November 9. Proposed Amendment No. 2 in the amount of $5,000 extended services through November 30.

Fishers Wastewater has provided high quality services to date and staff is recommending a longer-term amendment in the amount of $56,000 to provide interim staffing services through June 30, 2017.

ENVIRONMENTAL CONSIDERATIONS: The City has operational, maintenance and reporting responsibilities to the State Water Resources Control Board and Department of Public Health. The addition of temporary staffing will facilitate the City's ability to meet its responsibilities until current City staff acquire the necessary certifications to independently manage the facilities.

FISCAL IMPACT: Fishers Wastewater Services bills at $80 per hour and standby services at $3 per hour. The estimated average monthly expenditures of approximately $8,000 will be offset by salary savings from the vacant Chief Plant Operator position.

ATTACHMENT:

- ✓ Amendment No. 3

AMENDMENT NO. 3 TO
CITY OF NEVADA CITY AND
FISHERS WASTEWATER SERVICES AGREEMENT

This Amendment No. 3 to City of Nevada City and Fishers Wastewater Agreement for water and wastewater services ("Amendment") is made and entered into effective as of November 30, 2016 ("Effective Date") by and between the City of Nevada City (City) and Fishers Wastewater Services (Contractor). The City and Contractor are hereinafter referred to as "Parties".

1. **Payment:** Amendment No. 3 shall include an additional $56,000 to provide interim management staffing services through the extended agreement term below, bringing the total not to exceed amount of the agreement to $80,000.
2. The "Contract Term" Section is hereby amended to read, in its entirety:

   Contract Term: The term of the agreement will commence September 29, 2016 and terminate June 30, 2017.

IN WITNESS WHEREOF, this agreement has been amended by the parties hereto, upon the date first above written.

CITY OF NEVADA CITY	CONTRACTOR
Dept: _____	Contractor: _____
By: _____	By: _____
Printed Name:_____	Printed Name: _____
Title: _____	Title: _____

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Environmental Protection Agency (EPA) Brownfields Assessment Coalition Grant Application

RECOMMENDATION: Pass a Motion authorizing the Mayor to sign a Letter of Commitment to participate in the Brownfields Assessment Coalition Grant funded by the EPA.

CONTACT: Dawn Zydonis, Parks & Recreation Supervisor

BACKGROUND / DISCUSSION:
Brownfields are properties that may have hazardous substances, pollutants or contaminants present. EPA's Brownfields Program provides grants and technical assistance to communities, states, tribes and others to assess, safely clean up and sustainably reuse these contaminated properties. Cleaning up and reinvesting in brownfields protects human health and the environment, reduces blight, and takes development pressures off greenspaces and working lands.

Brownfields Assessment grants provide funding for a grant recipient to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites. A coalition of three or more eligible applicants can submit one grant proposal under the name of one of the coalition members for up to $1,000,000.

City staff has had conversations with the City of Grass Valley and County of Nevada about the possibility of working together to improve our collective prospects of securing a Coalition Assessment Grant. Each entity would offer properties that could be assessed and agree to participate in the program. The City of Grass Valley would be the lead agency on the grant, if awarded. It is anticipated that the Old Airport property may be a suitable property to be assessed for Nevada City. The properties assessed do not have to be City-owned property, but of course property owners have to be willing participants. City staff are researching other potential properties for assessment.

Holdrege and Kull (HK) and Sierra Streams Institute (SSI) have been hired by the City of Grass Valley to write the grant application and will be receiving a small stipend from them. The City of Nevada City has not been asked to contribute to their services.

If the grant is awarded, the City and all coalition members will be required to sign a Memorandum of Understanding (MOU) that communicates the contact information of all coalition members, how often the members will meet, how many sites the coalition will

assess, how many phases the members will perform and other specifics on the managing of contractors, community involvement plans, and site prioritization.

ENVIRONMENTAL CONSIDERATIONS: None

FISCAL IMPACT: None

ATTACHMENT:

- ✓ Draft Letter of Commitment

November 30, 2016

Robert Richardson
City Manager
City of Grass Valley
125 E Main Street
Grass Valley, California 95945

RE: Gold Country Redevelopment Coalition Community Wide Assessment Grant Proposal

Dear Mr. Richardson,

This letter is to confirm the City of Nevada City's commitment to support the Brownfields program grant proposal "Gold Country Redevelopment Coalition Community Wide Assessment".

The City of Nevada City has been awarded and has successfully implemented one other Brownfields Assessment grant in 2006 and four Brownfields Cleanup grants between 2008 to present. The City of Nevada City's mission is dedicated to preserving and enhancing its small town character and historical architecture while providing quality public services for our current and future residents, businesses and visitors. This proposed project is consistent with our mission, and more specifically would support our interests in providing more available public green space for the local community and the many visitors who are drawn to the town for its natural beauty and history.

As a coalition member, we acknowledge that if the proposed project is awarded, each Coalition partner would need to sign a Memorandum of Agreement prior to the expenditure of any awarded assessment funds.

We look forward to working with our partners on this important planning project as well as the partnership with the other Coalition members. If you have any questions please contact our City Manager, Mark Prestwich, at 530-265-2496 x119 or mark.prestwich@nevadacityca.gov.

Regards,

Evans Phelps
Mayor, Nevada City

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: 4th Quarter Financial Update, Fiscal Year 15/16

RECOMMENDATION: Staff recommends that the City Council review and accept the enclosed 4th Quarter Financial Reports for Fiscal Year (FY) 15/16.

CONTACT: Catrina Olson, Assistant City Manager/Finance & Administration

BACKGROUND / DISCUSSION:

As of June 30, 2016 the City had $1.18 million in the General Checking, $685k in the Local Agency Investment Fund (LAIF) yielding .55%, and $1.24 million in Certificates of Deposit (CD's) with an average portfolio maturity of 3 years and an average yield of 1.2%. The cumulative cash total for the City was $3.2 million vs. $4.4 million June 30, 2016. The City's cash flow has declined from the same time last year primarily due to timing of citywide grant reimbursements.

The City's General Fund long term debt has been paid off during fiscal year 15/16 from the $28k that was owed as of June 30, 2015. The City of Nevada City did not request a Transfer of Funds debt issuance from the Nevada County Treasurer during FY 15/16.

The City's Enterprise Fund long term debt was $4.15 million as of June 30, 2016 vs. $4.37 million as of June 30, 2015, $216k lower associated to regular principal reduction payments.

As of June 30, 2016, General Fund revenues were $3.64 million vs. $3.56 million June 30, 2015, an increase of $84k year over year (yoy) associated to increased property tax, transient occupancy tax and an increase in safety revenues of $133k. Offsetting to this increase the City did experience a decline in parks and recreation revenues and other revenues of $55k. General Fund revenues received at $3.64 million were 107% of the $3.42 million year-end adjusted budget.

As of June 30, 2016 the General Fund expenditures were at $3.47 million vs. $3.71 million June 30, 2015, a decrease of $242k yoy. General Administration expenditures at $780k were 96% of the $815k year-end adjusted operational budget primarily associated to savings in salary and benefits and lower than budgeted attorney's fees.

The Fire Department expenditures at $515k were 100% of the $515k year-end adjusted operational budget. The Police Department expenditures at $1.51 million were 91% of the $1.65 million year-end adjusted budget. Police Department capital outlay was $105k of a $40k budget tied to the purchase of two zero emission motorcycles that were grant funded. The Department of Public Works expenditures at $371k were 91% of the $408k operational budget. The Parks and Recreation Department expenditures at $271k were 99% of the $273k year-end adjusted budget. The Veteran's Building expenditures at $49k were 102% of the $47k year-end adjusted budget. Overall expenditures at $3.47 million were 93% of the $3.73 million year-end adjusted budget.

The General Fund had revenues exceeding expenditures $373k as of June 30, 2016, with a positive unassigned fund balance of $591k and varying levels of reserves equal to $977k for FY 15/16. Included in the $977k is $232.5k in operational reserves, $70k in pension reserves, and $47.5k in vehicle replacement reserves. The General Fund has maintained an improving economic financial position over the last five fiscal years and Measure "L" is significantly contributing toward the ratcheting up of the general fund reserve levels.

As of June 30, 2016 Special Fund revenues were $3.03 million and were 112% of the $2.7 million budget. The City's two special tax measures performed exceptionally for FY 15/16 with the City receiving $560k in Measure "S" sales tax revenues and $414k in Measure "L" sales tax revenues. Most Special Fund revenues are tied to the timing of expenditures by the City and reimbursement based.

As of June 30, 2016 the Special Fund expenditures including capital outlay were $3.59 million and were 122% of the overall $2.95 million budget with expenditures of $886k in Measure "S" funds and $543k in Measure "L" funds.

As of June 30, 2016 the Water Fund revenues were $1.26 million vs. $823k June 30, 2015. The $1.26 million is $754k in Water Fund revenues and $505k in Consumnes, American, Bear and Yuba (CABY) Proposition 84 grant reimbursements for grant related water projects. The decrease in water funds collected of $69k was associated to community water conservation efforts. Water Fund revenues received at $754k were 90% of the $835k year-end adjusted budget.

As of June 30, 2016 the Water Fund expenditures were at $883k vs. $640k June 30, 2015. The increase of $243k in Water Fund expenditures was associated to CABY Proposition 84 grant water related projects. The Water Department and Water Distribution Departments with expenditures of $883k were 53% of the $1.8 million operational and capital year-end adjusted budget.

The Water Fund had revenues exceeding expenditures of $269k as of June 30, 2016. The Water Fund has experienced an improving financial position however, with continued conservation efforts the City will continue to experience a slowing in Water Fund revenues and with the projected continuing increase in expenditures for necessary repairs, it is critical that City Staff explore efficiencies in operations and reductions in expenditures to maintain the improving financial position of the Water Fund.

As of June 30, 2016 the Wastewater Fund revenues were $1.32 million vs. $1.40 million June 30, 2015. The decrease in Wastewater Fund revenues of $75k was associated to the restructuring of the Wastewater rates to 40% fixed and 60% flow charge and a decrease in the use of water during the January/February 2015 months. Wastewater Fund revenues and program income for leachate hauling received at $1.32 million were 100% of the $1.33 million year-end adjusted budget.

As of June 30, 2016 the Wastewater Fund expenditures were at $1.68 million vs. $1.35 million June 30, 2015. The increase of $336k in Wastewater Fund expenditures was associated to an increase in outside service costs for the Coastland study, increased costs for required testing and increased allocation of pension benefits for personnel and administrative staff. The Wastewater Department and Wastewater Collection Departments with expenditures of $1.68 million were 100% of the $1.69 million year-end adjusted budget.

The Wastewater Fund had expenditures exceeding revenues of ($658k) as of June 30, 2016. This did erode a portion of the Wastewater Fund balance, however the fund continues to maintain a positive fund position.

ATTACHMENTS:

- Fund Financial Status Report
- Statement of Condition
- Revenue and Expenditure Report (General Fund, Special Funds, Water Fund & Sewer Fund)
- Major Revenue Graphs

CITY OF NEVADA CITY
Fund - Financial Status Report
June 30, 2016

Cash Balances as of June 30, 2016

	1) Checking Account Citizens	$	1,182,888.03	
	2) Core Account	$	16,480.10	
	3) LAIF	$	684,592.39	
	4) Fire Department	$	77,936.77	
	5) Certificates of Deposit	$	1,239,000.00	See attached schedule 1A
Total City Cash Accounts		$	3,200,897	***Ties to Fund balances***
	6) Petty Cash	$	775.00	
Other Cash Accounts			775.00	
TOTAL CASH		$	3,201,672.29	

			FY 15-16 Activity to June 30, 2016		FY 14-15 Activity to June 30, 2015		$ Change
General Fund Balances:							
	100	GENERAL FUND	$ 1,234,334	$	921,588	$	312,746
Subtotal General Funds			$ 1,234,334	$	921,588	$	312,746
Special Revenues:							
	200	AB1600	$ 191,126	$	193,036	$	(1,910)
	201	P&R QUIMBY	$ 29,165	$	29,046	$	119
	205	DONATION PRJT	$ 14,232	$	5,797	$	8,435
	209	NEVADA/MAIN PRJ	$ (28,970)	$	(9,686)	$	(19,284)
	210	GAS TAX-STREETS	$ 36,042	$	76,336	$	(40,294)
	212	RSTP/STIP	$ (605)	$	(452)	$	(153)
	215	RURAL PLANNING	$ 1	$	(31,659)	$	31,660
	217	REG.TRAFFIC MIT	$ (3,333)	$	1	$	(3,334)
	220	INDIAN TRAILS	$ 47,776	$	48,559	$	(783)
	221	UST PROJECT	$ (11,025)	$	(11,025)	$	-
	229	BROWNSFIELD '10	$ (7,026)	$	(5,266)	$	(1,760)
	241	NC REC/QUIMBY	$ -	$	(3,231)	$	3,231
	250	CDBG	$ (3,244)	$	(106,318)	$	103,074
	265	CABY - NEV CITY	$ (126,480)	$	(334,739)	$	208,259
	266	CABY- MISC AGENCY	$ (8,915)	$	(142,341)	$	133,426
	271	PROP 172	$ (444,879)	$	36,878	$	(481,757)
	272	MATHIVET	$ 59,272	$	72,394	$	(13,122)
	280	MEASURE "L"	$ 57,027	$	325,885	$	(268,858)
	273	SLESF	$ 72,690	$	54,309	$	18,381
	710	CONSTITUTION DAY PARADE	$ 1,195	$	1,098	$	97
	715	MEASURE "S"	$ 97,927	$	399,038	$	(301,111)
	770	BECKER	$ 18,168	$	18,094	$	74
Subtotal Special Revenues			$ (164,741)	$	615,754	$	(780,495)
Enterprise Funds:							
	600	WATER FUND	$ 208,094	$	(54,955)	$	263,049
	614	WATER-AB1600	$ (582,733)	$	25,683	$	(608,416)
	625	WTP - UPGRADE	$ 25,784	$	(15,849)	$	41,633
	650	SEWER FUND	$ (1,279)	$	2,919,124	$	(2,920,403)
	654	SEWER-AB1600	$ 2,465,222	$	16,150	$	2,449,072
	695	VETERAN'S BLDG	$ 16,216	$	-	$	16,216
Subtotal Enterprise Funds			$ 2,131,304	$	2,890,153	$	(758,849)
TOTAL OF FUNDS			$ 3,200,897	$	4,427,495	$	(1,226,598)

Prepared By: Catrina Olson
11/22/2016

City of Nevada City - Investment Schedule 2015/2016

Institution	Amount	Rate	Purchase Date	Maturity Date	Term	FDIC #	FDIC Ins.
Ally Bank Midvale	$248,000	0.80%	10/30/2013	10/30/2015	2 Yr	57803	Yes
Bank of Baroda	$248,000	1.00%	2/4/2014	2/6/2017	3 Yr	33681	Yes
GE Capital Retail Bank	$248,000	1.05%	4/11/2014	4/11/2017	3 Yr	27314	Yes
Sallie Mae	$248,000	1.35%	9/10/2014	9/11/2017	3 Yr	58177	Yes
GE Capital Bank Inc. Retail	$247,000	1.80%	9/8/2014	9/5/2018	4 Yr	33778	Yes

June 30, 2016

General Checking	*$ 1,182,888.03*
Core Money Market	*$ 16,480.10*
LAIF	*$ 684,592.39*
Cash On Hand	*$ 1,883,960.52*
CD's	*$1,239,000*
Total Cash	*$ 3,122,960.52*

City of Nevada City
Statement of Condition
June 30, 2016

Cash & Investments		***Actual June 30, 2016***		***Actual June 30, 2015***
Checking	$	1,182,888	$	1,315,559
Core Account	$	16,480	$	26,769
LAIF	$	684,592	$	1,530,553
Certificates of Deposit	$	1,239,000	$	1,487,000
Fire Department	$	77,937	$	67,616
Petty Cash	$	775	$	575
Total Cash & Investments	***$***	***3,201,672***	***$***	***4,428,072***

Debt Governmental Activities		***Balance June 30, 2016***		***Balance June 30, 2015***	***Comments***
Leases:					
Ford Motor Credit Municipal	$	-	$	*28,216*	Payments made once yearly Apr
Loans:					
Debt Business Type Activities (Water&Wastewater)					
COP's:					
Citizens - Wastewater Treatment Plant Refunding 2008	$	555,693	$	619,149	Payments made twice yearly Jun/Dec
USDA - Wastewater COP's Series 2005	$	1,928,000	$	1,960,000	Payments made twice yearly Dec/July (1st pmt Int only/2nd pmt princ. & int)
USDA - Wastewater COP's Series 2007	$	1,620,000	$	1,646,000	Payments made twice yearly Dec/July (1st pmt Int only/2nd pmt princ. & int)
Loan:					
First Security Finance Corporation - Water Plant Bond Refi	$	48,844	$	143,615	Payments made twice yearly Mar/Sept
Total Business Type Debt	***$***	***4,152,537***	***$***	***4,368,764***	

PERs projected Contribution Rates:	***Empl. Contrib. 16/17***	***Empl. Contrib. 15/16***	***Unfunded Accrued Liability as of 6/30/16***	
Miscellaneous Employees ***(4% employee contrib. as of 07/15)***	23.465%+ 8%	18.197%+ 8%	$	1,650,904
Safety Employees ***(Fire 4% & PD 6.5% employee contrib. as of 7/15)***	36.272%+ 9%	27.27%+ 9%	$	1,940,102
2nd Tier Retirement *(employee contributes 5% towards 7% employee portion)*				
Miscellaneous Employees *(2%@60)*	7.806%+7%	7.271%+7%	$	3,270
Safety Employees *(2%@55)*	13.117%+7%	12.212%+7%	$	2,068
PEPRA *(new members)*				
Miscellaneous Employees *(2%@62)(Employee contributes 6.25%)*	6.533% + 6.25%	6.209% + 6.25%	$	2,000
Safety Employees *(2.7%@57) (Employee contributes 9.5%)*	9.513% + 9.5%	9.069% + 9.5%	$	2,921
			$	3,601,265

Prepared By: Catrina Olson
11/21/2016

City of Nevada City
Revenues & Expenditures General Fund
June 30, 2016

	Actual June 30, 2016	Actual June 30, 2015	Adopted Annual Budget FY 15/16	$$ Annual Budget	%
Revenues - Governmental Activities					
Sales Taxes *(includes prop. tax in lieu of sales tax)*	$ 938,575	$ 956,123	$ 901,820	$ *36,755*	*104%*
Property Taxes *(includes prop tax in lieu of VLF)*	$ 1,408,003	$ 1,358,338	$ 1,376,350	$ *31,653*	*102%*
Transient Occupancy Taxes	$ 323,814	$ 287,593	$ 275,000	$ *48,814*	*118%*
Franchises	$ 146,854	$ 145,472	$ 151,000	$ *(4,146)*	*97%*
Licenses/Permits	$ 64,222	$ 64,280	$ 63,600	$ *622*	*101%*
Planning	$ 27,313	$ 27,617	$ 30,000	$ *(2,687)*	*91%*
Parks & Recreation	$ 116,112	$ 145,851	$ 151,380	$ *(35,268)*	*77%*
Veteran's Building	$ 20,119	$ 11,842	$ 14,000	$ *6,119*	*144%*
Parking Meters	$ 95,531	$ 94,626	$ 90,500	$ *5,031*	*106%*
Safety *(Includes PD POST, Fire Department/Strike, Asset Forfeiture/mvlf etc)*	$ 271,347	$ 224,091	$ 254,000	$ *17,347*	*107%*
Grants	$ 52,006	$ 39,346	$ 8,786	$ *43,220*	*592%*
All Other Revenues	$ 179,719	$ 204,385	$ 103,550	$ *76,169*	*174%*
Total Governmental Revenue	***$ 3,643,615***	***$ 3,559,564***	***$ 3,419,986***	***$ 147,460***	***107%***
Funds from Other Financing Sources					
Transfers In (fire taxes, CABY Admin., SLESF, Prop 172, Measure 'L')	$ *196,789*	$ *167,601*	$ *559,871*		
Proceeds from Debt(1st & 2nd Funds Transfer payments due from January 2015 & May 2015 property tax installments $400k)	$ -	$ *400,000*	$ -		
TOTAL GENERAL FUND REVENUES	***$ 3,840,404***	***$ 4,127,165***	***$ 3,979,857***		
Expenditures - Governmental Activities					
General Government *(Finance & Administration)*	$ 426,509	$ 486,185	$ 494,462	$ *(67,953)*	*86%*
Prinicpal Debt Repayments (County Temporary Borrowing)		$ 400,000			
Capital Outlay	$ -	$ -	$ -	$ -	
A-87 Cost Allocation Adjustment	$ (356,722)	$ (356,722)	$ *(356,727)*		
City Council	$ 10,147	$ 10,096	$ 13,000	$ *(2,853)*	*78%*
A-87 Cost Allocation Adjustment	$ 1,668	$ 1,668	$ *1,668*		
Planning Commission	$ 5,041	$ 4,605	$ 4,050	$ *991*	*124%*
A-87 Cost Allocation Adjustment	$ 467	$ 467	$ *467*		
City Attorney	$ 66,538	$ 90,512	$ 111,065	$ *(44,527)*	*60%*
Capital Outlay	$ -	$ -	$ -	$ -	
City Planner	$ 138,416	$ 119,802	$ 135,627	$ *2,789*	*102%*
Capital Outlay	$ -	$ -	$ -	$ -	
A-87 Cost Allocation Adjustment	$ 18,311	$ 18,311	$ *18,311*		
City Manager	$ 110,480	$ 58,350	$ 154,218	$ *(43,738)*	*72%*
Capital Outlay	$ -	$ -	$ -	$ -	
A-87 Cost Allocation Adjustment	$ (50,636)	$ (50,636)	$ *(50,636)*		
City Clerk&Treasurer	$ 2,791	$ 2,828	$ 2,584	$ *207*	*108%*
Fire Department	$ 515,495	$ 455,056	$ 515,683	$ *(188)*	*100%*
Capital Outlay	$ -	$ -	$ 5,000	$ *(5,000)*	*0%*
A-87 Cost Allocation for Administrative Staff - Charge to FD	$ 30,407	$ 30,407	$ *30,407*		
Police Department	$ 1,514,903	$ 1,384,814	$ 1,659,999	$ *(145,096)*	*91%*
Capital Outlay	$ 104,528	$ 117,298	$ 40,000	$ *64,528*	*261%*
A-87 Cost Allocation for Administrative Staff - Charge to PD	$ 70,201	$ 70,201	$ *70,201*		
Public Works *(b&g, streets)*	$ 370,526	$ 400,143	$ 407,811	$ *(37,285)*	*91%*
Capital Outlay	$ -	$ -	$ -	$ -	
A-87 Cost Allocation for Administrative Staff - Charge to PW	$ 56,189	$ 56,189	$ *56,189*		
Community Agency Support	$ 54,662	$ 31,364	$ 42,425		*129%*
Park and Recreation *(p&r, pool, summer prg.)*	$ 271,317	$ 274,151	$ 272,716	$ *(1,399)*	*99%*
Capital Outlay	$ -	$ -	$ -	$ -	
A-87 Cost Allocation for Administrative Staff - Charge to P&R	$ 55,369	$ 55,369	$ *55,369*		
Veteran's Building	$ 49,491	$ 47,288	$ 48,618	$ *873*	*102%*
A-87 Cost Allocation for Administrative Staff - Veteran's Building	$ 1,192	$ 1,192	$ *1,192*		
Total General Fund Expenditures	***$ 3,467,289***	***$ 3,708,938***	***$ 3,733,699***	***$ (279,525)***	***93%***
NET GENERAL FUND REVENUES/EXPENDITURES	**$ 373,115**	**$ 418,227**	**$ 246,158**		

of the Net Revenues/Expenditures $179,050 is transferring from Measure "L" and will be reserved as a part of the General Fund Balance

29

Prepared By: Catrina Olson
11/21/2016

City of Nevada City
Revenues & Expenditures Committed Funds
June 30, 2016

Revenues - Special	Fund		**Actual** ***June 30, 2016***		**Adopted Annual Budget** ***FY 15/16***		**Variance to Budget**
AB1600 Mitigation Fees	200	$	6,371	$	10,955	$	*(4,584)*
Donation Projects	205	$	9,641			$	*9,641*
Highway Bridge Grant Project	209	$	-	$	50,000	$	*(50,000)*
Gas Tax	210	$	86,201	$	71,589	$	*14,612*
NCTC Local Ped & Bike	213	$	-	$	25,000	$	*(25,000)*
CMAQ Streets and Roads	215	$	452,860	$	260,000	$	*192,860*
Regtional Traffic Mitigation	217	$	-	$	3,880	$	*(3,880)*
FEMA Grant *(includes year-end transfers)*	218	$	25,736	$	-	$	*25,736*
CEC Grant	219	$	-	$	-	$	-
Indian Trails	220	$	332	$	-	$	*332*
LWCF - Pool Rehab	224	$	-	$	-	$	-
Little Deer Creek Restoration	227	$	-	$	150,000	$	*(150,000)*
Brownsfield '10 Grant Reimbursement	229	$	158,695	$	-	$	*158,695*
Fire Tax	230/231	$	99,528	$	94,000	$	*5,528*
CDBG-Enterprise	250	$	48,757	$	195,000	$	*(146,243)*
CABY - Nev City *(includes year-end transfers)*	265	$	747,006	$	-	$	*747,006*
CABY - Washington	266	$	275,394	$	727,000	$	*(451,606)*
Prop 172	271	$	37,806	$	30,000	$	*7,806*
SLESF - Supplemental Law Enforcement	273	$	100,606	$	100,175	$	*431*
Measure "L" Sales Tax	280	$	413,999	$	418,500	$	*(4,501)*
Constitution Day	710	$	5,100	$	7,500	$	*(2,400)*
Measure "S" Sales Tax	715	$	560,051	$	558,850	$	*1,201*
Special Revenue Interest *(if no other revenue/expense)*		$	685	$	505	$	*180*
Total Special Revenue		***$***	***3,028,768***	***$***	***2,702,954***	***$***	***325,634***
Expenditures - Special Revenue Activities							
AB1600	200	$	7,740	$	15,000	$	*(7,260)*
Capital Outlay				$	-	$	-
Donation Projects	205	$	4,700	$	-	$	*4,700*
Highway Bridge Grant Project	209	$	2,527	$	-	$	*2,527*
Capital Outlay		$	25,152	$	50,000	$	*(24,848)*
Gas Tax *(includes year-end transfers)*	210	$	168,656	$	75,000	$	*93,656*
Capital Outlay		$	6,425	$	-	$	*6,425*
Local Ped & Bike	213	$	-	$	25,000	$	*(25,000)*
Capital Outlay				$	-	$	-
CMAQ - ST&RD	215	$	7,382	$	-	$	*7,382*
Capital Outlay		$	544,428	$	260,000	$	*284,428*
Regional Traffic Mitigation	217	$	-	$	3,880	$	*(3,880)*
FEMA Grant	218	$	25,736	$	-	$	*25,736*
CEC Grant	219	$	3,333	$	-	$	*3,333*
Indian Trails	220	$	1,498	$	300	$	*1,198*
LCWF - Pool Rehab	224	$	-	$	-	$	-
Capital Outlay		$	7,026	$	-	$	*7,026*
Little Deer Creek Restoration	227	$	35,214	$	150,000	$	*(114,786)*
Brownsfield '10	229	$	150,701	$	-	$	*150,701*
Fire Tax *(includes year-end transfers)*	230/231	$	99,567	$	94,000	$	*5,567*
CDBG	250	$	181,445	$	120,000	$	*61,445*
Capital Outlay		$	-	$	75,000	$	*(75,000)*
CABY - Nev City *(Includes year-end transfers)*	265	$	294,379	$	-	$	*294,379*
Capital Outlay		$	-	$	-	$	-
CABY - Washington	266	$	476,506	$	727,000	$	*(250,494)*
Prop 172 *(Includes year-end transfers)*	271	$	14,965	$	30,000	$	*(15,035)*
Mathivet	272	$	-	$	25,000	$	*(25,000)*
SLESF - Supplemental Law Enforcement *(includes year-end transfers)*	273	$	97,597	$	100,000	$	*(2,403)*
Measure "L"	280	$	486,770	$	491,775	$	*(5,005)*
Capital Outlay		$	55,944	$	141,600	$	*(85,656)*
Constitution Day	710	$	5,004	$	7,500	$	*(2,496)*
Measure "S" *(includes year-end transfers)*	715	$	104,212	$	96,927	$	*7,285*
Capital Outlay		$	781,577	$	460,000	$	*321,577*
A-87 Cost Allocation for Administrative Staff - Charge to Special Revenues							
Total Special Revenue Expenditures		***$***	***3,588,484***	***$***	***2,947,982***	***$***	***640,502***

Prepared By: Catrina Olson
11/18/2016

City of Nevada City
Revenues & Expenditures Enterprise Funds
June 30, 2016

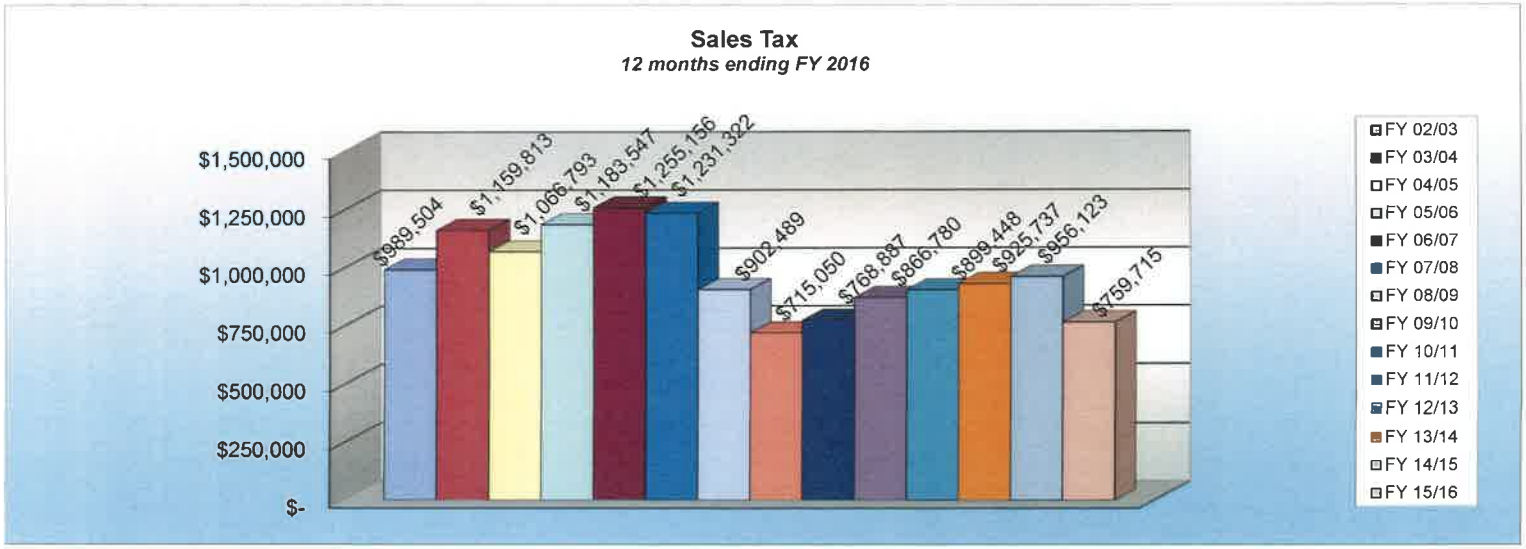
	Actual June 30, 2016	Actual June 30, 2015	Annual Budget FY 15/16	$$ Annual Budget	%
Water Fund Revenues					
Water Fund *(includes interest)*	$ 754,072	$ 805,802	$ 835,143	$ (81,071)	90%
CABY Grant Reimbursements	$ 504,787		$ 854,375		
Water AB1600 Mitigation	$ 170	$ 16,707	$ -		
Total Water Revenues	***$ 1,259,029***	***$ 822,509***	***$ 1,689,518***	***$ (430,489)***	***75%***
Water Fund Expenditures					
Water Plant	$ 294,071	$ 287,450	$ 476,139	$ (182,068)	62%
Depreciation	$ 94,496	$ 126,986	$ -	$ 94,496	
Capital Outlay			$ 201,000		
Water Distribution	$ 371,916	$ 103,249	$ 521,743	$ (149,827)	71%
Depreciation	$ 50,422	$ 50,422	$ -	$ 50,422	
Capital Outlay			$ 400,000		
A-87 Cost Allocation for Administrative Staff - Charge to Water	*$ 72,338*	*$ 72,338*	*$ 72,343*		
Total Water Expenditures	***$ 883,243***	***$ 640,445***	***$ 1,671,225***	***$ (787,982)***	***53%***
Funds from Other Financing Sources					
Transfers In (CABY Projects)	$ 294,379.08				
Transfers Out (CABY Projects)	$ 401,037.74				
	$ (106,658.66)	***$ -***	***$ -***	***$ -***	
NET WATER FUND REVENUES/EXPENDITURES 07/2015-06/2016	**$ 269,127**	**$ 182,064**	**$ 18,293**		
Wastewater Fund Revenues					
Wastewater Plant *(includes interest)*	$ 1,205,037	$ 1,352,868	$ 1,329,511	$ (124,474)	91%
Wastewater - Program Income	$ 118,872	$ 46,560	$ -	$ 118,872	
Wastewater AB1600 Mitigation	$ 112	$ -	$ -		
Total Wastewater Revenues	***$ 1,324,021***	***$ 1,399,428***	***$ 1,329,511***	***$ (5,490)***	***100%***
Wastewater Fund Expenditures					
Wastewater Plant	$ 955,048	$ 725,093	$ 1,038,652	$ (83,604)	92%
Depreciation	$ 370,186	$ 405,821			
Capital Outlay	$ -	$ -	$ 215,000	$ (215,000)	0%
Wastewater Collection	$ 212,386	$ 126,519	$ 197,405	$ 14,981	108%
Depreciation	$ 56,139				
Capital Outlay	$ -	$ -	$ 150,000	$ (150,000)	0%
A-87 Cost Allocation for Administrative Staff - Charge to Wastewater	$ 89,233	$ 89,233	$ 89,233		
Total Wastewater Expenditures	***$ 1,682,992***	***$ 1,346,665***	***$ 1,690,290***	***$ 7,298***	***100%***
NET WASTEWATER FUND REVENUES/EXPENDITURES 07/2015-06/2016	**$ (358,971)**	**$ 52,763**	**$ (360,779)**		

31

Prepared By: Catrina Olson
11/22/2016

YTD Analysis Sales Tax (includes property in lieu of sales tax)
3200-107

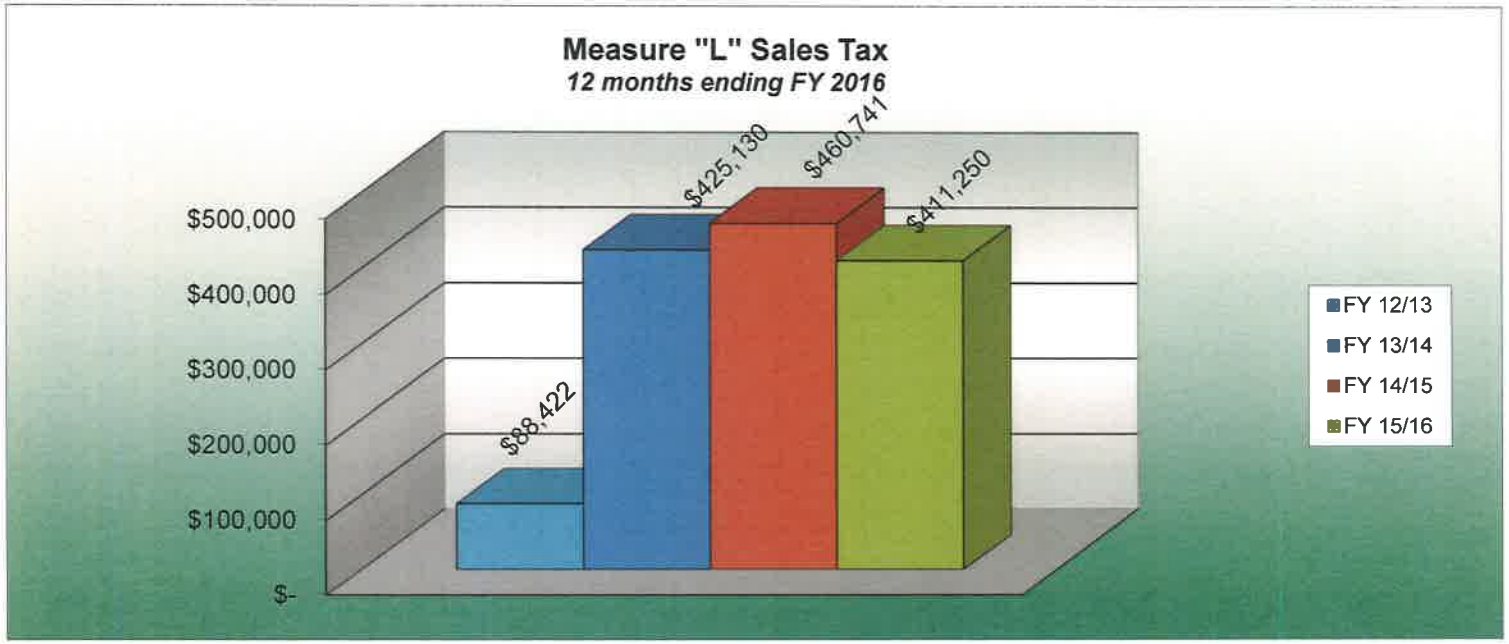
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03	$ 63,300	$ 76,900	$ 75,484	$ 64,100	$ 81,000	$ 123,550	$ 72,500	$ 96,700	$ 117,170	$ 64,700	$ 86,200	$ 67,900	$ 989,504
FY 03/04	$ 62,500	$ 73,900	$ 166,809	$ 69,800	$ 93,000	$ 118,483	$ 84,900	$ 113,200	$ 124,281	$ 63,800	$ 85,100	$ 104,040	$ 1,159,813
FY 04/05	$ 78,400	$ 104,500	$ 207,817	$ 57,300	$ 76,400	$ 85,698	$ 74,000	$ 98,700	$ -	$ 147,721	$ 77,300	$ 58,957	$ 1,066,793
FY 05/06	$ 82,600	$ 110,200	$ -	$ 94,004	$ 73,700	$ 114,885	$ 202,709	$ 105,000	$ -	$ 99,035	$ 212,337	$ 89,076	$ 1,183,547
FY 06/07	$ 75,600	$ 100,800	$ 64,661	$ 62,700	$ 83,700	$ 117,358	$ 206,922	$ 101,300	$ -	$ 150,002	$ 200,622	$ 91,491	$ 1,255,156
FY 07/08	$ 69,800	$ 93,100	$ -	$ 137,713	$ 58,800	$ 64,326	$ 261,046	$ 107,800	$ 42,475	$ 45,700	$ 241,146	$ 109,416	$ 1,231,322
FY 08/09	$ -	$ 78,700	$ 83,300	$ 50,100	$ 66,800	$ 120,161	$ 162,516	$ 81,400	$ -	$ -	$ 106,987	$ 152,525	$ 902,489
FY 09/10	$ 56,100	$ 66,500	$ 6,902	$ 51,400	$ -	$ 73,747	$ 154,471	$ -	$ 97,734	$ 28,400	$ 148,071	$ 31,725	$ 715,050
FY 10/11	$ 36,500	$ 48,700	$ 57,749	$ 35,100	$ 46,800	$ 96,873	$ 123,798	$ 63,700	$ 36,695	$ 34,100	$ 125,998	$ 62,874	$ 768,887
FY 11/12	$ 41,800	$ 55,800	$ 58,493	$ 44,800	$ 44,000	$ 79,233	$ 154,208	$ 62,200	$ 59,591	$ 35,900	$ 155,408	$ 75,347	$ 866,780
FY 12/13	$ 43,800	$ 58,400	$ 87,494	$ 52,200	$ 69,600	$ 35,096	$ 164,179	$ 67,700	$ 44,530	$ 41,500	$ 168,679	$ 66,270	$ 899,448
FY 13/14	$ 52,300	$ 69,700	$ 58,370	$ 46,300	$ 61,700	$ 56,847	$ 161,122	$ 65,900	$ 60,167	$ 36,100	$ 159,922	$ 97,309	$ 925,737
FY 14/15	$ 54,200	$ 72,200	$ 34,768	$ 45,500	$ 60,700	$ 75,592	$ 179,747	$ 71,000	$ 49,672	$ 45,200	$ 186,647	$ 80,897	$ 956,123
FY 15/16	$ 48,264	$ 63,800	$ 61,898	$ 49,600	$ 66,200	$ 52,000	$ 51,300	$ 68,500	$ 75,726	$ 57,700	$ 76,800	$ 87,926	$ 759,715



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Measure "L" Sales Tax
3200-107

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 12/13										$ 26,822	$ 26,400	$ 35,200	$ 88,422
FY 13/14	$ 26,400	$ 35,200	$ 44,384	$ 30,200	$ 40,200	$ 36,796	$ 30,500	$ 40,700	$ 45,879	$ 31,700	$ 42,200	$ 20,971	$425,130
FY 14/15	$ 29,100	$ 38,800	$ 51,160	$ 30,400	$ 40,500	$ 45,730	$ 33,000	$ 44,000	$ 26,978	$ 25,500	$ 34,000	$ 61,573	$460,741
FY 15/16	$ 33,200	$ 44,200	$ 32,965	$ 32,600	$ 43,500	$ 22,286	$ 32,800	$ 43,700	$ 36,510	$ 28,100	$ 37,500	$ 23,889	$411,250



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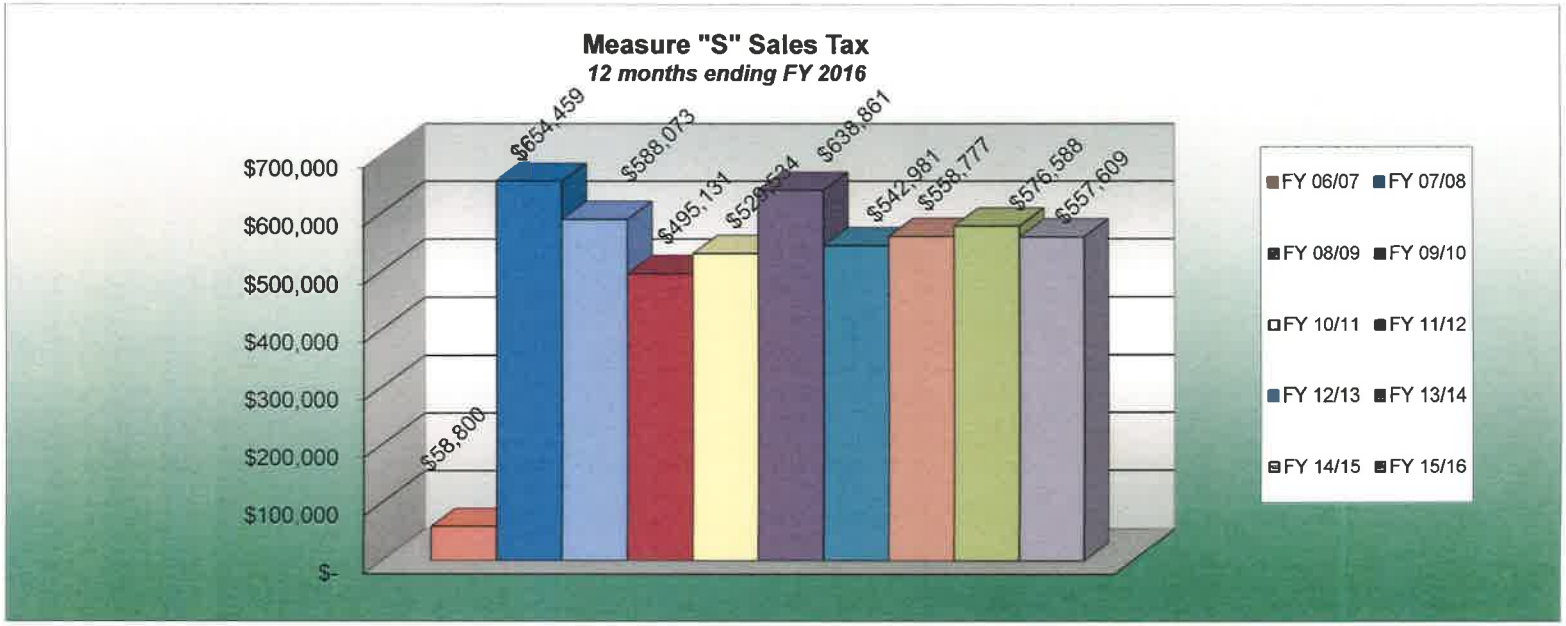
YTD Analysis Measure "S" Sales Tax
3200-107

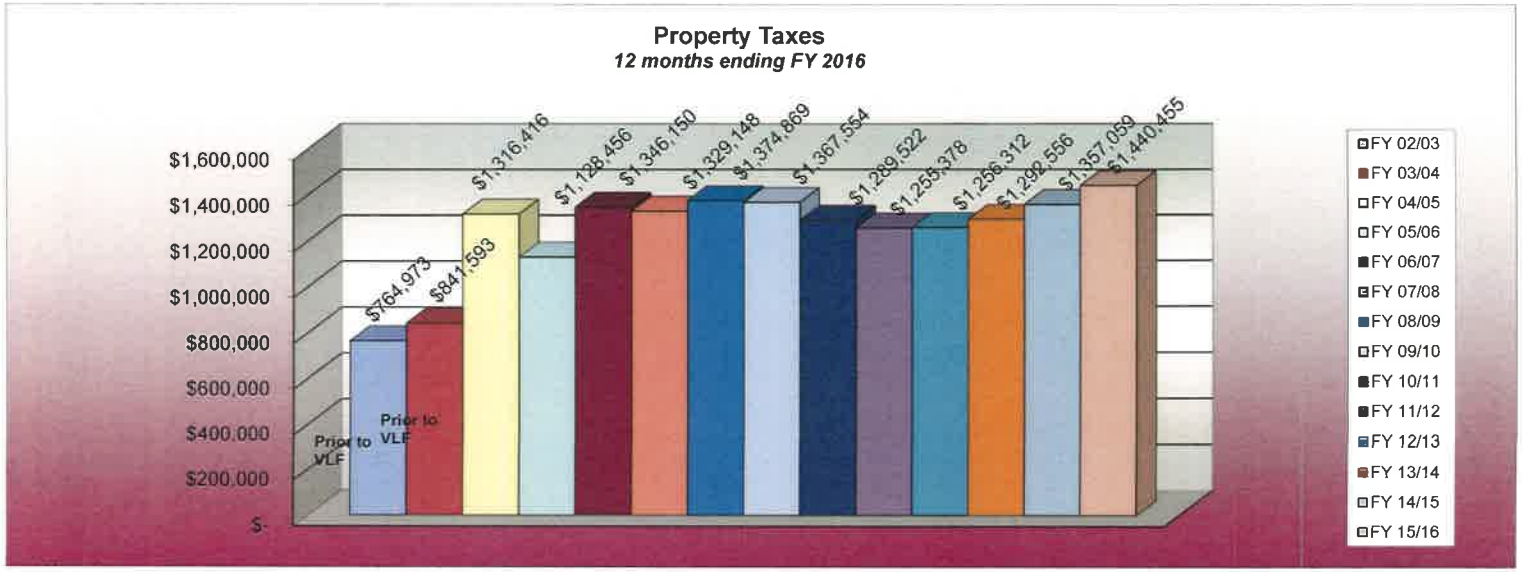
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 06/07												$ 58,800	$ 58,800
FY 07/08	$ 29,400	$ 39,200	$ -	$ 79,769	$ 42,100	$ 100,974	$ 40,100	$ 53,400	$ 79,588	$ 22,600	$ 30,100	$ 137,228	$ 654,459
FY 08/09		$ 48,800	$ 79,940	$ 45,200	$ 60,200	$ 63,900	$ 51,400	$ 56,300	$ -	$ 47,701	$ 33,100	$ 101,532	$ 588,073
FY 09/10	$ 37,200	$ 49,600	$ 45,591	$ 40,200	$ 44,700	$ 41,377	$ 38,000	$ -	$ 86,066	$ 28,100	$ 41,000	$ 43,297	$ 495,131
FY 10/11	$ 35,100	$ 46,800	$ 50,183	$ 36,800	$ 49,000	$ 51,244	$ 38,300	$ 51,100	$ 44,096	$ 30,100	$ 44,200	$ 52,610	$ 529,534
FY 11/12	$ 37,600	$ 50,100	$ 90,158	$ 37,000	$ 49,300	$ 65,276	$ 41,100	$ 54,800	$ 44,133	$ 32,300	$ 43,100	$ 93,994	$ 638,861
FY 12/13	$ 51,300	$ 68,400	$ 17,008	$ 43,500	$ 58,000	$ 51,363	$ 42,400	$ 56,400	$ 41,623	$ 33,600	$ 44,800	$ 34,587	$ 542,981
FY 13/14	$ 41,900	$ 55,800	$ 45,504	$ 45,900	$ 61,200	$ 34,106	$ 42,700	$ 56,900	$ 48,950	$ 35,400	$ 47,200	$ 43,217	$ 558,777
FY 14/15	$ 40,600	$ 54,100	$ 63,977	$ 40,900	$ 54,600	$ 61,086	$ 44,200	$ 58,900	$ 38,774	$ 34,400	$ 45,800	$ 39,251	$ 576,588
FY 15/16	$ 44,700	$ 59,600	$ 45,133	$ 44,000	$ 58,600	$ 29,429	$ 44,000	$ 58,600	$ 52,555	$ 38,500	$ 51,300	$ 31,193	$ 557,609



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Property Taxes
3100

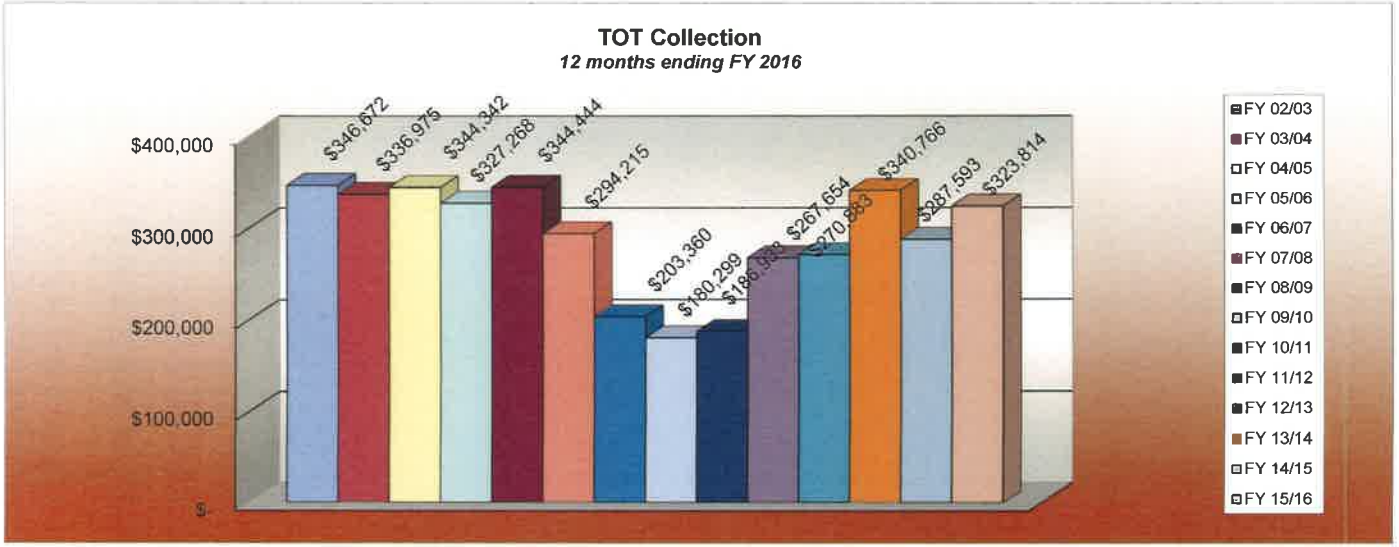
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03						$ 20	$419,355				$ 303,583	$ 42,015	$ 764,973
FY 03/04							$439,225				$ 140,135	$262,233	$ 841,593
FY 04/05							$451,229				$ 793,856	$ 71,331	$ 1,316,416
FY 05/06							$615,649				$ 439,110	$ 73,696	$ 1,128,456
FY 06/07							$775,021				$ 505,087	$ 66,041	$ 1,346,150
FY 07/08							$725,621				$ 541,000	$ 62,527	$ 1,329,148
FY 08/09							$757,317				$ 555,497	$ 62,054	$ 1,374,869
FY 09/10							$744,833				$ 567,056	$ 55,666	$ 1,367,554
FY 10/11							$705,616				$ 534,009	$ 49,896	$ 1,289,522
FY 11/12							$686,226				$ 522,126	$ 47,026	$ 1,255,378
FY 12/13							$689,971				$ 515,379	$ 50,963	$ 1,256,312
FY 13/14							$704,881				$ 530,673	$ 57,001	$ 1,292,556
FY 14/15							$746,043				$ 557,144	$ 53,873	$ 1,357,059
FY 15/16							$763,539				$ 615,353	$ 61,563	$ 1,440,455



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Transient Occupancy Tax
3200-106

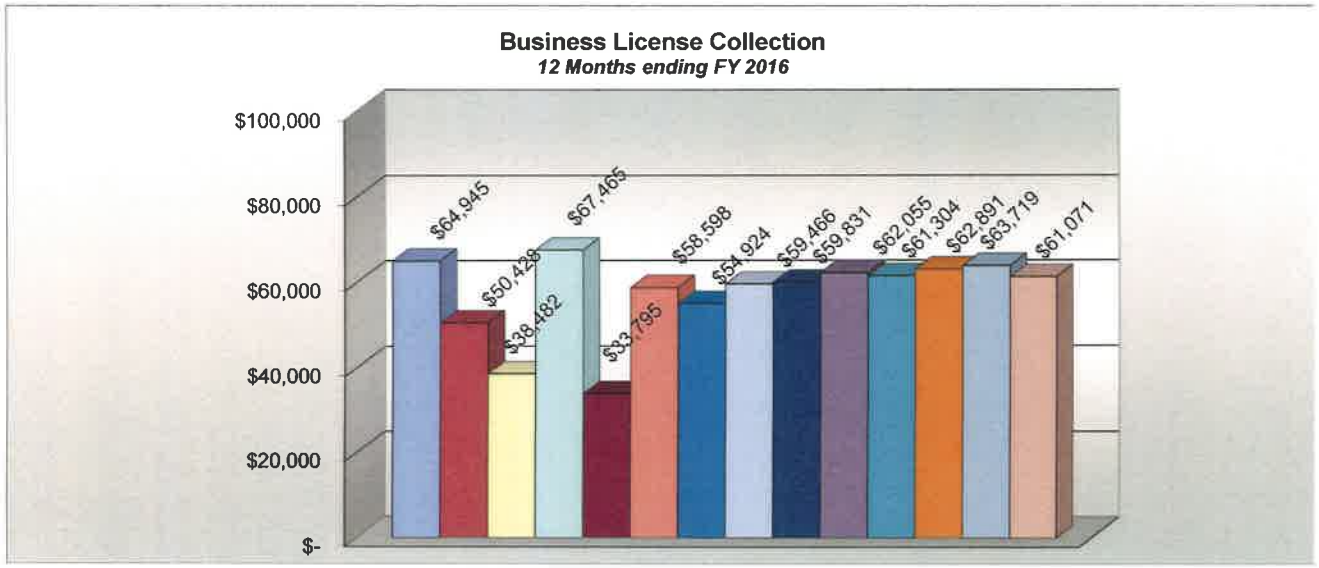
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03	$ 57,886	$ 25,244	$ 3,400	$ 62,205	$ 32,690	$ 8,046	$ 54,132	$ 24,000	$ 3,569	$ 37,733	$ 15,546	$ 22,222	$ 346,672
FY 03/04	$ 62,309	$ 19,941	$ 11,871	$ 62,958	$ 20,964	$ 12,349	$ 40,321	$ 34,518	$ 8,842	$ 41,374	$ 10,951	$ 10,578	$ 336,975
FY 04/05	$ 61,619	$ 25,050	$ 14,084	$ 60,440	$ 30,827	$ 9,106	$ 46,591	$ 35,178	$ 6,329	$ 10,349	$ 34,107	$ 10,662	$ 344,342
FY 05/06	$ 3,412	$ 72,828	$ 8,036	$ 78,308	$ 4,509	$ 10,105	$ 66,086	$ 18,053	$ 4,631	$ 4,849	$ 53,530	$ 2,921	$ 327,268
FY 06/07	$ 19,279	$ 59,088	$ 8,326	$ 74,099	$ 20,238	$ 16,328	$ 17,162	$ 57,461	$ 6,273	$ 19,647	$ 35,888	$ 10,656	$ 344,444
FY 07/08	$ 22,782	$ 53,480	$ 7,486	$ 75,807	$ 7,784	$ 6,829	$ 63,626	$ 4,068	$ 4,522	$ 28,673	$ 15,264	$ 3,893	$ 294,215
FY 08/09	$ 17,503	$ 51,500	$ 7,969	$ 24,812	$ 43,993	$ 7,987	$ 25,032	$ 7,618	$ 7,358	$ 18,375	$ 10,039	$ (18,827)	$ 203,360
FY 09/10	$ 18,178	$ 25,562	$ 7,107	$ 32,603	$ 8,556	$ 11,546	$ 18,366	$ 13,477	$ 6,930	$ 12,371	$ 8,627	$ 16,976	$ 180,299
FY 10/11	$ 36,641	$ 13,936	$ 14,242	$ 34,421	$ 10,348	$ 13,916	$ 20,191	$ 11,108	$ 4,775	$ 12,078	$ 15,478	$ (201)	$ 186,933
FY 11/12	$ 20,422	$ 32,092	$ 13,049	$ 39,416	$ 15,389	$ 19,049	$ 33,209	$ 18,064	$ 5,239	$ 26,328	$ 14,286	$ 31,110	$ 267,654
FY 12/13	$ 30,720	$ 26,910	$ 29,135	$ 44,698	$ 22,224	$ 11,635	$ 34,497	$ 15,100	$ 7,129	$ 17,782	$ 16,834	$ 14,218	$ 270,883
FY 13/14	$ 43,388	$ 20,864	$ 21,350	$ 139,377	$ 6,414	$ 17,386	$ 41,066	$ 3,571	$ 8,612	$ 11,378	$ 21,373	$ 5,989	$ 340,766
FY 14/15	$ 52,346	$ 13,222	$ 9,943	$ 25,243	$ 42,520	$ 14,207	$ 26,458	$ 34,115	$ 5,217	$ 41,202	$ 1,664	$ 21,457	$ 287,593
FY 15/16	$ 46,582	$ 21,775	$ 17,906	$ 7,732	$ 55,544	$ 13,882	$ 23,931	$ 54,258	$ 4,625	$ 50,453	$ 12,864	$ 14,261	$ 323,814



Prepared By: Catrina Olson
11/15/2016

YTD Business Licenses
3300-120

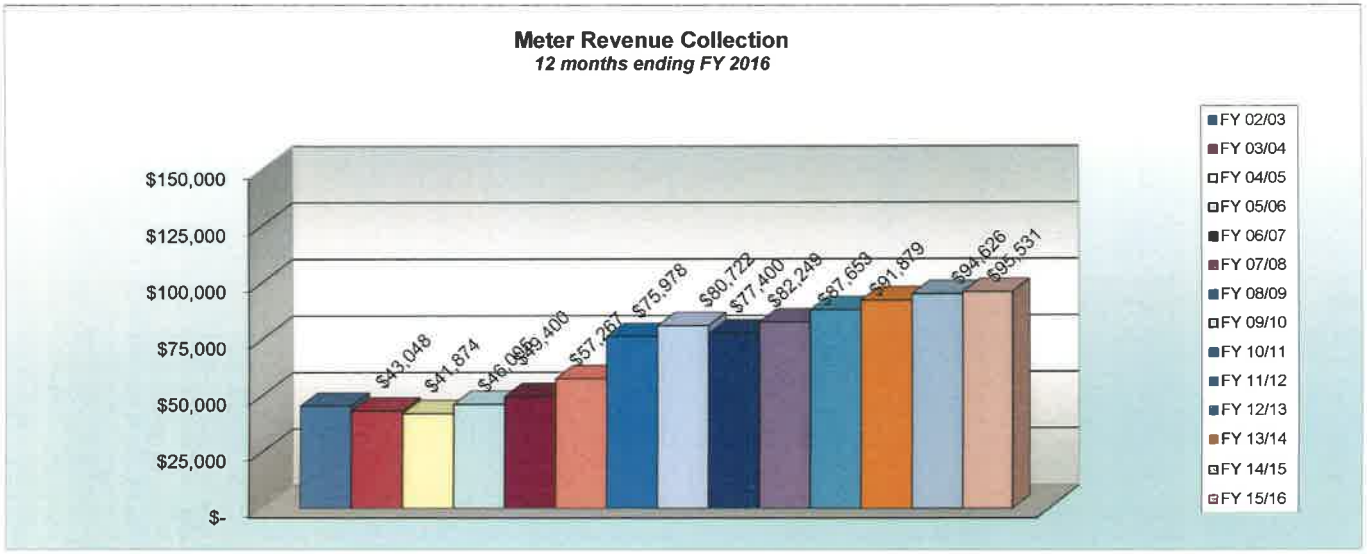
	YTD	
FY 02/03	$ 64,945	
FY 03/04	$ 50,428	
FY 04/05	$ 38,482	
FY 05/06	$ 67,465	*(accrued for 05/06 audit $35389.50)*
FY 06/07	$ 33,795	*(reverse for 05/06 accrual $35389.50 the $35k was an unrealized overaccrual)*
FY 07/08	$ 58,598	
FY 08/09	$ 54,924	
FY 09/10	$ 59,466	
FY 10/11	$ 59,831	
FY 11/12	$ 62,055	
FY 12/13	$ 61,304	
FY 13/14	$ 62,891	
FY 14/15	$ 63,719	
FY 15/16	$ 61,071	



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Parking Meter Collection
3700-166

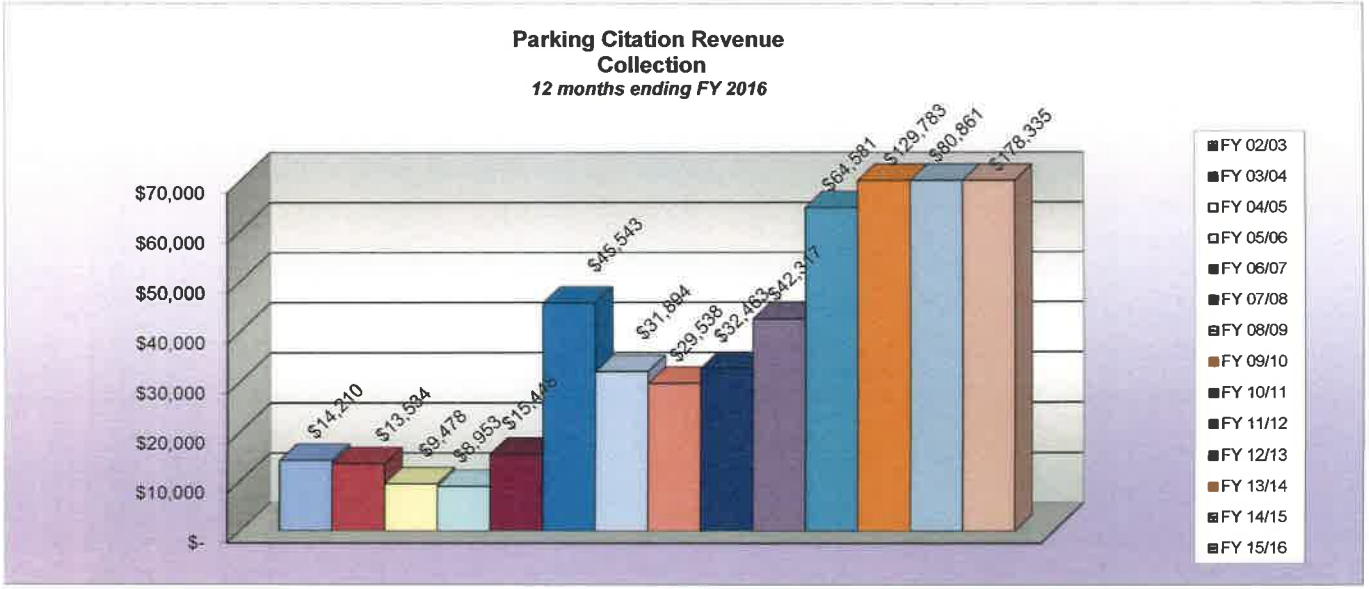
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03	$ 4,700	$ 2,000	$ 4,700	$ 3,200	$ 3,700	$ 3,000	$ 2,200	$ 4,700	$ 3,200	$ 3,500	$ 6,700	$ 3,700	$ 45,300
FY 03/04	$ 3,200	$ 4,200	$ 3,200	$ 3,000	$ 4,200	$ 3,200	$ 2,500	$ 2,700	$ 3,200	$ 6,748	$ -	$ 6,900	$ 43,048
FY 04/05	$ 3,700	$ 5,200	$ 4,200	$ -	$ 4,000	$ 4,200	$ 2,700	$ 3,200	$ 3,500	$ 4,774	$ 2,700	$ 3,700	$ 41,874
FY 05/06	$ 4,700	$ 4,700	$ 2,000	$ 4,700	$ 5,400	$ 5,205	$ -	$ 3,700	$ 5,700	$ -	$ 5,200	$ 4,700	$ 46,005
FY 06/07	$ -	$ 7,700	$ 3,700	$ 4,200	$ -	$ 7,400	$ 4,000	$ -	$ 5,400	$ 5,700	$ 4,000	$ 7,300	$ 49,400
FY 07/08	$ 2,200	$ 7,500	$ -	$ 10,200	$ 5,000	$ -	$ 5,500	$ 4,125	$ -	$ 7,500	$ 5,500	$ 9,742	$ 57,267
FY 08/09	$ 3,500	$ 5,000	$ 5,000	$ 6,200	$ 5,500	$ 11,400	$ 6,700	$ 7,200	$ -	$ 6,200	$ 6,200	$ 13,078	$ 75,978
FY 09/10	$ 8,200	$ 6,700	$ 5,200	$ 8,200	$ 8,200	$ 5,200	$ 7,200	$ 9,215	$ 6,200	$ 7,385	$ 7,200	$ 1,822	$ 80,722
FY 10/11	$ 4,000	$ 8,400	$ -	$ 7,200	$ 7,200	$ 7,200	$ 7,200	$ 6,400	$ -	$ 7,200	$ 7,200	$ 15,400	$ 77,400
FY 11/12	$ -	$ 8,200	$ 6,200	$ 6,200	$ 6,200	$ 7,200	$ 7,400	$ 8,200	$ 5,200	$ 7,200	$ 7,200	$ 13,049	$ 82,249
FY 12/13	$ 3,080	$ 8,200	$ 7,200	$ 7,200	$ 7,200	$ 7,400	$ 7,200	$ 5,200	$ 6,919	$ 7,200	$ 8,108	$ 12,747	$ 87,653
FY 13/14	$ 6,285	$ 6,886	$ 6,927	$ 7,513	$ 7,582	$ 6,789	$ 12,321	$ 60	$ 13,092	$ 7,026	$ 6,310	$ 11,088	$ 91,879
FY 14/15	$ 6,491	$ 7,514	$ 12,705	$ 9,941	$ 6,502	$ 9,163	$ 7,498	$ 7,683	$ 7,968	$ 7,592	$ 8,112	$ 3,456	$ 94,626
FY 15/16	$ 7,587	$ 14,291	$ 6,453	$ 8,440	$ 7,532	$ 6,155	$ 6,995	$ 6,158	$ 8,594	$ 8,781	$ 8,945	$ 5,600	$ 95,531



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Parking Citations Collection
3700-162

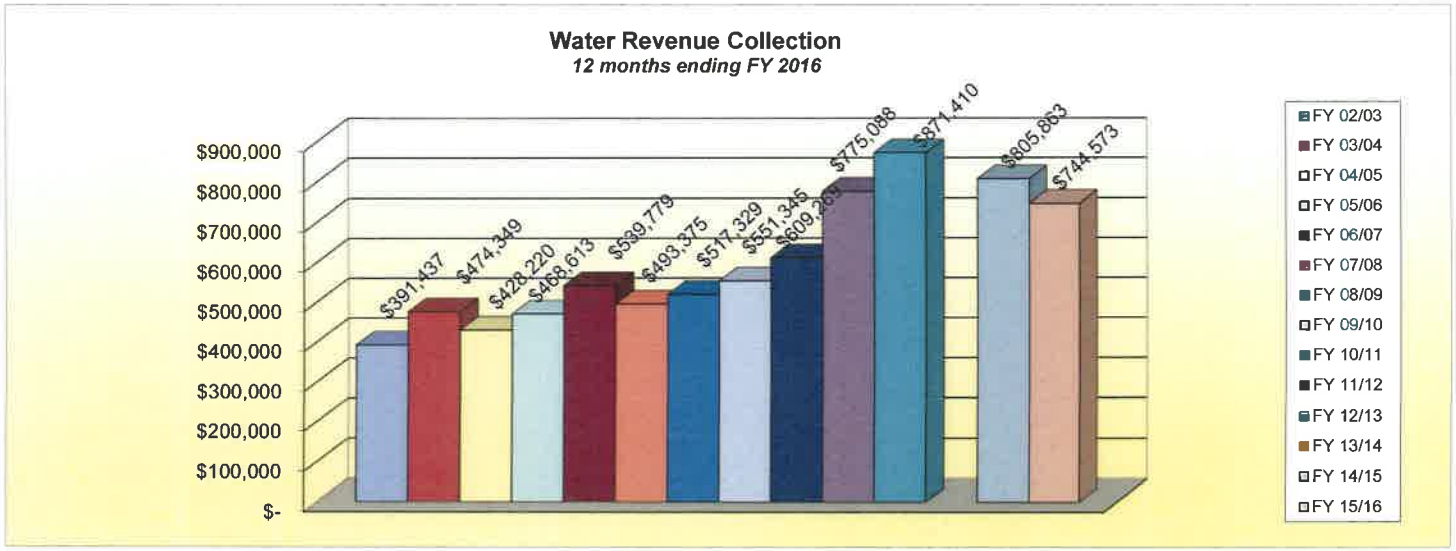
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03	$ -	$ -	$ 2,277	$ 1,054	$ 1,666	$ 1,626	$ -	$ 2,220	$ 825	$ 2,824	$ -	$ 1,718	$ 14,210
FY 03/04	$ -	$ -	$ -	$ 2,236	$ 1,425	$ 1,154	$ (10)	$ 2,882	$ 1,762	$ 1,576	$ 1,938	$ 571	$ 13,534
FY 04/05	$ 891	$ 1,076	$ -	$ 847	$ 1,126		$ 1,144	$ (114)	$ 1,618	$ 450	$ 795	$ 1,645	$ 9,478
FY 05/06	$ 584	$ 987	$ 589	$ 997	$ 902	$ 1,705	$ 205	$ 765	$ 612	$ 452	$ 270	$ 885	$ 8,953
FY 06/07	$ 681	$ 716	$ 511	$ 1,839	$ 2,048	$ 2,085	$ 1,535	$ 1,561	$ 965	$ 472	$ 865	$ 2,170	$ 15,448
FY 07/08	$ 4,367	$ 7,172		$ 5,300	$ 6,101	$ 2,356	$ 1,370	$ 3,353	$ 3,684	$ 3,125	$ 4,450	$ 4,265	$ 45,543
FY 08/09	$ 1,735	$ 3,366	$ 1,910	$ 3,210	$ 2,805	$ 1,715	$ 1,243	$ 2,766	$ 4,045	$ 3,480	$ 2,240	$ 3,379	$ 31,894
FY 09/10	$ 1,566	$ 3,881	$ 1,037	$ 1,261	$ 1,475	$ 1,172	$ 740	$ 1,460	$ 4,011	$ 6,860	$ 3,095	$ 2,980	$ 29,538
FY 10/11	$ 1,934	$ 4,484	$ 3,932	$ 4,563	$ 1,361	$ 2,559	$ 1,104	$ 2,557	$ 1,862	$ 2,658	$ 3,128	$ 2,321	$ 32,463
FY 11/12	$ 2,406	$ 5,767	$ 4,029	$ 1,709	$ 3,904	$ 5,180	$ 1,730	$ 3,511	$ 2,575	$ 4,086	$ 3,802	$ 3,618	$ 42,317
FY 12/13	$ 8,740	$ 2,053	$ 10,728	$ 6,705	$ 9,054	$ 3,161	$ 4,436	$ 4,165	$ 4,718	$ 5,760	$ 2,752	$ 2,309	$ 64,581
FY 13/14	$ 7,983	$ 13,950	$ 12,969	$ 10,788	$ 12,784	$ 9,367	$ 8,422	$ 10,165	$ 12,348	$ 10,014	$ 11,345	$ 9,648	$ 129,783
FY 14/15	$ 1,648	$ 12,581	$ 7,623	$ 6,727	$ 8,345	$ 5,098	$ 3,490	$ 2,461	$ 7,385	$ 8,053	$ 8,721	$ 8,729	$ 80,861
FY 15/16	$ 8,681	$ 13,166	$ 9,457	$ 68	$ 11,294	$ 20,396	$ 15,149	$ 14,996	$ 21,626	$ 17,617	$ 20,457	$ 25,428	$ 178,335



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Water Revenue
600-3800

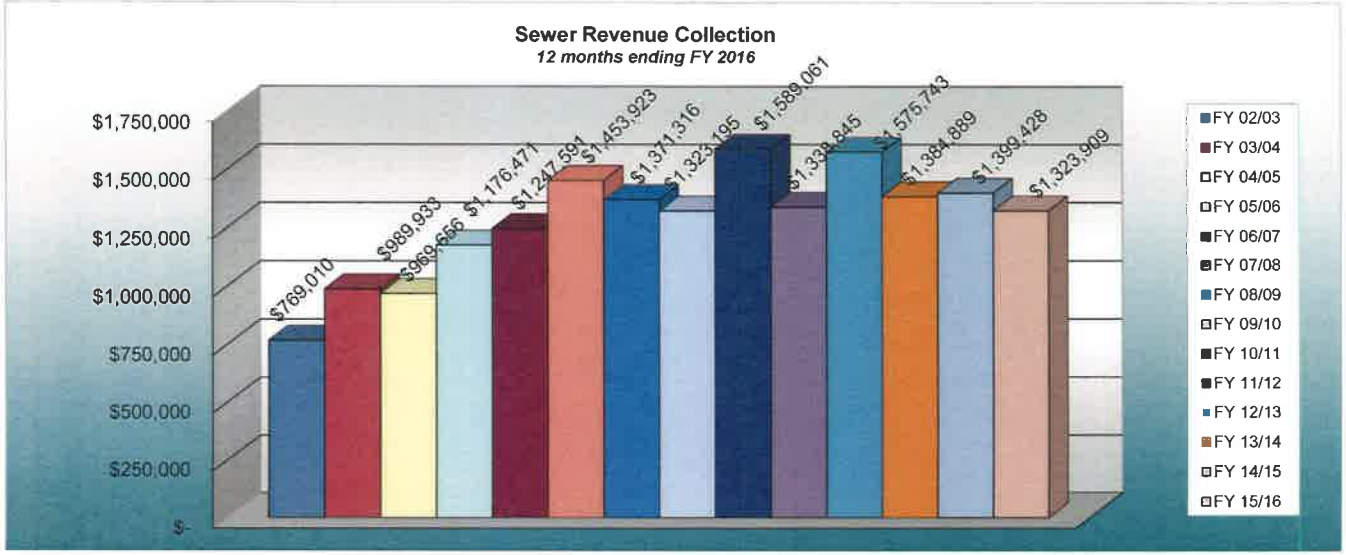
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total
FY 02/03	$ -	$ 65,551	$ -	$ 65,110	$ (400)	$ 64,249	$ -	$ 63,631	$ (3,647)	$ 64,131	$ (198)	$ 73,010	$391,437
FY 03/04	$ -	$ 72,943	$ (29)	$ 70,783	$ -	$ 70,852	$ -	$ 70,292	$ -	$ 79,284	$ -	$110,223	$474,349
FY 04/05	$ 50	$ 76,324	$ -	$ 73,476	$ -	$ 73,739	$ -	$ 61,202	$ -	$ 77,026	$ -	$ 66,403	$428,220
FY 05/06	$ -	$ 83,311	$ (585)	$ 79,214	$ -	$ 76,535	$ (52)	$ 74,947	$ -	$ 78,957	$ -	$ 76,286	$468,613
FY 06/07	$ -	$127,617	$ (2,497)	$ 60,253	$ -	$ 80,008	$ (25)	$ 78,836	$ 25	$ 80,749	$ -	$114,814	$539,779
FY 07/08	$ 945	$ 86,117	$ 192	$ 81,508	$ (180)	$ 83,030	$ (72)	$ 82,701	$ 138	$ 87,953	$ 144	$ 70,900	$493,375
FY 08/09	$ -	$ 87,007	$ 710	$ 84,937	$ 1,264	$ 83,911	$ (2,880)	$ 99,508	$ 18	$ 83,642	$ (72)	$ 79,284	$517,329
FY 09/10	$ 41	$ 91,030	$ 112	$ 91,078	$ 985	$ 90,376	$ 831	$ 1,958	$ 88,554	$ 2,885	$ 93,589	$ 89,907	$551,345
FY 10/11	$ -	$ 3,945	$ 93,760	$ 3,888	$ 90,748	$ 92,387	$ -	$103,460	$ (2,074)	$ 93,604	$ (605)	$130,156	$609,269
FY 11/12	$ 37	$180,527	$ (4,613)	$135,509	$ (220)	$100,593	$ 1,290	$112,159	$ 54	$ 95,213	$ (71)	$154,609	$775,088
FY 12/13	$ 304	$207,380	$ (452)	$172,393	$ (1,858)	$109,805	$ (688)	$104,465	$ 144	$111,234	$ 854	$167,830	$871,410
FY 13/14	$ 243	$208,697	$ (355)	$158,209	$ 50	$121,659	$ 1,581	$103,964	$ 434	$110,258	$ 102	$151,242	$856,083
FY 14/15	$ 251	$188,177	$ 38	$152,804	$ 767	$107,031	$ (303)	$107,307	$ 4,832	$103,012	$ (467)	$142,414	$805,863
FY 15/16	$ 110	$157,962	$ -	$166,095	$ 47	$ 76,372	$ (732)	$104,136	$ 41	$113,052	$ 174	$127,315	$744,573



Prepared By: Catrina Olson
11/15/2016

YTD Analysis Sewer Revenue
650-3800

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	total	
FY 02/03	$ 1,175	$132,265	$ -	$131,021	$ (2,959)	$127,053 *$ 388,556*	$ -	$130,493	$ -	$ 126,641	$ 7	$123,313	$ 769,010	
FY 03/04	$ -	$145,389	$ (703)	$144,365	$ -	$146,128 *$ 435,179*	$ -	$144,085	$ -	$ 150,461	$ -	$260,209	$ 989,933	
FY 04/05	$ -	$147,363	$ -	$155,843	$ -	$152,150 *$ 455,356*	$ -	$147,597	$ -	$ 158,575	$ 18,888	$189,239	$ 969,656	*$18,888 program income* *$ 950,767*
FY 05/06	$ -	$166,688	$ (1,169)	$129,604	$ -	$158,910 *$ 454,033*	$ (70)	$174,912	$ 59,445	$ 210,454	$ 52,975	$224,723	$ 1,176,471	*$205,437 program income* *$ 971,034*
FY 06/07	$ -	$197,031	$ (2,405)	$200,755	$ 22,900	$217,871 *$ 636,152*	$ 11,070	$191,778	$ -	$ 193,793	$ -	$214,798	$ 1,247,591	*$90,590 program income* *$ 1,157,001*
FY 07/08	$ (1,011)	$216,250	$ 22	$246,719	$ (180)	$230,033 *$ 691,832*	$ 12,411	$213,604	$ -	$ 252,356	$ 22,146	$261,574	$ 1,453,923	*$109,870 program income* *$ 1,344,053*
FY 08/09		$221,389	$ 180	$218,946	$ -	$225,508 *$ 666,023*	$ 11,148	$220,233	$ -	$ 243,601	$ 24,396	$205,915	$ 1,371,316	*$44,020 program income* *$ 1,327,296*
FY 09/10	$ 1,900	$218,419	$ (71)	$219,086	$ 4,785	$217,537 *$ 661,656*	$ (25)	$ 843	$ 219,737	$ 4,496	$218,201	$218,286	$ 1,323,195	*$9,965 program income* *$ 1,313,230*
FY 10/11	$ (3)	$ 343	$216,516	$ 2,049	$217,466	$ (179) *$ 436,193*	$303,269	$259,607	$ 12,472	$ 219,547	$ 63,426	$294,548	$ 1,589,061	*$276,435 program income* *$ 1,312,626*
FY 11/12	$ 130	$218,474	$ 63	$219,975	$ -	$218,792 *$ 657,433*	$ 3,343	$220,465	$ 42	$ 220,026	$ (53)	$237,589	$ 1,338,845	*$17,145 program income* *$ 1,321,700*
FY 12/13	$ 72	$236,619	$ 193	$221,841	$ 68	$236,121 *$ 694,914*	$ 9,298	$219,176	$ 2,502	$ 281,899	$ 46,273	$321,680	$ 1,575,743	*$248,876 program income* *$ 1,326,867*
FY 13/14	$ 53,301	$223,197	$ 128	$228,948	$ 20	$223,796 *$ 729,390*	$ 1,499	$219,455	$ 5,051	$ 219,724	$ 141	$209,630	$ 1,384,889	*$56,520 program income* *$ 1,338,329*
FY 14/15	$ 55	$239,871	$ 2,305	$220,141	$ 118	$226,522 *$ 689,011*	$ 5,280	$244,755	$ 5,741	$ 229,881	$ 557	$224,204	$ 1,399,428	*(Includes program income, interest, & connection charges)*
FY 15/16	$ 320	$186,993	$ 74	$170,840	$ 8,454	$183,462 *$ 550,142*	$ 14,577	$188,060	$ 1,033	$ 257,845	$ 50,366	$261,886	$ 1,323,909	*$136,394 program income and interest* *$ 1,187,515*



41

Prepared By: Catrina Olson
11/15/2016

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Approval of Regional Transportation Mitigation Fee Program and Agreement with Nevada County Transportation Commission

RECOMMENDATION: Pass Resolution 2016-XX approving the Regional Transportation Mitigation Fee (RTMF) and RTMF Agreement with Nevada County Transportation Commission.

CONTACT: Bryan McAlister, City Engineer

BACKGROUND/DISCUSSION: Nevada City and the Nevada County Transportation Commission (NCTC) are each empowered by law to conduct, participate in and provide regional transportation planning activities and desire to cooperate in the exercise of those powers. The purpose of the Regional Transportation Mitigation Fee Program is to finance improvements to the regional network of streets and roads that are needed to mitigate the impact of increased traffic that will result from new development in western Nevada County. The Regional Transportation Mitigation Fee 2016 Administrative Plan, adopted by NCTC on November 16, 2016, serves as the guideline for implementation and administration of the RTMF Program. Staff is recommending the Council adopt a Resolution acknowledging its approval of the RTMF agreement with NCTC and the collection of the RTMF and its administration in accordance with the Regional Transportation Mitigation Fee 2016 Administrative Plan.

ENVIRONMENTAL CONSIDERATIONS: Not applicable.

FISCAL IMPACT: Not applicable.

ATTACHMENT:

- ✓ Resolution 2016-XX
- ✓ NCTC-RTMF 2016 Administrative Plan
- ✓ RTMF Agreement

RESOLUTION NO. 2016-XX

RESOLUTION APPROVING THE REGIONAL TRANSPORTATION MITIGATION FEE (RTMF) AND RTMF AGREEMENT WITH NEVADA COUNTY TRANSPORTATION COMMISSION

WHEREAS, Nevada City and the Nevada County Transportation Commission (NCTC) are each empowered by law to conduct, participate in and provide regional transportation planning activities and desire to cooperate in the exercise of those powers; and

WHEREAS, the purpose of the Regional Transportation Mitigation Fee Program is to finance improvements to the regional network of streets and roads that are needed to mitigate the impact of increased traffic that will result from new development in western Nevada County.

WHEREAS, the Regional Transportation Mitigation Fee 2016 Administrative Plan, adopted by NCTC on November 16, 2016, serves as the guideline for implementation and administration of the RTMF Program.

BE IT RESOLVED by the City Council of the City of Nevada City, as follows:

1. That the Council hereby acknowledges its approval of the Regional Transportation Mitigation Fee (RTMF) Agreement with the Nevada County Transportation Commission and authorizes the Mayor to sign.

2. That the Council authorizes the collection of the Regional Transportation Mitigation Fee (RTMF) and administration of the RTMF in accordance with the Regional Transportation Mitigation Fee 2016 Administrative Plan.

PASSED AND ADOPTED at the regular meeting of the City Council of the City of Nevada City held on the 30th day of November, 2016 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____

Evans Phelps, Mayor

ATTEST:

_____

Niel Locke, City Clerk

Regional Transportation Mitigation Fee 2016 Administrative Plan

Prepared for:

Prepared by:

2150 River Plaza Drive

Sacramento, CA 95833

October 2016

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Table of Contents

1.0 Introduction 2

2.0 Purpose 2

3.0 Authority 2

4.0 Participation and Imposition of the RTMF Program Fee 3

5.0 Allocation of Funds 8

6.0 Administration of the RTMF 8

7.0 Administration of Credits 8

8.0 Administration of Reimbursements 8

9.0 Administrative Responsibilities 9

10.0 Administrative Costs 14

11.0 Appeals 15

12.0 CEQA 16

Appendix: Guidelines for Administration of Programmed Projects in the Adopted Five-Year Transportation Improvement Program

1.0 Introduction

Future development within western Nevada County will result in traffic volumes exceeding the capacity of the regional system of roads, streets, and highways (the "Regional System") as it presently exists (see Regional Transportation Mitigation Fee 2016 Nexus Study Update Final Report). The Regional System needs to be improved to accommodate anticipated future growth. The funds currently available are inadequate to construct the improvements to the Regional System needed to avoid the unacceptable levels of traffic congestion and related adverse impacts.

The RTMF Program will provide significant additional funds from new development to make improvements to the Regional System, complementing local transportation fee programs and other funding sources. By having a fee on new development in the region, local agencies can provide a mechanism by which developers will effectively contribute their fair share toward sustaining the Regional System. This is a twenty year program and will be influenced by a variety of market factors that could cause a shortfall or surplus in the revenue projections. The RTMF Program shall be reviewed at a minimum of five year intervals to ensure the integrity of the program. The program is not designed to be the only source of revenue to construct the identified facilities, and it will be necessary for matching funds to be provided from a variety of available sources.

With approval from both the local jurisdiction imposing the fees and the Nevada County Transportation Commission (NCTC), RTMF requirements may be met by paying cash, building eligible facilities or through public financing, such as Community Facility Districts and Assessment Districts, or private financing vehicles consistent with local jurisdiction policies.

General RTMF Program parameters, definitions, and procedures are described in the RTMF Program resolutions adopted by participating western Nevada County jurisdictions. The NCTC is designated as the RTMF Program Administrator, and as such, works closely with member jurisdictions to coordinate transportation expenditure programs to maximize the effectiveness of future transportation investments.

The term "Administrative Plan" means this Administrative Plan for the Western Nevada County RTMF Program planned to be adopted by NCTC in November 2016. This Plan may be amended from time to time, provided that any material amendments to this RTMF Administrative Plan shall be approved by the NCTC Executive Committee (described in Section 8.A.2). This Administrative Plan serves as the guideline to implement the RTMF Program and will be amended as needed to address changing conditions over the life of the program.

2.0 Purpose

The purpose of this Administrative Plan is to provide those jurisdictions that are participants in the RTMF Program with guidelines and policies for implementation and administration of the RTMF Program.

RTMF Program funds may only be used for capital expenditures associated with the Regional System consistent with the RTMF Nexus Study. These purposes include expenditures for the engineering and design costs, environmental documentation, right-of-way acquisition, construction, construction management, and administrative costs.

3.0 Authority

The RTMF Program has been developed pursuant to and consistent with authority provided in the requirements of California Government Code Chapter 5, Section 66000-66008, Fees for Development Projects

(also known as California Assembly Bill 1600 or the Mitigation Fee Act), which governs the assessment of development impact fees in California.

4.0 Participation and Imposition of the RTMF Program Fee

Participating jurisdictions in western Nevada County are responsible for collecting the fees on new development within their jurisdictions. To be considered a participant in the RTMF Program, a jurisdiction must have adopted the RTMF Program no later than September 1, 2008, and adopt any amendment of the RTMF Program within ninety (90) days of approval by the Executive Committee, unless otherwise directed by the Executive Committee. Participating jurisdictions shall not modify the RTMF Program, except to meet local municipal codes and references. Further, in order to be considered a participating jurisdiction, local jurisdictions shall collect the full RTMF and transmit the fee to NCTC as provided herein.

A. Land Uses Subject to the RTMF - The RTMF 2016 Nexus Study Update Final Report identifies the land uses subject to the RTMF Program by two types, residential and non-residential. For each land use type, Exhibit 1 display additional subcategories of residential and non-residential land uses and an average daily trip rate for each subcategory. The average daily trip rates are based on a review of land use categories and trip generation rates in the *Trip Generation Manual, 9th Edition* prepared by the Institute of Transportation Engineers (ITE) (see Exhibit 1).

For the RTMF obligation, a residential dwelling unit is defined as a building or portion thereof used by one (1) family and containing one (1) kitchen, which is primarily designed for residential occupancy. Residential dwelling units may include, but are not limited to, detached houses, apartment homes, condominiums, and mobile homes. Mobile homes located in a mobile home park will be calculated as “Mobile Home in Park” while mobile homes located on individual lots will be calculated as single-family dwelling units.

For the purpose of calculating the RTMF obligation, non-residential development is defined as retail, service, and industrial development that is designed primarily for use as a business and is not intended for residential occupancy or dwelling use. The applicable non-residential land use category for a non-residential development is determined by the predominate use of the building or structure associated with the new development, and may be related to the underlying land use zoning of the new development site.

Retail developments with an average daily trip generation rate of thirty-five (35) or fewer trips per thousand square feet are included in the Retail-Low category. Retail developments with an average daily trip generation rate between thirty-six (36) and sixty-five (65) trips per thousand square feet are included in the Retail-Medium category. Retail developments with an average daily trip generation rate greater than sixty-five (65) trips per thousand square feet are included in the Retail-High category.

Other non-residential land uses are those that have trip generation characteristics that do not match any of the major categories. In these cases the city or county may require a project-specific traffic study, or will calculate the appropriate fee based on the *Trip Generation Manual* (latest edition).

Land Use Category	Unit	ITE Code	Weekday Trips per Unit
RESIDENTIAL			
Single Family Detached House	Dwelling Unit	210	9.52
Multi-Family			
Apartment	Dwelling Unit	220	6.65
Low Rise Apartment	Dwelling Unit	221	6.59
Residential Condominium/Townhouse	Dwelling Unit	230	5.81
Median for Multi-Family			*6.59*
Mobile Home in Park	Dwelling Unit	240	4.99
Senior Residential			
Senior Adult Housing - Detached	Dwelling Unit	251	3.68
Senior Adult Housing - Attached	Dwelling Unit	252	3.44
Median for Senior Residential			*3.56*
NON-RESIDENTIAL			
Office			
General Office	TSF	710	11.03
Single Tenant Office	TSF	715	11.65
Office Park	TSF	750	11.42
Business Park	TSF	770	12.44
Clinic	TSF	630	31.45
Medical-Dentist Office	TSF	720	36.13
Median for Office			*12.05*
Industrial			
General Light Industry	TSF	110	6.97
General Heavy Industry	TSF	120	1.50
Industrial Park	TSF	130	6.83
Manufacturing	TSF	140	3.82
Median for Industrial			*5.33*
Warehousing	TSF	150	3.56
Retail/Service - Low			
Furniture Store	TSF	890	5.06
Discount Home Furnishing Superstore	TSF	869	20.00
Tire Superstore	TSF	849	20.36
Department Store	TSF	875	22.88
Tire Store	TSF	848	24.87
Factory Outlet Center	TSF	823	26.59
Home Improvement Superstore	TSF	862	30.74
New Car Sales	TSF	841	32.30
Median for Retail - Low			*23.88*
Retail/Service - Medium			
Discount Club	TSF	857	41.80
Shopping Center	TSF	820	42.70
Electronics Superstore	TSF	863	45.04
Building Materials and Lumber	TSF	812	45.16
Discount Superstore	TSF	813	50.75
Hardware/Paint Store	TSF	816	51.29
Arts and Crafts Store	TSF	879	56.55
Discount Store	TSF	815	57.24
Auto Parts Store	TSF	843	61.91
Specialty Retail Center	TSF	814	64.03
Median for Retail - Medium			*51.02*

Exhibit 1: Trip-Generation Rates for Different Land Use Categories

Land Use Category	Unit	ITE Code	Weekday Trips per Unit
Retail/Service - High			
Apparel Store	TSF	876	66.40
Nursery (Garden Center)	TSF	817	68.10
Day Care Center	TSF	565	74.06
Quality Restaurant	TSF	931	89.95
Pharmacy/Drugstore w/o Drive Through Window	TSF	880	90.06
Discount Supermarket	TSF	854	90.86
Pharmacy/Drugstore with Drive Through Window	TSF	881	96.91
Supermarket	TSF	850	102.24
High Turnover (Sit-Down) Restaurant	TSF	932	127.15
Drive-in Bank	TSF	912	148.15
Median for Retail - High			*90.46*
Lodging			
Hotel	Room	310	8.17
All Suites Hotel	Room	311	4.90
Business Hotel	Room	312	7.27
Motel	Room	320	5.63
Median for Lodging			*6.45*
Public & Quasi-Public			
Military Base	TSF	501	1.78
Library	TSF	590	56.24
Government Office Building	TSF	730	68.93
State Motor Vehicles Department	TSF	731	166.02
United States Post Office	TSF	732	108.19
Government Office Complex	TSF	733	27.92
Median for Public Sector			*68.93*
School K-8th Grade	Student	520 & 522	1.33
School 9th-12 Grade	Student	522 & 530	1.69
Junior/Community College	Student	540	1.23
Other Non-Residential			
All Port and Terminal Uses		000-099	The trip generation for any project in these categories shall be computed using the ITE daily trip-generation rate for their land use type or, at the discretion of agency staff, through a separate traffic study
All Recreational Uses		300-399	
All Private Institutional Uses (Public Institutions are Exempt)		500-599	
Convenience Market		851	
Convenience Market with Gasoline Pumps		853	
Fast Food Restaurant with Drive Through		934	
Coffee/Donut Shop with Drive Through		937	
Coffee/Donut Shop Drive Through No Seating		938	
Gasoline/Service Station		944	
Gasoline/Service Station with Convenience Market		945	
Gasoline/Service Station with Convenience Market and Car Wash		946	
Self-Service Car Wash		947	

Exhibit 1: Trip-Generation Rates for Different Land Use Categories (continued)

B. Calculation of the RTMF - Each participating jurisdiction shall calculate and collect the RTMF for projects as outlined in this Administrative Plan. The RTMF shall be calculated using the fee schedule in effect at the time the fee is due.

Exhibit 2 is a form to calculate the amount of RTMF to be charged to development projects. The steps listed below describe how to complete the fee calculation:

1. Fill in the information requested about the project at the top of the sheet.
2. Select the land use category for the project. The column on the far left below the project description identifies the land use categories covered by the RTMF.

3. The next column to the right requires identification of units or square footage associated with the project. Residential projects are described in terms of number of dwelling units (DU). Non-residential projects are described according to the number of square footage in the project, expressed in thousands of square feet (TSF).
4. Multiply the number of units or TSF applicable to the project times the Trip Generation Rate. The product of the multiplication should be entered into the column titled "Total Trips." The result of the multiplication is the number of total daily trips applied to the project.
5. Multiply the total daily trips by the appropriate "Cost Per Trip" ($396/trip for residential and $70/trip for non-residential) for the project and enter the product in the column labeled "Total".
6. Add the amounts in the Totals column and enter the sum on the "Total Mitigation Fees" line.
7. Enter any credits on the next line labeled "Credits Applied".
8. Subtract the credits, if any, from the "Total Mitigation Fee" and enter the amount on the line labeled "Net Mitigation Fee." This is the amount of RTMF for the project.

C. Expiration Of Building Permits - If a building permit should expire, is revoked, or is voluntarily surrendered, and is therefore voided and no construction or improvement of land or construction has commenced, then the applicant is entitled to a refund of the RTMF collected, which was paid as a condition of approval, less administrative costs ($500 or two percent of the fee amount, whichever is greater). The administrative cost shall be used to offset the cost of collection, accounting, and refund. The fee payer shall submit an application for a refund to the local jurisdiction who will forward it to NCTC for processing.

The applicant must pay the appropriate RTMF in full if he reapplies for the permit.

If a development project was partially under construction at the time of the effective date of the RTMF Program, the RTMF shall be paid only on that portion of the development for which a building permit is next issued.

D. Exemptions - The following development shall be exempt from the RTMF:

1. The reconstruction of, or addition to, a building, as long as the building continues a use in the same category as the prior use, and generates the same, or fewer, trips as the original building.

It should be noted that the Regional Transportation Mitigation Fee is in addition to any other fees, conditions, or exactions for on-site and off-site improvements imposed on a project according to state law, local ordinances, or administrative policy. In addition, the developer of a project shall not be entitled to any credits for such fees, conditions or exactions.

Exhibit 2: Regional Transportation Mitigation Fee Calculation Form

Owner _____ Contractor _____

Permit Reference Number _____ Permit Type _____

Property ID Number _____ Job Address _____

Date _____

Land Use Category	Units		Daily Trips Per Unit		Total Trips		Cost Per Trip (based on land use type)		Total
RESIDENTIAL									
Single Family Residential	_____	X	9.52	=	_____	X	$396	=	$ _____
Multiple Family Residential	_____	X	6.59	=	_____	X	$396	=	$ _____
Mobile Home in Park	_____	X	4.99	=	_____	X	$396	=	$ _____
Retirement/Senior Residential	_____	X	3.56	=	_____	X	$396	=	$ _____
Other Residential (specify): _____	_____	X	_____	=	_____	X	$396	=	$ _____
NON-RESIDENTIAL	**TSF**								
Retail/Service – Low	_____	X	23.86	=	_____	X	$ 70	=	$ _____
Retail/Service – Medium	_____	X	51.02	=	_____	X	$ 70	=	$ _____
Retail/Service – High	_____	X	90.46	=	_____	X	$ 70	=	$ _____
Office	_____	X	12.05	=	_____	X	$ 70	=	$ _____
Industrial	_____	X	5.33	=	_____	X	$ 70	=	$ _____
Warehousing	_____	X	3.56	=	_____	X	$70	=	$ _____
Lodging	(rooms)	X	6.45	=	_____	X	$70	=	$ _____
Public Agency	_____	X	68.93	=	_____	X	Exempt	=	$ _____
Other Non-Residential (specify): _____	_____	X	_____	=	_____	X	$ 70	=	$ _____

Cost per trip by land use type:
Residential : $396
Non-Residential $70

Total Mitigation Fees $ _____
Credits Applied $ _____
Net Mitigation Fees $

5.0 Allocation of Funds

RTMF funds shall be distributed in accordance with Executive Committee actions, the most current Nexus Study, this Administrative Plan, and any future amendments thereto.

6.0 Administration of the RTMF

NCTC shall administer the RTMF Program as described in this Administrative Plan adopted by participating jurisdictions.

7.0 Administration of Credits

Each jurisdiction shall be responsible for the administration of RTMF credit agreements. Each jurisdiction shall transmit all RTMF credit agreements to NCTC within sixty (60) days of execution by that jurisdiction. NCTC may administer credit agreements upon written request from that jurisdiction. The credit agreements shall be in accordance with the following:

A. Developer Credits - Any RTMF credit shall be used first by the developer to offset any obligation of the developer to pay RTMF impact fees of the same development project.

- Credits may not be transferred or sold to other development projects.
- Developers must exhaust all credits before they are eligible for reimbursements.
- Credits shall run with the sale of the land.

If a developer constructs improvements identified on the Regional System, the developer shall receive credit for all costs associated with the improvements based on approved project cost estimates for the Regional System.

The amount of the development fee credit shall not exceed the maximum amount determined by the most current project cost estimates for the Regional System, or actual costs, whichever is less. This shall be known as the maximum RTMF credit. The maximum RTMF credit shall be determined based on approved Improvement Plans and after Conditions of Approval have been determined. The maximum RTMF credit shall identify, at a minimum, the facility, the dimensions of the facility, the number of lanes, and applicable project cost estimates as identified in the adopted Nexus Study.

Should the NCTC Executive Committee determine that a jurisdiction granted credits exceeding the maximum RTMF credit, that jurisdiction shall provide NCTC payment in the amount equal to the excess credit amount.

8.0 Administration of Reimbursements

Local jurisdictions/agencies and developers are eligible for reimbursement for construction of RTMF facilities. The processes for both are different and are described below.

A. Developer Reimbursements - Each jurisdiction shall be responsible for the administration of reimbursement agreements.

Should the developer construct Regional System improvements in excess of the RTMF fee obligation, the developer may be reimbursed based on actual costs or the approved project cost estimates, whichever is less at the time of the agreement. A development that is exempt from paying the RTMF

is not eligible for a reimbursement. Reimbursements shall be made through an agreement between the developer and the local jurisdiction, and are contingent upon funds being available. In all cases, reimbursements under such agreements must coincide with construction of the transportation improvements as scheduled in the most current Five-Year Transportation Improvement Program (TIP) adopted by NCTC.

The developer may enter into a reimbursement agreement with the jurisdiction to reimburse the developer/owner for the direct and verifiable costs of constructing improvements to the Regional System when all of the following conditions are met:

1. All available credits are exhausted.
2. The improvements received prior approval from the jurisdiction and NCTC Executive Committee based on the review of the RTMF project priority list.
3. The jurisdiction and NCTC Executive Committee have reviewed and approved the scope of the project to be constructed.

n no event shall the developer be reimbursed for improvements to the Regional System in excess of the most current approved project cost estimates for the RTMF at the time of the agreement.

B. **Local Jurisdictions/Agencies:** In cases where a local jurisdiction constructs RTMF facilities, it is eligible for reimbursement up to the maximum share identified in the Nexus Study or actual cost whichever is less, in accordance with the prioritization schedule in the adopted TIP. Local jurisdictions are required to enter into a reimbursement agreement with NCTC in order to be eligible to receive RTMF funds from NCTC.

9.0 Administrative Responsibilities

A. **Regional Administration** - As set forth in Section 5 above, NCTC is designated as the RTMF Program Administrator. As Administrator, NCTC will receive all fees generated from the RTMF as collected by local jurisdictions. NCTC shall invest, account for and expend such fees in accordance with this Administrative Plan and applicable state laws. Exhibit 3 provides a flow chart of the administrative decision making process.

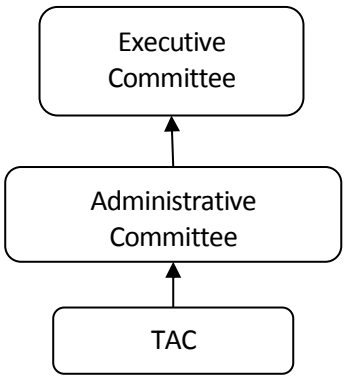

Exhibit 3: RTMF Decision Flowchart

1. **The NCTC Executive Director** - Reporting to the NCTC Executive Committee, the Executive Director shall be responsible for the following RTMF Program activities:

   a. Administration of the RTMF Program, including development of credit agreements, fee collection process and processing Program appeals.

   b. An independent fiscal audit conducted to report on the evidence that the expenditure of funds collected is in accordance with the Mitigation Fee Act. The audit shall be presented to the Executive Committee and made available to the public.

   c. Establishment and management of the "RTMF Program Trust Fund" for the purposes of depositing RTMF revenues and income interest earned on Trust Fund deposits.

   d. Preparation of an Annual Report for consideration by the Executive Committee detailing the status of the RTMF Program including, but not limited to, fees collected and disseminated; capital projects planned for, prioritized, and built; reimbursement and credit agreements; appeals; and recommendations for RTMF Program adjustments.

   e. Preparation of periodic comprehensive RTMF Program review reports that provide, in concert with requirements of the California Mitigation Fee Act, an analysis of the RTMF Program, including review of the various Nexus Study inputs and assumptions, and preparation of recommendations on potential RTMF Program revisions for consideration by the Executive Committee. Such reports may include, but are not limited to recommended fee adjustments based on changes in the facilities required to be constructed, and revenues received pursuant to the Program.

   f. Preparation of technical studies/analysis required to select and prioritize Regional System projects.

   g. Development of a Strategic Plan that identifies long term planning goals and objectives for implementation of the RTMF Program.

   h. Development of a Five-Year TIP that identifies projects that are scheduled and funded for construction over a specified period of time and is reviewed on an annual basis. See Appendix.

   i. Other related activities as directed by the Executive Committee.

2. **The NCTC Executive Committee** - The Executive Committee shall be comprised of one member of NCTC representing Nevada County and the NCTC members representing Grass Valley and Nevada City. The Executive Committee has final authority and shall be responsible for reviewing and acting on recommendations for project selection and prioritization of projects in the RTMF CIP, Strategic Plan, and the TIP. The Executive Committee shall review and consider recommendations on projects from the Administrative Committee (see #4 below) and the NCTC Technical Advisory Committee (TAC) (see #3 below). The Executive Committee shall also be responsible for approval of this Administrative Plan and any subsequent amendments thereto. From time to time the Executive Committee shall recommend changes to the Program for consideration by participating jurisdictions. All actions by the Executive Committee must be approved by all three members in order to be in force. If there is a dispute at the Executive Committee level regarding project prioritization of a specific project(s) and a consensus cannot

be reached, that project shall be tabled until such time as new information is presented and the matter can be resolved.

In developing recommendations on RTMF projects for consideration by the Executive Committee, NCTC staff and TAC shall work to coordinate compatibility with local project priorities and schedules of area transportation improvements.

3. **The NCTC TAC** - The TAC shall review the technical documents and recommendations for RTMF projects. The TAC shall forward any recommendations to the Executive Committee for its consideration. The TAC shall also provide additional assistance to the RTMF Program as requested by the Executive Committee.

4. **The Administrative Committee** - The Administrative Committee shall be comprised of the chief administrative officer, public works director or designee from the three participating jurisdictions, and NCTC's Executive Director. The Administrative Committee shall be responsible for the following:

   a. Develop objective criteria for project selection and prioritization, including, but not limited to, the following factors: traffic safety issues potentially created by growth, regional significance, availability of matching funds, mitigation of congestion created by new development, system continuity, geographic balance, project readiness, and completed projects with reimbursement agreements.

   b. Provide additional assistance to the RTMF Program as requested by the Executive Committee and/or the NCTC TAC.

   c. Prepare the Strategic Plan.

   d. Prepare the Five-Year TIP which will be reviewed annually.

   e. Review and recommend changes in project priorities to the NCTC TAC and Executive Committee.

   f. Select a lead agency for each of the projects in the CIP.

   g. Review the Annual Report prepared by NCTC.

   h. Review and revise the roadways in the Regional System as may be necessary (at a minimum every five years).

   i. Review and revise Project Cost Estimates for the Regional System projects as may be necessary (at a minimum every five years).

5. **RTMF Program Updates** - The NCTC Executive Committee shall undertake a review of all components of the RTMF Program in accordance with AB 1600 and other applicable laws, and, if necessary, recommend Program amendments and/or adjustments. Amendments to the Administrative Plan will be subject to the approval of the NCTC Executive Committee. Amendments required to the RTMF Program shall be approved by the three participating jurisdictions acting on recommendations provided by the Executive Committee. The review shall consider whether adjustments to future administration costs are needed. The RTMF program is subject to annual inflation adjustments, periodic updates, and five year comprehensive updates. The purpose of each update is described in this section.

a. **Inflation Adjustment** - The RTMF may, at NCTC's discretion, be adjusted to account for the inflation of construction, right-of-way acquisition, and design costs.

It is recommended that in March of each calendar year the RTMF should be reviewed and fee adjustments should be recommended by the TAC based on the average of the San Francisco Construction Cost Index as reported in the Engineering News Record 20-City Construction Cost Index for the 12 month period ending December of the prior year.

For right-of-way cost adjustments, it is recommended that NCTC utilize the "Existing Home Price Trend" compiled by the National Association of Realtors (NAR) to track the median sales price of existing single family homes in metropolitan markets across the country.

b. **Periodic RTMF Update** - The RTMF may, at NCTC's discretion, be subject to periodic updates based on changes in developable land, cost estimates, or outside funding sources. The TAC will periodically review the costs and fees to determine if any updates to the fees are warranted. During the periodic reviews, the TAC will analyze the following items:

- Changes to the required facilities listed in the Capital Improvement Program.
- Changes in the cost to update or administer the fee.
- Changes in costs greater than inflation.
- Changes in assumed land uses.
- Changes in other funding sources.

Any changes to the RTMF, based on a periodic update, will be presented to the Executive Committee for approval and recommendation to the cities and county.

During a periodic update, the Executive Committee may change the funding priority of a project. Such a change will be based on level of service evaluations, the location and timing of new development that will add significant housing, or jobs, or other considerations. RTMF revenues may be spent on any of the projects identified in the CIP without regard to the location of the project and the location of collected fees.

c. **Five-Year Comprehensive Update** - RTMF funds will be deposited, invested, and expended in accordance with Government Code Section 66006. The fifth year following the first deposit into the RTMF account or fund and every five (5) years thereafter, NCTC staff will provide the cities and county with information required to make all of the following findings with respect to that portion of the account or fund remaining unexpended:

- Identify the purpose for which the RTMF is to be used.
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.
- Identify all sources and amounts of funding anticipated to complete financing of incomplete CIP projects.

- Designate the approximate dates that the RTMF funding referred to in the above paragraph is expected to be deposited in the appropriate account or fund.

The cities or county must refund the unexpended or uncommitted revenue portion of the RTMF for which a need cannot be demonstrated in the above findings, unless the administrative costs exceed the amount of the refund.

6. **Disposition of RTMF Revenues** - The fees that are paid to the County of Nevada and the cities of Grass Valley and Nevada City are to be deposited into a trust account for which the NCTC is the treasurer. The three local jurisdictions are then responsible for implementing and constructing the projects approved by the NCTC Executive Committee. They are to be reimbursed by NCTC for the cost incurred up to, but not to exceed, the project cost estimates in the approved CIP, upon submittal of valid invoices. A graphical illustration of the fee collection and disposition process is shown in Exhibit 4.

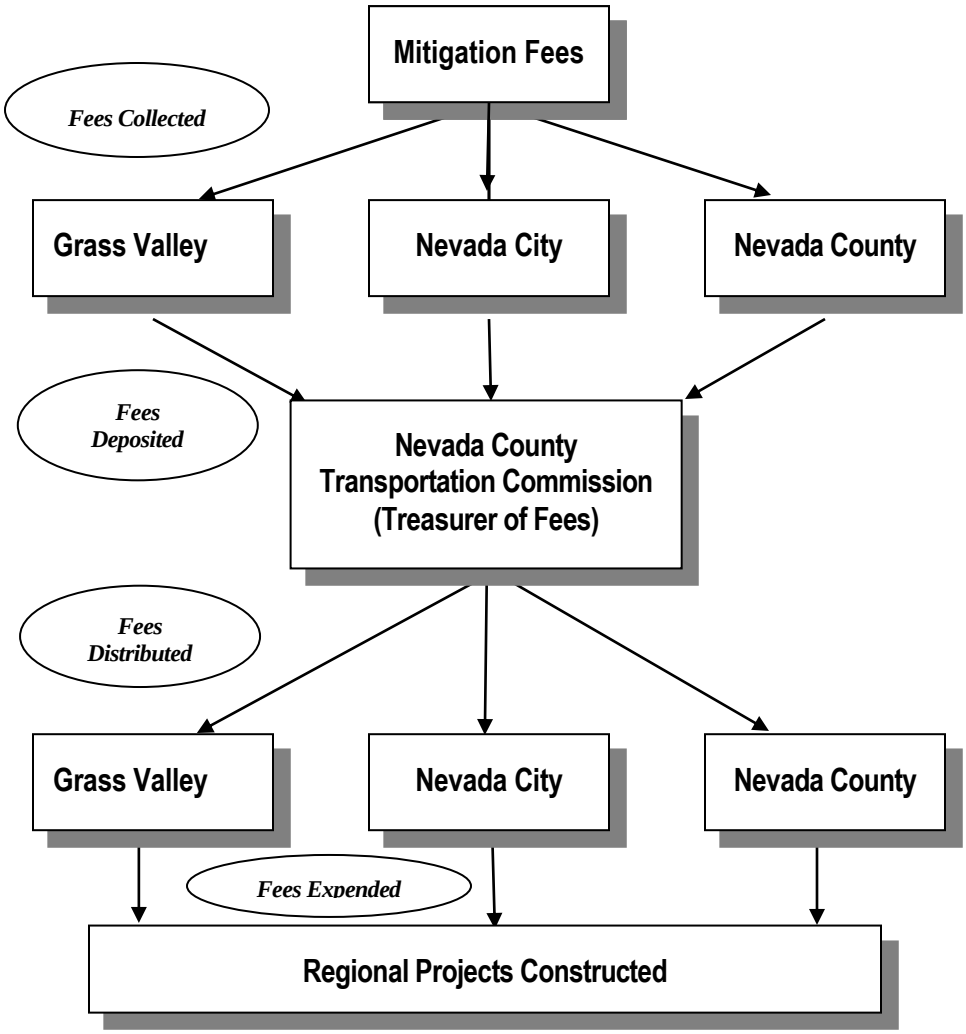

Exhibit 4: Flow of Mitigation Fees

7. **Annual Program Accountability** - An annual report will be produced which will show the most current revenue balance for the RTMF Program, as well as provide a status of the Regional System projects to be constructed with the fee revenues. In addition, annual fiscal audits by an independent accounting firm are required by law to examine the fiscal responsibility of local governments. The NCTC is subject to an annual financial audit. The annual report and the annual financial audit will serve as the accountability mechanisms for the collection and use of the RTMF revenue.

8. **Program Termination** - Upon termination of the RTMF program, any surplus money in the RTMF account shall be returned to Grass Valley, Nevada City, and Nevada County in proportion to the contributions made by each entity for use in mitigating the impacts of future growth.

B. **Local Administration** - The RTMF fee schedule will be adopted by Grass Valley, Nevada City, and Nevada County through ordinances authorizing collection of the RTMF, and through resolutions establishing the RTMF. The RTMF fee schedule will be effective no sooner than sixty (60) days following final action by each local agency on the ordinances authorizing collection of the RTMF, and on the resolutions establishing the RTMF. The local ordinances or resolutions should reference the inflation adjustment process discussed in this Administrative Plan.

The local jurisdictions are responsible for collecting the RTMF. Fees collected and a corresponding activity report are to be transmitted to the Executive Director of NCTC within thirty (30) days of the fiscal year quarter in which the fees were collected. In accordance with the Mitigation Fee Act, NCTC will deposit, invest, account for, and disburse the transmitted fees. Participating jurisdictions are required to transmit reports as set forth below to NCTC which shall include, but not be limited to, the following information regarding the RTMF Program status:

1. **Quarterly Remittance/Activity Reports** - Within thirty (30) days of the end of the quarter in which RTMF was collected, the participating jurisdiction shall submit the standard Remittance/Activity Report to NCTC containing information necessary for NCTC to determine the total amount of fees collected within each fee category as it relates to the number of building permits, certificates of occupancy, or final inspections issued during the same period of time. The information in the Remittance/Activity Report shall include: the name of the developer or payee, project address, APN, total square feet or number of dwelling units, credits issued, and such other information as requested by NCTC. This information will assist NCTC in tracking new development, total revenue received, and revenue projections for purposes of program audits and program updates. If an audit is required due to reporting and remittance irregularities, the jurisdiction will incur the cost of the audit.

10.0 Administrative Costs

The RTMF program includes the costs of program administration and comprehensive program updates. NCTC administration costs will be reimbursed on a time and material basis, but not to exceed $10,000 per year. The total cost for comprehensive program updates during the life of the program has been set at $400,000 or $100,000 for each update.

11.0 Appeals

Appeals shall only be made in accordance with the provisions of this Section.

A. **Persons or Entities Who Have Standing to Appeal** - No person or entity shall have standing to avail themselves of this Section, except those persons or individuals who are responsible for paying the RTMF and have an unresolved appealable issue or matter.

B. **Appealable Issues and Matters** - No issue or matter shall be heard or reviewed under this Section 10 unless the issue or matter is appealable. An issue or matter is appealable if a qualified person or entity ("Appellant") has a good-faith dispute directly related to Appellant's Property ("RTMF Dispute") regarding (i) the amount of Appellant's RTMF obligation; (ii) the administration of RTMF Credits; (iii) exemption of Appellant's property from the RTMF Program; (iv) administration of RTMF reimbursements; or (v) RTMF refunds.

C. **Appeal Process.** (see Exhibit 5)

1. If an Appellant has a RTMF dispute, the Appellant shall first attempt to resolve the dispute with the staff of the local jurisdiction. If the RTMF dispute remains unresolved after a reasonable attempt to address it at the local level, the Appellant may submit a written appeal to the NCTC Executive Director. The written appeal shall clearly identify key issues in the RTMF dispute. The NCTC Executive Director shall present the matter to the Administrative Committee. If the Administrative Committee determines the issue or matter is not a RTMF dispute, the written appeal shall be rejected. The Administrative Committee's decision shall be provided in writing to the Appellant.

2. If the Appellant desires further review and consideration, the Appellant must submit a written request for review to the NCTC Executive Director within five (5) days of receiving the Administrative Committee's written decision, and the RTMF dispute shall be presented to the NCTC Executive Committee within thirty (30) days of the receipt of the appeal.

   At the conclusion of the thirty (30) day period, the Executive Committee shall render a written decision on the appeal. The decision of the Executive Committee shall be final.

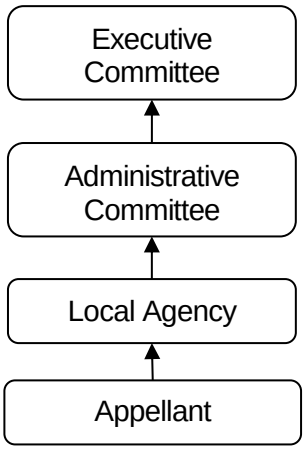

Exhibit 5: RTMF Appeals Flowchart

12.0 CEQA

The RTMF Program currently is a financing mechanism dependent on future actions of the NCTC Executive Committee for improvements to the Regional System. The NCTC Executive Committee and its associated committees will be prioritizing and scheduling improvements on the Regional System, and the appropriate environmental documentation shall be completed before a project can commence construction.

The RTMF Program was developed to mitigate the cumulative impacts of future growth on the Regional System. It was not developed to mitigate project-specific traffic impacts. Accordingly, the program does not relieve any development project of the responsibility to mitigate project-specific impacts identified in the environmental analysis prepared for the project. When a development project is required to construct Regional System facilities as project-specific mitigation, it shall be eligible for credit and/or reimbursement.

Appendix: Guidelines for Administration of Programmed Projects in the Adopted Five-Year Transportation Improvement Program

Once a Five-Year TIP is adopted by the Executive Committee, said TIPs shall be incorporated into and governed by these guidelines, the Administrative Plan, and Strategic Plan in accordance with AB 1600. NCTC staff should meet with the Technical Advisory Committee annually to review the status of all programmed projects on the Five-Year TIP and bring any project adjustment requests to the Executive Committees for approval. The goals of the annual review process are as follows:

1. To update project cost estimates.
2. To review project status.
3. To determine the continued viability of projects.
4. To review the backlog of reimbursement projects.
5. To address local jurisdiction issues.
6. To address compliance with AB 1600.

Adjustments:

In accordance with the TIP and the original reimbursement agreement entered into with the lead jurisdiction, all approved projects' funding and schedules are directly tied to critical milestones. As such, requests to change a project's funding or schedule shall necessitate an amendment to the original agreement and the adopted TIP.

Annual Five-Year TIP adjustments could include, but are not limited to:

1. Scope of work reductions or additions.
2. Project or phase delays.
3. Project or phase cancellations.
4. New shelf-ready network projects being added as replacement projects.
5. Project or phase advances.

Levels of Approval:

A. Executive Committee

The following shall be approved and adopted by the Executive Committee as required in the Administrative Plan:

1. Annual updates to the TIP.
2. Requests to increase total RTMF funding allocations to projects in the TIP. These requests may be made by the local jurisdiction administratively outside of the annual TIP update cycles if deemed necessary by one of the participating jurisdictions and NCTC management due to unforeseen circumstances that necessitate immediate action. Such unforeseen circumstances shall include, but not be limited to, higher than expected bid prices. NCTC staff will obtain action

from the Executive Committee in these cases either by calling for a Special Executive Committee meeting or through individual consultation.

3. Administrative requests to advance funds or adjust project schedules on TIP approved projects, upon the recommendation of the Administrative Committee. Such advancements are subject to:
   - Jurisdiction's proof of readiness to move forward with project.
   - RTMF current cash flow can support the advancement or change.

B. NCTC Executive Director

The NCTC Executive Director shall be responsible for the review and approval of the following changes to an approved TIP, including the review and approval of any agreements, for:

1. Change in lead jurisdiction, with the written consent of both the transferring and accepting lead jurisdiction.
2. Cancellation of project upon request of the local jurisdiction. In the event of cancellation, all RTMF funds programmed to said project shall revert to the RTMF Trust Account.
3. Approval of final completion of the project. Upon notification from the jurisdiction that the Project has been completed, all unused funds programmed for that Project shall revert to the RTMF Trust Account.
4. All other administrative requests, upon consultation with the Administrative Committee.

C. Administrative Committee

The Administrative Committee shall be responsible for the review and approval of the following:

1. Requests to move funds within project categories (environmental, design, etc.) administratively, contingent upon participating jurisdiction's certification of viability of all phases.
2. Provide recommendations to the NCTC Executive Director on any other requests that are deemed administrative in nature by the Executive Director.

All administrative adjustments will be submitted to the Executive Committee as part of the next Annual Review Report for final adoption.

D. Obligating Programmed Funds

The RTMF Program has established the policy that construction projects take priority, and therefore NCTC limits the obligation of RTMF dollars. NCTC has two options by which to obligate RTMF. In both options, steps 1, 2 and 3 (Option A) or 6 (Option B) must be completed by the local jurisdiction to ensure RTMF funding can be made available for use on an eligible project. Since RTMF project funds are generally obligated on a first come first served basis, failure to follow the prescribed steps for either option may preclude a project sponsor from receiving RTMF payments for completed work until sufficient funds are available to be obligated.

Option A

Funding for a project programmed in the Five-Year TIP is not considered obligated by NCTC until certain steps outlined below have been accomplished by the local jurisdiction.

1. Ensure that funding for the project phase is **programmed in the current year** of an adopted Five-Year TIP.
2. Ensure that there is a **signed (executed) reimbursement agreement** that matches the funding amount with the funding amount of the project phase in the adopted TIP.
3. Submit **an invoice for RTMF eligible work** prior to the end of the fiscal year to obligate the project phase funding. At the time of submitting the first invoice, the project sponsor will be required to submit all necessary supporting documentation (not previously submitted) in accordance with the provisions of the reimbursement agreement.
4. NCTC will obligate the entire phase of the project if there is available revenue at the time the invoice is submitted.

Option B

Funding for a project programmed in the Five-Year TIP is not considered obligated by NCTC until the steps outlined below have been accomplished by the local jurisdiction.

1. Ensure that funding for the project phase is **programmed in the current year** of an adopted Five-Year TIP.
2. Ensure that there is a **signed (executed) reimbursement agreement** that matches the funding amount with the funding amount of the project phase in the adopted TIP.
3. Send NCTC a letter of **notice of intent** to issue RFP, solicit bids, make offer to purchase ROW or other similar action to verify that sufficient funding is available and that funds are obligated and reserved exclusively for the particular project phase.
4. Receive a **notice of obligation** from NCTC within fourteen (14) working days of receipt of the notice of intent confirming the amount of funding that is obligated and reserved exclusively for the particular project phase. Alternatively, the project sponsor will receive a **notice of deferred obligation** if NCTC determines that insufficient funds are available for the project phase to be obligated.
5. Award the project and execute a contract within four (4) months of receipt of the notice of obligation from NCTC, and send a letter of **confirmation of award** to NCTC, including evidence of a Board/Council action relating to the project award and contract execution.
6. Commence project work and submit the **first invoice** for payment within nine (9) months of receipt of letter of obligation by NCTC to preserve fund obligation. At the time of submitting the first invoice, the project sponsor will be required to submit all necessary supporting documentation (not previously submitted) in accordance with the provisions of the reimbursement agreement.

If a contract has not been executed within four (4) months of receipt of the notice of obligation from NCTC (step 5), there will be a review of the project status. Based on the review of project status, NCTC will either:

1. Extend the fund obligation for up to a total of nine (9) months from the notice of obligation if the project sponsor can demonstrate a realistic expectation that the project will be awarded and a confirmation of award can be provided to NCTC within that time frame; or
2. De-obligate the funds.

Similarly, if the first invoice has not been submitted to NCTC within nine (9) months of receipt of the letter of obligation (step 6), there will be a review of the project status. Based on the review of project status, NCTC will either:

1. Extend the fund obligation for up to an additional nine (9) months if the project sponsor can demonstrate a realistic expectation that the project work will commence and a first invoice is submitted within that time frame; or
2. De-obligate the funds.

Project Priorities and Expenditure Plans:

Setting project priorities and establishing an Expenditure Plan are two critical steps necessary in implementing a mitigation fee program. In Exhibit 6, “RTMF Capital Improvement Program", there is a column titled "Funding Priority" where NCTC will record project priorities once they are adopted.

Exhibit 7, “RTMF Expenditure Plan” will be based on the project priorities in Exhibit 6 and an assumed revenue generation across the twenty years of the program, with 30% of the funding from the fee collections set aside for repayment of the bonds issued for the Dorsey Drive Interchange project. Once the project priorities have been adopted by NCTC they will be used to allocated the funding available for other projects on a year-by-year basis. The project priorities used in the Expenditure Plan can only be changed by unanimous vote of the NCTC Executive Committee.

Project ID	Facility	Segment	Updated Cost Estimate	% of Need Attributable to New Development	Costs Attributable to New Development	Funding Priority (to be determined)
			(A)	(B)	(C) = (A)*(B)	
1	SR-49 Interchange	Dorsey Drive	$24,000,000	33%	$7,991,555	
2	SR-49	S/o La Barr Meadows Rd (SB)	$33,417,273	12%	$4,005,587	
3	SR-49	South of Alta Sierra Dr (SB)	$123,414,693	3%	$3,862,597	
4	SR-49 NB & SB Ramps	@ McKnight Way	$8,000,000	64%	$5,089,431	
5	SR 20 EB Ramps	@ McCourtney Rd	$1,556,515	32%	$500,432	
6	SR 20/49 NB Ramps	@ Idaho Maryland Rd	$1,380,043	100%	$1,380,043	
7	SR 20/49 SB Ramps	@ Ridge Rd/Gold Flat Rd	$670,000	52%	$350,227	
8	SR 20/SR 49	@ Uren St	$1,088,655	21%	$233,760	
9	E.Main St	@ Bennett St/Richardson St	$1,500,000	100%	$1,500,000	
10	South Auburn St	@ SR-20/49 NB Ramps	$1,033,842	100%	$1,033,842	
11	SR-49	@ Coyote St	$350,000	34%	$119,288	
12	Admin Costs and 5-year reviews			100%	$425,560	
Total			$196,411,021		$26,492,323	

Exhibit 6: RTMF Capital Improvement Program

Fiscal Year	Anticipated Revenue	Share of Revenue for Dorsey Drive (30% until bonds are paid off)	Cumulative Funding for Dorsey Drive	Share of Revenue for Other Projects	Expense	Balance of Funding Available for All Other Projects	Project(s)
	(A)	(B)	(C) = Previous(C) + (B)	(D)=(A)-(B)	(E)	(F)=Previous(F)+(A)-(E)	
Jul-16			$21,421,136			$202,505	
2017/18	$1,054,566	$316,370	$21,737,506	$738,196	$316,370	$940,701	#1 Dorsey Drive bonds
2018/19	$1,054,566	$316,370	$22,053,875	$738,196	$316,370	$1,678,897	#1 Dorsey Drive bonds
2019/20	$1,054,566	$316,370	$22,370,245	$738,196	$316,370	$2,417,093	#1 Dorsey Drive bonds
2020/21	$1,054,566	$316,370	$22,686,615	$738,196	$316,370	$3,155,289	#1 Dorsey Drive bonds
2021/22	$1,054,566	$316,370	$23,002,984	$738,196	$316,370	$3,893,484	#1 Dorsey Drive bonds
2022/23	$1,054,566	$316,370	$23,319,354	$738,196	$316,370	$4,631,680	#1 Dorsey Drive bonds
2023/24	$1,054,566	$316,370	$23,635,724	$738,196	$316,370	$5,369,876	#1 Dorsey Drive bonds
2024/25	$1,054,566	$316,370	$23,952,093	$738,196	$316,370	$6,108,072	#1 Dorsey Drive bonds
2025/26	$1,054,566	$47,907	$24,000,000	$1,006,659	$47,907	$7,114,731	#1 Dorsey Drive bonds
2026/27	$1,054,566			$1,054,566	$0	$8,169,297	
2027/28	$1,054,566			$1,054,566	$0	$9,223,862	
2028/29	$1,054,566			$1,054,566	$0	$10,278,428	
2029/30	$1,054,566			$1,054,566	$0	$11,332,993	
2030/31	$1,054,566			$1,054,566	$0	$12,387,559	
2031/32	$1,054,566			$1,054,566	$0	$13,442,124	
2032/33	$1,054,566			$1,054,566	$0	$14,496,690	
2033/34	$1,054,566			$1,054,566	$0	$15,551,255	
2034/35	$1,054,566			$1,054,566	$0	$16,605,821	
2035/36	$1,054,566			$1,054,566	$0	$17,660,387	
2036/37	$1,054,566			$1,054,566	$0	$18,714,952	
Total	$21,091,311	$2,578,864		$18,512,447			

Exhibit 7: RTMF Expenditure Plan

A REGIONAL TRANSPORTATION MITIGATION FEE AGREEMENT
BETWEEN THE
NEVADA COUNTY TRANSPORTATION COMMISSION
AND
NEVADA CITY

This Agreement is made between the City of Nevada City, a political subdivision of the State of California, (hereinafter "Nevada City") and the Nevada County Transportation Commission, a regional transportation planning agency in the State of California (hereinafter "NCTC"). Nevada City and the NCTC may be referred to herein individually as "Party" or collectively as the "Parties."

This Agreement is made in consideration of the following facts:

A. WHEREAS, Nevada City and the NCTC are each empowered by law to conduct, participate in and provide regional transportation planning activities and desire to cooperate in the exercise of those powers; and

B. WHEREAS, Nevada City adopted and enacted Resolution No. [insert], which established a Regional Transportation Mitigation Fee (RTMF) and authorized Nevada City to impose and collect said fee; and

C. WHEREAS, the RTMF will provide funds for the construction of transportation improvements throughout Western Nevada County, as that term is defined in Resolution No. [insert]; and

D. WHEREAS, Nevada City desires the NCTC to administer the RTMF in accordance with Resolution No. [insert] and the Administrative Plan referenced herein.

NOW THEREFORE, in consideration of the foregoing and the mutual agreements and covenants contained herein, the Parties do hereby agree as follows:

1. Definitions. Unless the context otherwise requires, the terms defined in this section and initially capitalized in the text, shall for all purposes of the Agreement have the meanings herein specified.

   a. Administrative Plan – "Administrative Plan" is defined as the Administrative Plan for the Western Nevada County RTMF Program, adopted by NCTC on [date] (and as amended from time to time by NCTC), which serves as the guideline for implementation of the RTMF Program.

   b. Agreement - "Agreement" shall mean this agreement as the same now exists and as it may from time to time be amended by supplemental agreements entered into pursuant to the provisions hereof.

   b. Nevada City/ NCTC - "Nevada City" and "NCTC" are defined in the preamble.

   c. Resolution - "Resolution" shall mean Nevada City Resolution No. [insert].

d. Party/Parties - "Party" and "Parties" are defined in the preamble.

e. Regional Transportation Mitigation Fee or RTMF - "Regional Transportation Mitigation Fee" or "RTMF" shall mean the Regional Transportation Mitigation Fee component of the total road development fee established by Resolution No. [insert] and subsequent modifications to that component, as imposed and collected by Nevada City.

2. Purpose; Supersedes Prior Agreements. This Agreement is made pursuant to the law and its purpose is to provide for the exercise of powers by the Parties to provide regional transportation planning and to provide for NCTC's administration of the RTMF in accordance with the Administrative Plan attached hereto as Attachment "A," as it may be amended from time to time by NCTC. In the event of any conflict between the provisions of the Administrative Plan and this Agreement, the Administrative Plan shall control. This Agreement supersedes any and all prior agreements between the Parties concerning the RTMF.

3. Term and Termination.

a. The term of this Agreement commences on the date it is executed by the Parties, and it shall continue until and unless terminated, rescinded, canceled or modified by agreement of the Parties.

b. Either party may terminate this Agreement for any reason by giving thirty (30) calendar days written notice to the other, which notice shall be sent by registered mail to the address set forth in Section 16.

4. Responsibilities of Nevada City. Nevada City shall have the following responsibilities:

a. Impose and collect all the RTMF due under the Resolution No. [insert].

b. Deliver to the NCTC all the RTMF collected quarterly.

c. Cooperate with the NCTC to meet their obligations under this Agreement.

d. Other responsibilities as set forth in the Administrative Plan.

5. Responsibilities of NCTC. NCTC shall have the following responsibilities:

a. Accept, deposit and hold all of the RTMF delivered to it pursuant to this Agreement. NCTC may invest all of the RTMF held by it pursuant to this Agreement in accordance with NCTC's investment policy/guidelines.

b. Account for all of the RTMF delivered to it by keeping and maintaining separate books and accounts pursuant to this Agreement, without co-mingling any RTMF

received, collected or held pursuant to this Agreement with any other funds or accounts of NCTC.

c. Report all receipts and disbursements of the RTMF to the Commission.

d. Administer the RTMF and disburse the RTMF in accordance with the Administrative Plan.

e. Designate and appoint its Executive Director to serve as the person who has charge of, handles and has access to all money and property delivered to NCTC pursuant to this Agreement, from whatever source.

f. Contract for an independent financial audit of its books and accounts each year.

g. Cooperate with Nevada City to permit them to meet their obligations under this Agreement.

6. Programming and Disbursement of Funds. The programming and funding of projects within the RTMF program will be established through a five-year Transportation Mitigation Capital Improvement Program. The structure and guidelines for this program are set forth in the Administrative Plan.

7. Inspection of Records. All books, documents, records, accounts and files relating to the RTMF collected by Nevada City and to the management and administration of the property and RTMF by the NCTC pursuant to this Agreement shall be open to inspection at all reasonable times by Nevada City and its designated representatives.

8. Fiscal Year. The fiscal year for the reporting and accounting for all moneys and the RTMF managed and administered by NCTC pursuant to this Agreement shall be the same as the fiscal year for NCTC.

9. Disposition of Property. On the termination of this Agreement, any property acquired as the result of the exercise of powers will be distributed to Nevada City in proportion to the contributions made by Nevada City.

10. Return of Surplus Moneys. Upon completion of the purpose of this Agreement and termination of this Agreement, any surplus money on hand shall be returned to Nevada City as set forth in the Administrative Plan.

11. Indemnification. Nevada City shall indemnify NCTC, its officers, agents and employees against all claims and hold them harmless from any and all liability attributed to Nevada City's active or passive negligence whether on account of injury to person or persons or death or damage to property resulting from or in any way arising out of Nevada City's operation or conduct under this Agreement, and shall reimburse NCTC, its officers, agents and employees for all costs of any such claims, demands, or causes of action which may be brought or asserted against NCTC, its officers, agents, or employees, including all costs of defense, attorney's fees, court costs and any adverse judgments.

NCTC shall indemnify Nevada City, its officers, agents and employees against all claims and hold them harmless from any and all liability attributed to NCTC's active or passive negligence whether on account of injury to person or persons or death or damage to property resulting from or in any way arising out of NCTC's operation or conduct under this Agreement, and shall reimburse Nevada City, its officers, agents and employees for all costs of any such claims, demands, or causes of action which may be brought or asserted against Nevada City, its officers, agents, or employees, including all costs of defense, attorney's fees, court costs and any adverse judgements.

12. Amendments. This Agreement constitutes the entire agreement between the Parties regarding the subject matter hereof. Any oral representations or modifications concerning this Agreement shall be of no force or effect unless contained in subsequent written modification signed by the Parties. This Agreement may be amended at any time by mutual agreement of the Parties, but any amendment must be in writing and signed by the Parties.

13. Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

14. Captions. The captions or paragraphs and subparagraphs of this Agreement are for reference only and not to be construed in any way as part of the agreement.

15. Assignment. No Party to this Agreement shall assign, sell, transfer or delegate any of its rights or duties under this Agreement without the prior written consent of the other Party.

16. Notices. Any notice, demand or other communication required or permitted under the provisions of this Agreement shall be effective when in writing and either personally delivered or addressed and placed in the mail as follows:

    1. City of Nevada City
       317 Broad Street
       Nevada City, CA 95959

    2. Nevada County Transportation Commission
       101 Providence Mine Road, Suite 102
       Nevada City, CA 95959

17. Attorneys' Fees. In the event that either Party hereto shall institute any legal proceeding or arbitration pursuant to the provisions of this Agreement, the prevailing Party shall be entitled to reasonable attorneys' fees and costs to be determined by the court or arbitrator, as the case may be.

18. Controlling Law. California law shall be considered the law applicable to and controlling interpretation of this Agreement.

19. Interpretation. No provision of this Agreement shall be interpreted for or against any Party because that Party or that Party's legal representative drafted the provision.

IN WITNESS HEREOF, this Agreement has been executed by the parties hereto the day and year shown below.

NCTC:

_____ _____

Chair, Nevada County Transportation Commission Date

Approved as to Form:

_____

Renne Sloan Holtzman Sakai, General Counsel

NEVADA CITY:

_____ _____

Mayor, Nevada City Date

Approved as to Form:
CITY ATTORNEY

By: _____

ATTACHMENT A

Western Nevada County

Regional Transportation Mitigation Fee

ADMINISTRATIVE PLAN

CITY OF NEVADA CITY
DRAFT ACTION MINUTES
REGULAR CITY COUNCIL MEETING OF NOVEMBER 9, 2016

NOTE: This meeting is available to view on the City's website www.nevadacityca.gov – Go to *Quick Links* and Click on *Agendas & Minutes* and find the Archived Videos in the middle of the screen. Select the meeting date and Click on *Video* to watch the meeting. For website assistance, please contact Corey Shaver, Deputy City Clerk at (530) 265-2496, ext 133.

- City Council Meetings are available on DVD. To order, contact City Hall - cost is $15.00 per DVD.
- Closed Session Meetings are not recorded.

CLOSED SESSION MEETING – 5:45 PM

CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION pursuant to Government Code §54956.9 – Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: 1 potential case.

Action: Staff to proceed as directed.

REGULAR MEETING – 6:30 PM - Call to Order

Roll Call: Present: Moberg, Parker, Senum, Vice Mayor Strawser & Mayor Phelps (Mayor Phelps Absent)

PLEDGE OF ALLEGIANCE

PROCLAMATION: Nisenan Heritage Day – November 12, 2016

PRESENTATION:

The City Council received a presentation by Michael Heggarty, Director of Health and Human Services, County of Nevada regarding an overview of homeless services provided by the County.

1. BUSINESS FROM THE FLOOR-PUBLIC COMMENT (Per Government Code Section 54954.3)

Please refer to the meeting video on the City's website at www.nevadacityca.gov.

2. COUNCIL MEMBERS REQUESTED ITEMS AND COMMITTEE REPORTS:

Please refer to the meeting video on the City's website at www.nevadacityca.gov for additional comments.

3. CONSENT ITEMS:

A. Subject: Notice of Completion for the Washington County Water District Relief Hill Road Pressure Improvements
Recommendation: Pass Resolution 2016-XX approving a Notice of Completion for the Relief Hill Road Pressure Improvement Project and authorize Mayor to sign.

B. Subject: Interim Staffing at Nevada City Water and Wastewater Treatment Plants
Recommendation: Pass a Motion approving Amendment No. 2 to City agreement with Fishers Wastewater Services in amount not to exceed $5,000 to provide interim management staffing for the City's water and wastewater plants. **Subject:** Regional Public Safety Training Center Maintenance Agreement with Sierra Joint Community College District, City of Grass Valley and Nevada County Consolidated Fire District

Action: Motion by Strawser, seconded by Parker to approve Consent Items as presented.
(**Approved 5 – 0)**

4. APPROVAL OF ACTION MINUTES:

A. City Council Meeting – October 26, 2016

Action: Motion by Senum, seconded by Parker to approve October 26, 2016 Minutes as presented.
(**Approved 5 – 0)**

B. City Council Meeting – October 18, 2016

Action: Motion by Strawser, seconded by Parker to approve October 18, 2016 Minutes as presented.
(**Approved 4 – 0 – 1; Senum abstained)**

5. DEPARTMENT REQUESTED ACTION ITEMS AND UPDATE REPORTS:

A. Subject: Monthly Update on City Council Six-Month Strategic Objectives
Recommendation: Receive and file.

Action: Received and filed.

B. Subject: Deer Creek Tribute Trail System Nomenclature
Recommendation: Approve trail and section names for areas of the Deer Creek Tribute Trail System that are within City limits and on City property.

Action: Motion by Senum, seconded by Parker to approve trail and section names for areas of the Tribute Trail System within the City limits and on City property.
(**Approved 5 – 0)**

C. Subject: November 8, 2016 Election Update (Oral Report)
Recommendation: Receive and file.

Action: City Manager Prestwich announced Measure C, the City's 3/8 Special Sales Tax for public safety purposes received 83.7% voter support and passed. Fire Chief Goodspeed reported that the Insurance Services Office has improved the City's fire suppression rating.

6. PUBLIC HEARINGS:

7. OLD BUSINESS:

8. NEW BUSINESS:

A. Subject: Wild and Scenic Film Festival Street Closure Request
Recommendation: Review and authorize Wild and Scenic Film Festival street closure request per application.

Action: Motion by Strawser, seconded by Parker to support street closure request as submitted and satisfactory to the Fire Chief, food truck locations as submitted pending confirmation by adjacent restaurants or Miners Foundry parking lot if restaurants decline, waiver of fees, and hanging banner over Broad Street.
(**Approved 5 – 0)**

B. Subject: Proposed Nevada City Hotel Investment Incentive Program
Recommendation: Review and provide direction to the City Manager.

Action: Direction provided to City Manager Prestwich regarding cost-sharing methodology for the proposed Hotel Investment Incentive Program.

C. Subject: Presentation of Framework for Developing a Plan to Reduce Homelessness
Recommendation: Review and provide direction to the City Manager.

Action: Direction provided to proceed with recommended framework for developing a plan to reduce homelessness.

D. Subject: Proposal for a Second Pilot Project for Overhead Lights on Lower Commercial Street

Recommendation: Authorize Nevada City Chamber of Commerce to extend the Lower Commercial Street overhead lights with recommended conditions.

Action: Motion by Moberg, seconded by Strawser to authorize the Nevada City Chamber of Commerce to extending the overhead lights pilot project with recommended conditions for one additional year.
(**Approved 5 – 0)**

B. CORRESPONDENCE:

C. ANNOUNCEMENTS:

D. CITY MANAGER'S REPORT:

Action: City Manager Prestwich invited the community to participate in the Nevada Street Bridge Replacement Design Workshop on November 16, 2016. The meeting begins at 6:30 p.m. at City Hall.

E. ADJOURNMENT – 9:19 p.m.

_____
Evans Phelps, Mayor

ATTEST:

_____
Niel Locke, City Clerk

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Deer Creek Restoration Project and Flood Mitigation Project at Pioneer Park

RECOMMENDATION: No action required. This is a presentation with an opportunity for public feedback on the project and CEQA documentation.

CONTACT: Dawn Zydonis, Parks & Recreation Supervisor
Kyle Leach, Sierra Streams Institute

BACKGROUND / DISCUSSION: At the December 4, 2014 City Council meeting the Council passed Resolution 2014-52 authorizing the City, in partnership with Sierra Streams Institute (SSI), to submit and Urban Streams Restoration grant application to the Department of Water Resources (DWR). That grant application was approved and the City is now moving forward with the project. The City was awarded the funding in February 2016.

The proposed Little Deer Creek Restoration and Flood Mitigation Project is a State of California grant funded project located within Pioneer Park. This proposed project is made possible through a joint effort between the City, SSI and DWR Urban Streams Restoration Program Grant. There are three primary objectives of the proposed Project:

1) To restore approximately 640 linear feet (195 meters) of Little Deer Creek;
2) To reduce flooding impacts to the adjacent Lower Field, and general vicinity of Pioneer Park, by widening the streambed and re-grading the Lower Field; and
3) To construct a “Roll and Stroll” trail (i.e., pedestrian, bike, recreational trail) within the perimeter of the Park boundaries along Little Deer Creek.

The City in cooperation with Sierra Streams Institute and Stantec Consulting Inc. have developed an Initial Study for the project. This Initial Study is available on the City’s website for public review and is attached to this staff report. The public has 30 days to review and comment on the document before the City Council can take action on the document.

This is being presented to the City Council as an update on the work completed to date and to allow time for public input about the project and Initial Study. SSI and Porter Engineering have prepared draft engineering plans which are near 65% completion. Once the CEQA Initial study is adopted, SSI and the City will submit permit applications to the Regional Water Quality Control Board, California Department of Fish and Wildlife and the Army Corps of Engineers. These agencies along with DWR and Nevada City will be invited to a Technical Advisory Group to help facilitate the final design. City Engineer Bryan McAllister is nearly completion of a drainage study to help inform the process.

There will be some interim disruption to park uses. During the summer of 2017 this will primarily be limited parking in the tennis court and Park Ave. parking lots. The field will have some limitations, but most normal park activities are anticipated to remain unaffected. Staff is doing its best to work around the Little League schedule so the project will not interfere with games.

ENVIRONMENTAL CONSIDERATIONS: Environmental considerations for this project are provided in the attached Initial Study.

FISCAL IMPACT: There are no fiscal impacts at this time but as part of the project the City will be responsible for the cost of completing the field work. The grant will cover the cost of grading the field and the City will be responsible for the cost of sod, seed or other materials to complete the field work.

ATTACHMENTS:

- ✓ Draft IS/MND document as provided by Stantec

Little Deer Creek Restoration and Flood Mitigation Project

CEQA Initial Study / Mitigated Negative Declaration

Prepared for:
City of Nevada City

Prepared by:
Stantec Consulting Services Inc.&
Sierra Streams Institute

November 7, 2016

Sign-off Sheet

This document entitled Little Deer Creek Restoration and Flood Mitigation Project was prepared by Stantec Consulting Services Inc. ("Stantec") and Sierra Streams Institute for the account of City of Nevada City (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Preparation lead by _____
(signature)

Morgan Kennedy, Biologist/Regulatory Specialist

And by _____
(signature)

Kyle Leach, Project Geologist, Sierra Stream Institute

And by _____
(signature)

Bernadette Bezy, Principal Aquatic Biologist/Environmental Compliance Manager

Stantec

Table of Contents

1.0 PROJECT DESCRIPTION 1.1
1.1 BACKGROUND 1.1
1.2 PROJECT LOCATION 1.2
1.3 PURPOSE AND NEED 1.5
1.4 PROPOSED IMPROVEMENTS 1.5
1.4.1 Stream Improvements 1.6
1.4.2 Field Improvements 1.6
1.4.3 Trail Improvements 1.6
1.5 PROJECT PHASING 1.7
1.6 PROJECT CONSTRUCTION 1.7
1.6.1 Stream Construction 1.8
1.6.2 Field Construction 1.9
1.6.3 Trail Construction 1.10
1.6.4 Access, Mobilization and Staging 1.11
1.6.5 Project Schedule 1.12
1.7 CEQA PROCESS 1.13
1.8 SCOPE OF THIS STUDY 1.13

2.0 ENVIRONMENTAL CHECKLIST FORM AND ANALYSIS 2.14

3.0 ENVIRONMENTAL IMPACTS 3.16
3.1 AESTHETICS 3.16
3.1.1 Regulatory Setting 3.16
3.1.2 Environmental Setting 3.17
3.1.3 Impact Analysis 3.18
3.2 AGRICULTURAL RESOURCES 3.20
3.2.1 Regulatory Setting 3.20
3.2.2 Environmental Setting 3.21
3.2.3 Impact Analysis 3.22
3.3 AIR QUALITY 3.24
3.3.1 Regulatory Setting 3.24
3.3.2 Environmental Setting 3.27
3.3.3 Impact Analysis 3.28
3.3.4 Mitigation 3.35
3.4 BIOLOGICAL RESOURCES 3.38
3.4.1 Regulatory Setting 3.38
3.4.2 Environmental Setting 3.44
3.4.3 Impact Analysis 3.83
3.4.4 Mitigation 3.90
3.5 CULTURAL RESOURCES 3.93
3.5.1 Regulatory Setting 3.93
3.5.2 Environmental Setting 3.99
3.5.3 Impact Analysis 3.108

3.5.4 Mitigation 3.112
3.6 GEOLOGY AND SOILS 3.115
3.6.1 Regulatory Setting 3.115
3.6.2 Environmental Setting 3.116
3.6.3 Impact Analysis 3.119
3.6.4 Mitigation 3.122
3.8 HAZARDS AND HAZARDOUS MATERIALS 3.131
3.8.1 Regulatory Setting 3.131
3.8.2 Environmental Setting 3.133
3.8.3 Impact Analysis 3.134
3.8.4 Mitigation 3.139
3.9 HYDROLOGY AND WATER QUALITY 3.142
3.9.1 Regulatory Setting 3.142
3.9.2 Environmental Setting 3.145
3.9.3 Impact Analysis 3.148
3.9.4 Mitigation 3.155
3.10 LAND USE PLANNING 3.159
3.10.1 Regulatory Settings 3.159
3.10.2 Environmental Setting 3.161
3.10.3 Impact Analysis 3.162
3.11 MINERAL RESOURCES 3.164
3.11.1 Regulatory Setting 3.164
3.11.2 Environmental Setting 3.164
3.11.3 Impact Analysis 3.165
3.12 NOISE 3.166
3.12.1 Regulatory Setting 3.170
3.12.2 Environmental Setting 3.172
3.12.3 Impact Analysis 3.173
3.12.4 Mitigation 3.178
3.13 POPULATION AND HOUSING 3.180
3.13.1 Regulatory Setting 3.180
3.13.2 Environmental Setting 3.181
3.13.3 Impact Analysis 3.181
3.14 PUBLIC SERVICES 3.183
3.14.1 Regulatory Setting 3.183
3.14.2 Environmental Setting 3.183
3.14.3 Impact Analysis 3.185
3.15 RECREATION 3.187
3.15.1 Regulatory Setting 3.187
3.15.2 Environmental Setting 3.189
3.15.3 Impact Analysis 3.189
3.16 TRANSPORTATION AND TRAFFIC 3.192
3.16.1 Regulatory Setting 3.192
3.16.2 Environmental Setting 3.195

3.16.3 Impact Analysis 3.196
3.17 UTILITIES AND SERVICE SYSTEMS 3.200
3.17.1 Regulatory Setting 3.200
3.17.2 Environmental Setting 3.200
3.17.3 Impact Analysis 3.201
3.18 MANDATORY FINDINGS OF SIGNIFICANCE 3.204
3.18.1 Impact Analysis 3.204

4.0 REFERENCES 4.208

LIST OF TABLES

Table 1.1-1 Overview of Project Construction 1.12
Table 3.1-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Aesthetic Resources 3.18
Table 3.2-1 Checklist for Assessing Project Specific Potential Impacts to Agricultural Resources 3.22
Table 3.3-1 Nevada County Area Designations for State and National Ambient Air Quality 3.24
Table 3.3-2 NSAQMD Tiered Significance Thresholds 3.26
Table 3.3-3 Project CalEEMod Predicted Maximum Daily Unmitigated Project Emissions Estimates 3.29
Table 3.3-4 Project Mitigation Measure AIR-2 Percentage Reduction of Pollutants 3.29
Table 3.3-5 CEQA Checklist for Assessing Project-Specific Potential Impacts to Air Quality 3.30
Table 3.3-6 Project CalEEMod Predicted Maximum Daily Project Emissions Estimates with Mitigation Measure AIR-2 Implemented 3.32
Table 3.4-1 Plant species observed on May 2 and July 10, 2016, during baseline biological field surveys and habitat assessment for the Little Deer Creek Restoration and Flood Control Project, Nevada County, California 3.50
Table 3.5-1 Previously Recorded Cultural Resources 3.109
Table 3.5-2 Previous Cultural Resources Studies 3.109
Table 3.5-3 Cultural Resources within the Project Area Recorded During Field Surveys 3.110
Table 3.5-4 CEQA Checklist for Assessing Project-Specific Potential Impacts to Soils and the Potential for Impacts to Cultural Resources 3.111
Table 3.6-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Soils and the Potential for Geologic Impacts 3.119
Table 3.7-1 CEQA Checklist for Assessing Project-Specific Potential Greenhouse Gas Emissions Impacts 3.129
Table 3.7-2 Little Deer Creek and Pioneer Park Restoration Project CalEEMod Predicted CO2e Emissions Estimates 3.130
Table 3.8-1 CEQA Checklist for Assessing Project-Specific Potential Impacts Relative to Hazards and Hazardous Materials 3.134

Table 3.10-1 CEQA Checklist for Assessing Project Specific-Potential Impacts to Hydrology and Water Quality 3.148
Table 3.9-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Land Use Planning 3.162
Table 3.11-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Mineral Resources 3.165
Table 3.12-1 Definition of Sound Measurement 3.167
Table 3.12-2 Vibration Source Levels for Construction Equipment 3.168
Table 3.12-3 Guideline Vibration Annoyance Potential Criteria 3.169
Table 3.12-4 Guideline Vibration Damage Potential Criteria 3.169
Table 3.12-5 Land Use Compatibility for Community Noise Environments 3.170
Table 3.12-6 County of Nevada Exterior Noise Limits 3.172
Table 3.12-7 CEQA Checklist for Assessing Project-Specific Potential Noise Impacts 3.173
Table 3.12-8 Typical Construction Noise Emission Levels 3.175
Table 3.12-9 Construction Equipment Related to Groundbourne Vibration 3.176
Table 3.13-1 CEQA Checklist for Assessing Project-Specific Potential Population and Housing Impacts 3.181
Table 3.14-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Public Services 3.185
Table 3.15-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Recreation 3.190
Table 3.16-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Transportation and Traffic 3.196
Table 3.17-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Utilities and Public Services 3.201
Table 3.18-1 CEQA Checklist for Assessing Project-Specific Mandatory Findings of Significance 3.204

LIST OF FIGURES

Figure 1.1 Project Vicinity 1.3
Figure 1.2 Project Location 1.4
Figure 3.4-1 Known Occurrences of Special-status Species within 5 miles of the Proposed Project Area for the Little Deer Creek Restoration and Flood Mitigation Project, Nevada County, California (CDFW 2016e) 3.48
Figure 3.6-1 Geology and Soils 3.118
Figure 3.9-1 Hydrology and Floodplain 3.147

LIST OF APPENDICES

Appendix A CalEEMod Calculations A.1
Appendix B Native American Correspondence B.1
Appendix C Site Characterization Report C.2

1.0 PROJECT DESCRIPTION

The proposed Little Deer Creek Restoration and Flood Mitigation Project (Project) is a State of California (State)grant funded Project located within Pioneer Park (Park) in Nevada City (City), California. This proposed Project is made possible through a joint effort between the City, Sierra Streams Institute (SSI) and the California Department of Water Resources (DWR) Urban Streams Restoration Program Grant. There are three primary objectives of the proposed Project- 1) to restore approximately 640 linear feet (195 meters) of Little Deer Creek; 2) to reduce flooding impacts to the adjacent Lower Field, and general vicinity of Pioneer Park, by widening the streambed and regrading the Lower Field; and 3) to construct a "Roll and Stroll" trail (i.e., pedestrian, bike, recreational trail) within the perimeter of the Park boundaries along Little Deer Creek. The specific proposed Project details including background information, location, parameters, improvements, construction activities and schedule are provided below.

1.1 BACKGROUND

Little Deer Creek has been impacted by anthropogenic factors since the days of the Gold Rush. Waters were diverted for mining operations andneighboring forests were logged for timber. Subsequently,gravel fill and other materials (e.g., mercury, arsenic, etc.) entered the streams and adjacent soils, and the native vegetation has been crowded out by invasive non-natives species that create tinder-dry conditions (i.e., extremely dry and flammable material)during hot dry summers.

Prior to the construction of Pioneer Park in the 1940's, Little Deer Creek flowed through what is now the middle of theLower Field, in the northern portion of Pioneer Park, which includes the Childer's Field Little League baseball diamond. Hydro-modification from local development and Park construction has resulted in significant stream channel impactsas discussed below.

During the development of Pioneer Park, imported fill soil was placed in the Little Deer Creek stream channel to regrade the site to a higher elevation and relocate the stream around the eastern and northern perimeter of the Lower Field at the Park. Fill material was imported from a nearby site located approximately one mile southeast of Pioneer Park, on property owned by the Bureau of Land Management (BLM) that is adjacent Gracie Road.Records indicate that this fill material was likely sourced from an abandoned mine site in the area, and contained relatively high arsenic concentrations. Furthermore, over the past 60 plus years, various efforts to control flooding in Little Deer Creek has led to additional channel modifications. Concrete channel lining was constructed in various locations along the new stream channel alignment and a berm was also constructed along the eastern edge of the west streambank of the Lower Field in an effort to confine (i.e., direct) higher than average stream flows.

The fill placed in the Lower Field consists of poorly drained clay-loam soil. During larger winter storm events, Little Deer Creek routinely overtops its banks upstream of the channelized section

and floods the Lower Field. Poor soil drainage in the field results in lengthy periods of inundation during the rainy season, thus making the Lower Field unusable. In addition, the current stream channel has a significant amount of concrete lining along the streambanks in Pioneer Park. In many areas, the existing concrete channel lining is decomposing into the stream channel. Unlined streambanks are incised from the inability to access the floodplain. An unnaturally narrow channel and sparse non-native vegetation is typical along the streambanks. As the community expands and grows, Little Deer Creek is also influenced by land development, sewage disposal and agricultural practices.

1.2 PROJECT LOCATION

The proposed Project is located at Pioneer Park within the incorporated area of the City of Nevada City, in western Nevada County (County), California. Elevation at the site ranges from approximately 2,480 to 2,510 feet (756 to 765 meters) above mean sea level (amsl). The proposed Project vicinity and location maps are included as Figures 1.1 and 1.2. The proposed Project is located in the Nevada City U.S. Geologic Survey (USGS) Nevada City Quadrangle (Quad) at township 16 north, range 9 east, and section 7. The specific coordinates at the proposed work area are 39°15'36.4"N latitude, and -121°00'37.8"W longitude. The Park is owned by the City, with two baseball fields, a public swimming pool, playground, picnic areas and an outdoor theater. Pioneer Park is the only recreational park of its kind in Nevada City.

Little Deer Creek, a portion of Deer Creek, is a tributary to the Yuba River, in the Yuba River Watershed. Deer Creek begins in the Sierra Nevada foothills, above Scotts Flat Reservoir at 4,800 feet (1,463 meters) amsl. Deer Creek winds its way through pine forests and alpine meadows, forging canyons and shaping the landscape as it moves downhill. Throughout its length, this stream provides potential habitat for fish and wildlife. Downstream, Deer Creek Falls pushes the water towards Lake Wildwood, a recreational reservoir. At 300 feet (91 meters) amsl, and 34 miles from its source, Deer Creek joins the Yuba River.

Park Avenue and residential properties are located along the north boundary of Pioneer Park and the proposed Project area. The eastern boundaries are also occupied by existing residential development and support through traffic. Other existing portions of Pioneer Park are located south of the proposed Project site. Residential properties and Nimrod Street comprise the western boundary of the proposed Project site at Pioneer Park.

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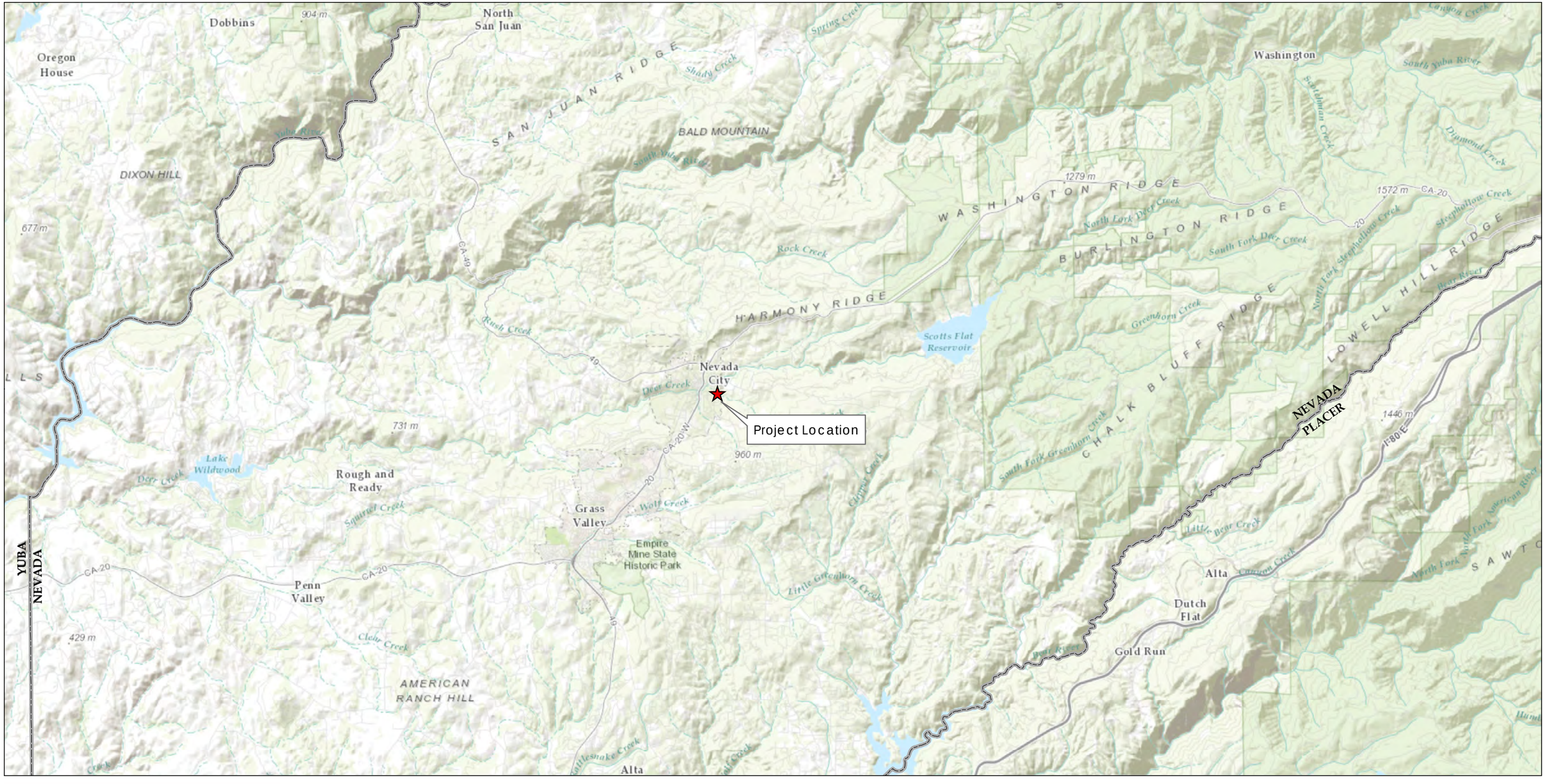

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Figure No.
1.1

Title
Proposed Project Vicinity

Client/Project
City of Nevada City
Little Deer Creek
Restoration and Flood Mitigation Project

0 5,400 10,800 Feet
1:127,059 (at original document size of 11x17)

Stantec

Legend

- Proposed Trail
- Little Deer Creek
- Hydrology
- Pioneer Park Field

Figure No.
1.2

Title
Proposed Project Location

Client/Project
City of Nevada City
Little Deer Creek
Restoration and Flood Mitigation Project

0 160 320 Feet
1:3,755 (at original document size of 11x17)

N

Stantec

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

V:\18401\active\184030558\gis\mxd\fig1.2_location_deer_creek.mxd Revised: 2016-07-29 By: lmccandless

1.3 PURPOSE AND NEED

The purpose of the proposed Project is to restore a segment of Little Deer Creek and provide a more stable and natural condition (e.g., flows, floodplain, and riparian) as it moves through Pioneer Park. The overall proposed Project will:

- Remove existing concrete channel lining and soil berm that confines Little Deer Creek, thus widening the stream channel and reconnecting it to its original floodplain;
- Revegetate and restore the area with native plants;
- Increase Pioneer Park's recreational value by reducing annual flooding;
- Create accessibility through the construction of a "Roll and Stroll" trail, which will also enhance community enjoyment and the use of Little Deer Creek and Pioneer Park;
- Engage the local community through environmental stewardship and education of citizens; and
- Improve urban stream health and water quality management issues.

In addition to flow concerns, another vital concern at the site is the relatively high levels of arsenic in the Lower Field soil. Recent sampling and analysis has confirmed arsenic concentrations ranging from 4.7 to 106 milligrams per kilogram (mg/kg), and a mean concentration of 54.9 mg/kg in these areas. These concentrations exceed EPA and California modified Regional Screening Levels (RSLs) established for recreational properties. These levels also exceed typical local background arsenic concentrations, which typically range up to 20 mg/kg or higher (Sierra Streams Institute 2014).

To address arsenic levels near the ground surface, the proposed Project would include the removal and appropriate off-site disposal of arsenic impacted soil. Clean import fill material would then be placed and compacted in the newly graded portions of the stream channel along with rock placed for stream bank protection to minimize public exposure and improve water quality.

1.4 PROPOSED IMPROVEMENTS

The proposed restoration and associated improvements include removal of the concrete channel lining, streambank restoration, regrading of the Lower Field, a new "Roll and Stroll" trail, and drainage improvements associated with Little Deer Creek within Pioneer Park. Design and construction of the proposed improvements will be performed in general accordance with Low Impact Development (LDI) principles (i.e., natural stormwater management) intended to improve and protect water quality. Specific information regarding the proposed Little Deer Creek restoration and Pioneer Park improvements are discussed henceforth.

1.4.1 Stream Improvements

Stream restoration activities are proposed to improve approximately 640 feet (195 meters) of Little Deer Creek in Pioneer Park. The upstream location of the proposed restoration work begins at the existing Max Solaro Drive Bridge, at the southeast corner of the Lower Field. Proposed restoration work will continue along various portions of both streambanks, to the existing footbridge stream crossing located adjacent to the tennis courts at Pioneer Park.

Approximately 30 cubic yards (25 cubic meters) of concrete channel lining will be removed from the channelized stream banks in these areas. The concrete will be recycled off-site. Approximately 450 cubic yards (345 cubic meters) of soil will be excavated from the existing berm and west streambank, and also disposed of off-site. Following excavation of the existing berm material, approximately 200 cubic yards (155 cubic meters) of clean import fill and rock will be placed for streambank erosion protection. Rock sizes will vary based on the hydrologic analysis; however will range between 2-12 inches for streambed material, and between 12-36 inches for streambank protection. The rock will be interspersed with native riparian species such as willows (Salix spp.) and other perennial grasses.

1.4.2 Field Improvements

The Lower Field will be regraded to minimize the potential for exposure to arsenic from the existing contaminated soils, provide additional floodplain storage volume and positive surface drainage, replace the outdated existing irrigation system and turf grass, and improve overall functionality. Up to approximately 1,750 cubic yards (1,350 cubic meters) of existing turf and underlying soil will be stripped or excavated from the Lower Field. Up to approximately 1,500 cubic yards (1,150 cubic meters) of clean imported fill will be placed as cover soil on the existing material. Cut and fill volumes may vary depending on the available project budget, however, the total volume of fill material placed in within the 100 year flood plain will not exceed the total volume of material excavated and disposed of off-site, so that the project results in a net increase in flood plain storage volume. New turf will consist of drought tolerant vegetation with low water requirements. A new irrigation system with low water usage requirements will be installed.

1.4.3 Trail Improvements

The total length of proposed multi-use "Roll and Stroll"trail is approximately 1,800 feet (550 meters). Approximately 300 linear feet (91 linear meters) of trail along the north edge of the East Parking Lot will include concrete pavement for the trail surface. The trail will extend to a sidewalk along Park Avenue, near the northern edge of Pioneer Park. An approximately 120 foot (37 meters) section of trail will be constructed between Park Avenue and the existing picnic area on the north side of Little Deer Creek. This section will be retained by a rock wall and will involve placement of clean imported fill soil to maintain an even grade of less than 8.3 percent. The remainder of the trail will generally conform to the existing ground surface grade and include

resurfacing with up to approximately 25 cubic yards (20 cubic meters) of Caltrans Class 2 Aggregate.

1.5 PROJECT PHASING

The proposed Project construction will be performed in three work phases, which in some cases will overlap. They are as follows:

- **Phase 1- Little Deer Creek Restoration:**Phase 1 will include the removal of concrete within Little Deer Creek, removal of a soil berm on the east side of Little Deer Creek at the eastern edge of the Lower Field, channel widening, and placement of rock and woody materials in the reach of Little Deer Creek passing through Pioneer Park. Excavated concrete will be recycled off-site. Excavated soil will be disposed of off-site at a Class 2 landfill due to elevated naturally occurring arsenic concentrations. Riparian vegetation removal will be minimized to the extent feasible and habitat enhancement will occur through revegetation with native plants based on recommendations made by a qualified SSI Restoration Ecologist.

- **Phase 2- Pioneer Park Flood Mitigation:** Phase 2 will include proposed flood mitigation by re-grading the Lower Field to create enhanced floodplain connectivity and improve natural drainage. The proposed Project also includes stripping of the existing turf and underlying soil, topsoil replacement and final grading, seeding and/or installation of sod, and irrigation system improvements. Excavated soil will be disposed of off-site at a class 2 landfill due to elevated arsenic concentrations.

- **Phase 3- Trail Construction:**Phase 3 will include proposed trail construction to complete a "Roll and Stroll" trail around the Lower Field of Pioneer Park. A majority of the trail will traverse existing paved pathways or grass surfaced areas. A section of the trail along the north side of the Little Deer Creek will require soil grading and aggregate surfacing. A second trail section along the East Parking Lot will require construction of a concrete sidewalk.

1.6 PROJECT CONSTRUCTION

The following section provides a description of activities that will occur during proposed Project construction activities to meet the related stream channel, field, and trail improvements within Little Deer Creek at Pioneer Park. Construction equipment will include track-mounted and rubber tired backhoes, excavators, loaders, graders, and 25-ton dump trucks.

The hours of construction for all phases will generally be confined to 7 a.m. to 7 p.m. on weekdays. However, if activities, such as dewater pumping require 24 hour activities or weekend work, the City will post notices at least a week in advance. Access to the picnic area to the south of the East Parking Lot would be provided during weekends. Construction is not anticipated to restrict traffic on local roadways.

1.6.1 Stream Construction

The following activities are proposed during Phase 1- Little Deer Creek Restoration:

Fencing/Public Safety: Prior to proposed construction, temporary chain-link fencing will be placed around the entire construction and staging areas and maintained throughout the construction period. Access will be restricted to construction and engineering personnel. Signs will be posted to inform the public and maintain public safety.

Installation of BMPs: Prior to proposed construction, temporary Best Management Practices (BMPs) including (non-monofilament) straw waddles, silt fencing, and temporary construction fencing will be installed to protect sensitive areas, limit sedimentation impacts and secure construction areas.

Temporary Dewatering: Prior to the proposed stream restoration, a temporary coffer dam will be installed upstream of the proposed stream restoration area. The Little Deer Creek flows will be pumped around the restoration area through closed conduit piping on a continuous basis throughout Phase 1 of the proposed Project. Pumping is anticipated to be maintained for approximately four to six weeks. Based on streamflow measurements in Little Deer Creek between July and September during the proposed Project work window, stream flows are estimated to be less than one cubic foot per second (cfs). This is approximately 646,000 gallons per day, or 3,876,000 gallons over the proposed six week pumping schedule. A Dewatering Plan and Aquatic Species Protection Plan will be implemented based on consultation with the appropriate regulatory agencies. Dewatering will be monitored on a continuous basis by construction personnel throughout the stream construction phase.

Clearing and Grubbing: Proposed restoration areas will first be cleared of ground vegetation (e.g., grasses, forbs, small shrubs, etc.) using rubber-tired or track mounted excavation equipment. Vegetative matter will be separated from soil for separate disposal off-site at a City owned property. To the extent feasible large riparian trees (greater than 5 inch diameter at breast height/dbh) adjacent to Little Deer Creek will be protected using standard BMPs for tree protection during construction activities; however, some smaller trees may require removal. Appropriate mitigation measures will be incorporated as requiredto protect additional wildlife and plant species at the proposed Project site (Refer to the Biological Resources Section of this document for mitigation details).

Concrete Removal: The concrete lining the Little Deer Creek channel is proposed to be demolished and removed from the stream using excavation equipment. To the extent feasible, equipment will be staged from the steambank to conduct concrete removal. Selected areas of concrete along the eastern stream bank may be broken off at the ground surface and left in place as scour protection. Where concrete is not left in place, rock and woody materials would also be placed along the streambank to prevent scour. Removed concrete would be cleaned of adhered soil, loaded onto dump trucks and transported off-site for recycling at a local facility.

Soil Excavation: Proposed excavation activities would include the use of a rubber-tired, or tracked, backhoe. Soils along the western streambank, including the berm soils, are proposed to be excavated and stockpiled in windrows adjacent to the proposed Project restoration area. Proposed excavation would not likely extend deeper than the depth of the existing streambed, and would be limited to areas above the depth of first encountered groundwater, which is expected to be at a minimum depth of approximately two feet. Disturbance of the existing streambed channel will be minimized. During construction, temporary piezometers (i.e., instrument measuring pressure and/or depth) may be installed by SSI to monitor groundwater depths in excavation areas. Proposed excavation spoils will be stockpiled and further analyzed for total arsenic and/or other metals as required for landfill disposal characterization, as required by the California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB). Once landfill disposal approval is granted, excavated soil will be loaded into dump trucks, hauled off-site and properly disposed of. Excavation will not extend beyond the depth of first encountered groundwater.

Stream Bank Restoration: Following proposed concrete removal, soil excavation and channel widening, a 2 to 4 inch (5 to 10 centimeter) soil layer will be placed and compacted to cover soil remaining in place with elevated arsenic concentrations, as determined by the proposed Project Design Engineer. The cover soil will extend in thickness up to 4 inches in areas of relatively high scour, and at least 2 inches thick in other areas. Rock and woody materials will be placed to enhance habitat and armor high scour areas. For additional stabilization and enhancement of site conditions, native vegetation, waddles, and willow stakes will be planted and placed within and along the margins of the Little Deer Creek stream channel.

1.6.2 Field Construction

The following activities are proposed during Phase 2- Pioneer Park Flood Mitigation:

- **Fencing/Public Safety:** Prior to proposed construction, temporary chain-link fencing will be placed around the entire construction and staging areas and maintained throughout the construction period. Access will be restricted to construction and engineering personnel. Signs will be posted to inform the public and maintain public safety.

- **Installation of BMPs:** Prior to proposed construction, temporary BMPs, including (non-monofilament) straw waddles, silt fence, and temporary construction fencing (i.e., exclusion fencing) will be installed to protect sensitive areas, limit sedimentation impacts, and secure construction areas.

- **Clearing and Grubbing:**The Lower Field will first be cleared of ground vegetation (e.g., grasses, forbs, small shrubs, etc.) using rubber-tired or track mounted excavation equipment. Vegetative matter will be separated from soil for disposaloff-site at a City owned property. Appropriate mitigation measures will be incorporated into the proposed Project to protect vegetation and wildlife species at the proposed Project site. (Refer to the Biological Resources Section of this document for mitigation details).

- **Over-Excavation:** Approximately 3.5 to 4.5 inches (9 to 11.5 centimeters) of arsenic contaminated soil will be excavated from the field where regrading is proposed to occur. Contaminated soil materials will be stockpiled on site, sampled and analyzed for total arsenic, and or other potential metals, as required for Class 2 landfill disposal characterization. Once landfill disposal approval is granted, excavated soil will be loaded into covered or sealed dump trucks, hauled off-site and properly disposed of.

- **Sub-Grading:** The sub-grade of the field will be graded to the engineer's specification within 1 inch (2.5 centimeters) to improve field drainage and create a natural flood channel along the restored stream bed.

- **Imported Fill Placement:** A layer approximately 3 to 4 inches (7.5 to 10 centimeters) of porous, well-draining soil will be placed as cover soil and lightly compacted over the arsenic impacted soil left in place. Placement will be within a 0.5 inch (1.30 inches) variance.

- **Irrigation System Upgrades:** The existing field irrigation system will be replaced, or upgraded, with a low flow irrigation system for water conservation.

- **Turf Replacement:** The regraded fields will be resurfaced with drought tolerant turf species suitable for the local climate.

1.6.3 Trail Construction

The following activities are proposed during Phase 3- Trail Construction:

- **Fencing/Public Safety:** Prior to proposed construction, temporary chain-link fencing will be placed around the entire construction and staging areas and maintained throughout the construction period. Access will be restricted to construction and engineering personnel. Signs will be posted to inform the public and maintain public safety.

- **Installation of BMPs:** Prior to construction, temporary BMPs including straw waddles (non-monofilament), silt fence, and temporary construction fencing will be installed to protect sensitive areas and secure construction areas. Proper erosion and sediment control BMPs will be in place during construction and post construction, as per the Stormwater Pollution Prevention Plan (SWPPP) for the proposed Project, until disturbed areas are reestablished.

- **Clearing and Grubbing:**The proposed trail alignment will first be cleared of ground vegetation (e.g., grasses, forbs, small shrubs, etc.) using rubber-tired or track mounted excavation equipment. Appropriate mitigation measures will be incorporated into the proposed Project to protect other vegetation and wildlife species at the proposed Project site. (Refer to the Biological Resources Section of this document for mitigation details).

- **Trail Surface Placement:** Newly graded portions of the "Roll and Stroll" trail and portions of existing trail surrounding the Lower Field will be surfaced by placement of compacted Cal Trans Class 2 aggregate for Americans with Disability Act (ADA) compliance. The trail will extend to a sidewalk along Park Avenue, near the northern edge of Pioneer Park. An approximately 120 feet (37 meters) section of trail will be constructed between Park Avenue and the existing picnic area on the north side of Little Deer Creek. This section will be retained by a rock wall and will involve placement of clean imported fill soil to maintain an even grade of less than 8.3 percent. A concrete sidewalk will be installed along the western edge of the East Parking Lot.

- **Drainage Improvements:** Limited grading and/or soil berm construction will be performed along upslope areas (i.e., southern vicinity) of the Lower Field to improve site drainage. Runoff will be directed into infiltration trenches extending along portions of the field perimeter.

1.6.4 Access, Mobilization and Staging

Vehicle access to the proposed Project site and staging areas would be accessed from the Broad Street exit off California State Highway(s) 49/20 in Nevada City. From this exit, you access Pioneer Park by going right onto Boulder Street, right onto Park Avenue, and then continue right off Park Avenue to the East Parking Lot. Alternatively, you can access the West Parking Lot from Nimrod Street to the west of Pioneer Park.

Two temporary staging areas are proposed to support proposed Project construction activities during active construction. Primary staging areas would be established to store construction materials and equipment when not in use. The primary staging area is proposed in the existing 0.15 acre (6,535 square feet) West Parking Lot. This area is located in the northwest portion of Pioneer Park, near the tennis courts. A secondary staging area is proposed at the existing East Parking Lot. This staging site has a total area of 0.40 acre (17,425 square feet), and is located east of the proposed stream restoration area. Staging areas will be utilized for site access, short duration equipment storage and/or vehicle parking during the field regrading phase of the proposed Project.

The contractor staging and access will be coordinated with City Parks and Recreation Department (P&R) to allow for maximum public use of Pioneer Park facilities during active construction. Temporary chain-link fencing will be placed around the entire construction and staging areas and maintained throughout the construction period. Access will be restricted to construction and engineering personnel. Signs will be posted to inform the public and maintain public safety. At least two of the four parking lots at Pioneer Park, as well as side street parking, will be open for public parking at all times during construction.

1.6.5 Project Schedule

Phase 1- Restoration of Little Deer Creek would be performed in the summer and fall of 2017, with revegetation monitoring and additional planting continuing throughout the course of the proposed Project.

Phase 2- Flood Mitigation by re-grading the Lower Field at Pioneer Park would be performed during the summer and fall of 2018 with turf replacement activities continuing through spring 2019 or later as needed.

Phase 3- "Roll and Stroll" trail construction would be performed during summer and fall 2017 and or summer and fall 2018, and is dependent on resource availability.

The total duration for proposed construction is approximately two years. Proposed construction would begin during the summer to fall of 2017, with some restoration activities occurring over the winter of 2017 to 2018. Construction activities would resume during the summer to fall of 2018, with restoration activities possibly occurring over the winter of 2018 to 2019. All proposed construction phases are scheduled to be completed within approximately 120 total calendar days, however earthwork is often dependent on weather conditions, therefore wet conditions have the potential to extend the construction duration to as much as 60 additional calendar days. Actual construction dates are contingent upon multiple planning factors, and are expected to occur within the next five years. Currently the proposed Project is budgeted over a three year period. If unforeseen circumstances push the proposed Project timeline back, construction could occur within five years of CEQA approval. A complete overview of construction, phasing, and the associated timeline is detailed in Table 1.1-1 below.

Table 1.1-1 Overview of Project Construction

Project Component	Construction Phase	Location/Area of Impact	Component Activities	Project Schedule
Site Preparation	Prior to construction	Western and Eastern Parking Lots at Pioneer Park	• Staging and access preparation • Installation of BMPs	Summer and Fall 2017 resuming Summer and Fall 2018
Little Deer Creek Restoration	Phase 1	Little Deer Creek running along the northern and eastern edges of the Lower Field at Little Deer Creek	• Temporary dewatering • Clearing and grubbing • Concrete removal • Soil excavation • Stream bank restoration	Spring/Summer 2017 (2 months)
Pioneer Park Flood Mitigation	Phase 2	Pioneer Park Lower Field	• Clearing and grubbing • Over-excavation • Sub-grading • Imported fill placement • Irrigation system upgrades • Turf replacement	Summer/Fall 2018 (2 months)

Trail Construction	Phase 3	Northern and eastern areas of the Lower Field at Pioneer Park, adjacent to Little Deer Creek	• Clearing and grubbing • Grading • Trail surface placement • Drainage improvements • Hours of construction • Trail construction timeline	Summer/Fall 2017 and/or Summer 2018 (1-2 months)
Site Restoration	Post Construction	Little Deer Creek running along the northern and eastern edges of the Lower Field at Little Deer Creek	• Implement revegetation as needed to ensure species survivorship following the completion of all construction activities	Fall 2017- Winter 2017/18 and Fall 2018- Winter 2018/19 (2 months)

1.7 CEQA PROCESS

The California Environmental Quality Act (CEQA) is the state environmental law that requires project proponents to disclose the significant impacts to the environment from proposed development projects. The intent of CEQA is to foster good planning and to consider environmental issues during the planning process. The City of Nevada City is the Lead Agency under CEQA for the preparation of this Initial Study/Mitigated Negative Declaration. CEQA Guideline (Section 21067) defines the Lead Agency as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment". The approval of the proposed Project is considered a public agency discretionary action, and therefore the proposed Project is subject to compliance with CEQA. The public, Nevada County, and other local and state resource agencies will be given the opportunity to review and comment on this document during the 30-day Public review period. Comments received during the 30-day review period will be considered by the City of Nevada City prior to the certification of the CEQA disclosure document and Project approval.

1.8 SCOPE OF THIS STUDY

As the Lead Agency under CEQA, Nevada City is responsible for compliance with the environmental review process prescribed by the CEQA guidelines. This study focuses on the environmental issues identified as possibly significant in the CEQA checklist and by CEQA guidelines. A complete Project Description is included in the first part of this Section. All areas of concern relevant to the proposed Project are analyzed in Section 3.0 and references are included in Section 4.0. Data and general information for the biological sections was drawn from institutional knowledge at SSI, where staff have over 16 years' experience working in Deer Creek. In addition, reconnaissance-level site-specific baseline biological field surveys and a formal wetland delineation were performed by a SSI Restoration Ecologist/Botanist and Wildlife Biologist on May 2, June 15, and July 10, 2016. Intensive-level pedestrian cultural resource surveys were conducted by a Stantec archeologist on June 23 and September 4, 2016.

2.0 ENVIRONMENTAL CHECKLIST FORM AND ANALYSIS

1. **Project Title:**
   City of Nevada City Little Deer Creek Restoration and Flood Mitigation Project

2. **Lead agency name and address:**
   City of Nevada City, 317 Broad Street, Nevada City CA 95959

3. **Contact person and phone number:**
   Contact: Dawn Zydonis, Park and Recreation Supervisor
   Phone: (530) 265-2496 x129

4. **Project location:**
   The proposed Project is located at Pioneer Park within the incorporated area of the City of Nevada City, in western Nevada County, California.

5. **Project sponsor's name and address:**
   City of Nevada City, 317 Broad Street, Nevada City CA 95959
   Phone: (530) 265-2496

6. **General plan designation and zoning:**
   The proposed Project site is designated as Public (PUB) under the Nevada City General Paln.The zoning designation for the proposed Project site, Pioneer Park, is Public (PUB). The surrounding boundary of Pioneer Park is Single Family Residential (SF).

7. **Description of Project:**
   Refer to the Project Description (Section 1 above).

8. **Surrounding Land Uses and Setting:**
   The surrounding boundary of Pioneer Park is Single Family Residential (SF)

9. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**
   In addition to CEQA compliance, this project will also be subject to approvals by the following environmental regulatory agencies:

   - US Army Corps of Engineers
   - National Historic Preservation Officer
   - Regional Water Quality Control Board
   - California Department of Fish and Wildlife
   - California Department of Toxic Substances Control

LITTLE DEER CREEK RESTORATION AND FLOOD MITIGATION PROJECT

Environmental Checklist Form and Analysis
November 7, 2016

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that requires mitigation to reduce the impact from "Potentially Significant" to "Less than Significant" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☒ Recreation
☒ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY.)

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an environmental impact report is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature: _____ Date: 11/8/2016

Amy Wolfson
Printed Name

City Planner
For City of Nevada City

Stantec

3.0 ENVIRONMENTAL IMPACTS

The following sections summarize (1) the environmental setting, (2) impacts, and (3) proposed mitigation measures associated with the Project. Additional topics such as the methodology and/or regulatory setting were also included where applicable. In all cases the proposed Project activities described in the Project description were analyzed for potential impacts. In each section all proposed Project activities are referred to either explicitly by name, or implicitly as "the Project".

3.1 AESTHETICS

The aesthetics section discusses the proposed Project's potential impacts to aesthetic resources within and around the proposed Project area. Aesthetic resources refer to the natural and scenic viewsheds that define a region. The regulatory setting describes applicable laws and regulations administered by the local governing body that aim to preserve aesthetic resources. The environmental setting provides general information of the scenic and aesthetic resources in and around the proposed Project area, and finally, the impact analysis evaluates the potential impacts of the proposed Project on those resources.

3.1.1 Regulatory Setting

The State of California Department of Transportation (Caltrans) administers State scenic route designations within Nevada County. Nevada County also designates scenic corridors along certain routes within the County. State scenic route designations include:

- Highway 20from Skillman Flat Campground to a half mile east of Lowell Hill Road

3.1.1.1 Nevada County General Plan

The following objectives, goals, and policies regarding scenic resources are set forth in the Conservation Element of the Nevada County General Plan:

Objective 2.14: Encourage protection and enhancement of the natural scenic beauty of this County in support of the tourist trade.

Objective 15.2: Promote and provide for the continued diversity and sustainability of the forest resources including timber, watersheds, wildlife habitat, aesthetics, and recreation.

Goal 18.1: Promote and provide for aesthetic design in new development which reflects existing character.

Policy 18.1: The County shall prepare Community Design Guidelines applicable to the various General Plan Designations and zoning classifications, and adopt such guidelines as part of

Comprehensive Site Development Standards, to be used in the project site review of all discretionary and ministerial project permits. The guidelines may include, but not be limited to the following:

- Community identity
- Preservation of natural landforms
- Protection and management of viewsheds
- Protection and management of river corridors and other significant streams

Policy 18.2: The County may adopt Specific Design Guidelines for areas within *Community Regions, Rural Places, and Rural Centers* to provide for the maintenance of community identity, scenic resources and historic sites and areas.

Goal 18.2: Protect and preserve important scenic resources.

Objective 18.2: Develop standards to protect scenic resources and view sheds.

Policy 18.7: Encourage protection of scenic corridors wherever feasible.

3.1.1.2 Nevada City General Plan

The following goal and objective regarding scenic resources are set forth in the Community Goals Element of the Nevada City General Plan:

- Economic Development Goal 5: Support the historic and visual quality of the City.
- Development and Annexation Objective: Determine appropriate use for land in Nevada City on the basis of the following criteria: Physicalcharacteristics(slope,soils,vegetation,visualsensitivity, accessibility, etc.)

3.1.2 Environmental Setting

The proposed Project would restore approximately 640 feet (195 meters) of Little Deer Creek and provide a more stable and natural condition as it flows through Pioneer Park in Nevada City.

Park Avenue and residential properties are located along the north boundary of Pioneer Park and the proposed Project area. The eastern boundaries are also occupied by existing residential development and support through traffic. Other existing portions of Pioneer Park are located south of the proposed Project site. Residential properties on Nimrod Street comprise the western boundary of the proposed Project site at Pioneer Park.

The general aesthetics of the area is that of a park atmosphere set in a mixed coniferous forest. There are vistas across the Lower field and shaded park areas (paths, picnic tables, and play structures) in the forested sections of the park

3.1.3 Impact Analysis

Table 3.1-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Aesthetic Resources

I. AESTHETICS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the Project have a substantial adverse effect on a scenic vista?

Finding: No impact

Based on review of the Caltrans State Scenic Highway List and the Nevada County General Plan, no officially designated scenic vistas or scenic land units were identified within or around the proposed Project site (California Department of Transportation 2016, Nevada County General Plan 1996). The proposed Project would not have substantial adverse effects on any scenic vistas because the area is not a designated scenic vista/land and the proposed Project would not significantly change the current viewshed. Therefore, there would be no impact.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Finding: No impact

Based on review of the Caltrans State Scenic Highway List and the Nevada County General Plan, there is no officially designated state scenic highway or scenic land on or adjacent to the proposed Project site from which the site would be visible (California Department of Transportation 2016, Nevada County General Plan 1996). Highway 20 is approximately one-third of a mile away from the proposed Project site, and is the closest Eligible State Scenic Highway. While Highway 20 is eligible for designation, it is not visible from the proposed Project site. There is no officially designated state scenic highway within or immediately surrounding the proposed Project limits; and the proposed Project would not damage scenic resources along a state scenic highway. Regional roadways are identified in the General Plan as scenic roadways

worthy of protection, but none of these roadways fall within the proposed Project limits nor is the proposed Project site visible from the scenic roadway. Therefore, the proposed Project entails no impact to scenic resources within a state scenic highway.

c) Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

Finding: Less than significant

The proposed Project is located within Pioneer Park. Residential properties are located along the north and west boundaries of Pioneer Park and the proposed Project area. The stream, field, and trail improvements would follow what is outlined in the Environmental Settings section. The stream improvements would begin at the upstream location at Max Solaro Drive Bridge, at the southeast corner of the Lower Field. The trail improvements would include approximately 300 feet of trail along the north edge of the East parking lot, 300 feet of trail between Little Deer Creek and Park Avenue near the northern edge of Pioneer Park, and the rest would traverse existing paved pathways or grass surfaced areas. The residences along Park Avenue would have at least temporary partial views of construction equipment but would not experience a change in visual character once the proposed Project is constructed. Where the proposed Project is visible from these residences, the stream improvements would be surrounded by vegetation, the field improvements would visually entail a temporary shift from a green field to dirt and then revegetation to green again, and the trail improvements would be minimal, as a majority of the trail would traverse existing pathways or grass surfaced areas.

The temporary visual impacts during construction would be up to 180 calendar days over a two year period and would likely be partially visible from the nearby residences within view of the proposed Project site. Specifically, views of construction, traffic, and staging areas along the proposed Project site would be temporarily visible from nearby residences.

Because the stream, field, and trail improvements impacts would be minimal in geographic extent, the topographic changes would not be significant, and construction would be of a short duration (up to 180 calendar days over a two year period), potential impacts to the aesthetic character of the area are considered less than significant.

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Finding: Less than significant

No permanent lighting is involved with the proposed Project. Construction would typically take place during the daylight hours between 7 a.m. and 7 p.m. Although the proposed Project could have temporary lighting impacts during construction, no permanent sources of substantial light or glare are anticipated; therefore, impacts are considered less than significant.

3.2 AGRICULTURAL RESOURCES

The agricultural resources section discusses the potential impacts of the proposed Project to agricultural resources within the proposed Project area and region.

3.2.1 Regulatory Setting

Applicable regulations and policies considered relevant to the proposed Project are summarized below. This section discusses the Federal and State regulations and local policies and objectives that govern agricultural resources applicable to the proposed Project. The zoning designation of the proposed Project is Public (PUB) and there is no agricultural or forest land immediately surrounding the proposed Project area. Water from Little Deer Creek ties into Nevada Irrigation District's raw water canal network and, as such, protection of water resources have been evaluated.

3.2.1.1 Farmland Protection Policy Act (FPPA)

The Farmland Protection Policy Act (FPPA) of 1981 [Sections 1539-1549 P.L. 97-98, Dec 22, 1981], requires the Secretary of Agriculture to establish and carry out a program to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to the extent practicable, will be compatible with state, unit of local government, and private programs and policies to protect farmland." [7 USC 4201-4209 & 7 USC 658].

3.2.1.2 Williamson Act

The California Land Conservation Act (Williamson Act) of 1965 is the state's principal policy for the "preservation of a maximum amount of the limited supply of agricultural land in the state" (Cal. Government Code Section 51220(a)). The purpose of the Williamson Act is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Williamson Act enables private landowners to contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. In return for this guarantee by landowners, the government jurisdiction assesses taxes based on the agricultural value of the land rather than the market value, which typically results in a substantial reduction in property taxes.

3.2.1.3 Nevada County General Plan

The following goal and objective outlined in the General Plan were considered when analyzing potential Project-related impacts to agricultural resources:

Goal 16.2: Provide for and protect agricultural water supplies.

Objective 16.10: Support the provision of adequate water for agricultural irrigation in Nevada County, while encouraging conservation in its use.

3.2.1.4 Nevada City General Plan

The following goal and objective regarding agricultural resources are set forth in the Community Goals Element of the Nevada City General Plan:

- Preserve and enhance the important natural features, e.g., Sugarloaf, the ridges, the creeks, Gold Run, the hills within the city, and the steep terrain lying west of the city core.
  - Develop and implement a program to secure special easements to protect streamside zones as potential open space or pedestrian/tike trails, wildlife habitat, and permanent open space.
  - Prevent soil erosion and hillside scarring through control of grading, restrictions on removal of vegetation, and limitation of development on steep slopes.

3.2.2 Environmental Setting

The zoning designation for the proposed Project site, Pioneer Park, is Public (PUB). The surrounding boundary of Pioneer Park is Single Family Residential (SF).

There are no identified Williamson Act or other Eligible Open Space Restricted parcels within the proposed Project area (Nevada County Williamson Act Map 2015). The proposed Project site is primarily classified as Urban and Built-Up Land and the surrounding area is comprised of Other Land according to the Farmland Mapping and Monitoring Program (FMMP 2016). Urban and Built-Up Land is occupied by structures with a moderate to high building density. Common examples of Urban and Built-Up Land are residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. Other Land is not included in any other mapping category. Common examples of Other Land include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land (FMMP 2016).

3.2.3 Impact Analysis

Table 3.2-1 Checklist for Assessing Project Specific Potential Impacts to Agricultural Resources

II. AGRICULTURE RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Finding: No Impact

The proposed Project activities would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. As mentioned above, the proposed Project site is classified primarily as Urban and Built-Up Land according to the Farmland Mapping and Monitoring Program (FMMP 2016). The construction of the proposed Project would be temporary and would not permanently impact the surrounding area. Since the proposed Project site is not located on designated agricultural lands or lands used for agricultural uses there would be no impact from the proposed Project to agricultural use. Therefore, no impact is anticipated.

b) Would the Project conflict with existing zoning for agricultural use or a Williamson Act contract?

Finding: No Impact

The proposed Project area is currently designated as Public and surrounded by Single Family Residential parcels (Nevada City General Plan 2008). The proposed Project site is classified as Urban and Built Up Land according to the Farmland Mapping and Monitoring Program (CDC 2016). The entire proposed Project area is not registered under the Williamson Act based on a review of the most recent Williamson Act lands map published by the Department of Conservation in 2015. Therefore, the proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact is anticipated.

c) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Finding: No Impact

The proposed Project area is currently zoned as Public and surrounded by Single Family Residential by Nevada City (Nevada City General Plan 2008). The proposed Project is not designated as Agriculture/Forestry, and therefore is not zoned for timber production. Therefore, no impacts would occur.

d) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

Finding: No Impact

The proposed Project area is currently zoned as Public and surrounded by Single Family Residential parcels (Nevada City General Plan 2008). The proposed Project is not located on forest land nor is it located in land zoned for timber production. Additionally, the proposed Project would not involve removal of large trees within the proposed Project area. Therefore, no impacts would occur.

e) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Finding: No Impact

The proposed Project site is classified primarily as Urban and Built-Up Land according to the Farmland Mapping and Monitoring Program (FMMP 2016). The proposed Project area is not registered under the Williamson Act based on a review of the most recent Williamson Act lands map published by the Department of Conservation in 2015. The proposed Project would not involve any other changes in the existing environment that would result in conversion of farmland or forestland to non-agricultural or non-forest use. Therefore, no impact would occur.

3.3 AIR QUALITY

3.3.1 Regulatory Setting

The Project site is within the Mountain Counties Air Basin and is under the jurisdiction of the Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Northern Sierra Air Quality Management District (NSAQMD).

3.3.1.1 Federal Clean Air Act (FCAA)

The FCAA establishes the framework for modern air pollution control. The FCAA, enacted in 1970 and amended in 1990, directs the EPA to establish ambient air quality standards for the six criteria pollutants: ozone (O_3), carbon monoxide (CO), lead (Pb), nitrogen dioxides (NO_x), particulate matter (PM_{10}, $PM_{2.5}$), and sulfur dioxide (SO_2).These standards are divided into primary and secondary standards, the former are set to protect human health, the latter are set to protect environmental values, such as plant and animal life.

3.3.1.2 California Clean Air Act (CAA)

The CAA focuses on attainment of the California Ambient Air Quality Standards (CAAQS). These standards are more stringent than federal regulations with respect to certain criteria pollutants and averaging periods. Responsibility for monitoring the CAAQS is placed on the CARB and local air pollution control districts. Table 3.3-1 summarizes state and national ambient air quality designations for Nevada County.

Table 3.3-1 Nevada County Area Designations for State and National Ambient Air Quality

Criteria Pollutants	State Designation	National Designation
Ozone	Non-attainment	Non-attainment
PM_{10}	Non-attainment	Unclassified
$PM_{2.5}$	Unclassified	Unclassified /Attainment
Carbon Monoxide	Unclassified	Unclassified /Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	-
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	-
Visibility Reducing Particles	Unclassified	-

Source: CARB 2013

3.3.1.3 Northern Sierra Air Quality Management District (NSAQMD)

NSAQMD adopted Rules 202, 205, and 226, to improve air quality in the district. Below is a summary of these rules as they apply to the proposed Project:

Rule 202 – Visible Emission Limitations: A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

A. As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or

B. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (A) of this section.

Rule 205 – Nuisance: A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property.

Rule 226 – Dust Control: The purpose of this rule is to reduce and control fugitive dust emissions to the atmosphere. This rule shall apply to any person engaged in:

- Dismantling or demolition of buildings
- Public or private construction
- Processing of solid bulk materials (i.e., sand, gravel, rock, dirt, sawdust, ash, etc.)
- Operation of machines or equipment
- Operation and use of unpaved parking facilities.

Any person shall take all reasonable precautions to prevent dust emissions. Reasonable precautions may include, but are not limited to, cessation of operations, cleanup, sweeping, sprinkling, compacting, enclosure, chemical, or asphalt sealing, and use of wind screens.

No person may disturb the topsoil or remove ground cover on any real property and thereafter allow the property to remain unoccupied, unused, vacant, or undeveloped unless reasonable precautions are taken to prevent generation of dust. A dust control plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed on any project where more than one (1) acre of natural surface area is to be altered or where the natural ground cover is removed. In the dust control plan, the Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust.

No person shall cause or allow the handling or storage of any materials on a manner which results, or may result in the generation of dust.

Any vehicle operation on a paved roadway with a load of any bulk material susceptible to being dropped, spilled, leaked, or otherwise escaping there from and being entrained in the air, must take one of the following control measures:

1. Six (6) inches of freeboard is maintained within the bed of the vehicle. For the purposes of this regulation, "freeboard" means the vertical distance from the highest portion of the edge of the load to the lowest part of the rim of the truck bed.

2. Materials contain enough moisture to control dust emissions from the point of origin to their final destination. Whenever possible, the use of dust suppressants must be applied in conjunction with the water.

3. Tarps or other cargo covers shall be employed.

Rocked/paved entry aprons or other effective cleaning techniques (e.g., wheel washers), may be required by the Air Pollution Control Officer to prevent tracking onto paved roadways. Paved entry aprons may include road section or coarse aggregate or steel grate to "knock off" dirt which accumulates on the vehicle and/or vehicle wheels.

Any material which is tracked onto a paved roadway must be removed (swept or washed) as quickly and as safely as possible. Exceptions to this provision may be made by the Air Pollution Control Officer or the Project Manager for the construction, maintenance, and/or repair of paved roadways and for the application of de-icing and traction materials for wintertime driving safety.

Additionally, the NSAQMD has established tiered significance thresholds to determine the project's projected impacts and provide a basis from which to apply mitigation measures. This approach has been developed for NO_x and ROG, which are indicators of ozone levels, and PM_{10} and includes the following threshold levels: a project with emissions meeting Level A thresholds will require the most basic mitigations; projects with projected emissions in the Level B range will require more extensive mitigation; and those projects which exceed Level C threshold will require the most extensive mitigations. The NSAQMD significance thresholds are detailed in Table 3.3-2 below.

Table 3.3-2 NSAQMD Tiered Significance Thresholds

NSAQMD Significance Thresholds	NO_x	ROG	PM_{10}
Level A (lbs/day)	<24	<24	<79
Level B (lbs/day)	25-136	25-136	80-136
Level C (lbs/day)	≥137	≥137	≥137

NO_x, ROG, and PM10 emissions must be mitigated to a level below significant. If emissions for NO_x, ROG, and PM_{10} exceed 137 pounds per day (Level C), then there is a *significant* impact; below Level C is *potentially significant* (NSAQMD 2009).

3.3.1.4 Nevada County General Plan

As part of the General Plan, Nevada County has adopted certain goals intended to improve air quality.

Objective 10.8.2: Comply with air quality regulations by encouraging alternatives to debris burning.

Goal 14.1: Attain, maintain, and ensure high air quality.

Objective 14.2: Implement standards that minimize impacts on and/or restore air quality.

Policy 14.6: For new construction, the County shall prohibit the installation of non-EPA certified and non-EPA exempt solid fuel burning devices.

Policy 14.7A: The County shall, as part of its development review process, ensure that proposed discretionary developments address the requirements of NSAQMD Rule 226.

Ultramafic Rock, Serpentine, or Naturally Occurring Asbestos Occurrence

The Project is not located in an area mapped as having, or otherwise known to have, ultramafic rock, serpentine, or naturally occurring asbestos. Therefore, the statewide Asbestos Airborne Toxic Control Measures (ATCM) will not apply unless ultramafic rock/serpentine is discovered during grading or excavation. If ultramafic rock or serpentine is discovered, the NSAQMD must be notified no later than the following business day and the ATCMs will apply. The nearest ultramafic mapping unit is approximately 5.5 miles to the west of the Project (Saucedo and Wagner 1992).

3.3.1.5 Nevada City General Plan

The Nevada County General Plan does not contain elements associated with air resources.

3.3.2 Environmental Setting

The proposed Project is located in Nevada County within the Mountain Counties Air Basin. Air quality issues in Nevada County are primarily related to motor vehicle emissions generated from commuting to and from the Sacramento area as well as prevailing winds transporting pollutants from the San Francisco Bay Area and the Central Valley up against the western sierra foothills (NSAQMD 2014). According to the CARB, the Mountain Counties Air Basin violates the State

ozone and PM_{10} standard. Prevailing eastward flowing surface winds can transport air pollution from the Sacramento Valley, San Joaquin, and San Francisco Bay area air basins up into the mountain valleys during the daytime and back down at night (CARB 2011).

3.3.3 Impact Analysis

Project specific air quality impacts were analyzed using the California Emission Estimator Model (CalEEMod) software, version 2013.2. The results of the air quality analysis can be found in Table 3.3-3 below and the potential Project-related impacts are discussed below. The CalEEMod model was run using the following assumptions/project details:

- Phase 1 of the Project includes the restoration of Little Deer Creek and would occur during the summer of 2017 and would last approximately two months
- Phase 2 includes the excavation and regrading of the lower field and would occur during the summer of 2018 and last approximately two months
- Phase 3 includes the construction of the trail and would occur during the summer and fall of 2017 and fall of 2018 and last one to two months.
- The Project, once constructed, should have little to no emissions from operations (similar to the existing infrastructure at the site). Therefore, operations emissions estimates were not included in this analysis.

The results of the CalEEMod are enumerated in Table 3.3-3 and form the basis for the impact assessment in this section. All predicted maximum daily unmitigated project emissions estimates are below the NSAQMD level A thresholds except for NO_x during the summer of 2018. Based on the results of the model, NO_x unmitigated emission estimates are within the NSAQMD Level B significance thresholds. This is likely due to emissions generated from off-road equipment during the grading and excavation of contaminated soil during the regrading of the lower field.

In order to reduce potential impacts from NO_x emissions, the South Coast Air Quality Management District (SCAQMD) has established quantifiable mitigation measures. The NSAQMD has not established recommended mitigation measures, thus for the purpose of identifying quantifiable success criteria, the SCAQMD mitigation measure were used for this analysis. These measures provide percent reduction based on specific mitigation (Table 3.3-4). With the implementation of Mitigation Measure AIR-1, all predicted Project emissions shall be reduced to below NSAQMD Level A significance thresholds.

Table 3.3-3 Project CalEEMod Predicted Maximum Daily Unmitigated Project Emissions Estimates

	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Project Unmitigated Construction Emissions (lbs/day)	5.15	51.17	40.23	10.18	6.48
NSAQMD Level A Significance Thresholds (lbs/day)	**<24**	**<24**	**n/a**	**<79**	**n/a**
NSAQMD Level B Significance Thresholds (lbs/day)	**25-136**	**25-136**	**n/a**	**80-136**	**n/a**
NSAQMD Level C Significance Thresholds (lbs/day)	**≥137**	**≥137**	**n/a**	**≥137**	**n/a**
Exceed Level A Threshold	**No**	**Yes**	**n/a**	**No**	**n/a**
Exceed Level B Threshold	**No**	**No**	**n/a**	**No**	**n/a**
Exceed Level C Threshold	**No**	**No**	**n/a**	**No**	**n/a**

Table 3.3-4 Project Mitigation Measure AIR-2 Percentage Reduction of Pollutants

Mitigation Measure AIR-1	Percentage Reduction				Source
	NO_x	ROG	PM_{10}	$PM_{2.5}$	
A minimum of 50 percent of off-road heavy-duty (i.e., 50 horsepower, or greater) diesel fueled construction equipment shall, at a minimum, meet CARB's Tier 3 certified engine standards. Cleaner off-road heavy-duty diesel engines (e.g., Tier 4) should be used to the extent feasible and available.	59%	82%	20%	20%	South Coast Air Quality Management District, 2010, Off-Road Emission Rates & Comparison of Uncontrolled to Tiered Rates and Tiered to Tiered Rates
Total % Reduction	**59%**	**82%**	**20%**	**20%**	

Table 3.3-5 CEQA Checklist for Assessing Project-Specific Potential Impacts to Air Quality

III. AIR QUALITY: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute to an existing or Projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Finding: Less than significant with mitigation incorporated

The Nevada County General Plan and the NSAQMD have adopted goals and rules intended to improve air quality in Nevada County and the air basin as a whole. Nevada County is in non-attainment for State and Federal ozone and State PM_{10}. The proposed Project applicable goals and rules of Nevada County and the NSAQMD are listed above in the regulatory framework of this section.

In order to assess the proposed Project's potential to obstruct implementation of the NSAQMD air quality plans, localized criteria pollutant emissions were analyzed, as these are the pollutants with established ambient air quality standards. Potential localized impacts would include exceedances of state or federal standards for PM and ozone.

Air quality modeling was performed using Project-specific details in order to determine whether the proposed Project would result in criteria air pollutant emissions in excess of the applicable thresholds of significance. Presented in Table 3.3-4, the proposed Project's construction- and operations-related emissions have been estimated using CalEEMod. The results of the

unmitigated emissions modeling were compared to the NSAQMD standards of significance, summarized in Table 3.3-3, in order to determine the associated level of impact.

During construction of the proposed Project, various types of equipment and vehicles would temporarily operate on the proposed Project site. Construction exhaust emissions would be generated from construction equipment, earth movement activities, construction workers' commutes, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants, such as ROG and NOx which leads to the creation of ozone emissions. Project construction activities also represent sources of fugitive dust, which includes PM_{10} emissions. PM_{10} is of heightened concern during the proposed Project due to elevated arsenic levels found in the soil throughout the lower field and the sediments in Little Deer Creek. In order to reduce potential impacts from fugitive dust and potential inhalation of contaminated dust, Mitigation Measure AIR-1: Dust Control Measures would be implemented. Mitigation Measure AIR-1 includes measures to wet contaminated soils prior to any excavation or grading activities and throughout earth moving activities. Additionally, stockpiled soil would be covered and surrounded by appropriate BMP, e.g. wattles, etc.

Although the proposed Project shall temporarily cause localized increases in emission levels, the Project is in compliance with the NSAQMD Level A significant thresholds for all criteria pollutants except for NO_x emissions (Table 3.3-3, CalEEMod 2013). Unmitigated project related NO_x emissions would exceed the NSAQMD Level A significance threshold and result in a potentially significant impact. Therefore, Mitigation Measure AIR-1 shall be implemented to reduce air emissions impacts to less than Level A significance thresholds. The proposed Project construction will take approximately 60 days during the summer of 2017 and 60-120 days during the summer 2018, increases to criteria pollutants will be temporary and minimal. Additionally, CARB has adopted regulations to control emissions from portable equipment as a component of the state's air quality plans. All applicable portable engines and off-road equipment must be registered with CARB's portable engine and off-road equipment programs and would align with the requirements set forth in the attainment plans. In order to control emissions from portable equipment Mitigation Measure AIR-2:Implement BMPs to Reduce Impacts on Air Quality from Construction Equipment would be implemented to reduce equipment idling times and ensure properly maintained equipment.

Table 3.3-6 Project CalEEMod Predicted Maximum Daily Project Emissions Estimates with Mitigation Measure AIR-2 Implemented

	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Project Unmitigated Construction Emissions (lbs/day)	5.15	51.17	40.23	10.18	6.48
Project Construction Emissions with Mitigation Incorporated (lbs/day)	2.11	9.21	40.23	8.14	5.18
NSAQMD Level A Significance Thresholds (lbs/day)	**<24**	**<24**	**n/a**	**<79**	**n/a**
NSAQMD Level B Significance Thresholds (lbs/day)	**25-136**	**25-136**	**n/a**	**80-136**	**n/a**
NSAQMD Level C Significance Thresholds (lbs/day)	**≥137**	**≥137**	**n/a**	**≥137**	**n/a**
Exceed Level A Threshold	**No**	**No**	**n/a**	**No**	**n/a**
Exceed Level B Threshold	**No**	**No**	**n/a**	**No**	**n/a**
Exceed Level C Threshold	**No**	**No**	**n/a**	**No**	**n/a**

Operations will be similar to existing facilities, no new facilities or operations are proposed as part of the Project.

Therefore, construction of the proposed Project will be consistent with the goals of the NSAQMD through the implementation of Mitigation Measure AIR-1 and Mitigation Measure AIR-2. Impacts are considered less than significant with mitigation incorporated.

b) Would the Project violate any air quality standard or contribute to an existing or projected air quality violation?

Finding: Less than significant with mitigation incorporated

As discussed above, Nevada County is currently in non-attainment for State and Federal ozone and State PM_{10}. As a result, an incremental increase in background ozone or PM levels would be considered a significant impact. The proposed Project is in compliance with NSAQMD Level A thresholds of significance for all criteria pollutants except for NO_x, for which the Project is in compliance with NSAQMD Level B thresholds. Phase 1 of the Project would take approximately 60 days to complete during the summer of 2017 and Phase 2 and 3 would take approximately 90 to 120 days to complete during the summer and fall of 2018. Increases in NO_xwould occur during construction activities, especially during the regrading of the lower field during Phase 2 of

the Project. All Project emissions would be temporary, as there is no change in the current operations at the Project site.

Because Project construction activities will exceed the NSAQMD Level A NO_x thresholds, Mitigation Measure AIR-2 shall be implemented. This mitigation measure will include restrictions on construction equipment idling times and require that all equipment is maintained and properly tuned during construction of the proposed Project. Operation activities will be similar to existing conditions; therefore, no long-term impacts to air quality would occur. Potential impacts to air quality standards or contribution to an existing or projected air quality violation are considered less than significant with Mitigation Measure AIR-2 incorporated.

c) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Finding: Less than significant with mitigation incorporated

A cumulative impact analysis considers a project over time in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants, including ozone and PM, is a result of past and present development, and, thus, cumulative impacts related to these pollutants could be considered cumulatively significant. All predicted maximum daily unmitigated project construction emissions estimates are below the NSAQMD thresholds except for NO_x, which will temporarily increase above Level A thresholds (Table 3.3-3, CalEEMod 2013). As such, Mitigation Measure AIR-2 would be implemented to reduce NOx emissions during construction activities. In addition, the proposed project would be required to comply with all applicable NSAQMD rules and regulations. The operations of the proposed Project will be similar to existing conditions and it is not anticipated that there would be a long-term cumulative impact. Therefore, the proposed project's individual emissions would not be expected to result in a cumulatively considerable contribution to a significant cumulative impact, and impacts would be considered less than significant with mitigation incorporated.

d) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Finding: Less than significant with mitigation incorporated

The proposed Project construction involves operating heavy equipment and construction activities that would temporarily produce additional dust and air emissions. The nearest receptor in the vicinity of the proposed Project area that could be affected by construction generated air emissions are residences located along the western boundary of the lower field, approximately 50 to 100 feet from construction. In addition, the playground and pool are located on the south boundary of the lower field, approximately 50 feet from construction activities. Some land uses are considered more sensitive to air pollution than others due to the

types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, parks/playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Fugitive Dust

Fugitive dust is typically generated during earth moving activities such as grading and excavation. Fugitive dust can cause health concerns when airborne due to potential inhalation. Fugitive dust is especially a concern for the proposed Project due to the elevated arsenic levels found in the soil throughout the Project site. In order to minimize potential impacts from fugitive dust, Mitigation Measure AIR-1 will be implemented, which includes measures to wet down soil during any earthmoving activities, this will inhibit the soils from becoming airborne and alleviate the potential risk of inhalation.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would temporarily increase traffic volumes on streets near the project site; therefore, the proposed project would be expected to increase local CO concentrations during construction. Concentrations of CO approaching the ambient air quality standards are only expected where background levels, traffic volumes, congestion levels are high. Although hauling and construction worker vehicle trips would increase during Project construction, it is not anticipated that these additional trips would cause congestion on local roadways nor would they affect the Level of Service (LOS) on the roadways.

Asbestos

The Project is not located in an area mapped as having, or otherwise known to have, ultramafic rock, serpentine, or naturally occurring asbestos. Therefore, the statewide Asbestos Airborne Toxic Control Measures (ATCM) will not apply unless ultramafic rock/serpentine is discovered during grading or excavation. If ultramafic rock or serpentine is discovered, the NSAQMD must be notified no later than the following business day and the ATCMs will apply. The nearest ultramafic mapping unit is approximately 5.5 miles to the west of the Project (Saucedo and Wagner 1992).

As discussed above, the proposed project would not cause or be exposed to substantial pollutant concentrations, including localized CO or fugitive dust. Therefore, exposure of sensitive receptors to substantial pollutant concentrations would not occur and the impact is less than significant with mitigation incorporated.

e) Would the Project create objectionable odors affecting a substantial number of people?

Finding: Less than significant

Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The project site is not located near any such land uses, and the proposed project would not introduce any such land uses.

Diesel fumes from construction equipment are often found to be objectionable; however, construction is temporary and associated diesel emissions would be regulated per federal, state, and local regulation, including compliance with all applicable NSAQMD's rules and regulations, which would help to control construction-related odorous emissions. Therefore, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people and impacts would be considered less than significant.

3.3.4 Mitigation

Mitigation Measure AIR-1: Dust and Emissions Control Plan

The City of Nevada City shall require that the selected contractor prepare and implement a Project Dust and Emissions Control Plan that is approved by the NSAQMD prior to construction. The following shall be conducted throughout the construction period to limit and control dust and air emissions:

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and/or causing a public nuisance. Watering during summer months should occur at least three times daily, with complete coverage of disturbed areas.
- All areas with vehicle traffic shall be watered or have dust palliative applied as necessary to minimize dust emissions.
- All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.
- All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

- All inactive portions of the development site (i.e sites that are not being actively graded or worked in on a daily basis) shall be covered, seeded, or watered or otherwise stabilized until a suitable cover is established.

- All material transported off-site shall be either sufficiently watered or securely covered to prevent it from being entrained in the air and there must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle.

- Paved streets adjacent to the project shall be reasonably clean through methods such as sweeping or washing at the end of each day, or more frequently if necessary, to remove excessive accumulations or visibly raised areas of soil which may have resulted from activities at the project site.

- Prior to the end of construction, the applicant shall re-establish ground cover on the site through seeding and watering.

- The Project contractor shall ensure that all construction equipment is properly maintained.

- Employ best management construction practices to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use). Vehicle and equipment idling shall not be allowed to exceed five minutes.

- Encourage construction worker commuters to carpool or employ other means to reduce trip generation.

Mitigation Measure AIR-1 Implementation

Responsible Party: The City of Nevada City will require that the contractor prepare and implement a Construction Emissions and Dust Control Plan. Nevada City shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction by the contractor. This mitigation measure will be referenced in the plans and specifications bid for the proposed project.

Timing: An Emissions and Dust Control Plan must be prepared and approved by the NSAQMD and Nevada City prior to construction and implemented during all phases of grading and activities that generate dust.

Monitoring and Reporting Program: During construction, regular inspections will be performed by a Nevada City representative and reports will be kept on file by Nevada City for inspection by the NSAQMD or other interested parties.

Standards for Success: Visible emissions and dust are kept to the lowest practicable level during construction periods. The goal is to minimize dust and emissions during construction, and to the extent feasible, complaints from the public.

Mitigation Measure AIR-2: Implement BMPs and Clean Construction Equipment Strategies to Reduce Impacts on Air Quality from Construction Equipment

The following mitigation measures shall be implemented to ensure emissions generated during proposed project construction activities are maintained at regulatory levels by requiring the following actions by the construction contractor:

- A minimum of 50 percent of off-road heavy-duty (i.e., 50 horsepower, or greater) diesel fueled construction equipment shall, at a minimum, meet CARB's Tier 3 certified engine standards. Cleaner off-road heavy-duty diesel engines (e.g., Tier 4) should be used to the extent feasible and available.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation;

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

Mitigation Measure AIR-2 Implementation

Responsible Party: The City of Nevada City would require that the contractor implement Air Quality BMPs during construction activities. This mitigation measure will be referenced in the plans and specifications bid for the proposed project.

Timing: Air Quality BMPS would be implemented prior to and during construction activities.

Monitoring and Reporting Program: During construction, regular equipment inspections will be performed by a Nevada City representative and reports will be kept on file by Nevada City for inspection by the NSAQMD or other interested parties.

Standards for Success: Minimize construction vehicle exhaust.

3.4 BIOLOGICAL RESOURCES

The Biological Resources section discusses the potential impacts of the proposed Little Deer Creek Restoration and Flood Mitigation Project to biological resources within, adjacent to, and downstream of the proposed Project area. Biological resources refer to plant and wildlife species and their related habitats. The regulatory setting describes applicable laws and regulations administered by the federal, state, and local governing bodies to protect biological resources. The environmental setting provides general information on the biological communities and resources within and surrounding the proposed Project area. The impact analysis evaluates the potential impacts of the proposed Project on those biological resources.

3.4.1 Regulatory Setting

Federal, state, county, city and other local agencies require the protection of plant and wildlife species, their habitats, and other biological resources. The regulatory setting outlines the laws and regulations relevant to the actions proposed for the Little Deer Creek Restoration and Flood Mitigation Project.

3.4.1.1 Federal Regulations

3.4.1.1.1 Federal Endangered Species Act of 1973

The Federal Endangered Species Act (ESA) was passed by Congress in 1973 to protect and recover imperiled species and the habitats upon which they depend. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA), which includes the National Marine Fisheries Service (NMFS).

Under the ESA, protected species are either listed as "endangered," in danger of extinction throughout all or a significant region of the species range; or as "threatened," likely to become endangered within the foreseeable future. The ESA also designates "candidate" species as those plants and animals for which the USFWS has sufficient data to propose that they be listed as threatened or endangered, but for which development of a listing regulation is temporarily precluded by other, higher priority listing activities. Candidate species do not receive statutory protection under the ESA, but cooperative conservation activities are encouraged (USFWS 2015a).

Pursuant to the Federal ESA, the USFWS and NMFS have authority over projects that may affect the continued existence of a federally listed threatened or endangered species. Section 9 of the ESA and federal regulations prohibit the take of federally listed species. "Take" is defined under the ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it actually results or is reasonably expected to result in death or injury to wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering (USFWS 2015a).

In cases where a project action may affect a federally listed threatened or endangered species or its habitat, Sections 7 and 10 of the ESA require consultation with the USFWS and/or NMFS. Section 7 of the ESA outlines procedures for federal interagency cooperation to conserve federally-listed species and designated critical habitat and to ensure that federal agencies are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species. For projects where federal action is not involved and take of a listed species may occur, Section 10(a) of the ESA outlines procedures for consultation with USFWS and/or NMFS, in which a project proponent may seek to obtain an incidental take permit if project impacts are adequately minimized and mitigated by an agency-approved Habitat Conservation Plan (HCP) (USFWS 2015a).

3.4.1.1.2 Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 USC C Section 703-711) and the Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protect specific species of birds and prohibit "take" (i.e., harm or harassment). Both the MBTA and BAGEPA are administered by the USFWS, who review the actions that may affect the species protected. Specifically, the MBTA protects migratory bird species from "take" through the setting of hunting limits and seasons, and protecting occupied nests and eggs. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property. BAGEPA prohibits the take or commerce of any part of the bald or golden eagle (USFWS 2015b).

3.4.1.1.3 Clean Water Act Section 401

The U.S. Environmental Protection Agency (EPA) regulates surface water quality in waters of the United States (U.S.) under Section 401 of the federal Clean Water Act (CWA). Section 401 of the Clean Water Act, projects that apply for a federal permit for discharge of dredged or fill material into waters of the U.S. must also obtain water quality certification from the Regional Water Quality Control Board (RWQCB) indicating that the project would uphold water quality standards set forth by the state and by the EPA. Section 401 of the Clean Water Act provides that no federal permits or licenses may be issued for projects that may discharge into waters of the U.S. unless a Water Quality Certification is obtained (EPA 2010). By providing this opportunity to address the aquatic resource impacts of federally issued permits and licenses, a water quality certification provides states and authorized tribes with an effective tool to help protect the physical, chemical, and biological integrity of surface water quality (EPA 2015b)Section 404 of the Federal Clean Water Act (CWA) establishes a requirement for a project applicant to obtain a permit from the U.S. Army Corps of Engineers (USACE) before engaging in any activity that involves any discharge of dredged or fill material into Waters of the U.S. including wetlands, lakes, rivers, streams, and their tributaries. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Jurisdictional

wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Many surface waters and wetlands in California meet the criteria for waters of the U.S., including intermittent streams and seasonal lakes and wetlands. Fill is defined as any material that replaces any portion of a water of the U.S. with dry land or changes the bottom elevation of any portion of a water of the U.S. (EPA 2010).

3.4.1.2 State Regulations

3.4.1.2.1 California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from California Department of Fish and Wildlife is required for projects that could result in take of a species that is listed by the state as threatened or endangered (California Fish and Game Code [CFG Code] Section 2050 *et seq*.). The CESA prohibits take of state-listed threatened and endangered species. Under CESA, "take" is defined as any activity that would directly or indirectly kill an individual of a species. However, the definition does not include "harm" or "harass" as in the federal ESA, nor does it include protection against habitat destruction (CDFW 2016a).

Consultation ensures that proposed projects or actions do not have a negative effect on state-listed species. During consultation, CDFW determines whether take will occur and identifies "reasonable and prudent alternatives" for the project and conservation of special-status species. CDFW can authorize take of a state-listed species under Sections 2080.1 and 2081(b) of CFG Code in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in the take of listed species, either during construction or over the life of the project. CDFW also maintains lists for Candidate-Endangered Species and Candidate-Threatened Species. California Candidate Species are afforded the same level of protection as listed species. California also designates Species of Special Concern (SSC), which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational values. These species do not have the same legal protection as listed species, but may be added to official lists in the future (CDFW 2016a).

In the 1960's California also created a designation to provide additional protection to rare species. This designation remains today and is referred to as "Fully Protected" species, and those listed "may not be taken or possessed at any time." In the 1970's, California created a designation to provide additional protection to rare species (i.e., the Native Plant Protection Act below). These species do not carry formal legal status and/or designation, but may be officially listed in the future (CDFW 2016a).

3.4.1.2.2 California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800 – Protection of Birds

Sections 3503, 3503.5, and 3800 of the CFG Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle. Disturbances that cause nest abandonment and/or loss of reproductive effort

(e.g., killing or abandonment of eggs or young) or the loss of habitat upon which the birds depend is considered "taking" and is potentially punishable by fines and/or imprisonment (CLI 2016a). Such taking would also violate federal law protecting migratory birds (e.g., MBTA above).

In addition, these statutes prohibit the destruction of active nests by removing the vegetation in which the nests are located. They prohibit the disturbance of parental behavior relative to nest survival, as construction and other activities can result in nest abandonment, reduced rates of parental food deliveries to the nest, and/or an increased risk of nest predation. Disturbance that causes nest abandonment, the loss of eggs or young, and/or the loss of habitat upon which nesting birds depend, is considered illegal "take" (CLI 2016a).

3.4.1.2.3 The Native Plant Protection Act- CFG Code Section 1900 *et seq*.

The Native Plant Protection Act (NPPA) was enacted in 1977 and is administered by CDFW pursuant to Section 1900 et seq. of the CFG Code. The NPPA prohibits "take" of endangered, threatened, or rare plant species native to California, with the exception of special criteria identified in the statute. A "native plant" means a plant growing in a wild, uncultivated state which is normally found native to the plant life of the state. Under the NPPA, species become endangered, threatened, or rare when the plants' prospects of survival and reproduction are in immediate jeopardy for one or more causes (CDFW 2016b). "Rare" species can be defined as species that are: broadly disturbed but never abundant where found, narrowly disturbed or clumped yet abundant where found, and/or narrowly disturbed or clumped and not abundant where found. If potential impacts are identified for a proposed project activity, consultation with CDFW, permitting, and/or other mitigation may be required. Endangered, threatened, and/or rare species can be identified through the California Native Plant Society's (CNPS) California Rare Plant Ranks (CNPS 2016a).

3.4.1.2.4 California Environmental Quality Act- CFG Code Section 15380

The California Environmental Quality Act (CEQA) provides protection for federal- and/or state-listed species, as well as species not listed federally or by the state that may be considered rare, threatened, or endangered. If the species can be shown to meet specific criteria for listing outlined in CEQA Guidelines section 15380 (b). Species that meet these criteria can include "candidate species", species "proposed for listing" and "species of special concern". Plants appearing on CNPS CRPR are considered to meet CEQA's Section 15380 criteria. Impacts to these species would therefore be considered "significant" requiring mitigation (CDFW 2016c).

Section 15380 was included to address a potential situation in which a public agency is to review a project that may have a significant effect on, for example a "candidate species", which has not yet been listed by the USFWS or CDFW. Therefore, CEQA enables an agency to protect a species from significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CDFW 2016c).

3.4.1.2.5 California Oak Woodlands Conservation Act- CFG Code Sections 1360-1372

The California Oak Woodland Conservation Act (COWCA) defines an oak as "any species in the genus *Quercus*" (CLI 2016b). The COWCA defines an oak woodland as "an oak stand with greater than ten percent canopy cover, or that may have historically supported greater than ten percent canopy cover" (CLI 2016b). The COWCA is designed to "support and encourage voluntary, long-term private stewardship and conservation of California's oak woodlands by offering landowners financial incentives to protect and promote biologically functional oak woodlands over time" (CLI 2016b); as mandated by the Wildlife Conservation Board (WCB). The WCB has established grant programs, the California Oak Woodlands Conservation Program, designed to protect and restore oak woodlands using conservation easements, cost-share and long-term agreements, technical assistance and public education and outreach.

3.4.1.2.6 Lake and Streambed Alteration Agreement- CFG Code Sections 1600-1616

To protect, manage, and conserve California's wetlands, Sections 1600–1616 of the CFG Code states that it is unlawful for any person or agency to substantially divert, obstruct or change the natural flow of any river, stream, or lake in California that supports wildlife resources, without first notifying CDFW of such activity and entering into a Streambed Alteration Agreement (SAA) with CDFW if impacts are expected to occur. These statutes similarly prohibit the use any material from the streambed; the deposition of any debris, waste or construction material where it may pass into any river, stream, or lake; or any other action that would substantially change the bed, channel, or bank of a river, stream, or lake (CDFW 2016d). For the purposes of these regulations, the definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports wildlife, fish or other aquatic life. This includes watercourses that have surface or subsurface flows that support or have supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. In practice, CDFW jurisdiction typically extends to the top of the stream or lake bank, the outer edge of the riparian vegetation (where present), and/or the edge of the 100-year floodplain (CDFW 2016d).

3.4.1.2.7 Porter-Cologne Water Quality Control Act-Section 401 of the Clean Water Act and National Pollutant Discharge Elimination System

Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to Waters of the U.S. must obtain a state certification administered by the RWQCB that the discharge complies with other provisions of CWA. The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters that may not be regulated by other programs, such as Section 404 of the CWA. Projects that require a Section 404 CWA permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Section

401 Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements (SWRCB 2016).

3.4.1.3 Local Regulations

3.4.1.3.1 Oak Woodlands Conservation Law

Effective January 1, 2005, Senate Bill 1334 (Kuehl) established Public Resources Code, Section 21083.4, the state's first oak woodlands conservation standards for California Environmental Quality Act processes. This code requires counties (or proposed County associated Project activities such as the issuance of a grading permit) to determine whether or not a Project may cause a significant effect or conversion of oak woodlands. In addition, if a County determines a Project will significantly affect oak woodlands, the Project proponent must employ one or more of the following CEQA Oak Woodlands Mitigation Alternatives (CLI 2016a):

- Conserve oak woodlands through the use of conservation easements.
- Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
- Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements.
- Other mitigation measures developed by the county.

This law states that County actions resulting in the loss of oak trees five inches or more in diameter at breast height (DBH) will be subject to compensatory mitigation measures. Oaks less than five inches DBH will still be subject to conservation measures contained in county ordinances or general plans.

3.4.1.3.2 Nevada City General Plan

The following goal and objective regarding biological resources are set forth in the Community Goals Element of the Nevada City General Plan:

- Preserve and enhance the important natural features, e.g., Sugarloaf, the ridges, the creeks, Gold Run, the hills within the city, and the steep terrain lying west of the city core.
    - Develop and implement a program to secure special easements to protect streamside zones as potential open space or pedestrian/tike trails, wildlife habitat, and permanent open space.

- Discourage tree cutting within the city. (The Open Space District in the zoning ordinance provides some measure of control in this area.)
- Prevent soil erosion and hillside scarring through control of grading, restrictions on removal of vegetation, and limitation of development on steep slopes.

3.4.2 Environmental Setting

3.4.2.1 Regional Setting

The proposed Project is located at Pioneer Park within the incorporated area of the City of Nevada City, in western Nevada County, California, on the western slope of the Sierra Nevada. Elevations at the site range from approximately 2,480 to 2,500 feet (1,035 to 1,100 meters) above mean sea level. The proposed Project is located in the Nevada City U.S. Geological Survey (USGS) 7.5 minute quadrangle (quad) within Township 16 North, Range 9 East, Section 7. The longitude/latitude at the approximate center of the proposed work area is 39°15'36.4"N/121°00'37.8"W.

Average annual precipitation in the Little Deer Creek watershed is approximately 53.9 inches. Regional average annual snowfall is approximately 21 inches. Air temperatures in the region range between an average January high of 50 °F, and an average July high of 89 °F. The year-round average high is approximately 68 °F. The average January low is 30 °F, and the average July low is 53 °F. The year-round average low is approximately 40 °F (NOAA 2010).

The proposed Project is located on Little Deer Creek, a perennial stream within the South Yuba River watershed. Little Deer Creek originates north of Banner Mountain and south of Lower Scott's Flat Reservoir, in the rural residential region east of downtown Nevada City. After flowing through Pioneer Park and the proposed Project area, Little Deer Creek joins Deer Creek in downtown Nevada City.

Park Avenue and residential properties are located along the north boundary of Pioneer Park and the proposed Project area. The eastern boundaries are also occupied by existing residential development and support through way traffic and parking. Other existing portions of Pioneer Park are located south of the proposed Project site. Residential properties and Nimrod Street comprise the western boundary of the proposed Project site at Pioneer Park.

The proposed Project area is within a landscaped environment with heavy recreational use in riparian areas resulting in soil compaction and erosion along stream banks. High densities of non-native invasive plants and alteration of the hydrology and floodplain impact the site's ability to support mesic meadow, seep, marsh or high-quality riparian habitat for plants. Adjacent mixed conifer forests have also been impacted by heavy recreational use resulting in soil compaction, erosion, and non-native invasive plants, although to a lesser degree than in the riparian areas. Little to no construction will occur in these areas except some work along a currently paved trail. Field turf, asphalt and buildings are prominent in the southern portion of the project area, limiting areas of potential habitat. Gabbro and/or serpentine soils are not present on site.

3.4.2.2 Biological Communities

The CDFW and the CNPS have developed a standard classification system for floristically describing vegetation communities/ habitats statewide, further translating to the National Vegetation Classification (NVC). The CDFW and CNPS system has been compiled in A Manual for California Vegetation- Second Edition (Sawyer et al, 2009), and has been accepted and adopted by state and federal agencies. The MCV classifications assist in defining vegetation based on quantitatively based rules to distinguish between vegetation community types, local variation, ecological land classification/composition, species rarity and significance, and historical and current land management practices. The MCV defines vegetation communities by dominant and/or co-dominant species present as 1A) alliance- a broad unit of vegetation with discernible and related characteristics; 1B) provisional alliance- a temporary vegetation community and/or candidate alliance; and/or 2) association- a basic secondary unit of classification, not as broad as an alliance, with uniform composition and conditions. The MCV classifications replace lists of vegetation types developed for the California Natural Diversity Database. The biological communities in the proposed Project area have been classified using MCV standards.

3.4.2.2.1 White alder(*Alnus rhombifolia*) Forest Alliance

White alder(*Alnus rhombifolia*) Forest Alliance is dominant especially in the northern portion of the Project area along Little DeerCreek. It is co-dominant with other native trees including big-leaf maple *(Acer macrophyllum)*and Fremont's cottonwood (*Populus fremontii*); and shrubs including arroyo willow *(Salix laseolepis*), red willow(*Salix laevigata*) and shiny willow(*Salix lucida*) (Sawyer et al, 2009). Co-dominant non-native trees include black locust (*Robinia pseudoacacia*) and English walnut (*Juglans regia*) which comprise up to 50% of the canopy in some portions of the northern Project area.

3.4.2.2.2 Shining willow (*Salix lucida*) Woodland Alliance

Shining willow Woodland Alliance is dominant within the riparian corridor on the eastern portion of the Project area along Little Deer Creek. Co-dominant species include arroyo willow and red willow (Sawyer et al. 2009).

3.4.2.2.3 Himalayan blackberry(*Rubus armeniacus*) Semi-natural Shrubland Stand

Due to the history of disturbance from creek realignment and the proximity of human infrastructure and activity to the riparian habitat, the understory shrub layer in the riparian area is dominated by non-native Himalayan blackberry(*Rubus armeniacus*) Semi-natural Shrubland Stand (Sawyer et al, 2009). Densities reach over 75% cover in the northern portion of the project area and up to 50% cover in the eastern portion of the Project area along Little Deer Creek. Himalayan blackberry has a High Invasive Species ranking from Cal-IPC, primarily due to its ability to invade riparian areas with up to 100% cover (Cal-IPC 2016).

3.4.2.2.4 Ponderosa pine-incense cedar (*Pinus ponderosa- Calocedrus decurrens*) Forest Alliance

Plant communities extending out of the riparian corridor to paved surfaces and human infrastructure within the proposed Project area include mixed conifer forest habitat and ponderosa pine-incense cedar(*Pinus ponderosa- Calocedrus decurrens*) Forest Alliance. Associated species include black oak (*Quercus kelloggii*), Douglas-fir*(Pseudotsuga menziesii*), and Pacific mountain dogwood(*Cornus nuttallii*) (Sawyer et al, 2009). Although common in the Sierra foothills region, impacts from bark beetle (Family Scolytinae), mistletoe (*Phoradendron* sp.), and root disease mortality were not apparent in areas surrounding the proposed Project.

3.4.2.3 Methodology

The following methods were used to determine the presence or absence of special-status plant and wildlife species and other biological resources, and to evaluate their potential to be impacted by proposed Project activities.

3.4.2.3.1 Desktop Analysis

Prior to visiting the proposed Project area, background research and desktop analyses were conducted to evaluate regional and local habitats and to identify the biological resources that are known to occur or have the potential occur within the proposed Project area. The following resources were used to identify potential special-status plant and wildlife species within the proposed Project region.

- A records search of the CDFW California Natural Diversity Database (CNDDB) for special-status species was performed within the proposed Project area and within a five mile buffer around the proposed Project area (CDFW 2016e, Figure 3.4.1).
- The CNPS online Inventory of Rare and Endangered Plants of California was queried in a nine-quad regional search for rare plants within Camptonville, Challenge, Chicago Park, French Corral, Grass Valley, Nevada City, North Bloomfield, Pike, Rough and Ready 7.5 minute USGS quads (CNPS 2016).
- The USFWS list of endangered, threatened, and candidate species and their designated critical habitat was reviewed for the nine USGS 7.5-minute quads surrounding the proposed Project site: Nevada City, Grass Valley, North Bloomfield, Chicago Park, Camptonville, Challenge, French Corral, Pike, and Rough and Ready (USFWS 2016a).
- The Calflora online database for Nevada County was reviewed for additional rare plant species with the potential to occur in the proposed Project area (Calflora 2016).
- The eBird database was reviewed for bird species observations in Pioneer Park and the surrounding residential neighborhood that were recorded by volunteer citizen scientists with known professional-level identification skills (leaders of the Audubon Society Breeding Bird Atlas for Nevada County) (eBird 2016).

Endangered, threatened, rare, and/or special-status species that were identified during the initial desktop analysis are compiled in Tables 3.4-3 and 3.4-4 of the Results Section 3.4.2.4.

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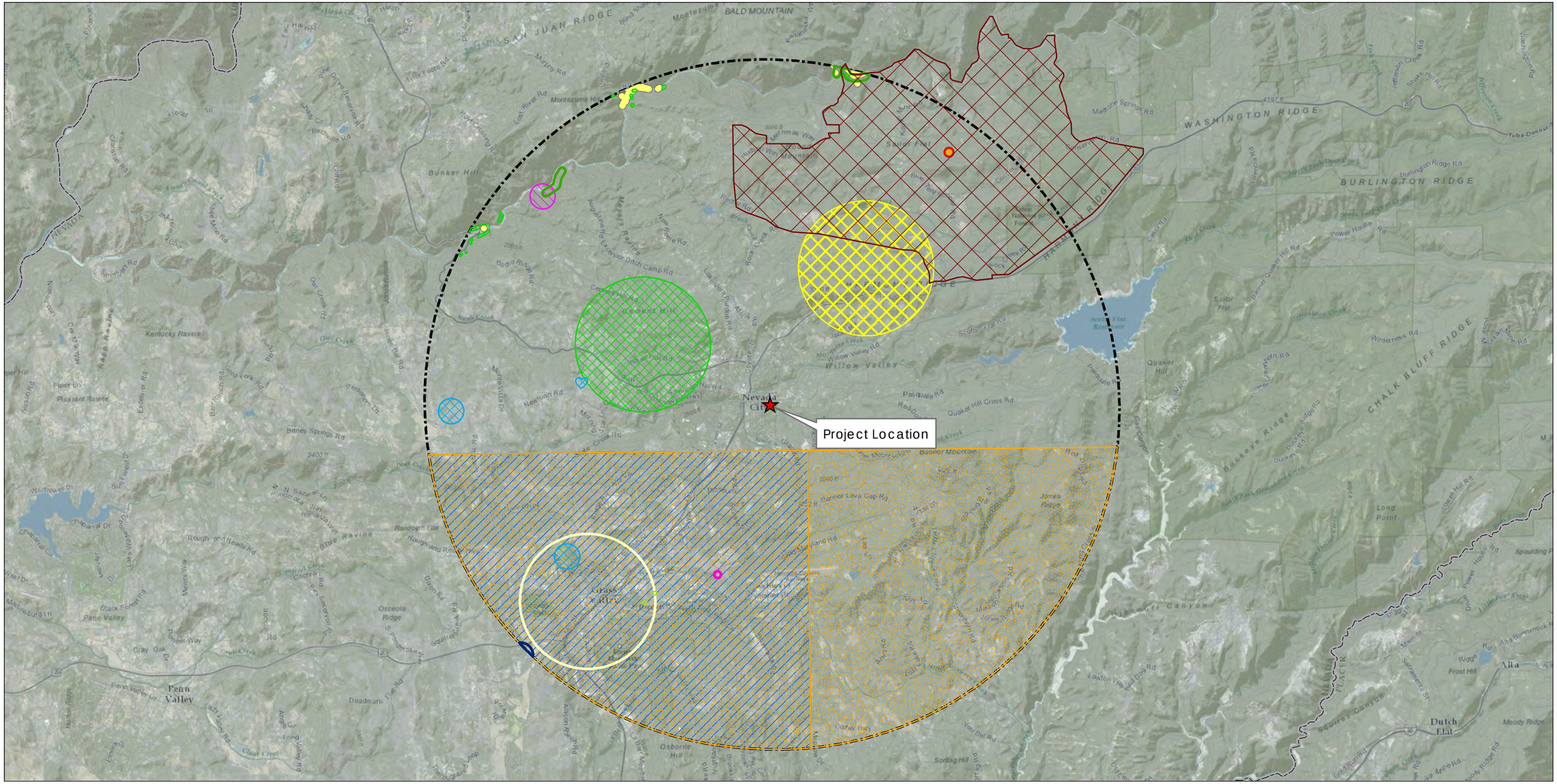

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Legend

- 5 Mile Project Setback
- USFWS California red-legged frog Critical Habitat

Spcial Status Species

Common Name, Scientific Name, Fed Listing, State Listing

- Brandegee's clarkia, *Clarkia biloba ssp. brandegeeae*, None, None
- Butte County fritillary, *Fritillaria eastwoodiae*, None, None
- California black rail, *Laterallus jamaicensis coturniculus*, None, Threatened
- California red-legged frog, *Rana draytonii*, Threatened, None
- Cantelow's lewisia, *Lewisia cantelovii*, None, None
- Pine Hill flannelbush, *Fremontodendron decumbens*, Endangered, Rare
- Scadden Flat checkerbloom, *Sidalcea stipularis*, None, Endangered
- brownish beaked-rush, *Rhynchospora capitellata*, None, None
- coast horned lizard, *Phrynosoma blainvillii*, None, None
- dubious pea, *Lathyrus sulphureus var. argillaceus*, None, None
- finger rush, *Juncus digitatus*, None, None
- foothill yellow-legged frog, *Rana boylii*, None, None
- western bumble bee, *Bombus occidentalis*, None, None
- western pond turtle, *Emys marmorata*, None, None

Figure No.
3.4.1

Known Occurrences of Special Status Species within Five Miles of the Proposed Project Area

Client/Project
City of Nevada City
Little Deer Creek
Restoration and Flood Mitigation Project

0 0.75 1.5 Miles
1:90,000 (at original document size of 11x17)

Stantec

3.4.2.3.2 Field Studies

Reconnaissance-level baseline biological field surveys and a formal wetland delineation were performed by Sierra Streams Institute staff: Restoration Ecologist/Botanist, Denise Della Santina and Wildlife Biologist, Kristen Hein Strohm. Surveys took place on May 2, June 15, and July 10, 2016. Field surveys were conducted to assess the general species composition of the on-site biological community, evaluate the extent and quality of the ecological habitats on site, and assess the potential for special-status species presence.

Surveys were conducted by walking meandering transects to view all areas of the proposed Project area. All distinct habitats occurring within the study area were characterized and evaluated for their potential to support regionally occurring special-status species and other sensitive biological resources. During these surveys, the study area was also examined to characterize the existing vegetation in terms of dominant plant and animal species (including the potential for special-status species), approximate canopy closure, and other constraints. The extent of past disturbance was also noted.

Boundaries of jurisdictional wetlands on site were delineated by SSI Restoration Ecologist/Botanist using the 1987 Corps of Engineers Manual (WTI 1995) and current updates. Following the wetland delineation fieldwork, SSI began consultation with the USACE to pursue federal verification of the wetland delineation and to pursue a Clean Water Act Section 404 permit, which must be acquired during agency environmental review and before Project construction. The results of the consultation will be presented in a separate document.

3.4.2.4 Results

3.4.2.4.1 Plant Communities

Past modifications of Little Deer Creek from local private and Park development and recreational activities have resulted in significant stream channel and floodplain impacts and biological habitat reduction. The current stream channel has a significant amount of concrete lining along the streambanks and the creek is squeezed between asphalt paved surfaces and graded areas of turf grass on fill soils. The reduced channel volume and riparian floodplain has resulted in minimal native riparian vegetation diversity and abundance. Stream bank vegetation varies from dense Himalayan blackberry understory stands (reaching well over 50% cover in the northern portion of the Project area) to compacted and eroded areas due to excessive foot traffic on incised, non-vegetated stream banks (reaching well over 25% cover in eastern portion of the Project area).

The riparian vegetation along the creek corridor is limited in width, less than 20 feet (6 meters) on each side of the creek in most areas. Dominant plant communities in the riparian areas include white alder Forest Alliance on the northern portion of the Project area and shining willow Woodland Alliance on the eastern portion. The understory shrub layer throughout the riparian area is dominated by non-native Himalayan blackberry. Semi-natural Shrubland Stand, which reaches 50% cover in at least half of the project area. Plant communities extending out of the

riparian corridor to paved surfaces and human infrastructure within the proposed Project area include mixed conifer forest habitat and ponderosa pine-incense cedar Forest Alliance (Sawyer et al.2009). Other species within the project area include big-leaf maple, Fremont's cottonwood, arroyo willow, red willow, black oak, Douglas-fir, and Pacific mountain dogwood.

Non-native invasive species on site are turf/fodder grasses including Bermuda grass (*Cynodon dactylon*), Kentucky bluegrass (*Poa pratensis*), orchard grass (*Dactylis glomerata*), velvet grass (*Holcus lanatus)*and rescuegrass (*Bromus catharticus*). Periwinkle (*Vinca major*) is a dominant groundcover found throughout the proposed Project area in riparian areas and has densities in some areas over 50%. Non-native trees within the riparian corridor include black locust (*Robinia pseudoacacia)*. Large black locust trees dominate the upper canopy in the northern portion of the creek and have created a shrub-like layer in some areas with dense sapling regeneration.

In 2003, as part of a previous Sierra Streams Institute restoration project, native species were planted along Little Deer Creek's riparian banks. Some of these plants still surviving on site include spicebush (*Calycanthus occidentalis*), Oregon ash (*Fraxinus latifolia)*, creek/American dogwood (*Cornus sericea*), western redbud (*Cercis occidentallis*), ninebark (*Physocarpus capitate*), wood rose (*Rosa woodsia*) and mountain mahogany (*Cerocarpus betuloides*). Species planted on site are noted in Table 3.4.1.

A complete plant list of species observed during baseline biological field surveys/habitat assessments can be found in Table 3.4.1.

Table 3.4-1 Plant species observed on May 2 and July 10, 2016, during baseline biological field surveys and habitat assessment for the Little Deer Creek Restoration and Flood Control Project, Nevada County, California.

common name	Scientific name	Status
American pokeweed	***Phytolacca Americana***	Not FESA, CESA, or CNPS listed
arroyo willow	*Salix lasiolepis*	Not FESA, CESA, or CNPS listed
Baltic rush*	*Juncus balticus*	Not FESA, CESA, or CNPS listed
beaked hazelnut	*Corylus cornuta* ssp. *californica*	Not FESA, CESA, or CNPS listed
Bermuda grass	***Cynodon dactylon***	Not FESA, CESA, or CNPS listed
big leaf maple*	*Acer macrophyllum*	Not FESA, CESA, or CNPS listed
black oak	*Quercus kelloggii*	Not FESA, CESA, or CNPS listed
black locust	***Robinia pseudoacacia***	Not FESA, CESA, or CNPS listed
black mustard	***Brassica nigra***	Not FESA, CESA, or CNPS listed
box elder*	*Acer negudo*	Not FESA, CESA, or CNPS listed
California grape*	*Vitis californica*	Not FESA, CESA, or CNPS listed
California pipevine*	*Aristolochia californica*	Not FESA, CESA, or CNPS listed
California wood fern/shield fern	*Dryopteris arguta*	Not FESA, CESA, or CNPS listed
canyon live oak	*Quercus chrysolepis*	Not FESA, CESA, or CNPS listed

common name	Scientific name	Status
coffeeberry*	*Frangula californica*	Not FESA, CESA, or CNPS listed
common timothy grass	***Phleum pretense***	Not FESA, CESA, or CNPS listed
common buttonbrush *	*Cephalanthus occidentalis*	Not FESA, CESA, or CNPS listed
common dandelion	***Taraxacum officinale***	Not FESA, CESA, or CNPS listed
common plantain	***Plantago major***	Not FESA, CESA, or CNPS listed
creek/American dogwood*	*Cornus sericea*	Not FESA, CESA, or CNPS listed
cultivated apple	***Malus species***	Not FESA, CESA, or CNPS listed
curly dock	***Rumex crispus***	Not FESA, CESA, or CNPS listed
cut leaved blackberry	***Rubus laciniatus***	Not FESA, CESA, or CNPS listed
deerbrush*	*Ceonothus integerrimus*	Not FESA, CESA, or CNPS listed
dog rose	***Rosa canina***	Not FESA, CESA, or CNPS listed
Douglas fir	*Pseudotsuga menziesii*	Not FESA, CESA, or CNPS listed
English walnut	***Juglans regia***	Not FESA, CESA, or CNPS listed
field horsetail	*Equisetum arvense*	Not FESA, CESA, or CNPS listed
Fremont cottonwood*	*Populus fremontii var. fremonitii*	Not FESA, CESA, or CNPS listed
garden burnet	***Poteriumsanguisorba***	Not FESA, CESA, or CNPS listed
harding grass	***Phalaris aquatica***	Not FESA, CESA, or CNPS listed
hedgehog dogtail grass	***Cynosurus echinatus***	Not FESA, CESA, or CNPS listed
Himalayan blackberry	***Rubus armeniacus***	Not FESA, CESA, or CNPS listed
hoary coffeeberry*	*Frangula californica ssp. tomentella*	Not FESA, CESA, or CNPS listed
incense cedar	*Calocedrus decurrens*	Not FESA, CESA, or CNPS listed
Kentucky bluegrass	***Poa pratensis***	Not FESA, CESA, or CNPS listed
mountain mahogany*	*Cerocarpus betuloides*	Not FESA, CESA, or CNPS listed
mountain/pacific dogwood	*Cornus nuttalii*	Not FESA, CESA, or CNPS listed
narrow leaved plantain	***Plantago lanceolata***	Not FESA, CESA, or CNPS listed
narrow leaved/sandbar willow	*Salix exigua*	Not FESA, CESA, or CNPS listed
ninebark*	*Physocarpus capitata*	Not FESA, CESA, or CNPS listed
Norway maple	***Acer platanoides***	Not FESA, CESA, or CNPS listed
orchard grass	***Dactylis glomerata***	Not FESA, CESA, or CNPS listed
Oregon ash*	*Fraxinus latifolia*	Not FESA, CESA, or CNPS listed
Pacific madrone	*Arbutus menziesii*	Not FESA, CESA, or CNPS listed
Pacific willow	*Salix lasiandra*	Not FESA, CESA, or CNPS listed
perennial sweet pea	***Lathyrus latifolius***	Not FESA, CESA, or CNPS listed
periwinkle	***Vinca major***	Not FESA, CESA, or CNPS listed
ponderosa pine	*Pinus ponderosa*	Not FESA, CESA, or CNPS listed

common name	Scientific name	Status
prickly lettuce	***Lactuca serriola***	Not FESA, CESA, or CNPS listed
red/polished willow	*Salix laevigata*	Not FESA, CESA, or CNPS listed
reed canarygrass	***Phalaris arundinacea***	Not FESA, CESA, or CNPS listed
rescuegrass	***Bromus catharticus***	Not FESA, CESA, or CNPS listed
rough cats ear	***Hypochaeris radicata***	Not FESA, CESA, or CNPS listed
salsify	***Tragopogon* sp.**	Not FESA, CESA, or CNPS listed
self-heal	***Prunella vulgaris***	Not FESA, CESA, or CNPS listed
single seeded hawthorn	***Crataegus monogyna***	Not FESA, CESA, or CNPS listed
snowberry*	*Symphoriocarpus alba*	Not FESA, CESA, or CNPS listed
Spanish lotus	*Acmispon americanus*	Not FESA, CESA, or CNPS listed
spearmint	***Mentha spicata***	Not FESA, CESA, or CNPS listed
spicebush*	*Calycanthus occidentalis*	Not FESA, CESA, or CNPS listed
tall flatsedge	*Cyperus eragrostis*	Not FESA, CESA, or CNPS listed
thimbleberry	*Rubus parviflorus*	Not FESA, CESA, or CNPS listed
velvet grass	***Holcus lanatus***	Not FESA, CESA, or CNPS listed
Virginia creeper	***Parthenocissus quinquefolia***	Not FESA, CESA, or CNPS listed
western redbud*	*Cercis occidentallis*	Not FESA, CESA, or CNPS listed
white alder*	*Alnus rhombifolia*	Not FESA, CESA, or CNPS listed
wild oats	***Avena barbata***	Not FESA, CESA, or CNPS listed
wood rose*	*Rosa woodsii*	Not FESA, CESA, or CNPS listed
yarrow*	*Achillea millefolium*	Not FESA, CESA, or CNPS listed
Bold = Non-native plant species * = Some individuals may have been planted during restoration project by Sierra Streams Institute in 2003		

3.4.2.4.2 Terrestrial Wildlife Community

During the wildlife field survey and habitat assessment conducted on June 15, 2016, 15 bird species were observed singing and foraging within or immediately adjacent to the proposed Project area, including the Little Deer Creek riparian corridor, Pioneer Park picnic area, and adjacent residential gardens: Anna's hummingbird, northern flicker, brown creeper, black phoebe, Pacific-slope flycatcher, American robin, mountain chickadee, Bewick's wren, spotted towhee, California towhee, dark-eyed junco, black-headed grosbeak, band-tailed pigeon, Steller's jay, and common raven. All bird species observed in this survey are native species, and none are considered special-status species. Breeding evidence was present for several of these species. Fledglings were observed with four of these species in the riparian habitat: black phoebe, black-headed grosbeak, dark-eyed junco and spotted towhee. An American robin nest was visible in a private garden adjacent to the riparian corridor, and a California towhee was observed carrying its insect prey toward a nest at the edge of the park's picnic area.

Leaders of the Audubon Society Breeding Bird Atlas for Nevada County, Steve and Diane Rose, documented the following 40 bird species in Pioneer Park and surrounding residential neighborhoods in two post-breeding late summer surveys (July 26 and August 10, 2014): Canada goose, California quail, turkey vulture, red-shouldered hawk, band-tailed pigeon, Anna's hummingbird, Nashville warbler, hermit warbler, red-breasted sapsucker, Nuttall's woodpecker, downy woodpecker, hairy woodpecker, western wood-pewee, Pacific-slope flycatcher, black phoebe, Hutton's vireo, Steller's jay, western scrub-jay, American crow, common raven, mountain chickadee, chestnut-backed chickadee, bushtit, red-breasted nuthatch, white-breasted nuthatch, brown creeper, Bewick's wren, golden-crowned kinglet, western bluebird, American robin, orange-crowned warbler, dark-eyed junco, song sparrow, California towhee, spotted towhee, western tanager, black-headed grosbeak, brown-headed cowbird, house finch, and lesser goldfinch (eBird 2016). One of these species is considered special-status: the Nuttall's woodpecker is a USFWS-designated Bird of Conservation Concern. The majority of the observed species are native to the area; only the brown-headed cowbird is not native to the region (although it is native to the U.S.). Eleven of the Rose's observations included recently fledged young, which suggests that their nests may have been relatively close to the proposed Project area: song sparrow, red-breasted sapsucker, downy woodpecker, dark-eyed junco, spotted towhee, black-headed grosbeak, American robin, American crow, brown-headed cowbird, western scrub-jay, and Steller's jay. Steve and Diane Rose also documented the following additional species using Pioneer Park and the surrounding residential neighborhoods in the winter non-breeding season (with surveys on December 18, 2014, and January 3, 2015): varied thrush, oak titmouse, house wren, Pacific wren, hermit thrush, fox sparrow, golden-crowned sparrow, and pine siskin (eBird 2016). All of these winter observations are of native species; the oak titmouse is also a USFWS-designated Bird of Conservation Concern.

Native mammal and reptile species with potential to forage in the proposed Project area (though not observed during site surveys) include common species tolerant of recreational and residential human disturbance, such as the western fence lizard (*Sceloporus occidentalis*), California alligator lizard (*Elgaria multicarinata multicarinata*), western grey squirrel (*Sciurus griseus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), North American deer mouse (*Peromyscus maniculatus*),and the non-native house mouse (*Mus musculus*) and black rat (*Rattus rattus*).

Table 3.4-2 Bird species observed on five survey dates in 2014-2016 at the Little Deer Creek Restoration and Flood Control Project site and surrounding residential neighborhood, Nevada County, California.

common name	*Scientific name*	Status
American crow	*Corvus brachyrhynchos*	Protected by MBTA
American robin	*Turdus migratorius*	Protected by MBTA
Anna's hummingbird	*Calypte anna*	Protected by MBTA
band-tailed pigeon	*Patagioenas fasciata*	Protected by MBTA
Bewick's wren	*Thryomanes bewickii*	Protected by MBTA

common name	*Scientific name*	Status
black phoebe	*Sayornis nigricans*	Protected by MBTA
black-headed grosbeak	*Pheucticus melanocephalus*	Protected by MBTA
brown creeper	*Certhia americana*	Protected by MBTA
brown-headed cowbird	*Molothrus ater*	Not native to CA; protected by MBTA
bushtit	*Psaltriparus minimus*	Protected by MBTA
California quail	*Callipepla californica*	Not protected by MBTA
California towhee	*Melozone crissalis*	Protected by MBTA
Canada goose	*Branta canadensis*	Protected by MBTA
chestnut-backed chickadee	*Poecile rufescens*	Protected by MBTA
common raven	*Corvus corax*	Protected by MBTA
dark-eyed junco	*Junco hyemalis*	Protected by MBTA
downy woodpecker	*Picoides pubescens*	Protected by MBTA
fox sparrow	*Passerella iliaca*	Protected by MBTA
golden-crowned kinglet	*Regulus satrapa*	Protected by MBTA
golden-crowned sparrow	*Zonotrichia atricapilla*	Protected by MBTA
hairy woodpecker	*Picoides villosus*	Protected by MBTA
hermit thrush	*Catharus guttatus*	Protected by MBTA
hermit warbler	*Setophaga occidentalis*	Protected by MBTA
house finch	*Haemorhous mexicanus*	Protected by MBTA
house wren	*Troglodytes aedon*	Protected by MBTA
Hutton's vireo	*Vireo huttoni*	Protected by MBTA
lesser goldfinch	*Spinus psaltria*	Protected by MBTA
mountain chickadee	*Poecile gambeli*	Protected by MBTA
Nashville warbler	*Oreothlypis ruficapilla*	Protected by MBTA
northern flicker	*Colaptes auratus*	Protected by MBTA
Nuttall's woodpecker	*Picoides nuttallii*	Protected by MBTA; also BCC
oak titmouse	*Baeolophus inornatus*	Protected by MBTA; also BCC
orange-crowned warbler	*Oreothlypis celata*	Protected by MBTA
Pacific wren	*Troglodytes pacificus*	Protected by MBTA
Pacific-slope flycatcher	*Empidonax difficilis*	Protected by MBTA
pine siskin	*Spinus pinus*	Protected by MBTA
red-breasted nuthatch	*Sitta canadensis*	Protected by MBTA
red-breasted sapsucker	*Sphyrapicus ruber*	Protected by MBTA
red-shouldered hawk	*Buteo lineatus*	Protected by MBTA
song sparrow	*Melospiza melodia*	Protected by MBTA

common name	*Scientific name*	Status
spotted towhee	*Pipilo maculatus*	Protected by MBTA
Steller's jay	*Cyanocitta stelleri*	Protected by MBTA
turkey vulture	*Cathartes aura*	Protected by MBTA
varied thrush	*Ixoreus naevius*	Protected by MBTA
western bluebird	*Sialia mexicana*	Protected by MBTA
western scrub-jay	*Aphelocoma californica*	Protected by MBTA
western tanager	*Piranga ludoviciana*	Protected by MBTA
western wood-pewee	*Contopus sordidulus*	Protected by MBTA
white-breasted nuthatch	*Sitta carolinensis*	Protected by MBTA
MBTA = federal Migratory Bird Treaty Act; BCC = USFWS Bird of Conservation Concern		

3.4.2.4.3 Aquatic Biotic Community

No amphibians were observed during the wildlife field survey conducted on June 15, 2016. Pacific chorus frogs (*Pseudacris regilla*), however, are ubiquitous in the region and have been observed foraging in the Project area on other dates by SSI staff. This species may also breed on site in small numbers, but the instream habitat is not ideal for chorus frog breeding due to the sparseness of emergent vegetation and the lack of still pools. Non-native American bullfrogs (*Lithobates catesbeianus*) also have potential to forage on site, but are unlikely to breed on site for the same reasons.

Three species of garter snakes reside in the region and have potential to forage in the proposed Project area, although they were not observed during site surveys: valley garter snake (*Thamnophis sirtalis fitchi*), Sierra garter snake (*Thamnophis couchii*) and mountain garter snake (*Thamnophis elegans elegans*). However, due to the lack of suitable nursery habitat with slow water and the concealment provided by fine-stemmed emergent vegetation, these species are unlikely to rear young in the proposed Project area.

Fish species observed in Little Deer Creek within the proposed Project area include native rainbow trout (*Oncorhynchus mykiss*) and nonnative brown trout (*Salmo trutta*). Other small, non-special-status fish species such as Sacramento sucker (*Catostomus occidentalis*) are also likely to occur there. Fish habitat is currently of limited quality in the proposed Project area due to the concrete presence and the limited structural complexity of benthic and riparian conditions. Anadromous species are prevented from reaching the site by anthropogenic dams and natural barriers several miles downstream from the proposed Project area.

The Site Characterization Report for the proposed Project notes that, based on biannual monitoring from 2001-2011, the benthic macroinvertebrate community of Little Deer Creek is currently characterized by "marginal" ecological health at the proposed Project site, with an Index of Biotic Integrity (IBI) score of 19.8, substantially lower than the 24.3 "good" IBI score

upstream of Pioneer Park (Bell 2012). An average of 20 aquatic macroinvertebrate taxonomic families have been recorded at the site during monitoring visits, ranging from 12-28 families documented per visit from 2001-2011 (SSI 2016).

3.4.2.4.4 Special-status Species

Special-status species include plants and animals that are legally protected or are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. Special-status species addressed in this section include:

- Species listed, proposed for listing, or considered candidates for listing as threatened or endangered under the federal and/or California Endangered Species Acts (ESA or CESA);
- Species identified by CDFW as California Species of Special Concern;
- Animals listed as Fully Protected in California under the California Fish and Game Code;
- Bird species designated by USFWS as Birds of Conservation Concern (BCC);
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Plants designated by the California Native Plant Society (CNPS 2016) as List 1B (plants rare, threatened or endangered in California and elsewhere) or List 2 (plants rare, threatened or endangered in California but more common elsewhere);
- Species that meet the definitions of "rare" or "endangered" under CEQA Guidelines, Section 15380; and
- Species designated as "special animals" or plants and animals "of greatest conservation need" by CDFW through the CNDDB.

An evaluation of the potential for special-status species to occur within or adjacent to the proposed Project area was conducted based on the desktop analysis and field studies described in the Methods section 3.4.2.3. A list of regionally occurring special-status species was compiled based on a review of pertinent literature, the results of the field assessment, and the review of the species lists compiled from the databases from USFWS, CDFW CNDDB, and CNPS. For each plant and wildlife species, habitat requirements were assessed and compared to the habitats in the proposed Project area, and in adjacent areas.

Figure 3.4.1 shows the locations of special-status species occurrences documented by CNDDB within five miles of the proposed Project area. Tables 3.4-3 and 3.4-4 list these species and others that were evaluated for their potential to occur on site. Conclusions in Tables 3.4-3 and 3.4-4regarding the potential for species occurrence were based on the background research, database searches, and local habitat suitability as assessed in the field. For each evaluated

species, the "potential for occurrence" in the proposed Project area is defined in the tables as follows:

- **Very Low to Nil:** The proposed Project area and/or immediate area does not support suitable habitat for the species and/or the Project area is outside the species' known geographic range.
- **Low:** The proposed Project area and/or immediate area only provides limited habitat for the species and/or the Project area may be outside the species' known geographic range.
- **Moderate:** The proposed Project area and/or immediate area provides suitable habitat for the species and the Project area is located within the species' known geographic range.
- **High:** The proposed Project area and/or immediate area provides ideal habitat conditions for the species and/or known populations occur in the immediate area.
- **Known Occurrence:** Recorded historically and/or observed on site during biological surveys for the proposed Project.

Species with a known occurrence or moderate or high potential to occur in the proposed Project area are further described in the species accounts following, Tables 3.4-3 and 3.4-4 and are included in the impact analysis checklist at the end of this section.

3.4.2.4.5 Special-status Plants

Of the 33 special-status plant species identified in the region from a surrounding nine-quad search (CNPS 2016), 21 species were found to have Very Low to Nil potential to occur within the proposed Project area, and the remaining 12 were determined to have Low potential to occur (Table 3.4.3).

Based on the review of habitat requirements and the results of field surveys and assessments, the proposed Project area provides Very Low to Nil and Low potential suitable habitat for the special-status plant species identified within the desktop analysis (Table 3.4.3). Eight special-status plants have been known to occur within five miles of the project boundary (Figure 3.4.1), however no special-status species were observed in the proposed Project area. Due to the absence of mesic meadow, seep, and marsh habitat, and due to the low quality of riparian habitat on site, the wetland-associated Cantelow's lewisia(*Lewisia cantelovii*), Scadden Flat checkerbloom (*Sidalcea stipularis*), brownish beaked-rush (*Rhynchospora capitellata*), and finger rush (*Juncus digitatus*) have Very Low to Nil potential to occur within the Project area. Due to soil compaction, erosion, recreational use and park maintenance within the coniferous portion of the proposed Project area, the forest-associated Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*), Butte County fritillary (*Fritillaria eastwoodiae*), and dubious pea (*Lathyrus sulphureus* var. *argillaceus*) have Low potential for occurrence at the site. There is Very Low to Nil

potential for Pine Hill flannelbush (*Fremontodendron decumbens*) to occur on site due to the absence of gabbro and/or serpentine soils.

One black oak, with a 16 inch DBH, is located on the south side of the proposed Project area. One canyon live oak (*Quercus chrysolepis*) with a five inch DBH is also present in the same location. The DBH and canopy cover of these two trees, the largest found on site, do not qualify them as heritage oaks. As part of Best Management Practices, they will be protected anyway.

Table 3.4-3 Special-status plant species and their potential to occur in the Little Deer Creek Restoration and Flood Control Project, Nevada County, California.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Ahart's buckwheat *Eriogonum umbellatum* var. *ahartii*	--	S3	1B.2	1,312-6,562 feet (400-2,000 meters); Not known in Nevada County. Known from occurrences in Butte, Plumas, and Yuba Counties	Chaparral, cismontane woodland; Serpentinite slopes and openings	June-September	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within five miles of Project area.
Bacigalupi's yampah *Perideridia bacigalupii*	--	S3	4.2	1,476- 3,396 feet (450-1035 meters)	Chaparral; lower montane coniferous/yellow pine forests; serpentine	July-August	Low: Limited suitable habitat in the Project area due to absence of serpentine soils; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae* *	--	S4	4.2	246- 3,001 feet (75-915 meters); Many documented occurrences in woodland openings and road cuts at South Yuba, Middle Yuba corridors near Hwy 49, Indian Flat, Bear River near Hwy 49, Rollins Lake, Edwards Xing, Purdon Rd, Cement Hill, Dog Bar and Mt Olive Roads, Lake of the Pines and Alta Sierra.	Chaparral; cismontane woodland; lower montane coniferous forests; Often on colluvium of road cuts where soils are uncompacted, light is abundant, and there is less competition from shrubs and trees	May-July	Low: Limited suitable habitat in the Project Area; impacts include compaction, erosion, and non-native invasive plants. Known occurrences within 5 miles of the Project *area.*
Brownish beaked-rush *Rhynchospora capitellata* *	--	S1	2B.2	114- 5,610 feet (35-1,710 meters); State Route 20 in Grass Valley marshy area in County Fairgrounds	Lower and upper montane coniferous forests in mesic sites; seeps/marshes/swamps	July-August	Very Low to Nil: No suitable habitat in the Project area due to absence of meadows, seeps, marshes, swamps. *Known occurrences within 5 miles of the Project area.*
Butte County fritillary *Fritillaria eastwoodiae* *	--	S3	3.2	164- 4,921 feet (50-1,500 meters); Four documented occurrences in Washington Ridge and North Bloomfield areas; South of the Yuba River and west of Devils Slide about four air miles northwest of Nevada City. Large population on Cement Hill	Chaparral; cismontane woodland; lower montane coniferous forest; Dry slopes, occasionally moist, generally filtered light; Throughout its range, occurs on a wide variety of soil types and depths.	March - May	Low: Limited suitable habitat in the Project area; impacts include compaction, erosion, and non-native invasive plants. *Known occurrences within 5 miles of the Project area.*

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
California lady's slipper *Cypripedium californicum*	--	S3.2	4.2	98- 9,022 feet (30-2,750 meters)	Lower montane coniferous/yellow pine forests; wetlands; seeps/bogs/fens; stream banks; serpentine.	April-September	Very Low to Nil: No suitable habitat in the Project area due to absence of meadows, seeps, marshes, swamps, and serpentine; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
California pitcherplant *Darlingtonia californica*	--	S3.2	4.2	0- 8,480 feet (0-2,585 meters)	Douglas-fir/ red fir/yellow pine forests; wetlands; riparian; meadows, seeps/bogs/fens; serpentine.	April-July	Very Low to Nil: No suitable habitat in the Project area due to absence of seeps, bogs, fens, and serpentine; impacts include compaction, erosion, and non-native invasive plants; No known occurrences within 5 miles of the Project area

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Cantelow's lewisia *Lewisia cantelovii* *	--	S3	1B.2	1,083- 4,495 feet (330-1,370 meters), Many documented occurrences on the Middle and South Yuba rivers and tributaries. No known occurrences outside of these major drainages; Near Edwards and HWY 49 river crossing.	Broad-leafed upland forests; cismontane woodland; lower montane coniferous/yellow pine/mixed evergreen forests; chaparral; granitic; serpentine seeps; riparian; wetlands; mesic rock outcrops and wet cliffs, usually in moss or clubmoss; generally on metasedimentary rock	May-October	Very Low to Nil: No suitable habitat in the Project area due to absence of mesic rock outcrops and wet cliffs; impacts include compaction, erosion, and non-native invasive plants. Known occurrences within 5 miles of the Project area.
Chaparral sedge *Carex xerophila*	--	1B.2	S2S3	1,444-2,526 feet (440-770 meters)	Chaparral, cismontane woodland, lower montane coniferous forest on serpentine/gabbro soils.	March-June	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine or gabbro soils. No known occurrences within 5 miles of the Project area.
Congdon's onion *Allium sanbornii* var. *congdonii*	--	S3.3	4.3	984- 3,248 feet (300-990 meters)	Cismontane/foothill woodlands; yellow pine forests; chaparral; serpentine and volcanic soils	May-July	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine or gabbro soils. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Dubious pea *Lathyrus sulphureus var. argillaceus* *	--	S1S2	3	492- 3,051 feet (150-930 meters), Historic collection near Lime Kiln and Wolf Roads in western Nevada County recently rediscovered.; Only other occurrences in Shasta and Tehama Counties	Cismontane woodland; lower and upper montane coniferous forests; Full sun to part shade, woodland openings	April-May	Low: Limited suitable habitat in the Project area; dense upper tree canopy; impacts include compaction, erosion, and non-native invasive plants. Known occurrences within 5 miles of the Project area.
Elongate copper moss *Mielichhoferia elongata*	--	2B.2	S2	1,640- 4,265 feet (500-1,300 meters); Known from occurrences in Nevada City, Dutch Flat, and Washington USGS quads	Cismontane woodland; rocky outcrops; vernally mesic rock outcrops of metamorphic origin; usually in higher portions of fens	Year-round	Very Low to Nil: No suitable habitat in the Project area due to absence of suitable mesic habitat. No known occurrences within 5 miles of the Project area.
Felt-leaved violet *Viola tomentosa*	--	S3.2	4.2	4,708-6,561 feet (1,435-2,000meters)	Lower and upper cismontanesubalpine coniferous/ yellow/Lodgepole pine forests	May-October	Very Low to Nil: No suitable habitat in the Project area due to absence of preferred forest type. Project area is outside the species known elevation range. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Finger rush *Juncus digitatus* *	--	S1	1B.1	2,165- 2,592 feet (660-790 meters); Known from an occurrence in Grass Valley, southeast of the Idaho Maryland and Brunswick Road intersection	Cismontane woodlands, lower montane coniferous forests; full sun, vernally damp ground of seeps, vernal pools, and swales on gentle slopes over volcanic bedrock	April-June	Very Low to Nil: No suitable habitat in the Project area due to absence of suitable mesic habitats; vernal pools, swales, and volcanic seeps, and sunny openings. Known occurrences within 5 miles of the Project area.
Follett's monardella *Monardella folletti*	--	S2	1B.2	2,165- 6,562 feet (600-2,000 meters)	Lower montane coniferous, yellow pine forests; rocky, serpentine soils	June-September	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine soils. No known occurrences within 5 miles of the Project area.
Giant checkerbloom *Sidalcea gigantea*	--	S3	4.3	2,198- 6,397 feet (670-1,950 meters)	Meadows; seeps; lower and upper montane coniferous forests	June-October	Very Low to Nil: No suitable habitat in the Project area due to absence of meadows and seeps; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Humboldt lily *Lilium humboldtii* ssp. *humboldtii*	--	S3.2	4.2	295- 4,199 feet (90-1,280 meters)	Chaparral; cismontane/foothill woodlands; lower montane coniferous/yellowpine forests; openings	March-July	Low: Limited suitable habitat in the Project area; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
Inundated bog club-moss *Lycopodiella inundata*	--	S1	2B.2	16- 3,281 feet (5-1,000 meters); In Nevada County, occurs in "diggins wetlands," usually mineralized, persistent bogs in hydraulic mining areas.	Lower montane coniferous/yellow pine forests; northern coastal scrub; freshwater wetlands/ marshes/ swamps	June-September	Very Low to Nil: No suitable habitat in the Project area due to absence of suitable mesic habitat. No known occurrences within 5 miles of the Project area.
Layne's ragwort *Packera layneae*	T	R-S2	1B.2	656-3,280 feet (200- 1,000 meters), Known from occurrences in Challenge, Clipper Mills, Pilot Hill, and Rackerby quadrangles	Chaparral, cismontane woodland; Rocky serpentine or gabbro soils	April-July	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine or gabbro soils. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Long-fruit jewel-flower *Streptanthus longisiliquus*	--	S3.3	4.3	2,346- 4,921 feet (715-1,500 meters)	Cismontane woodland; lower montane coniferous forest; openings	April-September	Low Potential: Limited suitable habitat in the Project area; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
Minute pocket moss *Fissidens pauperculus*	--	S2	1B.2	10 – 1,024 meters	North Coast coniferous forest (damp coastal soil)	Year-round	Very Low to Nil: No suitable habitat in the Project area due to absence of suitable mesic habitat. No known occurrences within 5 miles of the Project area
Northern Sierra wildflower *Erigeron petrophilus* var. *sierrensis*	--	S3.3	4.3	984-6,801 feet (300-2,073 meters)	Cismontane/foothill woodlands; lower and upper montane coniferous forests; serpentine or granite, in non-wetlands	June-October	Low: Limited suitable habitat in the Project area due to absence of serpentine and suitable granite soils; impacts include compaction, erosion, and non-native invasive plants; No known occurrences within 5 miles of the Project area

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Pine Hill flannelbush *Fremontodendron decumbens* *	E	S1	1B2	1,394- 2,493 feet (425-760 meters); Known from fewer than 10 occurrences in Pine Hill area of El Dorado County and two in Nevada County; north of Bennet Road about 0.4 miles east of the Elm Ridge Cemetery, Grass Valley.	Chaparral; cismontane Woodland; Gabbro and serpentine endemic; local occurrences on Secca soil series, gabbro soils and on Dubakella series serpentines	April-July	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine or gabbro soils. *Known occurrences within 5 miles of the Project area.*
Sanborn's onion *Allium sanbornii* var. *sanbornii*	--	S4	4.2	853- 4,954 feet (260-1,510 meters); Documented on Sutton Way and Loma Rica serpentines, Hell's Half Acre lava cap, American Ranch Hill grabbo.	Serpentine or gravelly outcrops in chaparral; cismontane, foothill woodlands; yellow pine, lower montane coniferous forests;	May-September	Very Low to Nil: No suitable habitat in the Project area due to absence of serpentine or gabbro soils. No known occurrences within 5 miles of the Project area
Scadden Flat checkerbloom *Sidalcea stipularis* *	--	E	1B.1	2,296- 2,395 feet (700-730 meters), State Route 20 at Scadden Flat	Wet montane marshes and swamps fed by springs	July-August	Very Low to Nil: No suitable habitat in the Project area due to absence of mesic habitats, meadows and seeps; impacts include compaction, erosion, and non-native invasive plants. *Known occurrences within 5 miles of the Project area.*

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Sierra arching sedge *Carex cyrtostachya*	--	S2S3	1B.2	2,000-4,462 feet (610 – 1,360 meters)	Lower montane coniferous forest; mesic, meadows, seeps, marshes and swamps; riparian forest	May-August	Low: Limited suitable habitat in the Project area due to absence of mesic habitats, meadows and seeps; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
Sierra blue grass *Poa sierrae*	--	S2S3	1B.3	1,197- 4,921 feet (365-1500 meters)	Openings; lower montane coniferous forest	April-June	Low: Limited suitable habitat in the Project area; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Sierra clarkia *Clarkia virgata*	--	S3.3	4.3	1,310- 5,300 feet (400-1,615 meters)	Cismontane/ foothill woodland; lower montane coniferous/ yellow pine forest	May-August	Low: Limited suitable habitat in the Project area; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
Sierra foothills brodiaea *Brodiaea sierrae*	--	S3	4.3	164- 3100 feet (50-945 meters)	Chaparral; cismontane woodland; serpentine/gabbro	May-August	Low: Limited suitable habitat in the Project area due to absence of serpentine or gabbro; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area.
Stebbins' morning-glory *Calystegia stebbinsii*	E	CE, S1	1B.1	606- 3,576 feet (185-1,090 meters); Known in Nevada County from only a few occurrences in McCourtney Road-Wolf Mountain and Deadman's Flat area chaparral	Chaparral; openings; cismontane/foothill woodlands; Soils of the Pine Hill gabbro formation (Eldorado Co), Rescue soil series gabbro and serpentine (Nevada Co.)	April-July	Very Low to Nil: Limited to no suitable habitat in the Project area due to absence of gabbro and serpentine soils. No known occurrences within 5 miles of the Project area

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				
Sticky pyrrocoma *Pyrrocoma lucida*	--	S3	1B.2	2,295- 6,400 feet (700-1,950 meters)	Lower montane coniferous, yellow pine forest; Great Basin scrub; meadows, seeps; alkaline and clay	July-October	Very Low to Nil: No suitable habitat in the Project area due to absence of scrub, meadows, soils. No known occurrences within 5 miles of the Project area
Thread-leaved beakseed *Bulbostylis capillaris*	--	S3.2	4.2	3,937- 6,807 feet (395-2,075 meters)	lower and upper montane coniferous, yellow pine forests; meadows, seeps/ wetlands; riparian	April-July	Very Low to Nil: Low: Limited suitable habitat in the Project area due to absence of mesic habitats, meadows and seeps; Project area outside of species known elevation range. No known occurrences within 5 miles of the Project area.
True's manzanita *Arctostaphylos mewukka* ssp. *truei*	--	S3.3	4.2	1,394- 4,560 feet (425-1,390 meters)	Chaparral; lower montane coniferous, yellow pine forests; roadsides	February-July	Low: Limited suitable habitat in the Project area due to dense tree canopy; impacts include compaction, erosion, and non-native invasive plants. No known occurrences within 5 miles of the Project area

Common name Scientific name	Legal status			Geographic distribution/Floristic province	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State	CNPS				

* = Plants with known occurrences within five miles of proposed Project area

Federal
E = Listed as endangered under the Federal Endangered Species Act
T = Listed as threatened under the Federal Endangered Species Act
-- = No listing

State
E = Listed as endangered under the California Endangered Species Act
R = Listed as rare under the California Native Plant Protection Act
CE = Candidate for listing as endangered under the California Endangered Species Act
S1 = Critically Imperiled
S2 = Imperiled
S3 = Vulnerable
S4 = Apparently Secure
S5 = Secure
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California
0.3 = Not very threatened in California

California Native Plant Society
1A = Plants presumed extirpated in CA and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in CA but more common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which more information is needed - a review list
4 = Plants of limited distribution - a watch list
Source: Calflora 2016, CDFW 2016e, CNPS 2016a, USFWS 2016a.

3.4.2.4.6 Special-status Wildlife

Seventeen special-status wildlife species were identified through background research as having the potential to occur in the broader region surrounding the proposed Project area (CDFW 2016e, USFWS 2016a, Figure 3.4.1, Table 3.4.4). The proposed Project area was surveyed and evaluated to determine habitat suitability and the level of potential occurrence for each special-status species. Based on desktop analysis, habitat assessment, and field surveys completed June 15, 2016, a total of seven special-status wildlife species have the potential to occur within the proposed Project area(Table 3.4.4). Two special-status wildlife species were documented within the Project area, three special-status species were determined to have moderate potential to occur on site, and two special-status wildlife species were determined to have low potential to occur on site (Table 3.4.4). A discussion of each of the seven special-status species either known to occur or with moderate or low potential to occur in the proposed Project area can be found below Table 3.4.4. Due to their high profile and SSI's commitment to protecting special-status amphibians, the California red-legged frog (*Rana draytonii*) and the foothill yellow-legged frog (*Rana boylii*), two additional species with Very Low to Nil potential to occur in the Project area, are also discussed following Table 3.4.4.

Table 3.4-4 Special-status fish and wildlife species and their potential to occur in the Little Deer Creek Restoration and Flood Mitigation Project area, Nevada County, California.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Invertebrates						
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T	--	California Central Valley and foothills below 3,280 ft (1,000 m) elevation	Elderberry shrubs, typically in riparian habitats	Year-round	Very Low to Nil. No suitable habitat within Project area. No elderberry shrubs present. No known occurrences within 5 mi (8 km) of Project area or nine surrounding USGS quads.
Vernal pool fairy shrimp *Branchinecta lynchi*	T	--	West of the Sierra Nevada	Vernal pools and other seasonal wetlands in valley and foothill grasslands	Winter/spring (adults)	Very Low to Nil. No suitable habitat within Project area. No vernal pools or seasonal wetlands present. No known occurrences within 5 mi (8 km) of Project area or four surrounding USGS quads.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Vernal pool tadpole shrimp *Lepidurus packardi*	E	--	California Central Valley	Vernal pools and other seasonal wetlands in valley and foothill grasslands	Winter/spring (adults)	Very Low to Nil. No suitable habitat within Project area. No vernal pools or seasonal wetlands present. No known occurrences within 5 mi (8 km) of Project area or four surrounding USGS quads.
Western bumble bee *Bombus occidentalis*	--	CNDDB	North America west of the Great Plains	Grasslands, urban parks and gardens, chaparral, and mountain meadows with long-season nectar/pollen sources and abandoned rodent burrows for nesting and hibernaculae	February through November, with late summer peak	Moderate. Project area and surrounding neighborhood may provide suitable foraging habitat. However, paved surfaces, compacted soil/turf and recreational disturbance limit the suitability of potential nest sites and hibernacula on site. Documented by CNDDB within 5mi (8km) of Project area.
Fish						
Central Valley spring-run Chinook salmon *Oncorhynchus tshawytscha*	T	T	Sacramento River and tributaries	Spawn in freshwater streams with cool, well-oxygenated water; immature fish remain for additional months in suitable rearing habitats	Dependent on tributary	Nil. The Project area is out of this species' range, no known occurrences within 15 mi (24 km) of Project area, and impassable barriers to fish migration several miles downstream.
Central Valley steelhead *Oncorhynchus mykiss*	T	--	Sacramento and San Joaquin Rivers and their tributaries	Spawn in freshwater streams with cool, well-oxygenated water; immature fish remain for additional months in suitable rearing habitats	January-June (spawning)	Nil. The Project area is out of this species' range, no known occurrences within 15 mi (24 km) of Project area, and impassable barriers to fish migration several miles downstream.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Delta smelt *Hypomesus transpacificus*	T	E	From Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties	Estuaries, river channels, and tidally influenced backwaters. Spawn in shallow, fresh or slightly brackish water upstream of the mixing zone	March-June (spawning)	Nil. The Project area is out of this species' range, no known occurrences within 15 mi (24 km) of Project area, and impassable barriers to fish migration several miles downstream.
Amphibians						
California red-legged frog *Rana draytonii*	T	SSC	California Coast Ranges and west-slope foothills of the Sierra Nevada, usually below 3,936 ft (1,200 m) elevation	Lowland and foothill streams, marshes and ponds with slow, permanent water sources, including pools typically 3ft (1m) or more in depth, with dense shrubby or emergent riparian vegetation and upland refugia	Year-round	Very Low to Nil. No suitable habitat within Project area. Creek water is shallow and swift, with sparse riparian vegetation, very little emergent vegetation, and highly disturbed uplands. Nearest known occurrence is an isolated population 4.5 mi (7.2 km) from Project site, much farther than the average 492 ft (150 m) and maximum 0.9-1.7 mi (1.4-2.8 km)dispersal distance known for this species. Critical habitat is designated 2.5 mi (4km) north of the Project area, in the Rock Creek watershed north of Harmony Ridge. Only one additional isolated population is known within the surrounding USGS quads, located in the Challenge quad near Lake Oroville.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Foothill yellow-legged frog *Rana boylii*	--	SSC	California foothill streams from near sea level to 6,000 feet (1,830 meters) elevation	Shallow foothill streams with cobble or gravel substrate, riffles, pools, sunny banks or other basking resources, and minimum 15 weeks of water for larval development	Year-round	Very Low to Nil. On site habitat is of low quality, lacking slow pools for egg-laying and tadpole refugia, macroinvertebrate-rich riffles for adult foraging, or sunny banks/ boulders for basking and thermoregulation. Not observed in Deer Creek or Little Deer Creek throughout two years of SSI amphibian surveys and 20 years of SSI water quality surveys. Nearest known occurrences five mi (eight km) southeast of Project area in Greenhorn Creek and 5mi (8km) north and northwest in the South Yuba River.
Sierra Nevada yellow-legged frog *Rana sierrae*	E	T	East and west slopes of the northern Sierra Nevada and southern Cascade mountains, typically from 4,500-12,000 ft (1,371-3,657 m) elevation; rarely as low as 3,500 ft (1,067 m) in the Cascade portion of their range	Montane meadows, lakes and ponds that do not freeze to the bottom and that maintain water year-round; occasionally high-elevation streams with still or slow-moving pools for egg laying	Dependent on timing of snow/ice melt	Nil. Proposed Project site is 1,000 ft (305 m) lower in elevation than the edge of this species' geographic range, and most occurrences are well above 2,000 ft (610 m) higher than the Project site. Nearest critical habitat subunit 2-C (Black Buttes) is over 21 miles (40 km) east. Project site is not hydrologically connected to known species occurrences, and individuals of this species rarely move more than 3.3 ft (1 m) from water. On-site habitat is not suitable due to lack of slow pools.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Reptiles						
Western pond turtle *Emys marmorata*	UR	SSC	From sea level to 4,500 ft (1,371 m) in western California to the west slope of the Sierra Nevada	Ponds, marshes, slow-moving streams, lakes, sloughs, and irrigation/ drainage ditches; nest in nearby uplands with friable soils, low vegetation and minimal disturbance	February to November	Low. No suitable habitat within Project area for nesting, juvenile rearing, or hibernacula. Low-quality habitat within Project area for foraging adults. Documented by SSI 2mi (3.2 km) from Project area at Hirschman's Pond and by CNDDB within 4.5 mi (7.2 km) of Project area in the Rock Creek Watershed north of Harmony Ridge. Both populations separated from Project area by major highways and urban development.
Coast horned lizard *Phrynosoma blainvillii*	--	SSC	California's Central Valley, west-slope Sierra Nevada foothills, and central and southern Coast Ranges; Sierra populations typically below 2,000 ft (600 m) elevation but may extend up to 4,000 ft (1,200 m)	Variety of open habitats including chaparral, oak savannah, grassland, open-canopy conifer habitats, and riparian floodplains; friable soils for burrowing are essential for winter hibernacula, summer thermoregulation, and nesting	Spring through Autumn	Very Low to Nil. Suitable soils absent in Project area due to park turf compaction and urban pavement. Three occurrences documented by CNDDB 3-5 mi (4.8-8.0 km) of the Project area are within more suitable rural habitats.
Birds						
California black rail *Laterallus jamaicensis coturniculus*	BCC, MBTA	T, FP	Salt marshes and estuaries on the central California coast; foothill freshwater marshes and low-elevation wet meadows in the Sierra Nevada	Marshes, meadows and floodplains characterized by dense, fine-stemmed vegetation and shallow water (~1-inch depth preferred), bordered by upland flood refugia with shrubs or herbaceous cover	February to September, with peak detections April to June	Very Low to Nil. No suitable habitat within Project area. No marsh habitat present. Sole occurrence documented by CNDDB within 5 mi (8km) of the Project area was within more suitable habitat.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Yellow warbler *Setophaga petechia*	BCC, MBTA	SSC	Most of California except the high Sierra over 8,000 ft (2,500 m) elevation and the desert southeast. Extirpated from much of the Central Valley, where it was historically common.	Nests primarily in riparian areas dominated by willows, cottonwoods, sycamores, or alders; also wet meadows with willow patches; and to a lesser degree in montane chaparral and coniferous forests with substantial understory brush cover	April to September, with peak detections May to July	Moderate. Not observed on site and more likely to nest in riparian habitat with more cover and complexity and less disturbance than the Project site, but may forage on site during migration.
Yellow-breasted chat *Icteria virens*	MBTA	SSC	Coastal California, west-slope Sierra Nevada foothills, and eastern Sierra desert riparian habitats; Sierra foothill elevations are typically below 4,800 ft(1,450 m)	Nest and forage in riparian thickets of willow, wild grape, and other brushy tangles near water and dense understory in riparian woodland	April to September, with peak detections May to July	Moderate. Documented by SSI approximately 1.5 mi (2.4 km) downstream from the Project area on Deer Creek, but rarely occupies sites with riparian habitat as narrow and disturbed as the Project site. May occasionally pass through the site on migration.
Oak titmouse *Baeolophus inornatus*	BCC, MBTA	--	Western Sierra Nevada foothills, Sacramento Valley, and Coast Ranges of California, plus limited records on the Modoc Plateau	Primarily oak woodlands; also mixed conifer and riparian habitats with oak species present	Year-round	Known Occurrence. Adults documented by eBird within the Project area, although only during the winter non-breeding season. Very low to nil potential for nesting in the Project area due to the near-lack of oak trees on site.
Nuttall's woodpecker *Picoides nuttallii*	BCC, MBTA	--	Western Sierra Nevada foothills, Central Valley and Coast Ranges of California	Oak woodlands and riparian woodlands	Year-round	Known Occurrence. Adults documented by eBird within the Project area in 2014, in the late summer post-breeding season. Not observed by SSI in 2016 breeding season survey, but moderate potential to nest on site due to relatively low but viable habitat quality.

Common name *Scientific name*	Legal status		Geographic distribution	Preferred habitat	Identification period	Level of potential for occurrence within project area
	Federal	State				
Mammals						
Western red bat *Lasiurus blossevillii*	--	SSC	Western Sierra Nevada west to the California coast, with most occurrences in the Central Valley	Roosts primarily in trees, occasionally shrubs. Forages in a variety of habitats including grassland and urban, though most commonly in woodlands near water.	Present March through October, maternity roosts early May through late August	Low. Habitat quality and potential for maternity roosting is marginal. Not documented within 5 mi (8 km) of the proposed Project area, but bat species that roost in small groups are typically under-reported.

Federal
T = Listed as Threatened under the federal Endangered Species Act
UR = Under Review
BCC = Bird of Conservation Concern
MBTA = Protected under the Migratory Bird Treaty Act
-- = Not listed

State
T = Listed as Threatened under the California Endangered Species Act
FP = Fully Protected
SSC = California Species of Special Concern
-- = Not listed
Source: CDFW 2016e, eBird 2016, Fellers and Kleeman 2007, Lincoln 2016, USFWS 2016a, USFWS 2016b, USFWS 2016c

Western bumble bee (*Bombus occidentalis*)

Federal status: USFS Sensitive; State status: CNDDB Sensitive Species

Pollinator populations in general are of conservation concern, as many species are undergoing considerable declines and are vital to the preservation of natural ecosystems and human food supplies. The western bumble bee is a pollinator of particular concern, as this species has disappeared from large portions of its historical range and has undergone precipitous population declines in California since the 1990s (Hatfield *et al*. 2014, Thorp 2008). The habitat for this species includes open grassy areas, urban parks and gardens, chaparral and other shrub-dominated areas, and montane meadows (Williams *et al.* 2014). Western bumble bees are generalist foragers and have been reported feeding at a wide variety of flowering plants including forbs and shrubs in the Fabaceae, Asteraceae, Rhamnaceae, Rosaceae, and other families (Thorp *et al.* 1983). They require blooming sources of nectar and pollen throughout the colony's life cycle from early February to late November. Colonial nest sites and hibernation sites for over-wintering queens are typically located in abandoned rodent burrows or other underground cavities in friable soils (Evans *et al.* 2008), and occupied nest tunnels have been reported over 2 m long (MacFarlane *et al.* 1994). Threats to western bumble bees and other pollinators include the spread of invasive exotic pests and diseases by the commercial bumble bee industry and other anthropogenic sources, habitat destruction, habitat degradation by invasive plant species and altered fire/grazing regimes, pesticide use, and climate change.

Western bumble bees have a moderate potential to occur in the proposed Project area. This species has been documented by CNDDB within 5mi (8km) of the Project area (Figure 3.4.1). The proposed Project area and surrounding residential neighborhood may provide suitable foraging habitat for this species, although the paved surfaces, compacted soil/turf and recreational disturbance limit the suitability of potential nest sites and hibernacula on site.

California red-legged frog (*Rana draytonii)*

Federal status: Threatened; State status: Species of Special Concern

California red-legged frogs inhabit lowland and foothill streams, marshes and ponds with dense shrubby or emergent riparian vegetation and a permanent source of deep, still or slow moving water (Jennings and Hayes 1994). Most occurrences are below 3,936 ft (1,200 m) in elevation. The majority of the California red-legged frog life cycle is spent in still or slow-moving pools 3ft (1m) or more in depth that are shaded by low, overhanging branches (e.g., willows, alders) and concealed by emergent vegetation (e.g., cattails, sedges). Breeding pools are typically perennial, as they must remain inundated for a minimum of 11-20 weeks for tadpoles to complete larval development and metamorphose into adults. This species is highly vulnerable to predation, and most populations occur in habitats free of introduced aquatic predators such as bullfrogs (*Lithobates catesbeianus*), bass (*Micropterus* spp.), catfish (*Ameiurus* spp.) and mosquitofish (*Gambusia* spp.) (USFWS 2000, USFWS 2002). Small mammal burrows and moist leaf litter in well-vegetated riparian areas surrounding breeding pools provide important cover during

dispersal and refugia for aestivation (Jennings and Hayes 1994). Although California red-legged frogs were historically abundant throughout California, this species has been extirpated from 99% of the Sierra Nevada foothills (Jennings and Hayes 1985, Tunstall and Fellers 1999). Threats to this species include non-native predators such as bullfrogs and bass, habitat loss and fragmentation, degradation of habitat quality, pesticide pollution, and the invasive chytrid fungus (CaliforniaHerps 2016).

Habitat within the proposed Project area is not suitable for the California red-legged frog. The creek water is shallow and swift, with no pools, has sparse riparian vegetation, very little emergent vegetation, and highly disturbed uplands. The nearest known occurrence is an isolated population located approximately 4.5 mi (7.2 km) northeast from the proposed Project (CDFW 2016e, Figure 3.4.1), much farther than the average 492 ft (150 m) and maximum 0.9-1.7 mi (1.4-2.8 km)dispersal distance known for this species (Fellers and Kleeman 2007) and across several high-traffic paved roads. This isolated population is located in the Rock Creek watershed north of Harmony Ridge, on the east side of Sailor Flat near the South Yuba River. The proposed Project area is not within designated critical habitat; the nearest Critical Habitat Unit (NEV-1) is approximately 2.5 mi (4km) north of the Project area in the vicinity of the Rock Creek occurrence (USFWS 2010a, USFWS 2010b, USFWS 2016a, Figure 3.4.1). Only one additional isolated population is known within the nine USGS quads surrounding the Project area; in the Challenge quad near Lake Oroville. No California red-legged frogs were observed during the biological surveys conducted in the proposed Project area.

Foothill yellow-legged frog *(Rana boylii)*

Federal status: None; State status: Species of Special Concern

Foothill yellow-legged frogs are characteristically associated with shallow streams (less than three feet deep) with cobble or gravel substrates and little to no aquatic or emergent vegetation, from sea level up to 6,000 feet (1,830 meters) in elevation (Stebbins and McGinnis 2012). Ideal habitats contain edgewater, low-velocity areas and/or pools where egg masses may receive adequate oxygenation but also remain protected from scour or swift flows. Egg masses are laid on the downstream side of submerged rocks and/or near the downstream tail-outs of pools. Mating and egg-laying occurs in streams and rivers from April until early July, after streams have slowed from winter runoff. Eggs hatch within five to 37 days, depending on water temperature (Nafis 2000-2013). In addition to perennial streams, foothill yellow-legged frogs may occur in ephemeral creeks that retain perennial pools through the end of summer, provided that these pools maintain adequate flows for oxygenation of the egg masses prior to hatching and a minimum 15 weeks of water for larval development and metamorphosis. Egg masses and tadpoles have higher survival rates in areas free of predatory crayfish and non-native bullfrogs (Moyle 1973, Borisenko and Hayes 1999). Shallow areas, riffles, open sunny banks, and other basking sites such as instream boulders are important resources for yellow-legged frog thermoregulation.

Foothill yellow-legged frogs are not expected to occur in the proposed Project area. The on-site habitat is of low quality for this species, lacking slow pools for egg-laying and tadpole refugia, macroinvertebrate-rich riffles for adult foraging, or sunny banks/ boulders for basking and thermoregulation. Foothill yellow-legged frogs have not been observed in Deer Creek or Little Deer Creek throughout two years of SSI amphibian surveys and 20 years of SSI water quality surveys, including the biological surveys performed on site for the proposed Project. The nearest known occurrences of this species are approximately 5mi (8km) southeast of proposed Project area in Greenhorn Creek and 5mi (8km) north and northwest in the South Yuba River (CDFW 2016e, Lincoln 2016, Figure 3.4.1).

Western pond turtle (*Emys marmorata*)

Federal status: None; State status: Species of Special Concern

Western pond turtles are highly aquatic, associating with permanent ponds, lakes, streams, irrigation/drainage ditches, and freshwater marshes below 4,500 ft (1,371 m) elevation. They require still or slow moving water with sunny basking substrates for thermoregulation, such as emergent woody debris, rocks, cattail mats, exposed banks and similar features (CaliforniaHerps 2016). Nests are dug into sunny, friable soils above the high water line with clay, loam or silt content and minimal disturbance. During summer droughts, turtles travel to find isolated pools in creeks, or aestivate by burying themselves in soft bottom mud or loose woodland soil (CaliforniaHerps 2016). The western pond turtle is believed to be in decline in 75-80% of its range (River Partners 2011). Threats include the loss of suitable nesting habitat as wetlands are increasingly surrounded by development, predation on juveniles by bullfrogs and other introduced species, and competition for basking sites with the introduced red-eared slider (NID and PG&E 2010). On April 10, 2015,the USFWS issued a 90-day finding that sufficient scientific evidence has been presented to suggest that listing the western pond turtle under the federal Endangered Species Act may be warranted, and a 12-month review process has been initiated by the USFWS to further assess the available data and make a final status determination (Federal Register Volume 80, Number 69, Pages 19259-19263).

The proposed Project area does not contain suitable soils for western pond turtle nesting or hibernacula, due to the high degree of soil compaction and disturbance in Park areas above the high water line. Juvenile rearing habitat is also unsuitable due to the lack of basking sites for thermoregulation and the abundant activity of domestic dogs and human-adapted wild predators such as raccoons in this high-use park and residential neighborhood. Dispersing and/or foraging adults have low potential to occur, however, in the low-quality creek habitat within the proposed Project area. Western pond turtles have been documented by SSI 2mi (3.2 km) from the Project area at Hirschman's Pond and by CNDDB within 4.5 mi (7.2 km) of Project area in the Rock Creek Watershed north of Harmony Ridge (CDFW 2016e, Figure 3.4.1). Both of these populations, however, are separated from the proposed Project area by major highways and urban development.

Special-status birds

Federal status: Birds of Conservation Concern, Migratory Bird Treaty Act; State status: Species of Special Concern

Two special-status bird species listed by USFWS as Birds of Conservation Concern were documented as foraging in the neighborhood surrounding the Project area following the 2014 nesting season: Nuttall's woodpecker *(Picoides nuttallii)* and oak titmouse *(Baeolophus inornatus)* (eBird 2016): however, these two species were not observed on site during 2016 nesting-season surveys. Nuttall's woodpeckers forage in oak woodland and riparian habitats, probing and gleaning for insect larvae (primarily beetles) underneath and on the surface of tree bark. Roughly 20% of this unusual woodpecker's diet is also composed of tree sap and berries, seeds, and nuts from plants such as poison oak and mistletoe (Bent 1939). Nuttall's woodpeckers excavate nesting cavities in dead (or occasionally live) deciduous trees, from 2-60 ft (0.6-18 m) above the ground. Oak titmice are secondary cavity nesters, raising their young in the abandoned nesting cavities left behind by Nuttall's and other woodpeckers. These oak woodland and riparian songbirds prey on insects and spiders and additionally feed on berries, acorns, and other seeds, which they glean from branches, foliage, and occasionally from the ground.

Two additional special-status bird species have not been observed in the Project area but have potential to nest or forage there in the future after Project restoration improves the riparian habitat quality on site: yellow warbler (*Setophaga petechia*) and yellow-breasted chat (*Icteria virens*), both listed by CDFW as California Species of Special Concern. Both of these neotropical migrant songbirds are associated with willow thickets and other dense riparian vegetation. Primarily insectivorous, the yellow-breasted chat also feeds upon riparian fruits such as wild grape, and benefits from the concealment provided by this and other vines when present.

Western red bat (*Lasiurus blossevillii*)

Federal status: None; State status: Species of Special Concern

Western red bats forage for flying insects above a variety of habitats including riparian areas, coniferous forests, oak woodlands, and occasionally urban areas and orchards, especially near water. They roost as solitary individuals and in single family groups, almost exclusively in trees, though occasionally in shrubs (Bat Conservation International 2008). Preferred roost sites are concealed from above for protection from owls, hawks and jays, and open from below for ease of flight. Roosts may be from two to 40 ft(0.6-13 m) above ground level (Zeiner *et al*. 1988-1990). Although most western red bat records are from elevations below 656 feet (200 meters), western Sierra Nevada foothill records are also present, with a maximum recorded elevation of 8,150 feet (2,484 meters)(Pierson *et al*. 2006). Most foothill records between March and October, with seasonal downslope movements in winter. Births occur between late May and early July, and young are capable of flight between 3-6 weeks of age (Zeiner *et al*. 1988-1990). Threats to western red bats include destruction and disturbance of roosting sites (including trees and

snags), loss and degradation of foraging habitat, bioaccumulation of toxins through their insect prey, and reduction in the quantity and quality of their prey base due to the use of pesticides. Bats exhibit high site fidelity and will not abandon an established roosting area unless disturbed, but disturbance can result in mortality of young.

The currently narrow width of the Project area's riparian habitat along Little Deer Creek limits its thermoregulatory protection and ability to conceal roosting bats from potential predators, and thus limits its suitability for bat roosting. Western red bats have a low potential for roosting foraging on site, but a slightly higher potential to forage on site. Although western red bats have not been documented within 5mi (8km) of the proposed Project area, bats that roost in small groups are typically under-reported in databases such as the CNDDB, due to their nocturnal nature and the relatively sparse research and monitoring of these species.

3.4.3 Impact Analysis

The following discussion evaluates the potential impacts to biological resources from the proposed Project.

Table 3.4-5 CEQA Checklist for Assessing Project-Specific Potential Biological Resource Impacts

IV. BIOLOGICAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

IV. BIOLOGICAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) Would the Project have a substantial adverse effect, either directly or through habitat modification, on any species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Finding: Less than significant with mitigation incorporated

The proposed Project area does not provide suitable habitat conditions for special-status plants, the valley elderberry longhorn beetle, California black rail, California red-legged frog, foothill yellow-legged frog, Sierra Nevada yellow-legged frog, or coast horned lizards. As a result, no impacts, both direct and indirect,are expected to occur to these species.

The western bumble bee has a moderate potential to forage on site on the nectar and pollen provided by native and non-native plants such as deerbrush, wood rose, and Himalayan blackberry. These foods would become less available in the short-term with the clearing and grubbing necessary to remove and/or cap arsenic-laden soils to complete the proposed Project restoration. The scale of this short-term vegetation removal is minor, however, and the proposed Project would result in a long-term increase in food sources for the western bumble bee and other pollinators by removing concrete from the streambanks, widening the riparian area, and revegetating with diverse native species as described in the Project Description. The proposed Project would thus have a less than significant impact on the western bumble bee.

Anadromous fish are blocked from accessing the site by impassable barriers several miles downstream, such as the waterfall at the Deer Creek Narrows and the dam at Lake Wildwood, and no other special-status fish are present in the region. As a result, no direct impactsare expected to occur to these species as a result of the proposed Project. Expected downstream effects on water quality due to the proposed Project include a long-term *benefit* to fish species due to the Project's reduction of the amount of arsenic currently entering Little Deer Creek from

the Pioneer Park field. Potential short-term construction-related impacts to water quality would be avoided or minimized and/or mitigated through the use of proper erosion and sediment control BMPs as per the proposed Project's Stormwater Pollution Prevention Plan (SWPPP) and proposed Mitigation Measures HYD-1 through HYD-4. Potential downstream impacts to fish would thus be less than significant with mitigation incorporated.

Western pond turtles are not expected to nest in the proposed Project area due to the unsuitability of the on-site soils. While this species is also unlikely to forage in the proposed Project area, if individuals happen to be present during construction activities, they could be harmed by construction equipment. This potential impact would be avoided by the implementation of Mitigation Measure HYD-2, which includes aDewatering Plan and Aquatic Species Protection Plan discussed in the Project Description, which would be implemented based on consultation with the appropriate regulatory agencies. This plan would ensure that western pond turtles and non-special-status aquatic species with potential to forage in the creek, such as rainbow trout and Pacific chorus frogs, will remain outside of the active construction zone during the implementation period. This plan includes monitoring on a continuous basis by construction personnel throughout the stream construction phase. This potential impact would thus be less than significant with mitigation incorporated.

All native nongame birds are protected by Sections 3503 and 3800 of the California Fish and Game Code, and most native birds are protected by the federal Migratory Bird Treaty Act. The Little Deer Creek riparian habitat in the proposed Project area is known to provide nesting and foraging habitat for several common species of birds protected by these regulations. However, the riparian habitat within the proposed Project area is narrow in width and subject to frequent recreational disturbance by human activity in the surrounding park, streets, and residential neighborhood. Two bird species designated as BCC have been documented foraging in the neighborhood surrounding the proposed Project area during the late summer and winter post-nesting seasons: Nuttall's woodpecker and oak titmouse (eBird 2016), and two species designated as SSC, yellow warbler and yellow-breasted chat, also have potential to forage on-site following the proposed Project's riparian habitat restoration. None of these species have been recorded in the proposed Project area to date. Raptors protected by Section 3503.5 of the California Fish and Game Code may also forage on site, although they are unlikely to nest there due to the limited habitat quality and frequent disturbance.

The proposed Project's restoration of riparian habitat along Little Deer Creek is expected to have a long-term *benefit* tonative nesting and foraging birds, including raptors and other special-status species; by increasing the width of the stream channel and associated riparian habitat; by increasing the density and coverage of willows and other native riparian plants that are of high value to birds as potential future nesting sites and attractants to insect prey; and by reducing the amount of arsenic in the water and food chain.

Direct adverse impacts to native birds could occur due to proposed Project activities if construction activities are conducted near active nests. Removal of vegetation in which active nests are located could result in the direct loss of eggs or young. Construction-related

disturbance could also impede nest survival if nearby construction activities result in nest abandonment, reduced rates of parental food deliveries to the nest, and/or an increased risk of nest predation. Disturbance resulting in nest abandonment or loss of eggs or young would be considered a significant direct impact. Therefore, with the implementation of Mitigation Measure BIO-1: Avoid Disturbance of Nesting Birds and Roosting Bats, impacts to nesting birds would be considered less than significant with mitigation incorporated.

The habitat requirements and breeding season phenology of local riparian bird species are similar to those of the western red bat (a California Species of Special Concern) and other tree-roosting bat species, which roost singly or in small family groups among tree foliage and bark crevices. The currently narrow width of the Project area's riparian habitat along Little Deer Creek limits its thermoregulatory protection and ability to conceal roosting bats from potential predators, and thus limits its suitability for bat roosting. Project restoration of riparian habitat along Little Deer Creek is thus expected to *benefit* tree-roosting bats in the long-term, by widening the riparian corridor and providing additional riparian vegetation and cover. The proposed Project's reduction of exposed heavy metals would also be expected to benefit bats by reducing the potential for these metals to enter the food chain. Indirect impacts to the western red bat include short-term construction-related disturbance such as noise. Direct impacts may occur due to proposed Project activities, such as the loss of young if a small maternity roost happens to be present at the time and vegetation removal were to occur. Therefore with the implementation of Mitigation Measure BIO-1: Avoid Disturbance of Nesting Birds and Roosting Bats, impacts from the proposed Project would be considered less than significant with mitigation incorporated.

Based on the information above, the proposed Project would create long-term *benefits* to special-status and non-special-status plant and wildlife species. However, to lessen the potentially significant impacts from the proposed Project discussed above, Mitigation Measures BIO-1 and HYD-A through D will be implemented. Therefore, impacts to special-status species from the proposed Project would be *less than significant with mitigation incorporated*.

b) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Finding: Less than significant with mitigation incorporated

The proposed Project includes restoration of 640 linear feet on one side of Little Deer Creek, which is currently comprised of marginal riparian habitat. Floodplain function is anticipated to be enhanced by the proposed Project, thereby enhancing riparian habitat.Approximately eight alder trees 12-16 inch DBH and six alder trees 6-10 inch DBH are located where construction will occur. As stated in the Project Description, standard BMPs will be used for tree protection during construction activities. Non-native invasive plants will be removed when possible during construction, and revegetation with locally adapted, native riparian plant species will occur in disturbed areas after construction. Mitigation Measure BIO-2: Protect and Restore Riparian Plants

and Habitat outlines additional specifications to support the protection and enhancement of riparian habitat with the proposed Project. No other sensitive natural communities are present in the proposed Project area. A Streambed Alteration Agreement will be acquired and mitigation plans will be implemented.

Based on the information above, overall the proposed Project would have a long-term *benefit* to riparian habitat. However, to lessen the potentially significant impacts from the proposed Project discussed above, Mitigation Measures BIO-2 and HYD-2 will be implemented. Therefore, impacts to sensitive riparian habitat in the proposed Project area would be less than significant with the application of mitigation. Therefore, impacts to sensitive habitats from the proposed Project would be less than significant with mitigation incorporated.

c) Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Finding: Less than significant with mitigation incorporated

The boundaries of jurisdictional wetlands on site were delineated by SSI Restoration Ecologist/Botanist Denise Della Santina using the 1987 Corps of Engineers Manual (WTI 1995) and current updates. The delineation will be reviewed by the ACOE in part with the Section 404 permitting process. Due to historical alterations of the creek channel and floodplain, the jurisdictional wetland extent is currently limited to a narrow corridor directly adjacent to the creek between the ordinary low and ordinary high water mark.

As stated in the Project Description, one of the proposed Project's primary goals is to benefit wetlands by restoring 640 ft (195 m) of Little Deer Creek to a more natural condition of flows, floodplain, and riparian habitat. The proposed Project would remove the existing 30 cubic yards (25 cubic meters) of concrete channel lining, which is currently decomposing into the stream channel. The proposed Project would also remove 450 cubic yards (345 cubic meters) of soil from an existing berm to widen the unnaturally narrow stream channel and reconnect it to its original floodplain. Although 200 cubic yards (155 cubic meters) of clean import fill and gravel (maximum 1-inch diameter) would be placed for streambank erosion protection, this volume is much less than the amount of concrete and soil fill that would be removed by the proposed Project, and it would be planted with native riparian species to enhance the habitat quality.

Several additional elements of the Project Description have been designed to avoid and minimize impacts to wetlands. Disturbance of the existing streambed channel will be minimized with no planned excavation of the streambed. Excavation in adjacent areas would not extend deeper than the depth of the existing streambed, and would be limited to areas above the depth of first encountered groundwater, at a maximum depth of approximately two feet. Proper erosion and sediment control BMPs will be in place during construction and post-construction, as per the SWPPP for the proposed Project. These BMPs will result in the avoidance or minimization

of potential water quality impacts, preventing sedimentation or the accidental introduction of contaminants into Little Deer Creek.

As stated in the Project Description, prior to the proposed stream restoration, a temporary coffer dam would be installed upstream of the proposed stream restoration area to further minimize the potential for downstream construction-related impacts to water quality. Little Deer Creek flows would be pumped around the restoration area through closed conduit piping on a continuous basis throughout Phase 1 of the proposed Project. Pumping would be anticipated to be maintained for approximately four to six weeks, and would be monitored on a continuous basis by construction personnel throughout the stream construction phase. This would be implemented in compliance with a Dewatering Plan and Aquatic Species Protection Plan based on consultation with the appropriate regulatory agencies.

Mitigation Measure HYD-2 further ensures Clean Water Act compliance by committing to consultation with the USACE, CDFW, and RWQCB to obtain permits in compliance with Clean Water Act Sections 404 and 401 and Section 1602 of the California Fish and Game Code prior to beginning Project implementation, including vegetation removal. Compliance with the terms of these permits and agreements would ensure that any Project impacts to wetlands and riparian habitats would be less than significant with mitigation incorporated.

Based on the information above, overall the proposed Project would have a long-term *benefit* to federally protected wetlands. However, to lessen the potentially significant impacts from the proposed Project discussed above, Mitigation Measure HYD-2 will be implemented. Therefore, impacts to federally protected wetlands in the proposed Project area would be less than significant with the application of mitigation. Therefore, impacts to wetlands from the proposed Project would be less than significant with mitigation incorporated.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Finding: Less than significant

Wildlife nursery sites, such as heron or egret nesting colonies (e.g., *Ardea* spp.), wetlands supporting substantial amphibian reproduction, or marshes providing refugia for abundant juvenile fish, are not present in the proposed Project area, which is composed of a narrow, limited-quality riparian corridor within a high-use recreational park and residential area. The proposed Project would thus have no impact to wildlife nursery sites.

Although riparian corridors often provide key routes for terrestrial wildlife movement through matrix landscapes characterized by less concealment, such as agricultural fields, grasslands, oak savannahs, and urban areas, the particular riparian habitat provided by Little Deer Creek within the proposed Project area is very narrow, sparsely vegetated, and lacks the characteristics of a high-quality movement corridor. Visibility is high from either side of the creek through to the

opposite side, offering little more visual protection for migrating wildlife than that provided by the many ornamental trees and shrubs of the surrounding residential neighborhood. The riparian portion of the proposed Project area is relatively short in length at 640 feet (195 meters), a relatively insignificant portion of the surrounding landscape, and because human development is present for several miles both upstream and downstream, these 640 feet are not located in such a way as to provide a vital link between other high-quality wildlife resource areas. Construction activities and/or removal of vegetation could cause temporary disturbance to the movement of common wildlife species such as raccoons and mule deer. However, the extent of the disturbance would be limited and *less than significant* with no mitigation necessary. The Project's proposed removal of Himalayan blackberry and revegetation with native riparian plant species would also improve the quality of the riparian corridor for a long-term benefit to wildlife movement through the site.

Based on the information above, overall the proposed Project would have a long-term *benefit* and a less than significant impact to the movement of native resident or migratory fish or wildlife species or to established native resident or migratory wildlife corridors, and wildlife nursery sites. Therefore, no mitigation is required.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation, policies or ordinances?

Finding: Less than significant

The proposed Project would not conflict with local policies or ordinances relative to biological resources. Consistent with the Nevada County General Plan, all Project-related vegetation management would be conducted for the benefit of habitat restoration. Mature native trees (greater than 8-inch DBH) would be protected during construction with standard BMPs to prevent damage to the trees and their root systems. No net loss of habitat function or value for wetlands or special-status species would occur. Planting would be done with native species to provide suitable habitat for native wildlife. Staging areas will be located in previously disturbed or graded areas to the extent feasible. No heritage oaks (> 36 inch DBH) are located within or adjacent to the Project area; thus none will be removed or subject to root disturbance. Two oaks 5-16 inches DBH are present within the proposed Project area; however, these oaks would be avoided during construction of the proposed Project. Therefore, the proposed Project will not conflict with any approved or planned local policies or ordinances protecting biological resources. Potential impacts are considered less than significant.

f) Would the Project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Finding: No impact

The proposed Project area is not currently subject to a habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. The proposed Project would thus have no impact to such plans.

3.4.4 Mitigation

Mitigation Measure BIO-1: Avoid Disturbance of Nesting Birds and Roosting Bats

The Citywill implement the following measures to avoid disturbing nesting birds and roosting bats, including special-status and non-special-status species, migratory and resident species, and raptors.

In general, the breeding season for birds and bats is approximately March 1 to August 31 at the Project area's elevation in the Sierra Nevada foothills. Most young birds and bats at this elevation, however, have typically fledged the nest or natal roost by the end of June. For construction activities scheduled to occur between March1 and August 31, a qualified wildlife biologist shall conduct a pre-construction survey within the Project area and all potential nesting and/or roosting habitat within 250 feet of this area to which the biologist may access without trespass. The survey shall be conducted no more than seven days before initiation of breeding-season construction activities. If no active nests or maternity roosts are detected, then no additional mitigation shall be required.

If bird nests or bat maternity roosts are found in any areas that would be directly affected by construction activities, a no-disturbance buffer area shall be established around each nest/roost site to avoid disturbance-related impacts. Buffer zones shall be clearly marked as Environmentally Sensitive Areas, and no construction activities may occur within a buffer zone until after the breeding season or after a qualified wildlife biologist has confirmed that the nest/roost is no longer active. The size and boundaries of each buffer area shall be determined by a wildlife biologist in coordination with CDFW, based on the following factors:

- species' biology and status;
- nest/roost stage;
- observed behavior of parents and young;
- nest/roost location and concealment, including factors such as substrate, height, surrounding vegetation, existing topographical or artificial barriers, and line of sight to the planned construction activities;

- ambient levels of noise and other disturbances;
- specific construction activities to be performed and the level of noise or other disturbance they would be expected to create.

As the proposed Project has a multi-year implementation schedule, these provisions shall apply to each year of proposed Project activities.

Mitigation Measure BIO-1 Implementation

Responsible Party: City of Nevada City

Timing: One pre-construction survey shall be performed by a qualified wildlife biologist no more than seven days prior to initiating any breeding-season construction activities, each year (planned summer 2017 and summer 2018). If applicable, nest/roost buffer zones shall be established and maintained in coordination with CDFW, until the end of the nesting season or until the nest/roost is no longer active (summer 2017 and summer 2018).

Monitoring and Reporting Program: A brief report of the results of the pre-construction survey will be kept on file at City Hall in the City of Nevada City, at the Sierra Streams Institute office, and at the Project site.

Standards for Success: In general this measure seeks to avoid disturbance to nesting birds which could result in the loss of eggs or young. Disturbance can be noted by erratic behavior such as calling and diving, which may alert predators to the nest location, and/or holding food in the bill without consuming it or bringing it to the nest. Specifically, "Take" will be avoided for special-status avian and bat species, including nesting migratory birds.

Mitigation Measure BIO-2: Protect and Restore Riparian Plants and Habitat

Individual trees or groups of trees along Little Deer Creek, including *Alnus rhombifolia, Acer macrophyllum,* and *Populus freemontii*, will be protected to the greatest extent possible during construction to prevent damage to the trees and their root systems. To the extent possible, other riparian tree and shrub species will also be protected, including willows. To the extent possible, native perennials (i.e., bunch grasses, sedges, rushes) will be salvaged, stored in a shady place where they can be watered, and replanted post-construction. Upon completion of grading at the Project site, impacted or removed riparian trees and shrubs with aten-inch DBH will be replanted at a 3:1 mitigation ratio planted along the restored floodplain, using material propagated from cuttings collected on site or from plants obtained at a local native plant nursery. Mitigations required for the Streambed Alteration Agreement will also be implemented. Native perennial plants and shrubs will also be planted for slope protection and wildlife habitat.

Mitigation Measure BIO-2 Implementation

Responsible Party: City of Nevada City

Timing: Protection and salvage of native plants will occur before and during riparian vegetation management or earthmoving work (summer/fall 2017 and summer/fall 2018). Revegetation will be completed following earthmoving work (fall/winter 2017/2018 and fall/winter 2018/2019).

Monitoring and Reporting Program: The revegetation will be monitored annually for a minimum of 3 years. Documentation will be kept on file at City Hall in the City of Nevada City, at the Sierra Streams Institute office, and at the Project site.

Standards for Success: The general goal is to have the area, density, and diversity of native riparian plant cover be greater upon Project completion than upon Project initiation. Longer term restoration success will be based on an 80% survival rate for the 3:1 replanted trees and shrubs. In addition, the herb layer must be within 20% of a baseline or adjacent reference site's total cover at the end of three years. The herb layer native species composition also must be within 20% of baseline or a nearby reference site at the end of three years. Adaptive management will be employed each year to facilitate meeting the success criteria. If at the end of 3 years the success criteria have not been met, additional plantings and successive annual monitoring is required for up to five years.

3.5 CULTURAL RESOURCES

This section was written pursuant to Section 15064.5 of CEQA. The purposes were to (1) identify and record cultural resources in the Project area; (2) make preliminary evaluations of such resources' significance according to the criteria of the California Register of Historical Resources (CRHR); and (3) recommend procedures for avoidance or mitigation of adverse effects to CRHR-eligible resources. The results of the study are detailed in sections 3.5.1 and 3.5.3.4 below.

3.5.1 Regulatory Setting

This regulatory setting lists cultural resource regulations relevant to the proposed Project.

3.5.1.1 Federal Regulations

3.5.1.1.1 National Historic Preservation Act

The National Historic Preservation Act of 1966, as amended (NHPA) requires federal agencies, or those they fund or permit, to consider the effects of their actions on historic properties. The Advisory Council on Historic Preservation (ACHP) section 106 implementing regulations (36 Code of Federal Regulations [CFR] Part 800) defines "historic properties" as follows:

> *Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the National Register criteria (36 CFR Part 800.16[l]).*

To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archaeological, ethnographical, and architectural properties) must be inventoried and evaluated for listing in the NRHP. For a property to be considered for inclusion in the NRHP, it must be at least 50 years old and meet the criteria for evaluation set forth in 36 CFR Part 60.4, as follows:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of design, setting, materials, workmanship, feeling, and association and:
>
> A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B) That are associated with the lives of persons significant in our past; or
>
> C) That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent

a significant and distinguishable entity whose components may lack individual distinction; or

D) That have yielded, or may be likely to yield, information important in prehistory or history.

If a particular resource meets one of these criteria, it is considered as a historic property eligible for listing in the NRHP. Among other criteria considerations, a property that has achieved significance within the last 50 years is not considered eligible for inclusion in the NRHP unless certain exceptional conditions are met.

3.5.1.2 State Regulations

3.5.1.2.1 California Environmental Quality Act (California Public Resources Code Section 21000 et seq.)

California Environmental Quality Act (California Public Resources Code section 21000 et seq.) (1970) established that historical and archaeological resources are afforded consideration and protection by the California Environmental Quality Act (CEQA) (14 CCR section 21083.2, 14 CCR section 15064). CEQA Guidelines define significant cultural resources under two regulatory designations: historical resources and unique archaeological resources.

A historical resource is a "resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR"; or "a resource listed in a local register of historical resources or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code"; or "any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the agency's determination is supported by substantial evidence in light of the whole record" (14 CCR Section 15064.5[a][3]).

Tribal Cultural Resources (TCR) are similar to federally designated Traditional Cultural Properties (TCPs) within CEQA. These can be sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a Tribe. To qualify as a TCR, it must either be 1) listed on or eligible for listing on the California Register or a local historic register or, 2) or is a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a TCR (PRC Section 21074). TCRs can include "non-unique archaeological resources" (see "unique archaeological resource" below) that, rather than being important for "scientific" value as a resource, can also be significant because of the sacred and/or cultural tribal value of the resource. Tribal representatives are considered experts appropriate for providing substantial evidence regarding the locations, types, and significance of tribal cultural resources within their traditionally and cultural affiliated geographic area (PRC Section 21080.3.1(a)).

Historical resources automatically listed in the California Register include California cultural resources listed in or formally determined eligible for the National Register and California

Historical Landmarks list from No. 770 onward (PRC 5024.1[d]). Locally listed resources are entitled to a presumption of significance unless a preponderance of evidence in the record indicates otherwise.

Under CEQA, a resource is generally considered historically significant if it meets the criteria for listing in the CRHR. A resource must meet at least one of the following criteria (PRC 5024.1; 14 CCR Section 15064.5[a][3]):

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. Title 14, CCR Section 4852(b)(1) adds, "is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States."

2. Is associated with the lives of persons important in our past. Title 14, CCR Section 4852(b)(2) adds, "is associated with the lives of persons important to local, California, or national history."

3. Embodies the distinctive characteristics of a type, period, region, or method of construction; or represents the work of an important creative individual; or possesses high artistic values. Title 14, CCR 4852(b)(3) allows a resource to be CRHR eligible if it represents the work of a master.

4. Has yielded, or may be likely to yield, information important in prehistory or history. Title 14, CCR 4852(b)(4) specifies that importance in prehistory or history can be defined at the scale of "the local area, California, or the nation."

Historical resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association (14 CCR 4852[c]).

An archaeological artifact, object, or site can meet CEQA's definition of a unique archaeological resource even if it does not qualify as a historical resource (PRC 21083.2[g]; 14 CCR 15064.5[c][3]). An archaeological artifact, object, or site is considered a unique archaeological resource if "it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC 21083.2[g]):

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be taken to preserve these resources in place or provide mitigation measures.

3.5.1.2.2 Public Resources Code (PRC), Section 5097.5

Public Resources Code (PRC), Section 5097.5 states that no person shall willingly or knowingly excavate, remove, or otherwise destroy a vertebrate paleontological site or paleontological feature without the express permission of the overseeing public land agency. It further states under PRC 30244 that any development that would adversely impact paleontological resources shall require reasonable mitigation. These regulations apply to projects located on land owned by or under the jurisdiction of the state or a city, county, district, or other public agency.

3.5.1.2.3 Public Resources Code (PRC), Section 5097.9 et seq

Public Resources Code (PRC), Section 5097.9 et seq. (1982) establishes that both public agencies and private entities using, occupying, or operating on state property under public permit, shall not interfere with the free expression or exercise of Native American religion and shall not cause severe or irreparable damage to Native American sacred sites. This section also creates the NAHC, charged with identifying and cataloging places of special religious or social significance to Native Americans, identifying and cataloging known graves and cemeteries on private lands, and performing other duties regarding the preservation and accessibility of sacred sites and burials.

3.5.1.2.4 CEQA Guidelines, California Code of Regulations Title 14, Section 15064.5

When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC). The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans identified as the Most Likely Descendant (MLD) by the NAHC.

3.5.1.2.5 Public Resources Code Section 5024.1.

Public Resources Code section 5024.1 establishes the CRHR. A resource may be listed as a historical resource in the CRHR if it meets National Register of Historic Places criteria or the following state criteria: (1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (2) is associated with the lives of persons important in our past; (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic values; or (4) has yielded, or may be likely to yield, information important in prehistory. The CRHR is an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify California's historical resources and to indicate what properties are to be protected from substantial adverse change.

3.5.1.2.6 Public Resources Code Section 5097.98

Public Resources Code section 5097.98 discusses the procedures that need to be followed upon the discovery of Native American human remains. The NAHC, upon notification of the discovery of human remains is required to contact the County Coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code and shall immediately notify those persons it believes to be most likely descended from the deceased Native American.

3.5.1.2.7 Health and Safety Code Section 7050.5

Health and Safety Code section 7050.5 establishes that any person, who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location without authority of law is guilty of a misdemeanor. It further defines procedures for the discovery and treatment of Native American human remains.

3.5.1.2.8 Madera Oversight Coalition, Inc. v. County of Madera

In the past, it was common practice for many CEQA practitioners to provide performance-based mitigation for cultural resources, stipulating that further evaluation and treatment of resources would be performed in the future. The 2011 decision from the Madera Oversight Coalition, Inc. v. County of Madera (2011) 199 Cal. App.4th 48 case held this practice to be unacceptable under CEQA and required evaluation of cultural resources subject to CEQA at a level sufficient to characterize the resources prior to EIR certification, not during pre-construction or construction stages of a project. This approach was used for this IS/MND.

3.5.1.2.9 Assembly Bill 52

Assembly Bill 52 changes sections of the public resources code to add consideration of Native American culture within CEQA. The goal of AB 52 is to promote the involvement of California Native American Tribes in the decision-making process when it comes to identifying and developing mitigation for impacts to resources of importance to their culture. To reach this goal, the bill establishes a formal role for tribes in the CEQA process. CEQA lead agencies are required to consult with tribes about potential tribal cultural resources in the project area, the potential significance of project impacts, the development of project alternatives, and the type of environmental document that should be prepared. AB 52 specifically states that a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (PRC Section 21084.2).

3.5.1.3 Local Regulations

3.5.1.3.1 Nevada County General Plan

The following goals and policies outlined in the Nevada County General Plan were considered when analyzing potential proposed Project-related impacts to cultural resources:

Goal 19.1: Identify and protect and where economically feasible restore significant archaeological and historic resources.

Objective 19.1: Encourage the inventory, protection and interpretation of the cultural heritage of Nevada County, including historical and archaeological landscapes, sites, buildings, features, artifacts.

Policy 19.2: Encourage the inclusion of significant sites or districts in the Federal or State Historical Register based on the recommendation of local historical societies.

Objective 19.2: Implement development standards, including the preservation of open space, to protect identified significant cultural sites.

Policy 19.4: Incorporate cultural and historic resource management standards in the Comprehensive Site Development Standards, for use in project review of all discretionary project permits. These standards shall provide for the use of clustering and restricted building sites as techniques for the preservation of significant cultural resources.

Policy 19.6: Require all applications for discretionary project permits, and all applications for ministerial project permits except single family residences on individual lots shall be accompanied by a Site Sensitivity Literature Review, prepared by a qualified archaeologist or entity such as the North Central Information Center, Department of Anthropology, California State University at Sacramento.

Where review indicates significant archaeological or historical sites or artifacts are, or are likely, present, on-site field review shall be required. If a site or artifacts are discovered, the find shall be evaluated and potential significance determined. If significant cultural resources may be directly or indirectly impacted by proposed development, appropriate mitigation shall be developed and implemented in accordance with CEQA standards, including Appendix K, prior to onset of ground disturbance. Avoidance of significant cultural resources shall be considered the mitigation priority. Excavation of such resources shall be considered only as a last resort when sufficient planning flexibility does not permit avoidance. On-site field review, evaluation of site significance, and development of mitigation measures, as identified above, shall be performed by a qualified professional archaeologist.

Objective 19.3: Include in the development review process consideration of historic, cultural, and Native American concerns and values.

Policy 19.7: Cooperate with local historical societies and the Native American Indian community to protect significant historical, cultural and archaeological artifacts, improve access to and interpretation of unrestricted resources and archaeological history by involving them in the development review process.

3.5.1.3.2 City of Nevada City General Plan

Goal: The City aims to continue its efforts to preserve and enhance the architectural diversity of historic buildings in the central area, to maintain the remarkable collection of city-owned historic buildings, and to encourage private efforts of historic preservation and restoration. (Page 9, City of Nevada City General Plan, 1986)

Goal: Whereas many other Mother Lode towns are being surrounded by modem subdivisions and commercial development, the Nevada City Basin remains nearly pristine. The City seeks means to preserve its sense of a historic town surrounded by open forest. (Page 9, City of Nevada City General Plan, 1986)

Objective: Maintain the dominance of the city's primary, nineteenth-century historic period. Allow new development, which is complementary to the form and scale of its context. (Page 37, City of Nevada City General Plan, 1986)

Objective: Ensure continued concentration of public and cultural activities that reinforce the historic core as the "heart" of Nevada City. (Page 37, City of Nevada City General Plan, 1986)

Policy: Encourage private efforts at historic rehabilitation and restoration. (Page 37, City of Nevada City General Plan, 1986)

Policy: Seek innovative means to maintain and improve city-owned historic buildings (leases to appropriate private use, grants from private and/or government sources). (Page 37, City of Nevada City General Plan, 1986)

Policy: Formulate design guidelines laying out the essential elements constituting Nevada City's special "flavor." These guidelines would be a handbook to prospective developers and a guide for evaluation by the architectural review committee. (Page 37, City of Nevada City General Plan, 1986)

Policy: Retain a maximum amount of city and county government functions in downtown Nevada City. (Page 37, City of Nevada City General Plan, 1986)

Policy: Encourage appropriate infill uses in downtown (e.g., visitor accommodations and cultural facilities). (Page 37, City of Nevada City General Plan, 1986)

3.5.2 Environmental Setting

The proposed Project is located in Nevada County in the City of Nevada City situated in the foothills on the western slope of the Sierra Nevada Mountains at an average elevation of approximately 2500 feet (762 meters). The regional climate is generally Mediterranean it consists of summer droughts and cold winters with average annual precipitation within the Little Deer Creek watershed of approximately53.9 inches (1.4 meters) per year. Temperatures vary greatly from the low 30 degrees Fahrenheit in the winter months to high 90 degrees Fahrenheit in the

summer. Little Deer Creek is part of and within the Proposed Project Area, a tributary of Deer Creek which eventually connects the Yuba River. The area is dominated by residential and recreational uses.

3.5.2.1.1 Buried site sensitivity

Assessing the sensitivity for an area to contain buried archaeological sites takes into consideration the potential for the presence of buried cultural deposits by examining past use of the Project area; factors that support human occupations such as access to resources and water; slope; and the underlying geomorphology of the area. Generally speaking, a large proportion of archaeological sites are located within 150 meters of a water source and on relatively flat ground. Portions of the Project that occur within these parameters (i.e., within 150 meters of a natural water source and are on relatively flat ground) have an increased potential to contain buried cultural resources and buried stable land surfaces that may have supported life prehistorically and/or historically. This section summarizes the archaeological buried site sensitivity for the Project Area.

According to the Geologic Map of California (Department of Conservation, 2010), the Project Area is underlain by plutonic rocks dating to the Mesozoic (Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite [248-65 MYA]). According to the USDA NRCS Web Soil Survey, soils in the area are primarily comprised of cut and fill materials and Placer diggings, with small portions of the Project of Hoda sandy loam. Little Deer Creek is also within the Project Area.

Given the fill nature of the soils within the Project Area, the rocks underlying the Project Area dating to the Mesozoic (248-65 MYA) and no inadvertent cultural resource discoveries during past construction Projects within Pioneer Park, the potential for buried cultural resources is considered low.

3.5.2.2 Prehistoric Context

3.5.2.2.1 Early and Middle Holocene

The cultural prehistory of Central California spans more than 12,000 years. The earliest evidence for occupation of the region comes from archaeological assemblages attributed to the Fluted Point Tradition (FPT) and Western Stemmed Tradition. Commonly referred to as the Clovis culture, the FPT is generally associated with hunting of large, now extinct, megafauna such as mammoth, mastodon, sloth, camel, etc. In the far West, however, archaeological sites with FPT components suggest that these highly nomadic people were practicing a more broad-spectrum subsistence strategy. In the Great Basin and California, FPT sites are often associated with former strandlines of ancient pluvial lakes and marshlands that were once resource rich, but are now arid and inhospitable. FPT sites are sometimes associated with streams, springs, ponds, and river terraces.

FPT assemblages in California have not been firmly dated because most finds have been made on the surface, precluding the possibility of correlating the artifacts to datable features. On the Plains and in the Southwest, Clovis assemblages have been dated to between 11,500-10,900 years before present (B.P.) (Haynes, 1991), which corresponds to the terminal Pleistocene. (Note: BP is a scientific standard in archaeology. BP stands for "Before Present" and is used when referring to an age estimate produced through radiocarbon dating. For the purposes of the age estimate, the "Present" is taken to be the year 1950 when the application of radio carbon dating technology was generally initiated).

The FPT is characterized by long fluted and bi-facially flaked stone points. The bifaces tend to have slightly convex or parallel sides with a concave base. Other artifacts identified at the Clovis type-site, Black Water Draw #1 in New Mexico, include retouched bone, small triangular points, large lanceolate points, retouched flakes, crescents, and hammerstones. Sites in California that have yielded artifacts attributed to the FPT include Tulare Lake (Riddell and Olsen, 1969), Borax Lake (Harrington, 1948; Meighan and Haynes, 1970), China Lake (Davis, 1978), Ebbetts Pass (Davis and Shutler, 1969), and Tracy Lake (Beck, 1971), among others.

Although the FPT is generally assumed to represent a highly specialized subsistence strategy focused on hunting megafauna, a growing body of evidence suggests that a much wider range of habitats and resources were being exploited (Chartkoff and Chartkoff, 1984; Willig and Aikens, 1988). Furthermore, archaeological evidence suggests that people of the FPT practiced a high degree of residential mobility. This fact is attested to by the presence of exotic raw materials in tool assemblages (often from sources hundreds of miles away) and the technological organization inferred from assemblages.

Roughly coeval, or occurring just after the FPT in the West, is the Western Pluvial Lakes Tradition (WPLT) (Bedwell, 1973). As the name suggests, WPLT sites are often associated with ancient lakes fed by receding glaciers that were once common west of the Rockies. Documented from Northern Mexico to Canada, the WPLT is characterized by large stemmed and shouldered projectile points, crescents, lanceolate points, and core tools. The WPLT existed for thousands of years, from approximately 11,000 to 7,500 B.P (Willig, 1988; Moratto, 1984). Based on early dates taken from the Smith Creek Cave site in Nevada, Bryan (1981) has argued that the WPLT may have been a contemporary of the FPT (11,140 plus or minus 200 B.P.).

The dearth of early Holocene sites in the Sacramento Valley has been noted by a number of researchers and has often been attributed to the rapid sedimentation of the valley that has occurred throughout the Holocene epoch (Milliken, 1995; Moratto, 1984).

The handful of sites attributed to the Middle Holocene occur along the valley's margin, where it meets the Sierra foothills. Occupations of the Farmington Complex, Clarks Flat sites, and Sky Rocket sites have been attributed to the Middle Holocene (Riddell, 1949; Treganza, 1952; Milliken, 1995). Assemblages from these sites are dominated by stemmed points, points resembling Pinto series, and formal flake tools.

3.5.2.2.2 Late Holocene

Archaeological sites dated to the latter half of the Holocene have been documented in much greater numbers and detail in the Sacramento Valley compared to the preceding periods. The following discussion focuses on regional prehistory between 4,500 B.P. to Euro-American contact.

Early efforts to describe the cultural prehistory of the Central Valley focused on archaeological sites with burial features located in close proximity to the Sacramento and San Joaquin Delta and its surrounding tributaries (Meredith, 1900; Schneck and Dawson, 1929; Lillard et al., 1939; Lillard and Purves, 1936; Heizer and Fenenga, 1939; Beardsley, 1948, 1954; Heizer, 1949). Chief among such sites is CA-SAC-107, the Windmiller Site, located on the Cosumnes River. The Windmiller Site figured prominently in the development of the Central Valley cultural sequence since it contained three distinct, stratified components. Investigations undertaken in the Central Valley in the first half of the Twentieth Century culminated in the development of a tripartite cultural sequence that came to be known as the Central California Taxonomic System (CCTS).

Since its inception, the CCTS has been revised to accommodate new data, most notably by Fredrickson (1974) and Bennyhoff (1994). While the CCTS is geographically biased to portions of the Central Valley south of the proposed project area, the following discussion provides a set of expectations regarding potential material remains within the proposed RWSP area. The discussion retains the original terminology of periods that are distinguished on the basis of adaptive strategies, technology, and chronology.

3.5.2.2.3 The Early Period (4,500 to 2,500 B.P.)

The Early Period is distinguished, primarily, by a mortuary artifact assemblage that included dart and spear points made primarily of chert or slate, charmstones, bone tools, Haliotis beads and ornaments, Olivella beads, red ochre, and quartz crystals. Artifacts attributed to the period, such as projectile points, shell beads and pendants, baked-clay objects, and highly polished charmstones, reflect the heightening of cultural trends that started in the Middle Holocene. Utilitarian items found in Early Period assemblages include milling stones, mortars, pestles, bone tools such as fishhooks, harpoon tips, awls, and pins. The subsistence economy of the tradition emphasized the hunting of deer and other game, salmon fishing, and acquisition of seed resources. The process for leaching the tannins out of acorns, thus making them suitable for human consumption, was developed during this period (Chartkoff and Chartkoff, 1984). In retrospect, the fact that early formulations of artifact inventories associated with Early Period sites generally did not include plant processing artifacts results largely from the myopic focus on burial mound features (Shapiro *et al.*, 2004).

3.5.2.2.4 The Middle Period (2,500 to 1,300 B.P.)

The Middle Period in Central California prehistory is marked by changing subsistence strategies that developed subsequent to the Early Period and by a broadening in the variety and materials of utilitarian and ornamental artifacts. Bone and antler artifacts appear in greater number and

include wands, beaver mandibles, tubes, whistles, incised gaming pieces, needles, atlatl spurs, barbless harpoon tips, and ground sturgeon mouth plates and wedges (Shapiro et al., 2004). Other artifacts characteristic of the period include large obsidian and chert concave- and stemmed-based projectile points, charmstones, Olivella beads, Haliotis beads and ornaments, quartz crystals, millingstones and handstones, red ochre, asphaltum, chrysolite asbestos splinters, steatite tubes and earplugs, slate pendants, baked-clay spools, net weights, and occasional mortars and pestles (Heizer, 1939:382; Shapiro *et al.,* 2004).

A significant technological development evident in the middle Period is the appearance of a baked- clay industry to produce items such as net weights used for fishing and hunting fowl. Atlatl and dart technology that favored obsidian for the production of projectile points continued to be used.

During the middle Period, populations were increasing and villages became more numerous, particularly on the banks and rises above the major rivers flowing out of the Sierra Nevada to the east. Utilitarian tools used in hunting and vegetal food processing became more widespread. Trade networks were expanding at this time, as indicated by the increasing amount of exotic obsidian and seashell ornaments offered as grave goods. Burial styles became somewhat more variable over the preceding period as individuals were interred in flexed and extended positions.

Violence was apparently on the rise during this period, as indicated by projectile points found imbedded in human skeletons. Such clashes may have resulted from the competition over finite resources (Beardsley, 1954; Lillard *et al.*, 1939; Ragir, 1972).

3.5.2.2.5 The Late Period (1,300 to 100 B.P.)

The Late Period is marked by changes in subsistence technologies, intensification of resources, and increased socio-political complexity. A hallmark of Late Period technology in Central California is the introduction of the bow and arrow. This important shift is evidenced by the appearance of small projectile points in the archaeological record. Acorn exploitation was intensified during this period as indicated by the widespread association of mortars and pestles with Late Period occupations. Salmon exploitation also peaked during this period and was supplemented by the hunting of game such as deer, elk, and antelope. Waterfowl, hard seeds, and other resources were also pursued.

Artifacts that characterize Late Period occupations include Haliotis ornaments and whole shells, beads made of Haliotis, Olivella, and clamshell, magnesite and steatite, small chert and obsidian arrow points, ear spools and tubes, mammal-bone tubes, incised bird-bone whistles, barbed harpoon tips, antler arrow shaft straighteners, baked-clay objects, wooden fishhooks, netting and basketry items, as well as mortars and pestles (Heizer, 1939:383; Shapiro et al., 2004).

During the Late Period, banks and rises above the lower Sacramento River supported large villages, whose size and density suggest an increasing population over the preceding period. Trade networks were more developed in Late Period times, and exotic goods from the Pacific

Coast and Great Basin were common, especially in burials. Social stratification is clearly evident in burials of this time period. Cremation of the dead was introduced during this period, although flexed burial of the dead continued (Chartkoff and Chartkoff, 1984; Ragir, 1972). Several classes of utilitarian artifacts, such as milling tools, become extremely rare, while decorative and ornamental artifacts, such as modified bird bone and large obsidian bifaces, increase in frequency.

The CCTS has been the subject of much debate over the past 50 years. The system has been criticized because it does not reflect the great diversity represented in the archaeological record of Central California. Aspects of culture such as subsistence and settlement systems, social organization, and other patterned behavior were largely ignored by the early renderings of the CCTS due to its bias towards material remains (Waechter and Mikesell, 1994). Despite its shortcomings, the CCTS remains the dominant paradigm for Central California prehistory.

Based on a review of archaeological literature discussed above, archaeological remains that may be expected in the region include: flaked stone scatters, baked-clay objects, groundstone milling tools, shell middens, as well as habitation sites.

3.5.2.3 Ethnographic Context

The proposed project study area is located in the Sierra Nevada foothills. This area is within territory that was traditionally occupied by the Hill Nisenan, also referred to as Southern Maidu. These Penutian-speaking peoples occupied the drainages of the southern Feather River and Honcut Creek in the north, through the Bear, Yuba, and American River drainages to the south. Their ethnographic territory extended from the crest of the Sierra Nevada, west to the Sacramento River.

Primary sources on Nisenan ethnography include Beals (1933), Faye (1923), Gifford (1927), Kroeber (1925), Littlejohn (1928), and Wilson and Towne (1978). The following summary is based primarily on Wilson and Towne (1978).

The basic social unit for the numerous Nisenan tribelets was the family. Tribelets were typically governed by a headman and tended to have one or more permanent village sites with smaller seasonal/temporary camps scattered throughout the tribelet territory for logistical resource procurement. Tribelets sharing similar cultural elements and linguistic traits comprised "nonpolitical ethnic groups," which have been grouped by ethnologists into the language families we are familiar with today. Villages were frequently located on flats adjoining streams, and were inhabited mainly in the winter as it was usually necessary to go out into higher elevation zones to establish temporary camps during food gathering seasons (i.e. spring, summer and fall) (Kroeber, 1925:395).

Nisenan territory offered abundant year-round food sources. Food gathering was based on seasonal ripening, but hunting, gathering, and fishing occurred year round, with the greatest activity in late summer and early fall. The Nisenan gathered many different staples and as such did not depend on one specific resource (Wilson and Towne, 1978).

Seasonal harvests could be communal or personal property. Most activities and social behaviors such as sharing, trading, ceremonies, and disagreements were important adjuncts to the gathering and distribution of food. Extended families or entire villages of Hill Nisenan would gather acorns. Men would hunt while women and children gathered acorns knocked from trees. Buckeye nuts, sugar and gray pine nuts, and hazelnuts were gathered as well (Wilson and Towne, 1978).

Acorns were cracked on an acorn anvil and shelled. They were then ground into flour using a bedrock mortar and a soaproot brush was used to control scattering. The flour was leached to remove the tannins and then cooked in watertight baskets. Cooking was done with fire-heated stones that were lifted with two sticks, dipped in water to clean them, and then dropped into the cooking basket.

Enough soup and mush was usually prepared for several days. Roots were dug with a digging stick in the spring and summer and were eaten raw, steamed, baked, or dried and pounded in mortars and pressed into cakes to be stored for winter use. Wild onion, sweet potato, and "Indian potato" were the most desired. Wild carrot was used as medicine while wild garlic was used to wash the head and body. Grasses, herbs, and rushes provided food and material for clothing and baskets. Seeds were gathered using a seed beater and tray. They were then parched, steamed, dried, or made into mush.

Many varieties of wild plums, native berries, grapes, and other native fruits were eaten. Manzanita berries were often traded to the valley or made into a cider-like drink. Game was baked, roasted, or dried (Wilson and Towne, 1978; p.389).

Deer drives were common, with several villages participating and the best marksman doing the killing. The animals were often driven into a circle of fire and then killed. Deer were also hunted using deadfalls, snares, and deerskin and antler decoys. The bear hunt was very ceremonial and usually took place during the winter. Lighted brands were often used to drive them from their dens.

3.5.2.4 Historic Context

3.5.2.4.1 Spanish Period

In the early 17th century, Spanish explorers first set foot in California; however attempts to colonize did not begin until 1763 when missions were established along California's coast. Early colonization of California remained at the coastal regions, while California's interior was explored through a series of expeditions. Recorded history in the general vicinity of the project area begins with one such expedition. Gabriel Moraga's journey through the area north of the San Francisco Bay area was undertaken in 1808, with additional incursions to California's interior occurring through the 1820s (Beck and Haase, 1974). However, Moraga's expedition did not result in a settlement near the project area. By the time the Mexican government gained control of California in 1821, the Spanish had established twenty missions, four presidios, and three pueblos.

3.5.2.4.2 Mexican Period

In August 1821 the Treaty of Cordova was signed, recognizing the independence of the Mexican Empire (Rives, 1913). This event marked the beginning of the short-lived Mexican Period in the history Alta California. Mexico codified its policy of colonization of the frontier lands in 1824 (Hayes, 2007). The young government sought to fend off foreign influence by granting private property to native Mexicans and naturalized citizens. In 1828 the regional governors were given authority to issue grants, yet were precluded from implementing it in areas subject to mission control. Following secularization, vast expanses of Alta California were available for grants, the majority of which were made after 1834.

A Mexican land grant was issued for a parcel just west of the project area in modern day Yuba County. Governor Micheltorena granted five square leagues to Don Pablo Gutierrez in 1844, who was an employee of General Sutter (Burgess et al. 2007: 146). Gutierrez built an adobe house on the Rancho de Pablo, which included lands along the northern side of the Bear River (Hoover et al., 1990). Gutierrez was killed in 1844 during the Micheltorena Campaign, and General Sutter, being the magistrate for the region, subsequently auctioned the rancho on December 22, 1844 (Gudde, 1998). The rancho title was then granted to Americans William Johnson and Sebastian Kayser, Johnson taking the eastern half and Kayser the western half.

3.5.2.4.3 American Period

European Americans began arriving in the mid-1820's, most notably with the trapping expeditions of Jedediah Strong Smith. Unlike the San Francisco Bay Area and Southern California, which were explored by missionaries and placed under Spanish land grants as early as the 18th century, the area that is now Placer County remained relatively unsettled until the 1830s, when early immigrants established wagon trails through Oregon into California (Myer, 2002; p. 19). In 1844, with the aid of local Nisenan traders, the Stephens-Townsend-Murphy Party was the first wagon train to pass through the Sierra Nevada into California. The trail that they followed would become known as the "Placer County Emigrant Trail." (Myer, 2002; p. 20)

The population of emigrants to California boomed when James Marshall discovered gold along the American River on January 24, 1848, just ten miles from the current Placer County border (Myer, 2002; p.29). Once over the rocky terrain, emigrants usually stopped at William Johnson's ranch, which was located on the Bear River about 40 miles north of Sutter's Fort on the Placer County border. In 1849, over 30,000 wagon trains were estimated to have travelled into California via the Emigrant Trail.

Settlers moved to the region looking to strike it rich in the mining industry (Myer, 2002; p.20). The Hill Nisenan lived in the prime gold hunting areas. After the discovery of gold near their villages, their environment was altered forever. The majority of the tribe's people were killed by epidemics, forced into slavery, or made to walk hundreds of miles to their deaths. A surviving few remained on the land by intermarrying with white settlers (Myer, 2002; p. 16-17).

Other historically prominent individuals who resided near the project area include Theodore Sicard, a French sailor, who settled in the immediate vicinity in 1844. Sicard constructed an adobe house on the south bank of the Bear River approximately six miles northeast of Johnson's Crossing and approximately six miles east of the present project area. In May of 1848, about four months after Marshall's original discovery at Coloma, Claude Chana, of Burgundy, France, found several "good- sized specimens" of gold in a ravine located between present-day Ophir and "Old Town" Auburn (Myer, 2002; p.26). After his discovery, Chana moved his men further up the ravine and began the "North Fork Dry Diggins" mining operations (Hoover et al., 1990). From this point on through the mid- 1880s, the area became known as the Lincoln Mining District and was intensively mined for gold (Clark, 1970). By the end of that year, 4,000 miners had settled in the vicinity of the American, Bear and Yuba Rivers in pursuit of placer deposits (Myer, 2002; p.29). Two years after the discovery of gold, on September 9, 1850, California achieved statehood. Soon thereafter, Placer County was created out of parts of Sutter and Yuba counties, its boundaries long since established by indigenous Nisenan trade routes (Myer: 2002; p.40-41).

Mining along virtually every stream and river within this part of California was underway by 1850. Drift, or hard rock, mining was initiated as early as 1850 along Deer and Slate Creeks within the Nevada City District, and Wolf, Rattlesnake, Greenhorn, and Magnolia Creeks within the Grass Valley District. In addition, placer mining continued to yield large quantities of gold through the next several years, and by 1855 mining-support industries around Auburn, Grass Valley, and Nevada City included stores, transportation companies, saloons, foundries, lumber mills, water companies, toll roads, and stage lines.

3.5.2.4.4 Water Companies

Companies that specialized in water and ditch digging had a significant impact on early mining through the 1880s. Drift, hydraulic, and quartz mining were some of the various forms of mining in the early 1850s that demanded the use of water in order to expose gold-rich deposits buried below the surface. The first mining ditches were dug in order to get water to dry diggings. Miners often pooled their money and efforts together to form companies that could afford the costs and labor associated with the construction of water canals. Some of these companies later specialized in selling water rather than directly supporting the mining industry (Caltrans and JRP Historical Consulting Services, 2000: 33).

3.5.2.4.5 Hydraulic Mining

Because placer and lode mining rapidly depleted surface deposits, hydraulic mining was introduced in 1853 to more efficiently collect gold from riverbeds. High-pressure water washed gold-bearing gravel into sluice boxes where gold was extracted. Nitroglycerin dynamite was also used to dislodge minerals from hard rock deposits and canals were dug to divert river water. Hydraulic mining spurred a boom in the industry and dozens of mining camps appeared almost overnight throughout Nevada County. Hydraulic mining severely impacted the environment by eroding hillsides and causing subsequent flooding. The Sawyer Decision of 1884 effectively brought an end to hydraulic mining in the area. Affected by the ban on hydraulics, many of the newly formed mining camps fell into rapid decline and disappeared almost as quickly as they had shown up (Myer, 2002; p. 31-33).

3.5.3 Impact Analysis

This section analyzes the project's potential to result in significant environmental impacts to cultural and paleontological resources. When an impact is determined to be significant, mitigation measures are identified that would reduce or avoid that impact, if feasible.

3.5.3.1 Methodology

3.5.3.1.1 Records Search

As part of the study, a records search was conducted at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) by NCIC staff, on June 13, 2016 (NCIC File No. NEV-16-29) for the proposed Project area and a quarter-mile buffer. The NCIC, an affiliate of the State of California Office of Historic Preservation, is the official state repository of archaeological and historic records and reports for a six-county area that includes Nevada County, and it is housed at California State University, Sacramento.

The records search for this study was performed in order to: (1) determine whether known cultural resources had been recorded within or adjacent to the study area; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

The record search included a review of all cultural resources and reports within a quarter-mile of the proposed Project area. The records search utilized the Nevada City U.S. Geological Survey 7.5-minute quadrangle map. Other sources reviewed included the Office of Historic Preservation (OHP) Historic Properties Directory, Archaeological Determinations of Eligibility, California Inventory of Historical Resources (1976), Caltrans Bridge Survey, Ethnographic Information, Historical Literature, Historical Maps, and Soil Survey Maps.

The National Register of Historic Places (NRHP) and California Register Historical Resources (CRHR) databases were also reviewed and no NRHP or CRHR are within or immediately adjacent to the Project Area. The Project area is also outside the Nevada City Downtown Historic District.

The records search revealed that no previously recorded cultural resources or cultural resource studies have been recorded in the proposed Project area. However, one historic cultural resource was previously recorded and two cultural resource studies were previously completed within a quarter-mile radius of the Project area (See Table 3.5-2). (NCIC 2016)

Table 3.5-1 Previously Recorded Cultural Resources

Primary Number	Resource Name	Age	Within Project Area
P-29-3046	Rough and Ready Ditch	Historic	No

Table 3.5-2 Previous Cultural Resources Studies

Document Number	Year	Author(s)	Title	Within Project Area
2468	1999	Levy, David	Confidential Archaeological Addendum forTimber Operations on Non-Federal Lands inCalifornia for Mociun THP.	No
5355	2002	Jensen, Peter M.	Archaeological Inventory Survey for St.Francis Woods Development Project	No

3.5.3.1.2 AB 52 Native American Consultations

The proposed Project requires compliance with Assembly Bill 52 which requires the CEQA lead agency (City of Nevada City) to consult with tribes about potential tribal cultural resources in the project area, the potential significance of project impacts, the development of project alternatives, and the type of environmental document that should be prepared. Below is a summary of the AB 52 consultations for the proposed Project.

On August 31, 2016, the City of Nevada City sent consultation letters to the Colfax-Todds Valley Consolidated Tribe, Washoe Tribe of Nevada and California, Nevada City Rancheria, T'si-Akim Maidu, and United Auburn Indian Community of the Auburn Rancheria (UAIC).

The UAIC sent a letter on September 14, 2016 requesting to consult on the proposed Project. In the letter, the UAIC requested copies of any Project archaeological or environmental reports, requested to participate in the cultural resources survey for the proposed Project, and recommended that a tribal monitor be present during any Project ground disturbing activities as the UAIC's preservation committee identified cultural resources in and around the project area. In response to the UAIC's letter, the City emailed the UAIC on October 24, 2016 and proposed a discussion of the UAIC's recommended tribal monitoring during project construction and a site visit with UAIC representatives. The City also called the UAIC representative on October 26th and left a voicemail. On November 1, 2016, the City sent a follow up email to the UAIC reviewing the UAIC's requests and asking for a response. No response from the UAIC has been received to date.

No response was received from any other Native Americans contacted for the proposed Project.

3.5.3.1.3 Field Survey

A Stantec archaeologist conducted intensive-level pedestrian surveys of the proposed Project area and adjacent areas on June 23, 2016 and August 12,2016. The proposed Project area was evaluated for the presence of prehistoric and historic site indications.

Site indicators for the presence of prehistoric sites in this area may include, but are not limited to: ground depressions; darkened soil areas indicative of middens; fire scorched and/or cracked rock; modified obsidian, chert, or other vitreous materials; and grinding stones including manos and metates. Historic era artifacts may include, but are not limited to: metal objects including nails; containers or miscellaneous hardware; glass fragments; ceramic or stoneware objects or fragments; milled or split lumber; trenches; feature or structure remains such as buildings or building foundations; and trash dumps.

The survey used transects spaced no more than 30 meters apart and examined the entire proposed Project area. Ground visibility was fair to poor and was covered with grasses/vegetation and paved roads/walkways in and around Pioneer Park. The survey found that the proposed Project area has been subject to historic and modern disturbances including, but not limited to: Initial and continued development of Pioneer Park and the surrounding residential neighborhood. During the survey, Pioneer Park was identified as an historic cultural landscape and was recorded and evaluated. Table 3.5-3 below describes the resource in more detail.

Table 3.5-3 Cultural Resources within the Project Area Recorded During Field Surveys

Resource Name	Age	CRHR Eligible
Pioneer Park	Historic	Recommended Eligible

Pioneer Park, is a city-owned community park on five parcels (APN# 05-440-02-000, 05-440-03-000, 05-460-17-000, 05-460-51-000, 36-370-49-000) that includes 40 architectural features constructed between 1933 and 2011. Pioneer Park is recommended as eligible for the CRHR under Criterion 1, for the Park's association with significant events in state and local history.

While the proposed Project is within Pioneer Park, which is recommended as eligible to the CRHR, the proposed Project would not impact this potentially eligible resource.

No other cultural resources were observed within the proposed Project area.

Table 3.5-7 below discusses the potential Project-related impacts relative to cultural resources for the Project.

Table 3.5-4 CEQA Checklist for Assessing Project-Specific Potential Impacts to Soils and the Potential for Impacts to Cultural Resources

V. CULTURAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

a) Would the Project cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?

Finding: Less than significant with mitigation incorporated

There is one historical resource within the Project area, Pioneer Park.Pioneer Park is recommended as eligible for the CRHR under Criterion 1, for the Park's association with significant events in state and local history. While the proposed Project is within Pioneer Park, which is recommended as eligible to the CRHR, the proposed Project would not impact this potentially eligible resource. As such the proposed project will not cause substantial adverse change in the significance of an historical resource as identified in Section 15064.5. No other cultural resources were observed within the study area. The likelihood of encountering a significant historical resource in this previously disturbed area is unlikely. However, the possibility for encountering unanticipated cultural resources during construction of the proposed Project is always a possibility and Mitigation Measure CULTURAL-1 is required to reduce impacts to a less than significant level.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource as identified in Section 15064.5?

Finding: Less than significant with mitigation incorporated

The UAIC sent a letter on September 14, 2016 requesting to consult on the proposed Project. In the letter, the UAIC recommended that a tribal monitor be present during any Project ground disturbing activities as the UAIC's preservation committee identified cultural resources in and around the project area. In response to the UAIC's letter, the City emailed the UAIC on October

24, 2016 and proposed a discussion of the UAIC's recommended tribal monitoring during project construction and a site visit with UAIC representatives. The City also called the UAIC representative on October 26th and left a voicemail. On November 1, 2016, the City sent a follow up email to the UAIC reviewing the UAIC's requests and asking for a response. No response from the UAIC has been received to date. While no specific cultural resources were identified by the UAIC to date, the City will work with the UAIC to avoid impacts to any cultural resources within the proposed Project.

There is one historical resource within the Project area, Pioneer Park. Pioneer Park is recommended as eligible for the CRHR under Criterion 1, for the Park's association with significant events in state and local history. While the proposed Project is within Pioneer Park, which is recommended as eligible to the CRHR, the proposed Project would not impact this potentially eligible resource. As such the proposed project will not cause substantial adverse change in the significance of an historical resource as identified in Section 15064.5. No other cultural resources were observed within the study area.

The likelihood of encountering a significant cultural resource in this previously disturbed area is unlikely. However, the possibility for encountering unanticipated cultural resources during construction of the proposed Project is always a possibility and Mitigation Measure CULTURAL-1 is required to reduce impacts to a less than significant level.

c) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Finding: Less than significant with mitigation incorporated

There are no known significant paleontological sites or deposits within the Project area and the project site has been previously disturbed. However remote, the possibility for encountering paleontological resources during construction of the proposed Project does exist. Therefore, Mitigation Measure CULTURAL-1 is required to reduce impacts to a less than significant level.

d) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Finding: Less than significant with mitigation incorporated

There are no known human burials or remains within the Project area and the likelihood of encountering a burial is limited. In the event that human remains are encountered during construction of the proposed Project, Mitigation Measure CULTURAL-2 will be employed to reduce impacts to a less than significant level.

3.5.4 Mitigation

Mitigation Measure CUL-1: Proper Handling of Inadvertent Discovery of Cultural and Paleontological Resources

If cultural resources are encountered during proposed Project construction, construction shall be halted immediately in the subject area and a qualified professional archaeologist shall be consulted. Prehistoric resources may include chert or obsidian flakes, projectile points, mortars and pestles, dark friable soil containing shell and bone dietary debris, and heat-affected rock. Historic resources may include stone or wood foundations or walls, structures or remains with square nails, and refuse deposits.

If any paleontological resources (i.e., fossils) are found during proposed Project construction, construction shall be halted immediately in the subject area and the Cityshall be immediately notified. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. The appropriate treatment of inadvertently discovered paleontological resources shall be implemented to ensure that the impacts to these resources are avoided.

If the Cityor its contractor finds archeological, paleontological, or human remains, the Cityand its contractor will stop work and isolate the area using orange or yellow fencing until the appropriate regulatory agency is contacted and clears the area for future work. The City at its discretion can move construction activities and restart activities at a distance not expected to affect or disturb the find. Work can proceed away from the area of the find but cannot proceed toward the area of the find. If the City resumes work in a location where archaeological, paleontological, or human remains have been discovered and cleared, the City will have an archeologist onsite to confirm that no additional archaeological resources are in the area.

Mitigation Measure CUL 1 Implementation

Responsible Party: The City would ensure the appropriate treatment for any discovery of pre-historic, historic, or paleontological resources during construction.

Timing: During all ground disturbing activities.

Monitoring and Reporting Program: If any find is determined to be significant, representatives of the City and a qualified archaeologist or paleontologist (if a paleontological resource is discovered) would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials and paleontological resources recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist or paleontologist (if a paleontological resource is discovered) according to current professional standards. A report shall be kept on file at the Cityoffices.

Standards of Success: The proper recording, evaluation, and treatment of any newly identified prehistoric, historic, or paleontological resources.

Mitigation Measure CUL-2: Proper Handling of Inadvertent Discovery of Human Remains

If human remains are encountered, work shall halt in the vicinity and the County Coroner shall be notified immediately pursuant to PRC Section 7050.5. At the same time, an archaeologist

shall be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC shall identify the person or persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD shall have an opportunity to make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

Mitigation Measure CUL-2 Implementation

Responsible Party: The City and the Nevada County Coroner would ensure the appropriate treatment for any discovery of any human remains during construction.

Timing: During all ground disturbing activities.

Monitoring and Reporting Program: The recording and evaluation of any newly identified human remains shall be conducted by qualified professional archaeologists and a report shall be kept on file at the Cityoffices.

Standards of Success: The proper recording, evaluation, and treatment of any newly identified human remains.

3.6 GEOLOGY AND SOILS

3.6.1 Regulatory Setting

3.6.1.1 Seismic Related Regulations

The Alquist Priolo Zoning Act requires the mapping of zones around active faults in California, in an effort to prohibit the construction of structures for human occupancy on active faults and minimize damage due to rupture of a fault (USGS 2012). The Seismic Hazard Mapping Act

(SHMA) of 1990 is intended to delineate zones where earthquakes could cause hazardous ground shaking and ground failure. Both of these acts require local cities and counties to regulate activities within these zones. Additionally, Title 24 of the California Code of Regulations, the California Standard Building Code, contains specific requirements for construction with respect to earthquakes intended to be protective of public health; however, as a restoration project that does not include structures, the building code does not apply (Government Code Section 53091).

3.6.1.2 Nevada County General Plan

The Nevada County General Plan contains elements to control erosion, including:

Goal 12.1: "Minimize adverse impacts of grading activities, loss of soils and soil productivity".

Specifically, the county enforces a Grading Code (Section L-V Article 19 of the Nevada CountyLand Use and Development Code) with the scope of "…sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes standards of required performance in preventing or minimizing water quality impacts from storm water runoff; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction, drainage, and erosion and sediment controls at construction sites" (Sec L-V 19.2A).

Section L-V 19.14: Establishes standards for erosion control, including the requirements for preparing erosion control plans.

3.6.1.3 Nevada City General Plan

The following goal and objective regarding geological resources are set forth in the Community Goals Element of the Nevada City General Plan:

- Ensure a high level of safety from earthquake, landslide, severe erosion, and other geotechnical hazards.

- Protect and improve quality of both surface water and groundwater.
  - Encourage programs to reduce erosion and sedimentation (e.g., control of hillside development).
- Preserve and enhance the important natural features, e.g., Sugarloaf, the ridges, the creeks, Gold Run, the hills within the city, and the steep terrain lying west of the city core.
  - Prevent soil erosion and hillside scarring through control of grading, restrictions on removal of vegetation, and limitation of development on steep slopes.

3.6.2 Environmental Setting

The proposed Project site is within Nevada County where the area can be categorized by gently rolling topography which forms the western foothills of the Sierra Nevada Mountains. The proposed Project site is located between 2,480 to 2,510 feet in elevation. The Project area is categorized within the western foothills geologic substructure and is generally comprised of granitic formations (Nevada County General Plan 2012). The regional geology of the Project area consists of Paleozoic and Mesozoic Rocks, consisting of metavolcanic rocks and Miocene-Pliocene intrusive rocks (Saucedo and Wagner 1992).

Soil surveys for western Nevada County were conducted by the United States Department of Agriculture Soil Conservation Service and near surface soils of the Project area were mapped in 2013 by the Natural Resources Conservation Service (NRCS). Soils in the Project vicinity include: Hoda Sandy Loam 9-15% slopes, Placer Diggings, and Cut/Fill. (NRCS 2013). The site mostly consists of Cut/Fill. TheFill source is reportedly overburden from an abandoned mine site and consists of reddish brown sandy clay loam with occasional gravel and cobbles. Placer Diggings are located along Little Deer Creek in the eastern and southeastern portions of the site and consist of placer mined areas along stream channels consisting of disturbed stream sediments including silt, sand, gravel, cobbles and boulders. Hoda Sandy Loam 9-15% slopes is located along the north bank of Little Deer Creek in the north portion of the site and around the western and southern perimeters of the Project area. Hoda series soils are characterized as deep to very deep, well drained soils formed in material weathered from granodiorite rock. Permeability is moderate and runoff is medium. (The Cooperative Soil Survey 2014).

Fault activity in the project vicinity is minimal, the Giant Gap Fault, with evidence of lateQuaternary (between 12,000 and 700,000 years ago) movement, is located approximately 12 miles east of the Project area (USGS 2014). Several other late Quaternary and older faults occur within approximately 20 miles of the Project area including the Wolf Creek Fault Zone,Spenceville Fault, Deadman Fault, Bear Mountains Fault Zone, Maidu Fault, and several pre-Quaternary (greater than 1.6 million years ago) fault traces associated with these faults zones(USGS 2014). The Cleveland Hill Fault is the nearest principal fault with historic displacement, within the last 200 years, identified and mapped pursuant to the Alquist-Priolo Earthquake ZoningAct and is located approximately 32 miles northwest of the Project area.

Western Nevada County is characterized having a low level of earthquake hazard and is distant from known, active faults (CGS 2002). Moreover, the peak ground shaking velocity with a ten percent probability of being exceeded in the next 50 years for the Project area is 0.105 times the acceleration due to gravity (g) for firm rock and 0.153 g for alluvium (CGS 2016). These velocities correspond to between VII and VIII on the modified Mercalli scale and slight to moderate property damage, particularly to poorly constructed and/or designed construction.

The risk of landslides in Nevada County is generally low, and moderate at worst, due to the prevalence of igneous and metamorphic bedrock overlain by relatively shallow cohesive soils.

Areas susceptible to slides include steep topography, past hydraulic mining, and precipitation in large amounts (Nevada County Master Environmental Inventory 1995).

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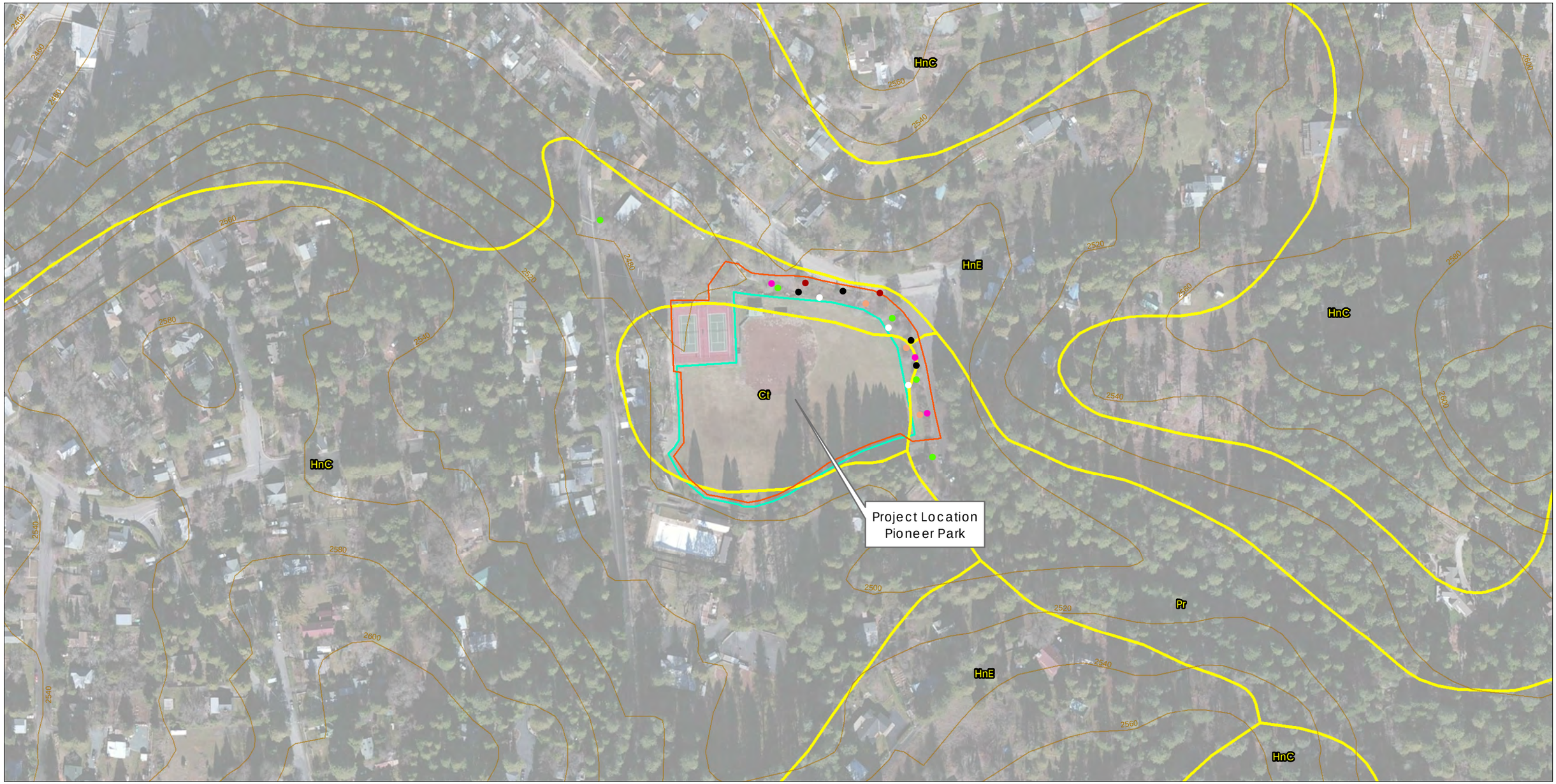

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Legend

- Proposed Trail
- Elevation Contour
- Pioneer Park Field

Soil Type

- Ct - Cut and fill land
- HnC - Hoda sandy loam (9-15% slopes)
- HnE - Hoda sandy loam (15-50% slopes)
- Pr - Placer diggings

Trail Samples

- Trail Samples
- Sediment Samples
- Proposed Bank RL Samples
- Existing Bank RR Samples
- Concrete Samples
- Berm Samples

Figure No.
3.6.1

Title
Proposed Project
Geology and Soils

Client/Project
City of Nevada City
Little Deer Creek
Restoration and Flood Mitigation Project

0 100 200 Feet
1:2,377 (at original document size of 11x17)

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Stantec

3.6.3 Impact Analysis

Table 3.6-1 and the section below discuss the potential Project impacts relative to geology and soil-related issues.

Table 3.6-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Soils and the Potential for Geologic Impacts

VI. GEOLOGY AND SOILS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Finding: Less than significant

The proposed Project area is not located in a fault zone delineated on the California Geological Survey, Alquist-Priolo Earthquake Fault Zoning map (CGS 2010). The nearest active fault is the Cleveland Hills Fault located approximately 32 miles from the Project site. The Project does not include construction of structures for human occupancy and would not subject people or structures to adverse effects due to rupture of a known fault because as there are no known active faults in the Project area (USGS 2014). The Foothills Fault System north central reach section (Highway 49 Fault) is located approximately 12 miles south of the Project area; however, it is not an active fault with most recent movement occurring more than 130,000 years ago (USGS 2014). Therefore, impacts are considered less than significant.

ii) Strong seismic ground shaking

Finding: Less than significant

The proposed Project area is susceptible to low ground shaking (<0.2 g) associated with a major earthquake on nearby active faults, in which slight to moderate damage to ordinary structures and negligible damage to well designed and constructed structures is possible. The proposed Project does not involve construction of any structures or facilities for human habitation. Therefore, potential seismic impacts are considered less than significant.

iii) Seismic related ground failure, including liquefaction.

Finding: Less than significant

Liquefaction, a process in which the soil behaves like a liquid, can damage buildings, roads, and pipelines through uneven settlement of the soil and the soils loss of structural support capabilities(USGS 2008). In order for liquefaction to occur, there must be loose granular sediment that is saturated and there must be strong ground shaking (USGS 2008). The low ground shaking potential of the site and well drained cohesive soils over bedrock minimize the potential for liquefaction. Soils underlying the proposed infrastructure are cohesive and well drained and not likely susceptible to liquefaction. Furthermore, the site is not susceptible to strong ground shaking necessary for liquefaction to occur. Therefore, impacts are considered less than significant.

iv) Landslides

Finding: Less than significant

The proposed Project area is located in Nevada County where soils are generally shallow over dense igneous and metamorphic bedrock, and the potential for landslides is low (Nevada County Master Environmental Inventory 1995). Therefore, impacts are considered less than significant.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Finding: Less than significant with mitigation incorporated

The proposed Project ground disturbance activities will include soil excavation and re-grading and upon Project completion will be restored to existing surface area conditions. During ground disturbance activities, Mitigation Measure GEO-1: Sedimentation and Erosion Control Measures will be implemented, to minimize the potential for erosion due to soil exposure. The contractor shall prepare a SWPPP that will be reviewed by the RWQCB. With the implementation of Mitigation Measure GEO-1, the proposed Project will not result in substantial soil erosion or loss of topsoil. Therefore, impacts are considered less than significant with mitigation incorporated.

c) Would the Project be located on strata or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Finding: Less than significant

The proposed Project is located on well-drained, cohesive soils underlain by dense bedrock. These soils, and the bedrock, are inherently stable, generally not susceptible to landslide or lateral spreading, and are not likely susceptible to subsidence or liquefaction. Therefore, impacts are considered less than significant.

d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (UBC), creating substantial risks to life or property?

Finding: Less than significant

The proposed Project involves soil excavation and re-grading and trail construction. No new structures are proposed. The proposed Project will be constructed in compliance with applicable County and State requirements. Therefore, this impact is considered less than significant.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Finding: No impact

The Project involves soil excavation and re-grading and trail construction. No wastewater will be produced as a part of the Project. Moreover, on-site wastewater treatment and disposal is not a necessary component of the Project. Therefore, no impact would occur.

3.6.4 Mitigation

Mitigation Measure GEO-1: Sedimentation and Erosion Control Measures

In compliance with the requirements of the State General Construction Activity Stormwater Permit, The City of Nevada City (City) shall obtain coverage under the current Construction General Permit (2009-0009-DWQ) and prepare a Stormwater Pollution Prevention Plan (SWPPP) that incorporates measures or comparable Best Management Practices which describes the site, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management controls. Nevada City shall require all construction contractors to retain a copy of the approved SWPPP at the project site and implement the SWPPP. Additionally, the SWPPP shall ensure that all stormwater discharges are in compliance with all current requirements of the Construction General Permit (2009-009-DWQ).

Mitigation Measure GEO-1 Implementation

Responsible Party: The City shall obtain coverage under the current Construction General Permit (2009-0009-DWQ) and prepare a Stormwater Pollution Prevention Plan (SWPPP). This mitigation measure will be referenced in the plans and specifications bid for the proposed project.

Timing: During construction activities and until the site is stabilized.

Monitoring and Reporting Program: The recording and evaluation of the SWPPP and erosion control practices will be conducted by Nevada City and the contractor and kept on file at the City Hall and at the Project site.

Standards of Success: Minimize on- and off-site erosion and prevent introduction of significant amounts of sediment into any stream or drainage. Ensure that all storm water discharges are in compliance with all current requirements of the Construction General Permit.

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 Regulatory Setting

3.7.1.1 Federal Regulations

3.7.1.1.1 U.S. Environmental Protection Agency (EPA)

Greenhouse Gas Endangerment. In Massachusetts v. EPA (Supreme Court Case 05-1120), decided on April 2, 2007, the Supreme Court found that four GHGs, including CO2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the U.S. Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator findings (EPA 2009).

3.7.1.2 State Regulations

There are a variety of statewide rules and regulations which have been implemented or are in development in California which mandates the quantification or reduction of GHGs. Under CEQA, an analysis and mitigation of emissions of GHGs and climate change in relation to a proposed project is required where it has been determined that a project will result in a significant addition of GHGs. Certain Air Pollution Control Districts (APCDs) have proposed their own levels of significance. The NSAQMD, which has regulatory authority over the air emissions from this Project, has not established a significance threshold.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the

year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, NOx, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The ARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

> *Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.*

The ARB approved the 1990 GHG emissions level of 427 MMTCO2e on December 6, 2007 (CARB 2016). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a "business as usual" scenario were estimated to be 596 MMTCO2e, which do not account for reductions from AB 32 regulations (ARB 2016). At that level, a 28 percent reduction was required to achieve the 427 million MTCO2e 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 million MTCO2e. Therefore, under the updated forecast, a 21.7 percent reduction from business as usual (BAU) is required to achieve 1990 levels (CARB 2015).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The ARB also prepared updated emission inventories for 2000 through 2011 to show progress achieved to date (ARB 2013). Executive Order S-3-05 includes a target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target. Also shown are the average reductions needed from all statewide sources (including all existing sources) to reduce GHG emissions back to 1990 levels.

- 1990: 427 million MTCO2e (AB 32 2020 Target)
- 2000: 463 million MTCO2e (an average 8-percent reduction needed to achieve 1990 base)
- 2010: 450 million MTCO2e (an average 5-percent reduction needed to achieve 1990 base)
- 2020: 545 million MTCO2e BAU (an average 21.7-percent reduction from BAU needed to achieve 1990 base)

ARB Scoping Plan. The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (ARB 2016). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

The ARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California's climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities Climate for the next several years.

The Update does not set new targets for the State, but describes a path that would achieve the long term 2050 goal of Executive Order S-05-03 for emissions to decline to 80 percent below 1990 levels by 2050 (ARB 2016).

The ARB has no legislative mandate to set a target beyond the 2020 target from AB 32 or to adopt additional regulations to achieve a post-2020 target. The Update estimates that reductions averaging 5.2 percent per year would be required after 2020 to achieve the 2050 goal. With no estimate of future reduction commitments from the State, identifying a feasible strategy including plans and measures to be adopted by local agencies is not currently possible.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the ". . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S 3-05, the following reduction targets for GHG emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15s. Governor Jerry Brown signed Executive Order B-30-15s on April 29, 2015. The following are major provisions of the Executive Order:

1. A new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order

to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

2. All state agencies with jurisdiction over sources of greenhouse gas emissions shall implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

3. The California Air Resources Board shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

The executive order does not apply directly to cities and counties, but will lead to the preparation of a new ARB Scoping Plan and the development of regulations to achieve post-2020 reduction targets.

3.7.1.3 Local Regulations

3.7.1.3.1 Northern Sierra Air Quality Management District

The Project is under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD), which regulates air quality according to the standards established in the Clean Air Act. The NSAQMD has not yet established significance thresholds for GHG emissions, but states that, pursuant to provisions and precedents stemming from AB32, greenhouse gas (GHG) emissions should be quantified for decision-makers and the public to consider (NSAQMD 2009).

3.7.1.3.2 Nevada County General Plan

As part of the General Plan, Nevada County (1996) has adopted Goal EP 4.3 intended to improve greenhouse gas emissions.

Goal EP 4.3 To the extent feasible, encourage the reduction of Greenhouse Gas emissions during the design phase of construction projects (Nevada County 1996).

3.7.1.3.3 Nevada City General Plan

The Nevada City General Plan contains no elements specific to greenhouse gases.

3.7.2 Environmental Setting

In accordance with determinations made by the State of California, Greenhouse gases (GHGs) and climate change are cumulative global issues. The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) regulate GHG emissions within the State of California and the United States, respectively. While the CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction.

Greenhouse Gases (GHGs)

Many chemical compounds found in the Earth's atmosphere act as GHGs, which allow sunlight to enter the atmosphere freely. When sunlight strikes the Earth's surface, some of it is reflected back towards space as infrared radiation (heat). GHGs absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy sent from the sun to the Earth's surface should be about the same as the amount of energy radiated back into space, leaving the temperature of the Earth's surface roughly constant. Many gases exhibit "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide, methane, and nitrous oxide), while others are exclusively anthropogenic (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below:

- Carbon Dioxide (CO_2): CO_2 enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacturing of cement). CO_2 is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- Methane (CH_4): CH_4 is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills and waste water facilities.

- Nitrous Oxide (N_2O): N_2O is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- Fluorinated Gases: HFCs, PFCs, and SF_6 are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochloro fluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high Global Warming Potential (GWP) gases.

3.7.3 Impact Analysis

Greenhouse gas emissions associated with the proposed Project were estimated using CO_{2e} (Carbon Dioxide Equivalent) emissions as a proxy for all greenhouse gas emissions. In order to obtain the CO_{2e}, an individual GHG is multiplied by its GWP. The GWP designates on a pound for pound basis the potency of the GHG compared to CO_2 (CalEEMod, Appendix A: Calculation Details for CalEEMod, pg. 3).

The primary sources of proposed Project-related GHG emissions are anticipated to be combustion of fossil fuels from the operation of internal combustion engines used during Project construction (portable equipment, off-road equipment, dump trucks, and other vehicles). It is

anticipated that approximately 150 truck trips would be needed to haul contaminated soil and concrete and approximately 115 truck trips to import fill for the creek restoration, field grading, and trail improvements. CO_{2e} emissions during proposed Project operation are expected to be low and will primarily be associated with vehicles and equipment for park maintenance. Operational emissions will be similar to existing site conditions and will not result in a substantial amount of GHG emissions.

As previously stated, the NSAQMD has not set up GHG emissions thresholds therefore this impact analysis uses current significance thresholds developed by the Sacramento Metro Air Quality Management District (SMAQMD) as a comparative. The SMAQMD has established GHG emission thresholds for construction phase, operational phase, and stationary source projects. Although these thresholds are not binding on the NSAQMD, they are useful for comparative purposes. SMAQMD emissions significance thresholds consider any construction phase of a project emitting over 1,100 metric tons/year of CO_{2e} would be considered significant (SMAQMD 2014).

Table 3.7-2 CEQA Checklist for Assessing Project-Specific Potential Greenhouse Gas Emissions Impacts

VII. GREENHOUSE GAS EMISSIONS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Finding: Less than significant

The NSAQMD has not established GHG emissions thresholds; therefore, estimated Project construction emissions were compared to the SMAQMD significance thresholds. Predicted proposed Project emissions are well below SMAQMD significance thresholds for CO_{2e} emissions levels. Table 3.7-2 indicates the proposed Project quantitative impacts relative to greenhouse gas emissions.

Table 3.7-3 Little Deer Creek and Pioneer Park Restoration Project CalEEMod Predicted CO2e Emissions Estimates

2017 Construction Source CO_{2e} Emission Estimates (metric tons/year unmitigated)	77.5
2018 Construction Source CO_{2e} Emission Estimates (metric tons/year unmitigated)	60.4
Total Construction Source CO_{2e} Emission Estimates (metric tons/year unmitigated)	137.9
SMAQMD CO_{2e} Construction Phase Emissions Significance Thresholds (metric tons/year)	**1,100**

Emissions of GHGs during the operations of the proposed Project would be similar to existing conditions, which include emissions from park maintenance and visitor vehicle trips. The proposed Project would not add additional maintenance activity or vehicle trips. The proposed Project will not generate GHG emissions levels that either directly or indirectly have significant impacts on the environment because of low Project CO_{2e} emission estimates. Therefore, potential greenhouse gas emissions impacts are considered less than significant.

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Finding: Less than significant

The proposed Project will not generate additional greenhouse gas emissions that would conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Total CO_{2e} levels predicted to be emitted from construction totaled 137.9 metric tons per year. This CO_{2e} estimate is far lower than SMAQMD significance thresholds of 1,100 metric tons of CO_{2e} per year. Therefore, potential greenhouse gas emissions impacts are considered to be less than significant.

3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 Regulatory Setting

A hazardous material is defined by the California Environmental Protection Agency (CalEPA), Department of Toxic Substances Control (DTSC), as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations 25501). For the purposes of this analysis, hazardous materials include raw materials and material remaining on-site as a result of past activities including historic placement of fill with elevated arsenic concentrations in the proposed Project area.

Applicable regulations and policies considered relevant to the proposed Project are summarized below.

3.8.1.1 Federal Regulations

The principal federal regulatory agency responsible for the safe use and handling of hazardous materials is the EPA. Two key federal regulations pertaining to hazardous wastes are described below. Other applicable federal regulations are contained primarily in Titles 29, 40, and 49 of theCode of Federal Regulations.

3.8.1.1.1 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) enables the EPA to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, thus regulating the generation, transport, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

3.8.1.1.2 Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, was passed to facilitate the cleanup of the nation's toxic waste sites. In1986, CERCLA was amended through the Superfund Amendment and Reauthorization Act TitleIII (community right-to-know laws). Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the clean-up, even if the material was dumped illegally when the property was under different ownership.

3.8.1.2 State Regulations

California regulations are equal to or more stringent than federal regulations. EPA has granted the State of California primary oversight responsibility to administer and enforce hazardous waste management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key laws pertaining to hazardous wastes are discussed below.

3.8.1.2.1 Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the BusinessPlan Act, requires businesses using hazardous materials to prepare a report that describes their facilities, inventories, emergency response plans and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

3.8.1.2.2 Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in Title 26 of the California Code ofRegulations, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification;
- Generation and transport;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of them. Under the Hazardous Waste Control Act and Title26, the generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location.

3.8.1.2.3 Emergency Services Act

Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including the EPA, the California Highway Patrol, Regional WaterQuality Control Boards, air quality management districts, and county disaster response offices.

3.8.1.3 Other Laws, Regulations, and Programs

Various other state regulations have been enacted that affect hazardous waste management, including:

- Safe Drinking Water and Toxic enforcement Act of 1986 (Proposition 65), which requires labeling of substance known or suspected by the state to cause cancer.
- California Government Code Section 65962.5, which requires the Office of Permit. Assistance to compile a list of possible contaminate sites in the state. State and federal regulations also require that hazardous materials sites be identified and listed in public records. These lists are:
  - Comprehensive Environmental Response, Compensation, and Liability Information System;
  - National Priorities List for Uncontrolled Hazardous Waste Sites;
  - Resource Conservation and Recovery Act;
  - California Superfund List of Active Annual Workplan Sites; and
  - Lists of state-registered underground and leaking underground storage tanks.

3.8.2 Environmental Setting

The Project site is located in the eastern portion the City of Nevada City, and surrounded by residential properties, and wooded and riparian open space. The Project site consists of the lower playing field of Pioneer Park, the riparian area of Little Deer Creek adjacent to the lower field and a trail alignment around the perimeter of the field.

Based on a review of Project site history, prior to construction of Pioneer Park in the late 1940s, Little Deer Creek flowed through the middle of what is now the lower playing field. When Pioneer Park was developed, imported fill soil was used to fill the Little Deer Creek stream channel and grade the lower field. The stream was relocated around the eastern and northern perimeter of the field and confined within a concrete lined channel, soil berm was also constructed along the eastern edge of the field to control flooding. The borrow source for the fill material was reportedly a site approximately one mile southeast of the park. Soil used for fill consisted of reddish brown clayey loam soil which may have been overburden from an abandoned mine. Elevated arsenic is a common constituent of mine waste in the local area.

Previous studies completed between 2007-2010, have identified elevated arsenic concentrations in the fill soil in the near surface soil throughout the lower playing field as well as the stream bank and stream sediment in Little Deer Creek, which will be disturbed during Project construction. Additional soil sampling and analysis conducted in 2016 and documented in the

Site Characterization Report (Appendix C) indicated arsenic is the primary constituent of concern in site soil. No other title 22 metals exceeded applicable regulatory standards. Arsenic concentrations in the Project area range from 4.7 to 106 milligrams per kilogram (mg/kg), with a mean concentration of 54.9 mg/kg. Total and soluble arsenic analysis indicated that fill soil at the site does not exceed Total Threshold Limit Concentrations (TTLC) of 500 mg/kg or the Soluble Threshold Limit Concentration (STLC) and thus the soil would not be considered Hazardous Waste under Title 26 of the California Code of Regulations. However, the soil is considered a Hazardous Substance and will require special handling and off –site disposal.

Hazards and hazardous materials at the Project site are limited to contaminated fill soils consisting of mine waste impacted by arsenic. Refer to the Project Description section of this Initial Study, which discuss the Site contamination.

3.8.3 Impact Analysis

All hazardous materials are currently regulated and controlled by CalEPA in a manner that minimizes risks of spills or accidents. Any hazardous materials used in the construction, start-up, or operations of the proposed Project, such as diesel for equipment, will be handled according to current practices. The potential for construction and operation related impacts from hazardous materials are qualified in Table 3.8-1 and discussed below.

The scope of the project includes excavation and off- site disposal of arsenic impacted fill soil during channel widening and restoration of Little Deer Creek and during field regrading activities and possibly to a limited extent during trail construction. Refer to the Project Description, Section 1 of this Initial Study for a discussion of proposed Project activities.

Table 3.8-1 CEQA Checklist for Assessing Project-Specific Potential ImpactsRelative to Hazards and Hazardous Materials

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Finding: Less than significant with mitigation incorporated

Temporary construction activities associated with the proposed Project will involve the transport and use of limited quantities of miscellaneous hazardous substances including gasoline, diesel fuel, hydraulic fluid, solvents, and oils. These chemicals would be brought to the proposed Project site, as well as transported along the roadways. Federal and state laws regulate the handling, storage, and transport of these and other hazardous materials, as well as the mechanisms to respond and clean up any spills along local and regional roadways. Chemicals present on-site or used for the proposed Project will be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances. Mitigation Measure HAZ-1: Avoid/Minimize Potential Impacts from Construction Material Release shall be implemented to mitigate potential impacts related to hazardous materials transport, use, or disposal.

As discussed in the Environmental Setting section above, fill soils contaminated with arsenic were used to regrade the lower field and relocate Little Deer Creek. Soil sampling conducted in 2016 show arsenic concentrations in the Project area ranging from 4.7 to 106 milligrams per kilogram (mg/kg), with a mean concentration of 54.9 mg/kg. Although soils at the site do not exceed Total Threshold Limit Concentrations (TTLC) of 500 mg/kg or the Soluble Threshold Limit Concentration (STLC), excavation of contaminated soils could pose a potential risk to workers on-site or receptors located near the site through inhalation of airborne dust. The nearest residences are located approximately 50 feet from the Site, along the western edge of the lower field. Mitigation Measure AIR-1 would be implemented, which includes dust control measures to minimize fugitive dust and related contaminant dispersal. In addition, a transportation plan will be developed for the Project and will serve to specify appropriate procedures, methods, and equipment for controlling emissions during loading, transport, and unloading of excavated soils. The excavated soils to be disposed of off-site will be properly transported in securely tarped or sealed containers, so as not to cause a hazard to the public or environment throughout transport.

With the implementation of Mitigation Measure HAZ-1 and Mitigation Measure AIR-1, potential impacts are considered less than significant with mitigation incorporated.

b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Finding: Less than significant with mitigation incorporated

Temporary construction activities associated with the proposed Project will involve the transport and use of hazardous materials including gasoline, diesel fuel, hydraulic fluid, and oils.

Chemicals present on site or used for the Project will be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances, and any spills will be immediately cleaned up and disposed of in the appropriate manner. In addition, the proposed Project site is not listed by any federal, state or local database that identifies known hazardous materials sites (DTSC 2016, EPA 2010). Mitigation Measure HAZ-1:Avoid/Minimize Potential Impacts from Construction Material Release shall be implemented.

The risk of upset associated with the proposed Project is low because the contaminated soil material will be transported off-site by licensed and permitted haulers ([Health & Saf. Code, §25163], [Health & Saf. Code, §25160(d)], [Cal. Code Regs., tit. 22, §66263.17]).Licensed haulers are trained to understand Department of Transportation regulations and safety protocols when hauling hazardous materials. The driver has been instructed on spill control, containment and failure procedures, who to contact in case of emergency while transporting the materials (e.g. California Highway Patrol), and how the truck is to be labeled to ensure the consistent communication of information to first responders. The remediation activities include hazards that may be caused by human error or machinery failure. Should an accidental spill occur on the

highway, Department of Transportation regulations for spills will be observed. Potential receptors include anyone who comes in direct contact with the waste by way of direct skin contact, inhalation, or by ingestion. If a spill occurs, the driver of the truck will notify the local authorities for implementation of cleanup activities. Since the trucks will be appropriately labeled, any waste spill clean-up workers will be able to adequately don the appropriate protective gear to deal with this waste.

In the event of an emergency during transport to the treatment facility, the driver of the hauling truck will use the following procedures:

- Park the vehicle in the most secure area available, away from homes, traffic, waterways, and businesses
- Stay with the vehicle until appropriate support has arrived; move a safe distance away from the vehicle or spill material if danger exists
- Notify the appropriate emergency contacts

Impacted soil spilled off-site will be properly removed and cleaned up pursuant to directions of local authorities (e.g., California Highway Patrol, city, county, etc.).

Risks associated with the dust and particulates at the excavation zone will be minimized through securing the site and excavation areas to prevent unauthorized access to work areas as well as, the implementation of Mitigation Measure AIR-1, which includes the use of dust suppression activities (such as water). The on-site health and safety officer will provide visual monitoring of dust emissions. If airborne dust conditions exceed the health standard (significant visual dust) in the worker breathing zone or at the site boundary, additional dust control measures will be implemented or work will be stopped until conditions improve.

Therefore, impacts are considered less than significant with mitigation incorporated.

c) Would the Project Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Finding: No impact

The proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The closest schools to the proposed Project site are Seven Hill Middle School and Deer Creek Elementary School, located approximately 1.0 mile and 1.1 miles away from the Project site.

Arsenic is not considered an acutely hazardous substance, however long-term exposure to small amounts of arsenic over time can result in elevated cancer risks. Although school-aged children

use the park, the project construction area will be fenced and there will be no public access through the duration of the project. Additionally, dust suppression measures will be implemented to minimize potential exposure.

Construction traffic associated with the remediation will not pass any schools. Trucks leaving the site will leave the staging area in the western portion of the site, turn right on Nimrod Street, left on Park Avenue, left on Boulder Street, continue straight on Broad Street and proceed left onto State Highway 20/49 south towards Grass Valley. Therefore, no impacts would occur.

d) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Finding: Less than significant

A review of the EPA hazardous materials sites database did not identify the Project site as a known hazardous materials sites (DTSC 2016, EPA 2010). The proposed project is not identified on any active databases pursuant to Government Code Section 65962.5. Excavation of soils with elevated constituents of concern will have a positive long-term effect. It will reduce potential human exposure to Project site contaminants and future impacts to surface water from erosion of arsenic impacted soil or mine waste. Project activities will be performed in accordance with hazardous waste standards, laws, and regulations. Therefore, impacts would be considered less than significant.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?

Finding: No Impact

The proposed Project site is not located within an airport land use plan area (Nevada County Transportation Commission 2007). The proposed Project is located approximately 2.4 miles from the Nevada County Airpark. The Airpark is classified as B-1, meaning it generally accommodates aircraft less than 12,500 pounds and 49 foot wingspan (City of Grass Valley 1998). Because the airport is located over two miles from the proposed Project, it would not result in a safety hazard for people residing or working in the Project area. Therefore no impacts would occur.

f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?

Finding: No Impact

The Project site is not located within the vicinity of a private air strip and thus no impacts would occur.

See response to checklist item (e).

g) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Finding: Less than significant

The City of Nevada City does not have an adopted specified emergency response plan or emergency evacuation plan. The project implementation will not impair or interfere with the General Plan of the City of Nevada City. According to the City Engineer, the project is not likely to interfere with emergency response or emergency evacuation activities. This project has adequate access for emergency response or evacuation. Nevada City Police and Fire Department will be informed of the Project and consulted regarding emergency routes prior and during the implementation.

Access for all fire and police emergency response vehicles would be maintained on Park Avenue, Nimrod Street, Boulder Street and Broad Street throughout the construction period. Therefore, potential impacts to emergency, fire, and police response is less than significant.

h) Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Finding: Less than significant with mitigation incorporated

The proposed Project site is in an open field and riparian setting surrounded by vegetation, trees, and shrubs. The Project is located within a very high risk fire zone (Cal Fire 2012) and the risk of fire is a concern especially during the typically hot, dry summer season. Equipment used during trenching, grading and other construction activities may generate sparks that could ignite dry vegetation on or adjacent to the construction area and cause wild land fires in the area. Mitigation Measure HAZ-2 would be implemented, which includes fire prevention and control measures. Additionally, a water truck will be located on-site for dust control measure but would also be used in the event that a fire broke out during construction activities. The proposed Project site is in the jurisdiction of the Nevada City Fire District. The closest active station to the project is the Nevada City Fire Station located at 201 Providence Mine Rd, Nevada City, approximately 1.5 miles from the proposed Project site. Potential to expose people or structure to loss, injury or death involving wildland fires is less than significant with mitigation incorporated.

3.8.4 Mitigation

Mitigation Measure HAZ-1: Avoid/Minimize Potential Impacts from Construction Material Release.

Prior to construction, the contractor shall develop a Spill Prevention and Contingency Plan for the Project. Containment and cleanup equipment (e.g., absorbent pads, mats, socks, granules,

drip pans, shovels, and lined clean drums) will be at the staging areas and construction site for use, as needed.

Construction equipment will be maintained and kept in good operating condition to reduce the likelihood of line breaks or leakage. No refueling or servicing will be done without absorbent material (e.g. absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. If these activities result in an accumulation of materials on the soil, the soil will be removed and properly disposed of as hazardous waste.

If a spill is detected, construction activity will cease immediately and the procedures described in the Spill Prevention and Contingency Plan will be immediately enacted to safely contain and remove spilled materials. Spill areas will be restored to pre-spill conditions, as practicable. Spills will be documented and reported to the City of Nevada City and appropriate resource agency personnel.

In the event of an emergency during transport to the treatment facility, the driver of the hauling truck will use the following procedures:

- Park the vehicle in the most secure area available, away from homes, traffic, waterways, and businesses
- Stay with the vehicle until appropriate support has arrived; move a safe distance away from the vehicle or spill material if danger exists
- Notify the appropriate emergency contacts

Mitigation Measure HAZ-1 Implementation

Responsible Party:the City of Nevada City will require the construction contractor develop the Spill Prevention and Contingency Plan for all activities at the Project site. This mitigation measure will be referenced in the plans and specifications bid for the proposed project.

Timing: The Plan will be implemented prior to and during all phases of construction.

Monitoring and Reporting: Evaluation the Spill Prevention and Contingency Plan will be conducted by the City of Nevada City. Reports of spills will be documented and kept on file at the Nevada City, City Hall.

Standard of Success: Prevention of construction material spills in drainages near the Project area.

Mitigation MeasureHAZ-2: Fire Suppression and Control:

The city of Nevada City will require the selected construction contractor to coordinate with the local fire chief to ensure fire control to reduce the risk of fires during the proposed Project. The

fire prevention and control measures will include requirements for onsite extinguishers; roles and responsibilities of Nevada City and the contractor; fire suppression equipment and critical fire prevention and suppression items.

Mitigation Measure HAZ-2 Implementation

Responsible Party: The City of Nevada City will require the construction contractor coordinate with the local fire chief.

Timing: The fire prevention and control measures shall be implemented prior to and during all phases of construction.

Monitoring and Reporting: Evaluation of the fire prevention and control measures will be conducted by the City of Nevada City. Reports of Project-related fire will be documented and kept on file at the Nevada City, City Hall.

Standard of Success: Prevention of fires during construction within the Project area.

3.9 HYDROLOGY AND WATER QUALITY

The following hydrology and water quality section evaluates the proposed Project's impacts to hydrology and water quality. The section begins with the regulatory setting discussing the hydrology and water quality regulations applicable to the Project. The environmental setting describes the specific hydrology and water quality information in and around the Project area. The third section evaluates the potential impacts of the proposed Project looking to both the regulatory and environmental setting to assess the potential for the Project to cause a significant impact to hydrology and water quality.

3.9.1 Regulatory Setting

3.9.1.1 Federal Regulations

3.9.1.1.1 Clean Water Act

The Clean Water Act (CWA) (33 USC § 1251-1376), as amended by the Water Quality Act of 1987, is the major Federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Sections of the Act relevant to this Project are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 (Water Quality Certification) requires an applicant for any Federal permit that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
- Section 402 establishes the National Pollution Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the State Water Resources Control Board (SWRCB) and is discussed in detail below.
- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the United States Army Corps of Engineers (Corps) and the United States Environmental Protection Agency (EPA).

3.9.1.1.2 Federal Anti-Degradation Policy

The Federal Anti-degradation Policy is part of the CWA (Section 303(d)) and is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that includes the following primary provisions: (1) existing in-stream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be

maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water qualityshall be maintained and protected.

3.9.1.1.3 National Flood Insurance Policy Act

The Federal Emergency Management Agency (FEMA) is responsible for managing the National Flood Insurance Program (NFIP), which makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level known as base flood elevation. To facilitate identifying areas with flood potential, FEMA has developed Flood Insurance Rate Maps (FIRMs) that can be used for planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

3.9.1.2 State Regulations

3.9.1.2.1 Porter Cologne Water Quality Control Act

The State of California established the State Water Resources Control Board (SWRCB), which oversees the nine RWQCBs, through the Porter-Cologne Water Quality Control Act (Porter-Cologne). Through the enforcement of the Porter Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, the RWQCB, is authorized to prescribe Waste Discharge Requirements (WDRs) for the discharge of waste, which may impact the waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by Porter-Cologne to protect water quality.

3.9.1.2.2 NPDES Program - Construction Activity

The NPDES program regulates municipal and industrial storm water discharges under the requirements of the CWA. California is authorized to implement a statewide storm water discharge permitting program, with the SWRCB as the permitting agency. This permit regulates discharges from construction sites and Linear Underground projects (LUPs) that disturb one acre or more of total land area. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance must comply with the

provisions of this NPDES Construction General permit. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP). The project applicant must prepare a SWPPP prior to the beginning of construction. The SWPPP must include best management practices (BMPs) to reduce pollutants to the maximum extent practicable. Implementation of the SWPPP starts with the commencement of construction and continues until the project area is stabilized. Upon completion of the project, the applicant must submit a Notice of Termination to the SWRCB to indicate that construction is completed.

3.9.1.2.3 California Department of Fish and Wildlife – Section 1602

The California Department of Fish and Wildlife (CDFW) administers the Lake and Streambed Alteration Agreement program.Fish and Game Code section 1602 requires that entities notify CDFW before commencing activities which may substantially divert or obstruct the natural flow of a river, stream or lake; substantially change or use any material from the bed, channel, or bank of any river, stream or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. In addition, the jurisdiction applies to work undertaken in the floodplain of a water body. CDFW will determine whether an activity requires a Lake and Streambed Alteration Agreement. The Agreement will include necessary measures to protect fish and wildlife resources, and CDFW may suggest ways to change the project to eliminate or reduce impacts to fish and wildlife resources. CDFW must comply with CEQA prior to finalizing a Lake and Streambed Alteration Agreement.

3.9.1.3 Local Regulations

3.9.1.3.1 Nevada County General Plan

The Nevada County General Plan (Nevada County, 1996) contains the following goalto control erosion.

Goal 12.1: Minimize adverse impacts of grading activities, loss of soils, and soil productivity.

3.9.1.3.2 Western Nevada County Non-Motorized Recreational Trails Master Plan

The Western Nevada County Non-Motorized Recreational Trails Master Plan (Nevada County, 2010) contains the following policy to control erosion.

Policy 7.5: Employ Best Management Practices in trail construction to prevent soil erosion and instability, substantially changing drainage patterns, and negative effects on water features.

3.9.1.3.3 Nevada County Land Use and Development Code

The Nevada County Land Use and Development Code contains the following codes in relation to hydrology and water quality that are applicable to the proposed Project.

Section L-V Article 19.2A: This article sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes standards of required performance in preventing or minimizing water quality impacts from storm water runoff; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction, drainage, and erosion and sediment controls at construction sites.

3.9.1.3.4 City of Nevada City General Plan

The City of Nevada City General Plan (1986) contains objectives for Conservation and Scenic Resources. The objectives of this section of the General Plan are to preserve the existing impression of a historic town surrounded by open forest, to preserve and enhance the important natural features such as Sugarloaf, the ridges, the creeks, Gold Run, the hills within the city, and the steep terrain lying west of the City core. Policies have been put in place to ensure these objectives are met, and include:

Policy: Develop and implement a program to secure special easements to protect streamside zones as potential open space or pedestrian/bike trails, wildlife habitat, and permanent open space.

Policy: Discourage tree cutting within the City.

Policy: Prevent soil erosion and hillside scarring through control of grading, restrictions on removal of vegetation, and limitation of development on steep slopes.

3.9.2 Environmental Setting

The proposed Project is located at Pioneer Park within the Little Deer Creek watershed (USGS HUC 18020126), a sub-watershed within the Deer Creek watershed (HUC 18020125) in Nevada County. Deer Creek is a tributary to the lower Yuba River downstream of Englebright Reservoir (HUC 18020106). The Little Deer Creek watershed is located in the upper portion of the Deer Creek watershed, and encompasses 2,578 acres (4.03 mi^2). The primary tributaries in the Project vicinity include Deer Creek, located approximately 800 ft northwest and downstream of the Project area, Gold Run Creek, located approximately 1800 feet west and downstream of the Project area, and Little Deer Creek, which flows through the Project site. The proposed Project area includes approximately 640 linear feet of Little Deer Creek at Pioneer Park in the City of Nevada City. Runoff from the Project site enters Little Deer Creek and flows into Deer Creek, located approximately 1,150 feet downstream of the Project site. The proposed Project area is within FEMA Flood Insurance Rate Map (FIRM) #06057C0369E, and is mapped in Zone A. Areas mapped in Zone A are subject to inundation by the 1-percent annual exceedance probability flood event (100-year flood).

Little Deer Creek is perennial in the Project area, with high flows generally occurring during winter and spring, and low flow conditions during the summer and into fall. The average annual

precipitation in the Little Deer Creek watershed is approximately 53.9 inches, with the majority occurring between November and April as rainfall. Annual peak flows are associated with runoff derived from rain events and typically occur between December and March. Generally, ambient surface water in Little Deer Creek is of high quality (Sierra Streams Institute, 2016). Little Deer Creek is on the 303(d) list for Mercury, as a result of high mercury concentrations in fish tissue from fish collected in Little Deer Creek, which reflects the legacy of heavy metal contamination in the region that resulted from gold mining. In addition, Deer Creek is 303(d) listed for Mercury both upstream and downstream of the Little Deer Creek confluence. Additional background information on the water quality and biological resources in Little Deer Creek is provided in the Site Characterization Report as Appendix C to this document (Sierra Streams Institute, 2016).

Prior to the construction of Pioneer Park in the 1930s, Little Deer Creek flowed through what is now the middle of the lower baseball field in the northern portion of the park. Hydromodification through local development and park construction has resulted in significant stream channel impacts including channelizing and relocating the creek around the eastern and northern perimeter of the lower baseball field area. Imported fill soil was placed in the Little Deer Creek channel to regrade the site to a higher elevation and relocate the stream. The fill material was imported from a nearby site located approximately one mile southeast of Pioneer Park, on Bureau of Land Management (BLM) property adjacent to Gracie Road. Records indicate that this fill material was likely sourced from an abandoned mine site in the area, and contained relatively high arsenic concentrations (Sierra Streams Institute, 2016). Efforts to control the rerouted creek during flooding resulted in additional channel modifications including placement of concrete channel lining in various locations along the new stream channel alignment, placement of large rock as bank protection in various locations, and an earthen berm along the eastern edge of the lower baseball field on the river left streambank (river left indicates the left side of the river when looking downstream). The existing concrete channel lining is decomposing in the stream channel in several areas, there are also unlined areas showing signs of active incising. During high flows, Little Deer Creek routinely overtops its banks upstream of the channelized section and inundates the baseball field. Poor soil drainage in the field results in lengthy periods of inundation during the rainy season, thus making the lower field unusable.

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Legend

- Proposed Trail
- Hydrology
- Pioneer Park Field

National Wetland Inventory

Wetland Type

- Freshwater Pond

FEMA Flood Zone

- Zone A: area within the 1% chance of annual flooding (100 year flood) - No Base Flood Elevations (BFE) determined

Figure No.
3.9.1

Title
Proposed Project
Hydrology and Floodplain

Client/Project
City of Nevada City
Little Deer Creek
Restoration and Flood Mitigation Project

0 160 320 Feet
1:3,755 (at original document size of 11x17)

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3.9.2.1 Local Groundwater

California's groundwater provides approximately 30 to 46 percent of the State's total water supply depending on annual precipitation levels (California Department of Water Resources, 2014). Groundwater resources in western Nevada County are characterized as poorly defined and variable (Nevada County, 1996), and the California Department of Water Resources Bulletin 118 documents that the county has no defined groundwater aquifer. Generally, groundwater supplied from fractured rock sources of the Sierra Nevada Mountain Range exhibit considerable variation in terms of water quantity and quality due to many confined and unconfined groundwater layers (California Department of Water Resources, 1993).The California Department of Water Resources does not have any data on the ground water quality in the Little Deer Creek watershed where the proposed Project is located. There is groundwater quality data available for domestic wells within the Deer Creek watershed, and two USGS Groundwater Ambient Monitoring and Assessment (GAMA) groundwater quality sites (Well Id: SIERRA-M-05 and SIERRA-VL-10) located in the Upper Deer Creek watershed that were sampled in October 2008 (California Department of Water Resources, 2016). Samples from well SIERRA-M-05 exceeded the comparison concentration for Barium, Boron, Iron, Manganese, and Zinc, while samples from well SIERRA-VL-10 exceeded the comparison concentration for Barium and Copper (California Department of Water Resources, 2016). Groundwater quality data is accessible through the California Department of Water Resources GeoTracker GAMA online database (California Department of Water Resources, 2016).

3.9.3 Impact Analysis

The potential for construction and operation related impacts to hydrology and water quality are qualified in Table 3.10-1 and discussed in detail below.

Table 3.10-1 CEQA Checklist for Assessing Project Specific-Potential Impacts to Hydrology and Water Quality

IX. HYDROLOGY AND WATER QUALITY: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

IX. HYDROLOGY AND WATER QUALITY: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☒	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☒	☐	☐
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☒	☐

a, f) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality?

Finding: Less than significant with mitigation incorporated

Construction of the proposed Project would result in soil disturbance within and adjacent to the Little Deer Creek channel through stream, trail, and field improvements, which has the potential to temporarily increase water quality hazards associated with erosion and sedimentation, including erosion and sedimentation both on and off-site.

Based on the results presented in the Site Characterization Report, construction of the proposed Project would result in disturbance of soil with total and soluble arsenic concentrations that exceed Regional Screening Levels and MCLs established by the US EPA and DTSC. As part of the Project design, following the excavation of the existing berm material and field regrading, approximately 200 cubic yards of clean import fill and rock will be placed for streambank erosion protection and up to approximately 1,500 cubic yards of clean imported fill will be placed as cover soil on the lower playing field. To address arsenic levels near the ground surface, the proposed Project would include removal and appropriate off-site disposal of arsenic impacted soil, with clean import fill material placed and compacted in the newly graded portions of the stream channel and lower field to minimize public exposure and protect water quality. Soil with elevated arsenic concentrations proposed to be left in place, will be engineered to protect from scour at high flows by placement of rock armoring in areas of high scour and/or smaller rock or gravel fill in areas of relatively low scour. The Project Engineer will design placement of clean import fill and rock to protect water quality and to provide streambank erosion protection based on a hydraulic analysis. For additional stabilization and enhancement of site conditions, native vegetation, waddles, and willow stakes will be planted and placed within and along the margins of the Little Deer Creek stream channel. Some of the existing concrete channel lining may be left in place where necessary to minimize scour and disturbance of arsenic impacted soil.

The proposed Project construction activities include the use of heavy equipment and machinery at the Project site. Maintenance of equipment involves the use of hazardous materials including gasoline and engine oil, which if spilled could cause contaminated runoff to enter soil or surface waters at the proposed Project site. The discharge of hazardous material into surface waters during construction could result in a violation of water quality standards and could result in a potentially significant impact unless mitigation is incorporated. A Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention and Contingency Plan will be prepared as mitigation measures for the proposed Project to reduce impacts associated with Project construction activities to less than significant.

Impacts to water quality, including erosion, sedimentation, flooding, etc. will be mitigated through the implementation of Mitigation Measures HYD-1, HYD-2, HYD-3, and HYD-4 which require a SWPPP, dewatering plan, Best Management Practices (BMPs), obtaining required Clean Water Act 401 and 404 permits and a Streambed Alteration Agreement from the CDFW, water quality monitoring before, during , and after the Project, and that a State of California licensed engineer stamps and certifies the Site Plans prior to Project construction.

With the implementation of Mitigation Measures HYD-1, HYD-2, HYD-3, and HYD-4, impacts are considered less than significant. Full mitigation measure descriptions can be found in section 3.10.4below.

b) Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Finding: Less than significant

The proposed Project includes stream and field improvements and trail installation as part of restoration of Little Deer Creek in Pioneer Park. The lower field adjacent to the creek will be regraded to reconnect the creek with the floodplain, provide additional floodplain storage volume, and improve drainage of the lower field at Pioneer Park. The outdated existing irrigation system and turf grass in the lower field will be replaced. After regrading the lower field, new turf will consist of drought tolerant vegetation with low water requirements, and a new irrigation system with low water usage requirements will be installed.

Dewatering of the Little Deer Creek channel could potentially result in short-term impacts affecting the amount of groundwater recharge in the immediate vicinity of the proposed Project, due to a decrease in surface-groundwater interactions as a result of the dewatered channel. Impacts are expected to be less than significant due to the short-term nature of the dewatering (4-6 weeks) and the small section of Little Deer Creek impacted by the dewatering (640 ft). Channel widening and reconnecting the creek channel with the floodplain could potentially increase groundwater recharge in the immediate vicinity of the Project site, as a result of increased surface-groundwater interactions in the newly widened creek channel during baseflows and on the floodplain during higher flows. A key benefit of restoring hydrologic connectivity between streams and floodplains is the potential to increase groundwater recharge, as natural floodplain functions include promoting groundwater recharge and storage (Boulton 1999).

The proposed Project implementation does not include activities that would substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed Project will not require the use of groundwater during any phase of the Project. Therefore, impacts are considered less than significant.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Finding: Less than significant with mitigation incorporated

The proposed Project includes tasks that involve alteration of the existing drainage pattern of the site, however this is an intended outcome of the proposed Project. Specifically, the proposed stream and field improvements will alter the existing drainage pattern of the site. Stream restoration activities are proposed to improve approximately 640 feet of Little Deer Creek in

Pioneer Park, located between the existing Max Solaro Drive Bridge and the footbridge crossing located adjacent to the tennis courts. Restoration activities will include the removal of concrete within Little Deer Creek, removal of a soil berm on the west side of Little Deer Creek at the eastern edge of the lower field, channel widening, and placement of rock and woody materials. For additional stabilization and enhancement of site conditions, native vegetation, waddles, and willow stakes will be planted and placed within and along the margins of the Little Deer Creek stream channel. Field improvements will involve flood mitigation by re-grading the lower field to create enhanced floodplain connectivity, a natural flood channel, and improve natural drainage by providing positive surface drainage. All of these activities have the potential to impact the existing drainage pattern of the Project site.

The proposed Project includes soil disturbance through grading, excavation, and fill placement activities that could alter the existing drainage pattern of the Project site and result in erosion or siltation on or off-site. However, Mitigation Measures HYD-1, HYD-2, HYD-3, and HYD-4 will be implemented to reduce impacts associated with the proposed Project to less than significant levels. Full mitigation measure descriptions can be found in section 3.10.4below.

d) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Finding: Less than significant with mitigation incorporated

The proposed Project activities will be designed to reduce flooding impacts to the lower playing field, and areas surrounding Pioneer Park, through channel widening, reconnecting the creek with the floodplain, and regrading the lower playing field to improve drainage. The proposed Project is not anticipated to increase the rate or amount of surface runoff, or the volume of flood flows, and is not anticipated to result in increased flooding on or off of the proposed Project site. Mitigation measures HYD-1, HYD-2, and HYD-4 will be implemented to reduce impacts associated with the proposed Project to less than significant. Full mitigation measure descriptions can be found in Section 3.10.4below.

e) Would the Project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Finding: Less than significant with mitigation incorporated

The proposed Project has the potential to provide additional sources of polluted runoff (e.g., fuel spill) to Little Deer Creek during construction. Implementation of BMPs and mitigation measures for spill prevention and containment will occur to minimize the potential for polluted runoff due to the Project. In addition, the Project proposes temporary dewatering of approximately 640 feet of Little Deer Creek during the construction phase to complete stream and field improvements within the Little Deer Creek stream channel and reduce the potential for polluted surface runoff

in Little Deer Creek. A temporary coffer dam will be installed upstream of the proposed stream restoration area, and Little Deer Creek flows will be pumped around the restoration area through closed conduit piping on a continuous basis throughout Phase 1 of the proposed Project. Construction personnel will monitor dewatering on a continuous basis to maintain continuous dewatering of the Project site throughout the construction phase. Mitigation measures HYD-1, HYD-2, and HYD-3, which entail avoiding or minimizing impact to water quality, fish, and wildlife, as well as, water quality monitoring, will be implemented to reduce impacts associated with the proposed Project to a less than significant level. Full mitigation measure descriptions can be found in section 3.10.4below.

g) Would the Project Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Finding: No impact

The proposed Project does not include the construction of housing, and would not include the placement of housing in a 100-year flood hazard area. Therefore, no impact would occur.

h) Would the Project Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Finding: Less than significant with mitigation incorporated

The proposed Project includes stream improvements, trail installation, and regrading of the lower playing field at Pioneer Park as part of restoration of Little Deer Creek.The proposed Project area on Little Deer Creek is located within the FEMA Flood Insurance Rate Map (FIRM) #06057C0369E, and is mapped in Zone A. Areas mapped in Zone A are subject to inundation by the 1-percent-annual-exceedance probability flood event (100-year flood), and therefore the site is located within a 100-year flood hazard area.

The proposed Project includes removal of concrete within a 100-year flood hazard area. During the development of Pioneer Park, the Little Deer Creek stream channel was relocated around the eastern and northern perimeter of the lower field at Pioneer Park. A concrete channel lining was constructed in various locations along the new channel alignment, as well as an elevated soil berm. The current stream channel has a significant amount of concrete lining on the streambanks, but in many areas the existing concrete channel lining is decomposing into the stream channel. The proposed Project intends to remove the concrete in the Little Deer Creek channel. Selected areas of concrete may be broken off at the ground surface and left in place for scour protection, but where concrete is not left in place, rock and woody materials will be placed along the streambank to prevent scour.

Therefore, the proposed Project includes placement of rock and woody materials within a 100-year flood hazard area in Little Deer Creek. Rock up to 1 meter in diameter (intermediate or b-axis) will be placed along the streambanks of Little Deer Creek, to protect the streambanks from scour and erosion and to provide habitat for aquatic species. For additional stabilization and

enhancement of site conditions, native vegetation, waddles, and willow stakes will be planted and placed within and along the margins of the Little Deer Creek stream channel.

One of the purposes of the proposed Project activities is to improve drainage and therefore, reduce flooding impacts to the lower playing field and areas surrounding Pioneer Park, by widening the streambed and re-grading the lower playing field. The total volume of fill placed in the flood plain will not exceed the volume of material excavated and off-hauled from the site. Thus, the proposed Project is not anticipated to increase the volume of flood flows, and is not likely to result in increased flooding outside of the proposed Project area. Mitigation measure HYD-4, which entails a professional engineer stamp on all designs used for construction, will be implemented to reduce impacts associated with the proposed Project to a less than significant level. Full mitigation measure descriptions can be found in section 3.10.4below.

i) Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Finding: Less than significant with mitigation incorporated

See h. impact analysis above.

Flooding as a result of dam or levee failure is highly unlikely. Before the proposed stream restoration, a temporary coffer dam will be installed upstream of the proposed restoration area, and Little Deer Creek flows will be pumped around the restoration area through closed conduit piping on a continuous basis. Stream flows during Project construction are anticipated to be less than 1.0 cubic feet per second (cfs), and the temporary coffer dam will contain a volume of water less than approximately 3,000 gallons (water depth of less than 4 feet). This volume of water is not large enough to cause downstream flooding and would be confined within the existing channel of Little Deer Creek. Based on the anticipated stream flows and volume of water stored behind the temporary coffer dam, it is unlikely that people or structures will be exposed to a significant risk of loss, injury, or death involving flooding as a result of the potential failure of the temporary coffer dam installed during Project construction. Mitigation Measure HYD-4, which entails a professional engineer stamp on all designs used for construction, and will be implemented to reduce impacts associated with the proposed Project to less than significant. Full mitigation measure descriptions can be found in Section 3.10.4 below.

j) Would the Project expose people or structures to a significant risk of loss, injury or death as a result of inundation of seiche, tsunami, or mudflow?

Finding: Less than significant

The proposed Project site is located in the foothills of the Sierra Nevada mountains, about 150 miles inland from the Pacific Ocean at an elevation of between 2,480–2,510 feet. The proposed Project's inland and mountainous location makes the risk of a tsunami impacting the site highly unlikely. The probability of a seiche occurring in Nevada County is considered low, given the geologic characteristics of Nevada County's soils and bedrock and the overall seismic risk in the County, and is not anticipated to change from existing conditions (Nevada County, 1996).

Furthermore, the proposed Project site is not located adjacent to or near any lakes or reservoirs, with the nearest reservoir (Lower Scott's Flat Lake or Deer Creek Diversion Dam) located 3 miles to the east-north-east. The geologic materials underlying the proposed Project area are generally not associated with mudslides, and the Project is located on relatively level ground. Therefore, there is little or no risk of a mudflow at the Project site. The risk of inundation by seiche, tsunami, or mudflow is considered less than significant for the proposed Project.

3.9.4 Mitigation

Mitigation Measure HYD-1: Sedimentation and Erosion Control Measures

To comply with the requirements of the State of California General Construction Activity Storm Water Permit, the City of Nevada City shall obtain coverage under the current Construction General Permit (2009-0009-DWQ) and prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will incorporate measures and Best Management Practices which describes the site, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post-construction sediment, and erosion control measures and maintenance responsibilities, and non-storm water management controls.

All construction contractors shall retain a copy of the approved SWPPP at the Project site and will implement the SWPPP during construction. The SWPPP will ensure that all storm water discharges are in compliance with all current requirements of the Construction General Permit (2009-0009-DWQ).

In addition, prior to construction the City of Nevada City shall develop a Spill Prevention and Contingency Plan for construction activities at the Project site. The Spill Prevention and Contingency Plan will be incorporated into the SWPPP for the proposed Project.

Mitigation Measure HYD-1 Implementation

Responsible Party: The City of Nevada City and the City's contractor shall obtain coverage under the current Construction General Permit and prepare a Stormwater Pollution Prevention Plan (SWPPP) and a Spill Prevention and Contingency Plan. This mitigation measure will be referenced in the plans and specifications bid for the proposed Project.

Timing: Prior to, during construction activities at the proposed Project site, and until the site is stabilized as defined in Order No. 2009-0009-DWQ.

Monitoring and Reporting Program: Monitoring and evaluation of the SWPPP, erosion control practices, and the Spill Prevention and Contingency Plan will be completed by the City of Nevada City and the contractor and kept on file at City Hall in the City of Nevada City and at the Project site.

Standards of Success: Minimize on and off-site erosion and prevent the introduction of significant amounts of sediment into any stream or drainage network. Ensure that all storm

water discharges are in compliance with all current requirements of the Construction General Permit.

Mitigation Measure HYD-2: Avoid or Minimize Impacts to Water Quality, Fish, and Wildlife

To comply with the requirements of Section 401 (Water Quality Certification), Section 404 of the Clean Water Act, and Section 1602 of Fish and Game Code, the City of Nevada City shall obtain a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board, a Section 404 United States Army Corps of Engineers Nationwide Permit, and a 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife, for the proposed Project work in Little Deer Creek.

In addition, to protect water quality during proposed Project construction, a dewatering plan will be implemented based on consultation with permitting agencies. Obtaining coverage under the Clean Water Act and Lake and Streambed Alteration Agreement will ensure that discharges or fill material placed into the waters of the United States will comply with provisions of the Clean Water Act and Fish and Game Code.

Mitigation Measure HYD-2 Implementation

Responsible Party: The City of Nevada City. The City shall apply for and obtain coverage under the Clean Water Act and Fish and Game Code. The City of Nevada City will work with contractors to implement the dewatering plan. This mitigation measure, the dewatering plan, and all associated federal and state permits will be referenced in the plans and specifications bid for the Project.

Timing: Permits will be applied for before implementation of the proposed Project and will cover the entire construction and restoration period of the proposed Project. Dewatering will occur during construction activities at the proposed Project site and until construction activities are completed in the Little Deer Creek channel.

Monitoring and Reporting Program: Permit documentation will be kept on file at City Hall in the City of Nevada City and at the Project site.

Standards of Success: Ensure permits are finalized and in-hand prior to starting the proposed Project implementation activities. Ensure continuous dewatering of the Little Deer Creek channel during Project construction activities in Little Deer Creek.

Mitigation Measure HYD-3: Water Quality Monitoring Before, During, and After the Proposed Project

To evaluate the effects of the Project on surface water quality, water quality monitoring will be implemented before, during, and after proposed Project construction at sites located upstream and downstream of Pioneer Park. The City will monitor surface water quality as stipulated by the RWQCB in the project-specific Water Quality Certification, to include turbidity, settleable

material, and heavy metals concentrations, during project construction activities. Monitoring will be conducted upstream of the influence of the proposed Project (500 feet upstream) and downstream of the proposed Project work area (500 feet downstream of the Project). Water quality monitoring will conducted at a minimum frequency of every four hours during Project construction activities. Visible construction related pollutants will be monitored on a continuous basis through visual inspections throughout the construction period.

In addition to surface water quality monitoring during Project construction, the City will monitor surface water quality, turbidity and suspended sediment, and heavy metals concentrations as stipulated in the SWPPP at monitoring sites upstream and downstream of the Project site during runoff and storm events each year of construction.

Mitigation Measure HYD-3 Implementation

Responsible Party: The City of Nevada City.

Timing: Monitoring will occur before, during, and after the proposed Project. Surface water quality monitoring will take place at a minimum frequency of every four hours during Project construction activities, while storm sampling will occur during runoff and storm events. Monitoring will occur at sites located 500 feet upstream and 500 feet downstream of the proposed Project site.

Monitoring and Reporting Program: A surface water monitoring report will be completed every two weeks during construction and kept on file with the City. It will also be submitted to the Regional Water Quality Control Board, if required under the project-specific Water Quality Certification.

Standards of Success: Avoid increases in turbidity, settleable matter, and heavy metal concentrations insurface water downstream of the proposed Project, as stipulated in the project-specific 401 Water Quality Certification and SWPPP. In Little Deer Creek where natural turbidity is between 1 and 5 NTUs, turbidity increases during project construction shall not exceed 1 NTU, and Project construction shall not cause settleable matter to exceed 0.1 ml/L in surface waters as measured 500 feet downstream of the Project, or as specified by the RWQCB in the 401 Water Quality Certification for the Project.

Mitigation Measure HYD-4: Engineer's Certification

Placement of rock and woody materials within the 100 year flood hazard area will follow designs from the Project engineer to ensure structures placed within the flood hazard area do not increase on or off-site flood hazards relative to existing conditions, and the Project does not result in substantial erosion, siltation, or flooding on- or off-site. Project design plans will incorporate topographic and cross sectional elevation data and use hydraulic modeling to prevent increased flood hazards and erosion or siltation to the extent feasible. A professional engineer will stamp and certify all designs used for construction.

Mitigation Measure HYD-4 Implementation

Responsible Party: The City of Nevada City shall work with the contractor and the project proponent, Sierra Streams Institute staff, to ensure the proposed Project plans are stamped and certified by the Project Engineer.

Timing: The Engineer's Certification will be provided on Site Plans prior to starting proposed Project construction activities.

Monitoring and Reporting Program: The City of Nevada City and contractors will monitor to ensure the Project Engineer certifies proposed Project design plans. Documentation will be kept on file at City Hall in the City of Nevada City and at the Project site.

Standards of Success: Ensure an engineer licensed with the State of California stamps and certifies the Site Plans for the proposed Project prior to construction activities.

3.10 LAND USE PLANNING

The following land use section evaluates the proposed Project's consistency with and impacts to land use plans and policies. The section begins with the regulatory setting discussing the applicable land use plans and policies within the project area. The environmental setting is discussed including the specific land use and zoning designations of the Project area. The third section evaluates the potential impacts of the proposed Project looking to both the regulatory and environmental setting to assess the potential for the project to cause a significant impact to land use planning.

3.10.1 Regulatory Settings

3.10.1.1 Nevada County General Plan

The Nevada County General Plan sets several goals, policies, and objectives to guide development. The proposed Project will comply with the goals, policies, and objectives of Chapter 1: Land Use and Chapter 11: Water of the Nevada County General Plan (Nevada County General Plan 1996, Land Use Element amended in 2014). The General Plan identifies areas within the County in which growth should be directed to provide compact areas of development as *Community Regions*. The General Plan divides the County into *Community Regions* and *Rural Regions* and all of the land area within the County is placed in one of these regions. Nevada City is a considered a *Community Region* by the General Plan.

The Nevada County General Plan goals, policies, and objectives relative to the proposed Project are as follows:

Goal 1.1: Promote and encourage growth in *Community Regions* while limiting growth in *Rural Regions.*

Policy 1.1.3: Within Nevada County, the Community Regions are established as the areas of the County within which growth should be directed to provide compact, areas of development where such development can be served most efficiently and effectively with necessary urban services and facilities.

Goal 1.4: Within Community Regions, provide for an adequate supply and broad range of residential, employment-generating, and cultural, public and quasi-public uses located for convenience, efficiency, and affordability while protecting, maintaining, and enhancing communities and neighborhoods.

Goal 1.4: Within Community Regions, provide for an adequate supply and broad range of residential, employment-generating, and cultural, public and quasi-public uses located for convenience, efficiency, and affordability while protecting, maintaining, and enhancing communities and neighborhoods.

Policy 1.4.2: Development within the Community Regions shall be consistent with the overall rural quality of life in the County, as demonstrated through sensitivity to resource constraints, provision of interwoven open space as a part of development, and community design which respects the small town or village character of the Community Regions. These criteria shall be accomplished through application of the Comprehensive Site Design Standards in review of discretionary and ministerial projects.

Goal 11.1: Identify, protect, and manage for sustainable water resources and riparian habitats.

Policy 11.1: Promote and provide for conservation of domestic and agricultural water.

3.10.1.2 Western Nevada County Non-Motorized Recreational Trails Master Plan

The Western Nevada County Non-Motorized Recreational Trails Master Plan goals and policies relative to the proposed Project are as follows:

Goal 1: Provide a wide-range of safe, convenient, and enjoyable recreational trails opportunities for multiple non-motorized users.

Policy 1.4: Encourage the creation of new and maintenance of existing recreational trails and support facilities to serve existing developed areas.

Policy 1.5: Encourage the development of recreational trails that are accessible to physically challenged individuals.

Goal 2: Provide a recreational trail system that connects or provides access to recreational, educational, natural, cultural, and historical resources.

Policy 2.3: Create non-motorized trails that connect to public parklands and other existing or proposed recreational opportunities.

Goal 3: Work with affected private landowners to address concerns and effectively plan for the recreational trails system.

Policy 3.1: Promote recreational trails on existing public lands, public easements, and other public rights-of-way.

Policy 3.5: Design recreational trails to minimize and avoid if possible, bifurcation of private property and to be located within open space parcels, linear parks, or designated no build areas to minimize potential conflicts with adjacent land uses.

Goal 7: Promote the design and development of quality trails in keeping with the rural foothill character of Nevada County.

Policy 7.6: Ensure that County recreational trails within a City Sphere of Influence are compatible with applicable City design guidelines.

3.10.1.3 City of Nevada City General Plan

The City of Nevada City General Plan (1986) includes the following specific objective and policies within the City Resources and Public Safety Elements that are applicable to the proposed Project as it relates to Public Services.

Objective: Include consideration of both resident and non-resident users in planning future park needs and funding sources.

Policy: Investigate opportunities for extension of public trails along Deer Creek and Little Deer Creek, especially in connection with features of historic importance, such as the flume at Pine Street Bridge.

3.10.2 Environmental Setting

The proposed Project has taken the Pioneer Park Master Plan, Nevada City General Plan, and Western Nevada County Non-Motorized Recreational Trails Master Plan goals, objectives, and regulations, as discussed above, into consideration during the planning stages of the project. The proposed Project improvements would be located on land that is currently owned and operated by the City of Nevada City and managed by the Nevada City Parks and Recreation department.

The proposed Project site is located in the incorporated area of Nevada City. The land use of the proposed Project site is designated by the Nevada County General Plan as Incorporated Area (Nevada City). Zoning designation of the proposed Project site is Public (PUB). Pursuant to the Nevada County Zoning Regulations the PUB designation is intended to provide for land for public or quasi-public ownership in locations which are necessary to provide services to *Community Regions* and *Rural Regions* (Nevada County General Plan 2014). The Nevada City General Plan map designates the zoning of Pioneer Park as Public, defined as: sites or facilities intended to remain in long-term public use.

3.10.3 Impact Analysis

The potential land use and planning related impacts for the Project are summarized in Table 3-9.1 and discussed below.

Table 3.9-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Land Use Planning

IX. LAND USE AND PLANNING -- Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	☐	☐	☐	☒

a) Would the Project physically divide an established community?

Finding: No impact

The proposed project would upgrade the existing conditions within Pioneer Park. Construction activities (including staging areas) would all be on-site at the park and would not have a permanent effect on the established community of Nevada City. The proposed Project would not physically divide an established community; therefore, there is no impact.

b) Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Finding: No impact

The proposed Project would not conflict with any land use plans, policies, or regulations that are applicable to the proposed Project. The project is consistent with the County's policies regarding 'Community Regions' such as Nevada City. Since, no change in land use is proposed or required and none would result from the implementation of the proposed Project, the project will have no impact to applicable land use plan, policy, or regulations.

c) Would the Project conflict with any applicable habitat conservation plan or natural communities' conservation plan?

Finding: No impact

There are no habitat conservation plans or natural community conservation plans that apply to the proposed Project site. Therefore, the proposed Project would not conflict with any such plan and there would be no impact. Impacts to sensitive species, riparian habitats, etc. are discussed in the Biological Resources section of this IS/MND.

3.11 MINERAL RESOURCES

3.11.1 Regulatory Setting

3.11.1.1 Federal Regulations

3.11.1.1.1 The Mining and Minerals Policy Act of 1970 (30 U.S.C 21(a))

The Mining and Minerals Policy Act of 1970 declared that it is in the national interest to foster and encourage private enterprise in the following ways:

- Development of economically sound and stable domestic mining and mineral related industries.
- Orderly and economic development of mineral resources to satisfy industrial, security, and environmental needs.
- Research to promote wise and efficient use of resources.
- Research and development of mining and reclamation methods to lessen the impact of mining on the environment.

This act codified the importance of mining and mineral resources and recognized that public policy should evaluate these resources.

3.11.1.2 State Regulations

3.11.1.2.1 Surface Mining and Reclamation Act

The State of California enacted the SMARA in 1975 in part to identify the location of and preserve access to significant mineral deposits. The state geologist is required by SMARA to prepare maps that identify Mineral Resource Zones(MRZs) including areas of presence or likely presence of significant mineral deposits, MRZ-2. Areas that may have mineral resources, but where the presence cannot be determined from available information are identified as MRZ-3. Additionally, SMARA requires local governments to evaluate the presence of mineral resources in their General Plans and when making land use decisions.

3.11.2 Environmental Setting

Nevada County has significant mineral resources, including gold, which have played a major role regionally, statewide, and nationally. Significant mineral resources in the County include gold (in various forms), silver, copper, zinc, lead, chromite, tungsten, manganese, barite, quartz, limestone, asbestos, clay, mineral paint, sand, gravel, and rock (Nevada County General Plan1996). Mineral resources are most concentrated in the western half of the County. Many of the mineral resource areas are located in the Nevada City and Grass Valley area including

several abandoned placer and hard rock gold mines the Project area. No identified mines are located on the Project site, however the eastern portion of the site is mapped as Placer Diggings, which consist of placer mining debris deposited by historic placer mining activities on Little Deer Creek. In addition, over 30 abandoned mines including hard rock gold mines are located in the Little Deer Creek drainage upstream of the Project area.

3.11.3 Impact Analysis

The potential impacts to mineral resources are addressed in Table 3.11-1 and analyzed below.

Table 3.11-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Mineral Resources

XI. MINERAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

a) Would the Project result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?

Finding: No impact

According to the Nevada County General Plan Master Environmental Inventory, there are no mineral sources classified as MRZ-2 located within the vicinity of the Project area. Therefore, the Project would not cause the loss of availability of known mineral resources. No impact would occur.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Finding: No impact

Based on maps presented within the Nevada County General Plan Master Environmental Inventory, the Project area contains no known locally important or mineral recovery sites. The Project would not alter current conditions with respect to mineral availably. Therefore, the Project would not cause the loss of availability of locally important mineral resource recovery sites and no Impact would occur.

3.12 NOISE

Noise is generally defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dBA and referred to as A-weighted decibels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. Table3.12-1 defines sound measurements and other terminology used in this study.

In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. Audible changes in the existing ambient or background noise levels are considered potentially significant.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (Leq), the minimum and maximum sound levels (Lmin and Lmax), percentile-exceeded sound levels (such as L10, L20), the day-night sound level (Ldn), and the community noise equivalent level (CNEL). Ldn and CNEL values differ by less than 1 dB. As a matter of practice, Ldn and CNEL values are considered to be equivalent and are treated as such in this assessment.

For a point source such as a stationary compressor or construction equipment, sound attenuates based on geometry at rate of 6 dB per doubling of distance. For a line source such as free flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance (Federal Highway Administration 2011). Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1–2 dB per doubling of distance. Barriers such as buildings and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Table 3.12-1 Definition of Sound Measurement

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (Lmax)	The maximum sound level measured during the measurement period.
Minimum Sound Level (Lmin)	The minimum sound level measured during the measurement period.
Equivalent Sound Level (Leq)	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Day-Night Level (Ldn)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise EquivalentLevel (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/second.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Vibration

Operation of heavy construction equipment, particularly pile driving and other impact devices such as pavement breakers, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV).

Table 3.12-2 summarizes typical vibration levels generated by construction equipment (Federal Transit Administration 2006).

Table 3.12-2 Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 Feet
Pile driver (impact)	0.644 to 1.518
Pile drive (sonic/vibratory)	0.170 to 0.734
Vibratory roller	0.210
Hoe ram	0.089
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Source: Federal Transit Administration 2006	

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be used to estimate the vibration level at a given distance for typical soil conditions (California Department of Transportation 2013). PPVref is the reference PPV from Table 3.13-2:

PPV = PPVref x (25/Distance) 1.5

Table 3.12-3 summarizes guidelines vibration annoyance potential criteria suggested by Caltrans (California Department of Transportation 2013).

Table 3.12-3 Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4
Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: California Department of Transportation 2013.		

Table 3.12-4 summarizes guideline vibration damage potential criteria suggested by Caltrans (California Department of Transportation 2004).

Table 3.12-4 Guideline Vibration Damage Potential Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structure	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: California Department of Transportation 2013.		

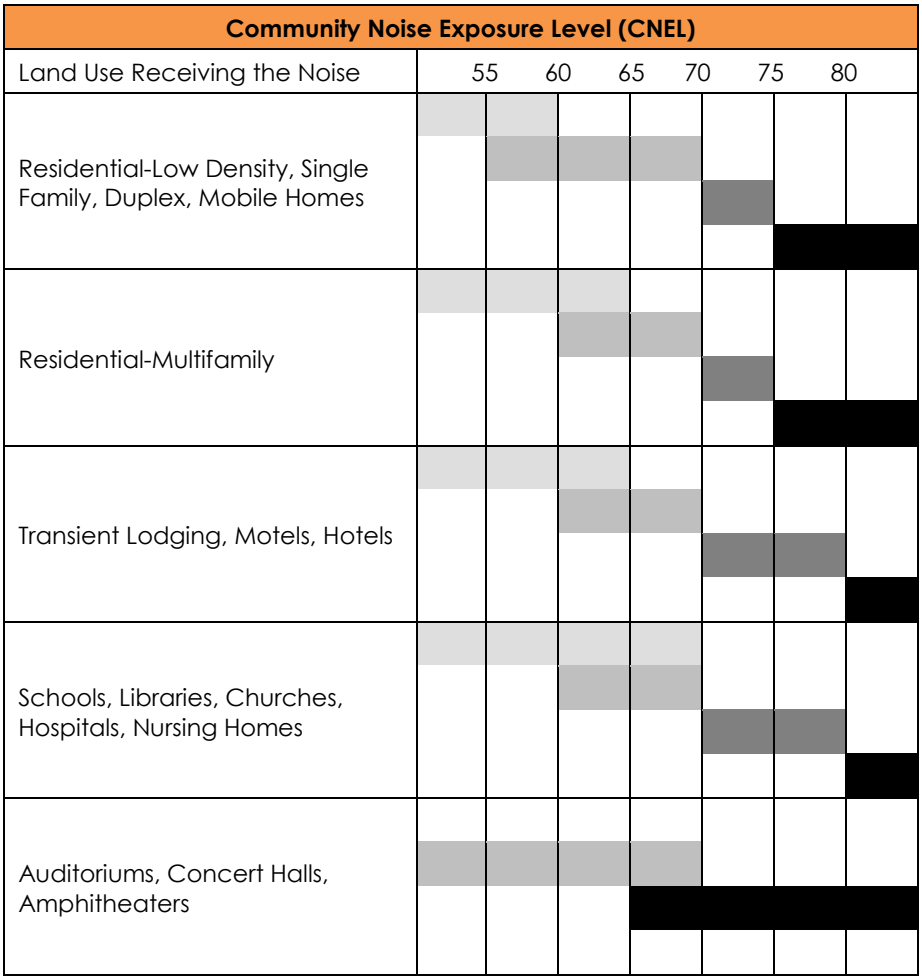
3.12.1 Regulatory Setting

The Nevada City General Plan describes noise exposure related to public safety. The plan states:

> *The major noise generator in the City is traffic; noise exposure increases with traffic volume, unless measures are taken to shield uses adjacent to the traffic corridor.*

Table 3.12-5 sets out a Land Use Compatibility Chart for noise exposure, as recommended by state guidelines. To maintain noise levels within the "normal acceptable" range, single family residential should not be exposed to greater than 60 Ldn, hotel/motel to no greater than 65 Ldn, and office/commercial, no greater than 70 Ldn.

Table 3.12-5 Land Use Compatibility for Community Noise Environments



Normally Acceptable
Specified land use is satisfactory, based on the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation feature included in the design.

Normally Unacceptable
New construction of development should be discouraged. If new construction of development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable
New construction or development clearly should not be undertaken.

Community Noise Exposure Level (CNEL)							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office, Business, Retail Commercial							
Industrial Manufacturing, Agriculture, Utilities							
Source: State of California Office of Noise Control							

As described in the Nevada City General Plan, "The major noise generator in Nevada City is traffic; noise exposure increases with traffic volume, unless measures are taken to shield uses adjacent to the traffic corridor." Based on the State of California Land Use Compatibility for Community Noise Environments, the normally acceptable noise range at Pioneer Park would range from 50 dBA to 70 dBA.

3.12.1.1 Nevada County

The Noise Element of the Nevada County General Plan (1996) establishes maximum allowable exterior noise levels for various land use categories in terms of the average-hourly (Leq) and maximum intermittent (Lmax) noise descriptors. Maximum allowable noise standards are identified for daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM) periods. The County's noise standards, which are typically applied to non-transportation noise sources, are summarized in Table 3.12-6, County of Nevada Exterior Noise Limits. These noise standards are also identified in the Nevada County Land Use Development Code, Chapter II, Zoning Regulations (Section L-II, 4.1.7, Noise). Construction activities are exempt from the County's noise standards.

Table 3.12-6 County of Nevada Exterior Noise Limits

Land Use Category	Zoning District	Time Period	Noise Level	
			Leq	Lmax
Rural	AG, TPZ, AE, OS, FR, IDR	7 am – 7 pm	55	75
		7 pm – 10 pm	50	65
		10 pm – 7 am	40	55
Residential and Public	RA, R1, R2, R3	7 am – 7 pm	55	75
		7 pm – 10 pm	50	65
		10 pm – 7 am	40	60
Commercial and Recreation	C1, C2, C3, CH, CS, OP, REC	7 am – 7 pm	70	90
		7 pm – 7 am	65	75
Business Park	BP	7 am – 7 pm	65	85
		7 pm – 7 am	60	70
Industrial	M1, M2	Anytime	55	75

3.12.1.2 Nevada City General Plan

Maintain noise levels compatible with the rural and small-town setting of Nevada City.

- Adopt the Land Use Compatibly Chart "normally acceptable" range as a standard to be used in environmental evaluation of proposed uses.

3.12.2 Environmental Setting

The proposed Project is located in a residential zone and significant noise sources in the area include those from traffic. Maximum allowable noise levels for residential and noise sensitive use areas are between 55 and 75 decibels (dBA) between the hours of 7 a.m. and 7 p.m. for both rural and residential/public land use categories (Nevada County General Plan 2014).

3.12.3 Impact Analysis

Potential noise impacts from construction activities area addressed in Table 3.12-2 and discussed below.

Table 3.12-7 CEQA Checklist for Assessing Project-Specific Potential Noise Impacts

XII. NOISE: Would the Project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☒	☐	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☒	☐
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☒	☐

a) Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Finding: Less than significant with mitigation incorporated

The construction of the proposed Project would occur in three phases as discussed in Section 1.0 Project Description. Phase 1 would include the restoration of Little Deer Creek this would entail the removal of concrete along the creek bank and removal of the soil berm that runs adjacent to the creek, as well as channel widening and placement of rock and woody material along the banks of the creek. Phase 1 would entail the use of construction related equipment including,

an excavator, backhoes, loaders, dump trucks, etc. Construction of Phase 1 is expected to last two months and would occur in the summer of 2017. Phase 2 would consist of stripping the existing turf and underlying soil, topsoil replacement and final grading, seeding and/ sod installation, and irrigation system improvements. Construction of Phase 2 is expected to last two months and would occur in the summer of 2018. Noise impacts associated with the Phase 2 construction would result in temporary or periodic increases in ambient noise levels, especially during grading activities. Phase 3 includes the construction of a trail that will traverse the outside edge of the Lower Field and is expected to last approximately one month and would occur in the summer/fall of 2018. Construction equipment noise associated with trail construction would include a mini excavator and a backhoe.

Two types of short-term noise impacts could occur during the construction of the project. First, construction crew commutes and the transport of construction equipment and materials to the site for the project would incrementally increase noise levels on access roads leading to the site. The projected construction traffic would be short-term, consisting of construction worker commutes and delivery/removal of construction equipment, causing intermittent noise nuisance (passing trucks at 50 feet would generate up to a maximum of 76.5 dBA Lmax, see Table 5). The associated short-term noise increase along Park Avenue, Nimrod Street, and at the nearest sensitive receptors would be perceptible; however, such a noise increase would be instantaneous and short-term. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during Project construction. Construction activities would be performed in phases; creek restoration, grading of The Lower Field, and the trail construction and, consequently, its own noise characteristics. These various construction operations would change the character of the noise generated at the project site and, therefore, the ambient noise level as construction progresses. The loudest phases of construction include excavation and grading phases, as the noisiest construction equipment is earthmoving equipment.

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM), used as the FHWA's national standard for predicting noise generated form construction activities was used to predict potential Project-specific noise impacts during construction. The RCNM analysis includes the calculation of noise levels (Lmax and Leq) at incremental distances for a variety of construction equipment. The results of the RCNM are included in Table 3.12-8, which lists equipment that is expected to be used during Project construction. Lmax sound levels at various distances are shown along with the typical acoustic use factor. The acoustic use factor is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its loudest condition) during construction and is used to estimate Leq values from Lmax values. For example the Leq values for a piece of equipment that operates at full power 50% of the time (acoustical use factor of 50) is 3 dB less than the Lmax value.

Table 3.12-8 Typical Construction Noise Emission Levels

Equipment	Typical Noise Level (Lmax)*	Acoustical Use Factor	Typical Noise Level (Leq)	Distance from Nearest Receptor	Project Phase Where Equipment will be Used
Pumps	67.9	50	64.9	225	Phase 1
Grader	85	40	81	50	Phase 2
Backhoe	71.5	40	67.6	100	Phase 1, 2 and 3
Excavator	71.2	40	67.2	150	Phase 1, 2 and 3
Flat Bed Trucks	74.3	40	70.3	50	Phase 1, 2 and 3
Front End Loader	69.6	40	65.6	150	Phase 1, 2 and 3
Dump Trucks	76.5	40	72.5	50	Phase 1, 2 and 3

Notes: *dBA, A-weighted decibel level.
Source: Federal Highway Administration RCNM.

Phase 1, creek restoration would occur along an approximate 640 feet of Little Deer Creek that runs along the north and western edge of Pioneer Park. During the creek restoration, the creek will need to be diverted using a coffer dam, pump, and piping, so that the restoration work can occur while the creek bed is dry. The pump would be located upstream of the bridge in the southeast corner of the Lower Field, approximately 225 feet from the nearest receptor. Based on the RCMN, it is estimated that the noise levels at the nearest residential receptor would be approximately 64.9 Leq and 67.9 Lmax. It is anticipated that noise levels at this receptor would in actuality be lower than the model predicts due to the surrounding tall, dense trees. According the Federal Highway Administration Noise Barrier Design Handbook, "for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 5 m (15 ft) in height, 30 m (100 ft) wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation area may provide up to 5 dB(A) of noise reduction. Taller, wider, and denser areas of vegetation may provide even greater noise reduction." Given the trees surrounding the nearest home are far taller than 15 feet in height and are dense, there would be at least a 5 dBA reduction in noise levels at the receptor. The pump would need to run 24 hours per day to ensure that the creek is continuously diverted and does not pool or overflow onto the field or into the road. According the Nevada City General Plan, noise levels associated with construction of phase 1, including the operation of the pump, would be considered "normally acceptable". In order to reduce potential impacts from noise during phase 1 construction, Mitigation Measure Noise-1 would be implemented; therefore, potential impacts would be considered less than significant with mitigation incorporated.

Phase 2 and phase 3 would include the grading of the Lower Field and the construction of the trail, respectively. The nearest residence is approximately 50 feet from the field, it is likely that noise levels would occasionally increase above the Nevada City "normally acceptable" levels, see table 6. The RCNM predicts that noise levels that nearest receptor could temporarily reach 81 Leq and 85 Lmax during grading activities. However, grading within 50 feet of the nearest sensitive receptor would be short-term, up to one week, and would occur during the daytime hours between 7:00 a.m. and 7:00 p.m. Additionally, construction equipment would be equipped with a muffled exhaust. Mitigation Measure Noise-1 would be implemented, which includes the placement of construction noise barriers, if needed. As such, the potential noise impacts are expected to be less than significant with mitigation incorporated.

Operation of the project would be the same as existing condition; therefore, no further analysis is required.

b) Would the Project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Finding: Less than significant

During construction of the proposed project, equipment such as excavators, graders, loaders backhoes, and bulldozers may be used as close as 50 feet from the closest sensitive receptor. Construction equipment that would be used during project construction would generate vibration levels between 0.001 and 0.031 PPV as measured at a distance of 50 feet from the operating machinery, see Table 3.12-9. According to Table 3.12-3, the groundborne vibration levels are below the FTA vibration threshold at which human annoyance could occur of 0.1 PPV. Therefore, construction related groundborne vibration impacts would be less than significant.

Table 3.12-9 Construction Equipment Related to Groundbourne Vibration

Type of Equipment	Peak Particle Velocity at 25 feet	Peak Particle Velocity at 50 feet	Peak Particle Velocity at 100 feet	Threshold at which Human Annoyance could Occur	Potential for proposed project to exceed threshold
Large Bulldozer	0.089	0.031	0.011	0.1	None
Loaded Trucks	0.076	0.027	0.010	0.1	None
Small Bulldozer	0.003	0.001	0.000	0.1	None
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines 2006b					

Furthermore, potential ground borne vibrations or noise would be temporary and would occur during daylight hours. Therefore, ground borne noise and vibration impacts are considered less than significant.

c) Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Finding: Less than significant

The operation of the proposed Project will be similar to existing operations. The proposed Project is not expected to cause a permanent increase in ambient noise levels. There would be a less than significant impact on noise levels associated with operation of the proposed Project.

d) Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Finding: Less than significant with mitigation

During the construction of the proposed project including grading and excavation activities, noise from construction would add to the noise environment in the project area. Table 9 lists equipment that is expected to be used along with noise levels generated from the FHWA RCNM (Federal Highway Administration 2006a). Lmax sound levels at the nearest receptor (50 feet) are shown along with the typical acoustic use factor. The acoustical use factor is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its loudest condition) during construction and is used to estimate Leq values from Lmax values. For example the Leq value for a piece of equipment that operates at full power 50% of the time (acoustical use factor of 50) is 3 dB less than the Lmax value.

The nearest receptor to the project site is residential property located to the west of the Lower Field, at approximately 50 feet from the project boundary. Due to the close proximity of the home, the residents could potentially be affected by construction noise. Therefore, Mitigation Measure NOISEI-1 would be implemented to minimize impact from construction generated noise.

Construction activities of the proposed Project would result in temporary increases in noise above existing levels. Construction activities are temporary (estimated at60calendar days for phase 1, 60 days for phase 2, and 30 to 60 days for phase 3) and would only occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and possibly Saturdays as described in Mitigation Measure NOISE-1. Therefore, this impact is considered less than significant with mitigation.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Finding: Less than significant

The proposed Project area is not located within an airport land use plan; nor is it within two miles of a public airport. The Nevada County Airpark is located approximately 2.4 miles away from the proposed Project site. The proposed Project will not expose sensitive receptors to excessive noise levels from airport/aircraft operations. Therefore, impacts are considered to be less than significant.

f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?

Finding: Less than Significant

See part e above. Impacts are anticipated to be less than significant.

3.12.4 Mitigation

Mitigation Measure NOISE-1: Noise Reduction Measures

The City will incorporate the following BMPs to minimize noise impacts during construction activities:

- Construction will be limited to daytime hours between 7:00 a.m. and 7:00 p.m. on weekdays and possibly Saturdays with the exception of the water pump; which will need to operate 24/7 during the creek restoration activities.
- All construction equipment will be equipped with sound-control devices no less effective than those provided on the original equipment. Equipment will have a muffled exhaust.
- Appropriate additional noise-reducing measures will be implemented, including but not limited to:
  - Changing the location of stationary construction equipment when practical
  - Shutting off idling equipment
  - Notifying residences within 50-100 feet 48 hours in advance of starting construction in an area not previously affected by recent construction activities;
  - Where necessary noise-reducing enclosures or temporary barriers would be used around noise-generating equipment. Where feasible, existing barrier features (terrain, structures) would be used to block sound transmission especially where sensitive receptors are located less than 100 feet from construction activities and construction noise levels are expected to exceed the maximum exterior noise standard.

If construction activities are required outside of the daytime working hours described above, the City will notify residents 48 hours in advance. If after hour construction is required due to an emergency, such as unforeseen dewatering, the City will notify nearby residents immediately.

Mitigation Measure NOISE-1 Implementation

Responsible Party: The City's contractor shall adhere to the construction schedule and noise mitigation measures.

Timing: During all phases of construction.

Monitoring and Reporting: The City shall document all after hour work that generates noise louder than background.

Standard of Success: Minimize neighbor's noise complaints.

3.13 POPULATION AND HOUSING

The population and housing section discusses the proposed Project's potential impacts to the population and housing resources within and around the proposed Project area. The regulatory setting describes applicable laws and regulations administered by the local governing body that aim to preserve population and housing resources. The environmental setting provides general information of the population and housing resources in and around the proposed Project area, and finally, the impact analysis evaluates the potential impacts of the proposed Project on those resources.

3.13.1 Regulatory Setting

The proposed Project area is in Nevada County within the City of Nevada City.

3.13.1.1 Nevada County General Plan

The Nevada County General Plan (2014, 2016) includes the following Land Use and Housing Elementsgoals and policy that are applicable to the proposed Project as it relates to population and housing:

Policy 1.4.1: Maintain a land use pattern based upon criteria that establish the amount of land use types necessary to meet the needs of the population/employment levels, while recognizing the unique character of each *Community Region*.

Goal RC-8.2: Mitigate non-governmental constraints on the maintenance, improvement, and development of housing to the extent possible.

Goal HD-8.1: To provide for a variety of housing types by tenure and price in all residential areas for all income segments, special needs groups, and the County's workforce for both existing Nevada County residents, as well as potential future residents, commensurate with the Regional Housing Need Allocation (RHNA) Plan and the County's quantified objectives.

Goal HD-8.3: Ensure that appropriate types and higher density housing development are directed to Community Regions and Rural Centers.

3.13.1.2 City of Nevada City General Plan

The City of Nevada City General Plan Housing Element (2014) includes the following specific objectives applicable to the proposed Project as it relates to population and housing:

Community Housing Objectives 6.10.1: Provide adequate sites for a variety of housing types for all income groups based on the City's adopted growth rate projection.

Community Housing Objectives 6.10.2: Maintain a low-density "rural residential" character in all areas that are not fully served by public water and sewer, or where that character pre-exists in the neighborhood.

Community Housing Objectives 6.10.3: Encourage development of appropriate housing in areas with adequate capacity in public services and facilities, including the circulation network.

Community Housing Objectives 6.10.5: Accommodate a diversity of housing types and prices within each neighborhood, without creating an adverse effect on the historic and scenic quality of the town.

3.13.2 Environmental Setting

The proposed Project site is located in Nevada City at approximately 2,500 feet in elevation above mean sea level. Nevada City has an estimated population of 3,152 (USCB, 2015). The proposed Project will provide improvements to stream, field, and trail areas of Pioneer Park. It is located in a public park and surrounded by a residential community.

3.13.3 Impact Analysis

The potential impacts to population and housing are qualified in Table 3.13-1 and discussed below.

Table 3.13-1 CEQA Checklist for Assessing Project-Specific Potential Population and Housing Impacts

XIII. POPULATION AND HOUSING: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) Would the Project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Finding: No impact

The proposed Project has no direct growth inducement potential. The proposed Project component is to provide improvements to Little Deer Creek, the Lower Field, and improve and build a new trail in Pioneer Park. The proposed Project does not propose construction or replacement of new homes or businesses, would not affect the current distribution of homes and businesses, and does not propose extension of infrastructure that could support substantial population growth. Therefore, demand for additional housing as a direct result of the proposed Project would be minimal, if any, and no impacts are anticipated from the proposed Project.

b) Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Finding: No impact

The proposed Project will be located within the boundaries of Pioneer Park and would not displace existing housing. Construction will be temporary and will not displace any individuals living nearby. Thus, no impact would occur.

c) Would the Project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

Finding: No impact

Implementation of the proposed Project would not result in the displacement of substantial numbers of people necessitating the construction of replacement housing in any other location(s). No impact would result from the proposed Project.

3.14 PUBLIC SERVICES

Public services are typically provided by fire districts, park districts, public utility districts, school districts, sewer districts, water districts, and other single purpose districts in addition to those provided by Nevada County and any state and federal agencies.

3.14.1 Regulatory Setting

3.14.1.1 Nevada County General Plan

The Nevada County General Plan (1996, 2008) includes the following specific objectives and policies that are applicable to the proposed Project as it relates to Public Services. The Safety Element of the Nevada County General Plan was reviewed which addresses a wide range of issues related to human health and safety, including emergency preparedness. The Public Facilities and Services Element addresses the changing public facility and service needs of Nevada County and provides guidance for their logical and timely extension to keep pace with County growth. These elements contain the following pertinent policies:

Objective 3.2: Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.

Objective 3.4: Develop and operate public facilities in an environmentally sound way.

3.14.1.2 City of Nevada City General Plan

The City of Nevada City General Plan (1986) includes the following specific objective and policies within the City Resources and Public Safety Elements that are applicable to the proposed Project as it relates to Public Services.

Objective: Include consideration of both resident and non-resident users in planning future park needs and funding sources.

Policy: Investigate opportunities for extension of public trails along Deer Creek and Little Deer Creek, especially in connection with features of historic importance, such as the flume at Pine Street Bridge.

Policy: The Nevada City Fire Department, in cooperation with the California Department of Forestry and the relevant Fire Districts, shall maintain high fire protection levels by requiring adequate access and water flow, based on established standards.

3.14.2 Environmental Setting

Fire protection in the Project area is provided by the Nevada City Fire Department (NCFD), and police protection is under the jurisdiction of the Nevada City Police. There are no schools that exist in the proposed Project area. The proposed Project area consists of Pioneer Park lower

playing field, Little Deer Creek that runs through the park, and associated parking areas. During construction, the entire area will be fenced and unavailable for public use. There will be no road closures during construction and construction is not anticipated to restrict traffic on local roadways, therefore emergency service access will not be affected.

For additional information regarding the Public Services and Facilities in Nevada County in the proposed Project area refer to Chapter 3, Public Facilities and Services, of the Nevada County General Plan (Nevada County 1996).

Fire Protection

The Nevada City Fire Department (NCFD) is responsible for any fire-related emergencies within the Project area. The closest NCFD station is Nevada City Fire Station 54, located at 201 Providence Mine Road in Nevada City. It is approximately 1.3 miles from the proposed Project site.

Police Protection

The Project area falls under the jurisdiction of the Nevada City Police Department, who is responsible for police protection and public safety within the City limits. The nearest location of law enforcement services provided by the Nevada City Police Department is located at 317 Broad Street in Nevada City.

Schools

There are 12 school districts within Nevada County. The Project area is located in the Nevada City School District and District 1 of the Nevada Joint Union High School District. The nearest schools are Yuba River Charter School, Forest Charter School, Deer Creek Elementary School, Seven Hills Middle School, and Nevada Union High School. The elementary and middle schools are approximately 1.2 miles from the Project site and the high school is approximately 2.8 miles away from the Project site.

Parks

The Project is located at Pioneer Park. There is one additional park in Nevada City (Calanan Park) which consists of seating areas and has relics of Nevada City's mining history. Calanan Park does not have any amenities like sports courts or game areas, a creek, or structures.

The Project would involve construction in Pioneer Park in two phases. While the park resources would be affected by construction, new facilities would not be needed to accommodate recreation. Portions of the park (upper playground, pool, little league field) will still be available for users during construction. The regional area includes many outdoor trails and activities such that new facilities would not be required. The Project construction activities will be temporary and short term and would not require construction of new facilities.

3.14.3 Impact Analysis

The potential impacts to public services are qualified in Table 3.14-1 and discussed below.

Table 3.14-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Public Services

XIV. PUBLIC SERVICES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: Fire protection? Police protection? Schools? Parks?

Finding: Less than significant

Removal of soil in the park that has high levels of arsenic will improve the park for users. Although the Lower field will be closed to the public during phase II of construction, the rest of the park will remain open. Construction periods will last approximately two months for each phase of construction, turf replacement and restoration for an additional six months.

The proposed Project does not involve construction within the public roadways; however, the proposed Project may temporarily impact traffic around the construction area. Construction

vehicles will yield to emergency vehicles as required by law and therefore, not affect service ratios and response times.

Therefore, the proposed Project will not result in the need for additional government facilities. The proposed Project activities will have less than significant impacts on fire protection, police protection, schools, parks, or other public facilities in the proximity of the Project area and impacts are considered less than significant.

3.15 RECREATION

The following recreation section evaluates the proposed Project's consistency with and impacts to recreation. The section begins with the regulatory setting discussing the applicable recreation goals, policies, and objectives application to the project area. The environmental setting is discussed including the recreational uses of the Project area and surrounding region. The third section evaluates the potential impacts of the proposed Project looking to both the regulatory and environmental setting to assess the potential for the project to cause a significant impact to recreation.

3.15.1 Regulatory Setting

3.15.1.1 Nevada County General Plan

The Nevada County General Plan sets several goals, policies, and objectives to guide development. The proposed Project will comply with the following goals and objectives of Chapter 5: Recreation and Chapter 3: Public Facilities of the Nevada County General Plan (Nevada County General Plan 1996).

Goal 5.1: Provide a variety of active and passive recreational opportunities.

Objective 5.1: Provide a diverse range of recreational opportunities at a regional, district, community, and neighborhood level.

Objective 3.2: Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.

3.15.1.2 Western Nevada County Non-Motorized Recreational Trails Master Plan

The Western Nevada County Non-Motorized Recreational Trails Master Plan goals and policies relative to the proposed Project are as follows:

Goal 1: Provide a wide-range of safe, convenient, and enjoyable recreational trails opportunities for multiple non-motorized users.

Policy 1.4: Encourage the creation of new and maintenance of existing recreational trails and support facilities to serve existing developed areas.

Policy 1.5: Encourage the development of recreational trails that are accessible to physically challenged individuals.

Goal 2: Provide a recreational trail system that connects or provides access to recreational, educational, natural, cultural, and historical resources.

Policy 2.3: Create non-motorized trails that connect to public parklands and other existing or proposed recreational opportunities.

Policy 2.4: Provide a recreational trails system that showcases the unique natural and historical character of Nevada County.

Goal 3: Work with affected private landowners to address concerns and effectively plan for the recreational trails system.

Policy 3.1: Promote recreational trails on existing public lands, public easements, and other public rights-of-way.

Policy 3.5: Design recreational trails to minimize and avoid if possible, bifurcation of private property and to be located within open space parcels, linear parks, or designated no build areas to minimize potential conflicts with adjacent land uses.

Goal 4: Create a recreational trails system that minimizes user conflicts and provides safe and enjoyable experiences.

Policy 4.2: Plan and design each trail segment to meet the needs of the intended user group(s).

Policy 4.4: Encourage connectivity between recreational trails and pathways to create a comprehensive and integrated non-motorized system.

Goal 5: Provide for community and inter-agency involvement to develop and manage the recreational trails system.

Goal 7: Promote the design and development of quality trails in keeping with the rural foothill character of Nevada County.

Policy 7.2: Ensure that trail design is consistent with the character of surrounding lands, the intended and varying needs of user(s) and the expected volume of use.

Policy 7.5: Employ Best Management Practices in trail construction to prevent soil erosion and instability, substantially changing drainage patterns, and negative effects on water features.

Policy 7.6: Ensure that County recreational trails within a City Sphere of Influence are compatible with applicable City design guidelines.

3.15.1.3 Nevada City General Plan

Take steps to ensure acquisition, dedication, or conservation of potential open space preserves, public park sites and trails easements

- Investigate opportunities for extension of public trails along Deer Creek and Little Deer Creek, especially in connection with features of historic importance, such as the flume at Pine Street Bridge.

3.15.2 Environmental Setting

Nevada County provides a vast array of recreational opportunities, ranging from public parks with recreational facilities to uninhabited forested lands. Public parks and recreational facilities within the County include ski areas and resorts, golf courses, swimming and exercising facilities, and campgrounds. Recreational, non-motorized trails are found throughout the County and provide opportunities for hiking, mountain biking, and horseback riding. Additionally, both the Nevada County Master Bicycle Plan and the Pedestrian Improvement Plan for Nevada County aim to improve pedestrian and bicycle travel within urbanized areas of the County.

The proposed Project site is located in Nevada County, within the incorporated area of Nevada City. The Project site known as Pioneer Park is owned and operated by the City of Nevada City and was established (construction began) in 1935. In the late 1940's, the lower field of Pioneer Park was created. Little Deer Creek was diverted around the field to make an open space for playing baseball. The park playground was originally located where the upper Little League Field now sits. Between 1968 and 1974 the playground was moved to its current location and the upper field was constructed with funds from community donations. The reason for this move of the field was because the lower field was too soggy to play on (Pioneer Park Master Plan 2012).

Drainage of the lower field has been an issue since its installation. The proposed Project aims to reduce flooding impacts and re-grade the lower field to provide for year round accessibility and use of the park. The proposed Project also includes installation of a "roll and stroll" bicycling and walking path that skirts around the perimeter of the lower playing field (see Project description for design details). This path will be ADA (American's with Disabilities Act) accessible compliant and will be entirely within the park boundaries.

In 2006, Nevada City was awarded a Brownfield's Assessment Grant. Sierra Streams Institute completed the assessment work required by the grant, including soil samples from Pioneer Park field. The results of those samples showed that there are higher than normal levels of arsenic throughout the grassy field (Pioneer Park Master Plan 2012).

Construction of the proposed Project elements will create temporary disruption of park accessibility to the lower playing field for users. Construction activities in the field are scheduled to last for two months during two separate years. The field grading and improvements will be two months in duration during 2017, with an additional six months to allow for turf regrowth, and the trail construction will be two months in duration during 2018.

3.15.3 Impact Analysis

Impacts to recreation are qualified in Table 3.15-1 and discussed below.

Table 3.15-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Recreation

XV. RECREATION:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☒	☐	☐

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Finding: Less than Significant

The proposed Project is located at an established recreation facility, Pioneer Park. The Project design accommodates existing and projected levels of use of the park. The improvements made to the park will not increase overall use of the facilities but rather provide better year round access to all of Pioneer Park's amenities by widening the stream channel, improving the drainage of the lower field, and constructing a perimeter trail. Therefore, impacts would be considered less than significant.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Finding: Less than significant with mitigation incorporated

The proposed Project involves improvements to recreational facilities. The trail and re-grading of the field will require the removal of arsenic contaminated soil from the Project site. Soil from the turf field will be removed and disposed of off-site because of high levels of arsenic contamination present in the soil. The presence of arsenic in the soil will require Best Management Practices to prevent soil instability and minimize negative effects on the environment. A Mitigation measureAIR-1 would be implemented to minimize the potential of arsenic becoming air-born from soil movement during construction. Additionally, the removal of riparian vegetation may be necessary during trail construction along the north bank of Deer Creek. Mitigation Measure BIO-2 would be implemented to protect and restore and impacted riparian plants and habitat.

Once constructed, the Project as a whole would have a positive impact on the physical environment. The proposed Project would remove arsenic contaminated soils thereby reducing the risk of exposure for those using the park and within Deer Creek. The Project would also reduce the likelihood of flooding in the Lower Field and would generally enhance the stream habitat within Deer Creek. Therefore, the impacts to the environment are less than significant with mitigation incorporated.

3.16 TRANSPORTATION AND TRAFFIC

The transportation and traffic section discusses the potential impacts of the proposed Project to transportation and traffic within and around the proposed Project area. The regulatory setting describes applicable transportation and traffic regulations. The environmental setting provides general information of the transportation and traffic in and around the proposed Project area, and finally, the impact analysis evaluates the potential impacts of the proposed Project on transportation and traffic.

3.16.1 Regulatory Setting

3.16.1.1 Local Regulations

The Nevada County General Plan, Nevada County Regional Transportation Plan, Western Nevada County Non-Motorized Recreational Trails Master Plan, and Nevada City General Plan, set the following goals, policies, and objectives relative to the proposed Project:

3.16.1.1.1 Nevada County General Plan

Goal MV-4.3: Provide for alternative routes for efficient service and for emergency access.

Policy EP-4.4.1: The County shall require environmentally sound practices for transportation facility construction and maintenance. New roads or improvements to the existing road system and all trails and pathways shall be located, constructed and maintained in a manner compatible with the environment.

Objective 5.5: Coordinate future park and trail planning with other responsible agencies.

Policy 5.15: The County shall provide for the inclusion of bikeways, walkways, and non-motorized trails in appropriate locations within parks. Where feasible, park sites shall be integrated with the County Bicycle Master Plan and with the Non-Motorized Multi-Purpose Trails Master Plan.

3.16.1.1.2 Nevada County Regional Transportation Plan

Goal 1.0: Provide for the safe and efficient movement of all people, goods, services, and information.

Goal 2.0: Reduce adverse impacts on the natural, social, cultural, and historical environment and the quality of life.

3.16.1.1.3 Western Nevada County Non-Motorized Recreational Trails Master Plan

Goal 1: Provide a wide-range of safe, convenient, and enjoyable recreational trail opportunities for multiple non-motorized users.

Policy 1.2: Allow single, shared, and multiple use (pedestrian, equestrian, and mountain bicycling) trails, where appropriate, with consideration for user safety, environmental and physical constraints, and land use compatibility.

Policy 1.3: Support a broad range of enjoyable experiences by integrating a variety of trail settings in the regional system.

Policy 1.4: Encourage the creation of new and maintenance of existing recreational trails and support facilities to serve existing developed areas.

Policy 1.5: Encourage the development of recreational trails that are accessible to physically challenged individuals.

Goal2: Provide a recreational trail system that connects or provides access to recreational, educational, natural, cultural, and historical resources.

Policy2.1: Provide public access to Nevada County's significant natural, cultural, historical, and scenic heritage, while protecting these resources.

Policy2.3: Create non-motorized trails that connect to public park lands and other existing or proposed recreational opportunities.

Policy 2.4: Provide a recreational trails system that showcases the unique natural and historical character of Nevada County.

Goal 3: Work with affected private landowners to address concerns and effectively plan for the recreational trails system.

Policy 3.1: Promote recreational trails on existing public lands, public easements, and other public rights-of-way.

Policy 3.5: Design recreational trails to minimize and avoid if possible, bifurcation of private property and to be located within open space parcels, linear parks, or designated no build areas to minimize potential conflicts with adjacent land uses.

Policy 3.7: Plan trail locations to avoid or minimize impacts to sensitive resources, including, but not limited to, biological, archeological, agricultural, and cultural resources.

Policy 3.8: Trail development shall be compliant with all applicable land use and development regulations and the California Environmental Quality Act (CEQA) Guidelines.

Policy 3.9: Public trails shall not be available for public use until land entitlement, funding, a responsible entity, and a trail-specific operations and management plan are established and improvements are made for public safety and enjoyment.

Goal 4: Create a recreational trails system that minimizes user conflicts and provides safe and enjoyable experiences.

Policy 4.1: Provide highly visible, recognizable, and safe trailheads or access points into the trail system.

Policy 4.2: Plan and design each trail segment to meet the needs of the intended user group(s).

Policy 4.3: Require signage to minimize conflicts with vehicles and other trail users and to provide user information for the trails system.

Policy 4.4: Encourage connectivity between recreational trails and pathways to create a comprehensive and integrated non-motorized system.

Goal 5: Provide for community and inter-agency involvement to develop and manage the recreational trails system.

Policy 5.1: Coordinate trail planning with other responsible agencies (GP Objective 5.5).

Policy 5.2: Partner with other agencies and organizations to prioritize trail segments for implementation, enhance grant opportunities for regionally significant improvement projects, and to support trail construction and management activities.

Goal 7: Promote the design and development of quality trails in keeping with the rural foothill character of Nevada County.

Policy 7.2: Ensure that trail design is consistent with the character of surrounding lands, the intended and varying needs of user(s), and the expected volume of use.

Policy 7.3: Encourage trail construction that is of the highest quality design, yet remains cost-effective, functional, low impact, and easily maintained.

Policy 7.5: Employ Best Management Practices in trail construction to prevent soil erosion and instability, substantially changing drainage patterns, and negative affects on water features.

Policy 7.6: Ensure that County recreational trails within a City Sphere of Influence are compatible with applicable City design guidelines.

3.16.1.1.4 Nevada City General Plan

Regional Circulation Objective: Cooperate with the county in fulfilling the aims of the current Nevada County Regional Transportation Plan.

Regional Circulation Policy: Use the county Regional Transportation Plan as the basis for the Nevada City Circulation Element, subject to adoption of the current version by the City Council.

Local Circulation Policy: Maintain reasonable traffic levels on local streets to protect residents from the harmful effects of noise, fumes, and safety hazards.

Local Circulation Policy: Encourage the construction of pedestrian and bicycle pathways where appropriate, to provide safe alternatives to vehicular travel.

3.16.2 Environmental Setting

The proposed Project is located in western Nevada County and is located at Pioneer Park in Nevada City, just east of State Route 49/20. Main highways in the region include Interstate 80, State Route 49, State Route 20, and Highway 174. According to the Nevada City General Plan, the street system is composed of a combination of roadways, including:

- **Freeways and Expressways:** Roads serving high-speed traffic with no at-grade crossings to interrupt flow.
- **Principal Arterials:** Major streets connecting freeways and other major traffic carriers to local and collector streets. Implies controlled intersections and joint rather than individual access to properties.
- **Minor Arterials:** Secondary arterial, which may provide direct access to individual properties.
- **Local Streets:** Streets providing direct access to properties which should be designed to discourage through traffic.

The main roads on which minimal proposed Project construction equipment and truck trips would occur are State Route 49/20 near Grass Valley and Nevada City, Broad Street, Boulder Street, Nimrod Street, Park Avenue, and Max Solaro Drive. According to the Nevada County General Plan, State Route 49/20 is considered a "principal arterial" road. The other roads are within Nevada City limits and are considered principal, minor, and local streets.

The primary staging area is proposed in the existing 0.15 acre West Parking Lot. This area is located in the northwest portion of Pioneer Park, near the tennis courts. A secondary staging area is proposed at the existing East Parking Lot. This staging site has a total area of 0.40 acre, and is located east of the proposed stream restoration area. Staging areas would be utilized for site access, short duration equipment storage, and/or vehicle parking during the field regrading phase of the proposed Project.

The contractor staging and access would be coordinated with City Parks and Recreation Department (P&R) to allow for maximum public use of Pioneer Park facilities during active construction. Temporary chain-link fencing would be placed around the entire construction and staging areas and maintained throughout the construction period. Access would be restricted to construction and engineering personnel. Signs would be posted to inform the public and

maintain public safety. At least two of the four parking lots at Pioneer Park, as well as side street parking, would be open for public parking at all times during construction.

Proposed Project activities would occur between 7 a.m. to 7 p.m. on weekdays. Access to the picnic area to the south of the East Parking Lot would be provided during weekends. Construction is not anticipated to restrict traffic on local roadways.

3.16.3 Impact Analysis

Potential impacts to transportation and traffic are qualified in Table 3.16-1 and discussed below.

Table 3.16-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Transportation and Traffic

XVI. TRANSPORTATION / TRAFFIC: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

a) Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Finding: Less than significant

The proposed Project would use roadway or roadway right-of-way for access to and from the proposed Project area (Park Avenue, Nimrod Street, Max Solaro Drive, and to other connecting roadways and arterials). There would be a temporary increase of Project traffic, including construction employees and vehicles, to and from the proposed Project site. The proposed Project activities would be temporary and would not be expected to result in a substantial increase in traffic relative to the capacity of the street system. Additionally, operation of the proposed Project would not require additional staffing or generate any addition trips to and from the proposed Project sites and would not conflict with established plans, policies, or standards related to motorized or non-motorized travel. Therefore, the impact would be less than significant.

b) Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Finding: No impact

The Nevada County General Plan establishes Level of Service standards to evaluate traffic and congestion, however, the plan recognizes the difficult nature of assessing LOS in rural and urbanized areas. The local roadways in the proposed Project area are in an urbanized part of Nevada City. The temporary increase in proposed Project traffic is not expected to substantially affect load or capacity of the local road system. This minor temporary increase does not conflict with the congestion management program or other standards in the Nevada County or Nevada City General Plans.

After construction of the proposed Project is complete, traffic to and from the proposed Project facilities would return to existing conditions and therefore would not create an increase in traffic or conflict with established plans, policies, or standards related to motorized or non-motorized travel. Therefore, the proposed Project would not conflict with an applicable congestion management program and no impact would occur.

c) Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

Finding: No impact

The Federal Aviation Administration (FAA) has specific rules and regulations that govern airports and require an air space permit for equipment within a certain distance of an airport over a certain height. The closest airport to the proposed Project is the Nevada County Airport, located approximately 2.4 direct miles from the proposed Project. The proposed Project would not change airport operations or traffic patterns as none of the proposed Project construction equipment or proposed Project components would be tall enough to interfere with air traffic patterns or require an air space permit. Therefore, flight patterns in the proposed Project vicinity would not be affected and no impacts would occur.

d) Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Finding: Less than significant

The proposed Project does not include any new design features on Project roadways, and therefore, would not result in any associated hazards. Project construction would require the transportation of machinery with haul trucks, dump trucks, and light trucks on the roads described above. It is estimated that approximately 150 truck trips would be needed to haul contaminated soil and concrete and approximately 115 truck trips to import fill for the creek restoration, field grading, and trail improvements. The truck trips would be temporary and would only occur during construction activities. Additionally, these additional vehicle trips are not anticipated to affect the LOS standards on the roadways or significantly increase local traffic congestion. The proposed Project would take place at existing facilities and operations would remain similar to existing conditions and would not introduce any incompatible uses to local or regional roadways. The proposed Project would not substantially increase hazards to a design feature since these minor trips would not constitute substantial changes. Therefore, impacts are considered less than significant.

e) Would the Project result in inadequate emergency access?

Finding: Less than significant

The proposed Project would not change access points to the proposed Project area. During proposed Project implementation, the movement of construction equipment along Park Avenue, Nimrod Street, and Max Solaro Drive would be minimal and would not result in inadequate emergency access. Construction traffic and activities would not significantly cause inadequate emergency access since construction activities would take place on existing secure park facilities. Since there would be no change in operational conditions of the proposed Project facilities, there would be no operational impact to emergency access as a result of the proposed Project. Therefore, impacts to emergency access are considered less than significant.

f) Would the Project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Finding: No impact

Nevada City's plans and policies governing alternative transportation are generally outlined in the Nevada City and Nevada County General Plans and outlined in detail in the Nevada County Regional Transportation Plan and Western Nevada County Non-Motorized Recreational Trails Master Plan. The proposed Project would not involve a change in land use or negatively affect transportation policies including any policies, plans, or programs supporting alternative transportation since the proposed Project supports the above adopted policies and plans with the addition of a pedestrian trail. Additionally, it would not add residences or other land uses that would generate a need for alternative transportation. Therefore, no impacts would occur.

3.17 UTILITIES AND SERVICE SYSTEMS

The utilities and service systems section discusses the potential impacts of the proposed Project to utilities and service systems within the Project area and region.

3.17.1 Regulatory Setting

3.17.1.1 Nevada County General Plan

The proposed Project is located in Nevada County and would therefore be governed by the County's General Plan. The Safety Element of the Nevada County General Plan was reviewed which addresses a wide range of issues related to human health and safety, including emergency preparedness. The Public Facilities and Service Element addresses the changing Public Facility and Service needs of Nevada County and provides guidance for their logical and timely extension to keep pace with County growth. These elements contain the following pertinent objectives:

Objective 3.2: Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.

Objective 3.4: Develop and operate public facilities in an environmentally sound way.

3.17.2 Environmental Setting

The City of Nevada City and special districts provide many services to residents and businesses such as water, wastewater, storm drainage, solid waste removal, utilities, and communications. The City provides potable water to users within the City boundary. Domestic, industrial, and commercial water in western Nevada County is primarily supplied by Nevada Irrigation District (NID), and by the City of Grass Valley and the City of Nevada City within the respective city limits. Nevada City sources its water from Little Deer Creek upstream of the Project Site and supplements its water supply with water from NID in months of high usage (June - September) (City of Nevada City 2016).Solid waste collection is provided by Waste Management and deposited at the McCourtney Road Transfer Station, approximately 8.4 miles from the Project site. Pacific Gas and Electric (PG&E) provides both gas and electric services to the City.

3.17.3 Impact Analysis

The potential impacts to utilities and service systems are qualified in Table 3.17-1 and discussed below.

Table 3.17-1 CEQA Checklist for Assessing Project-Specific Potential Impacts to Utilities and Public Services

XVII. UTILITIES AND SERVICE SYSTEMS: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Finding: No impact

The proposed Project involves stream improvements, playing field improvements, and construction of a trail. The Project would not result in the increased generation of wastewater or exceed treatment requirements. Therefore, the Project would result in no impacts.

b) Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Finding: No impact

The proposed Project would not require a permanent connection to water or wastewater facilities. Water and wastewater facilities required during construction would be temporary and would consist of water trucked onsite as needed for construction (existing park toilet facilities will accommodate construction personnel). As such, the proposed Project would not require the construction of new water or wastewater treatment facilities. Therefore, the proposed Project would have no impact.

c) Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Finding: Less than significant

As mentioned in the Project Description, limited grading and/or soil berm construction will be performed along upslope areas (i.e., southern vicinity) of the Lower Field to improve site drainage. Runoff will be directed into infiltration trenches extending along portions of the field perimeter. Upon completion of the Project, any disturbed areas shall be restored to pre-existing conditions to the extent feasible and will not alter existing ground surface conditions. Therefore, the Project impacts are considered less than significant.

d) Would the Project have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

Finding: No impact

The proposed Project will not require any additional water resources. Treated water will continue to be provided by the City of Nevada City. Therefore, no impact would occur.

e) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Finding: No impact

The proposed Project will have no effect on the capacity of the existing wastewater treatment facility. Therefore, no impact would result.

f) Would the Project be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Finding: Less than significant

As outlined in the Project Description, during construction there will be some associated waste as a result of the proposed Project (once construction is completed operation will have no increase in waste generation). Excavated soil from the stream channel and playing field will be disposed of offsite. The Recoloy Landfill off of Ostram Road in Wheatland, CA is the nearest facility to receive arsenic contaminated soils. Solid waste materials and soil will be transferred to the appropriate solid waste handling facility. The McCourtney Road Transfer Station and Recycling Center is the closest solid waste disposal facility. The existing landfills have ample capacity to accommodate the temporary increase.

The proposed Project may minimally and temporarily increase solid waste production over the current levels and there are facilities available to accept solid waste materials generated by the construction of the Project. Impacts from solid waste generation are considered less than significant.

g) Would the Project comply with federal, state, and local statutes and regulations related to solid waste?

Finding: Less than significant

The California Integrated Waste Management (CIWM) Act requires every county to adopt an IWM Program that describes county objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. Nevada County has implemented a Green Procurement and Sustainable Practices policy that is consistent with the CIWM Act. The removal of solid waste due to construction activities will comply with all federal, state, and local statutes and regulations. Impacts to solid waste statutes and regulations would be less than significant.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

3.18.1 Impact Analysis

The mandatory findings of significance include potential impacts to sensitive resources, potential cumulative impacts, potential impacts to human beings, and potential global warming impacts. These are qualified in Table 3.18-1 and discussed below.

Table 3.18-1 CEQA Checklist for Assessing Project-Specific Mandatory Findings of Significance

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	☐	☐	☒	☐
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Biological and Cultural Impacts (a)

a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As disclosed in Section 3.4, Biological Resources, of this document, the proposed Project area does not provide suitable habitat conditions for special-status species with a potential to occur in the region, the valley elderberry longhorn beetle, California black rail, California red-legged frog, foothill yellow-legged frog, coast horned lizards or various special-status plants. As a result, no impacts, both direct and indirect, are expected to occur to these species. Additionally, mitigation measures such as avoidance of nesting birds and roosting bats, protection and restoration of riparian plants and habitat, and protection of oaks, are included to ensure all potential impacts are mitigated to less than significant levels (Mitigation Measures BIO-1 through 3).

Expected downstream effects on water quality due to the proposed Project include a long-term benefit to fish species due to the Project's estimated reduction of the amount of arsenic currently entering Little Deer Creek from the Pioneer Park field. Potential short-term construction-related impacts to water quality would be avoided or minimized and/or mitigated through the use of proper erosion and sediment control BMPs as per the proposed Project's Stormwater Pollution Prevention Plan (SWPPP) and Mitigation Measures HYD-1 through 4.

The proposed Project will not substantially reduce fish habitat or wildlife species density. The Project phases will not substantially reduce fish habitat in Little Deer Creek or within the Deer Creek Watershed, rather its goal is to restore sections of the creek to improve habitat quality. In addition, the Project will not substantially reduce wildlife habitat or species, again to the long term goals of improving habitat quality. Sediment control measures will be taken to minimize impacts to Little Deer Creek.

The proposed Project will not cause a fish or wildlife species population to drop below self-sustaining levels, or threaten to eliminate a rare or endangered plant or animal because the Project is not expected to significantly impact any locally, state, or federally rare and endangered species. Therefore, the Project will not cause a population to drop below self-sustaining levels.

As indicated in Section 3.5, Cultural Resources, of this document, a full accounting of all potential cultural resources located within the Project area was achieved through a CHRIS records search, AB 52 consultations, and cultural resources surveys.

The UAIC sent a letter on September 14, 2016 requesting to consult on the proposed Project. In the letter, the UAIC recommended that a tribal monitor be present during any Project ground

disturbing activities as the UAIC's preservation committee identified cultural resources in and around the project area. In response to the UAIC's letter, the City emailed the UAIC on October 24, 2016 and proposed a discussion of the UAIC's recommended tribal monitoring during project construction and a site visit with UAIC representatives. The City also called the UAIC representative on October 26th and left a voicemail. On November 1, 2016, the City sent a follow up email to the UAIC reviewing the UAIC's requests and asking for a response. No response from the UAIC has been received to date. While no specific cultural resources were identified by the UAIC to date, the City will work with the UAIC to avoid impacts to any cultural resources within the proposed Project.

There is one historical resource within the Project area, Pioneer Park. Pioneer Park is recommended as eligible for the CRHR under Criterion 1, for the Park's association with significant events in state and local history. While the proposed Project is within Pioneer Park, which is recommended as eligible to the CRHR, the proposed Project would not impact this potentially eligible resource. No other historic, archaeological, or tribal cultural resources were identified within the proposed Project area. The possibility for encountering buried cultural resources or human remains during project construction can never be fully discounted, therefore, Mitigation Measures CULTURAL-1 and CULTURAL-2 will be implemented to reduce potential impacts to less than significant levels.

Cumulative impacts (b)

b) Does the Project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?

According to the City of Nevada City Planning Department website (City of Nevada City 2016) there are two tentative subdivisions planned, in Nevada City. While the timing of both subdivisions are unknown, construction of the proposed Project in conjunction with these subdivisions is unlikely and would not cause a cumulatively considerable impact to traffic, noise, dust or other resources when considered in conjunction with the proposed Project.

According to Nevada County (Nevada County 2016), two projects are planned within three miles of the proposed Project. These projects include the Byers Warehouse Development Permit in Grass Valley and the Recom Steel project. Both projects included the proposed development of an industrial building. While the timing of both projects within the County are unknown, construction of the proposed Project in conjunction with these industrial buildings is unlikely and would not cause a cumulatively considerable impact to traffic, noise, dust or other resources when considered in conjunction with the proposed Project. No current or future Caltrans Projects for Nevada County are listed within three miles of the Project Area.

The proposed Project will not contribute to significant cumulative indirect growth impacts in the region as the Project is a Restoration and Flood Mitigation Project located within Pioneer Park. It

does not entail removing an existing barrier to growth. Therefore, the project is not considered growth inducing.

Effects on Human Beings (c)

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

As discussed in the various sections throughout this IS/MND, the proposed Project would not include uses that would result in substantial adverse effects on human beings. Potential impacts to human beings include increase in ambient noises during construction and increases in particulate matter (dust) in the air during construction. Dust is of particular concern during the proposed Project due to elevated arsenic levels found in the soil throughout the lower field and the sediments in Little Deer Creek and the lower field. Both impacts are considered temporary and will be mitigated through incorporation of mitigation measures. Specifically, a mitigation measure with noise reduction measures will be implemented to mitigate disturbance from temporary increases in noise during construction. A dust and emissions control plan and BMPs and clear construction equipment strategies will be implemented to reduce temporary impacts to air quality. These mitigation measures will ensure all potential adverse effects on human beings are reduced to less than significant levels. The monitoring, mitigation and reporting program shall be followed to ensure compliance with said measures.

4.0 REFERENCES

Bat Conservation International. 2008. Western Red Bat. http://www.batcon.org/SPprofiles/detail.asp?articleID=101.

Beals, Ralph Leon. 1933. Ethnology of the Nisenan. University of California Publications in American Archaeology and Ethnology 31(6):335-414.

Beardsley, R. K. 1948.Cultural Sequences in Central California Archaeology. American Antiquity 14(1): 1-28.

Beardsley, R. K. 1954. Temporal and Areal Relationships in Central California Archaeology. University of California Archaeological Survey Reports 24, 25. Berkeley, California.

Beck, J. L. 1971. A Chipped Stone Crescent from Tracy Lake, California. The Masterkey 45(4): 154-156.

Beck, Warren and Ynez D. Haase. 1974. Historical Atlas of California. University of Oklahoma Press, Norman, Oklahoma.

Bedwell, S. 1973. Fort Rock Basin: Prehistory and Environment. University of Oregon Books, Eugene, Oregon.

Bell, A. 2012. Development of an Index of Biotic Integrity (IBI) for Deer Creek, Nevada County, California: Family-level IBI for Citizen-science Bioassessment.

Bennyhoff, J. A. 1994. Central California Augustine: Implications for Northern California Archaeology. In Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson, edited by R. E. Hughes, pp. 65-74. Contributions of the University of California Archaeological Research Facility, No. 52, Berkeley.

Bent, A. C. 1939. Life Histories of North American Woodpeckers. U.S. National Museum Bulletin 174. 334 pp. As cited in Zeiner et al. 1988-1990.

Borisenko, A. and M. P. Hayes. 1999. Status of the Foothill Yellow-legged Frog (Rana boylii) in Oregon. Final report prepared for The Nature Conservancy under contract to the U. S. Fish and Wildlife Service: Washington, DC.

Boulton, A.J. 1999. An overview of river health assessment: philosophies, practice, problems, and prognosis. Freshwater Biology, 41, 469-479.

Burgess, M.S., M. Burgess, and M.W. Burgess. 2007. California ranchos : patented private land grants listed by county. Borgo Press

Bryan A.L. 1981. A Response to McGuire's Cautionary Tale about the Association of Man and Extinct Fauna in Great Basin Cave Sites. Quaternary Research 16(117-121).

Cal Fire. 2012. Fire Hazard Severity Zones Maps. http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones.php.

Calflora. 2016. Information on California Plant for Education, Research and Conservation. The Calflora Online Database. Berkeley, California. Accessed June 5, 2016. <http://www.calfora.org>.

California Air Resources Board. 2016. AB 32 Scoping Plan. https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

California Air Resources Board. 2015. 2020 Business-as-Usual (BAU) Emissions Projection 2014 Edition https://www.arb.ca.gov/cc/inventory/data/bau.htm

California Air Resources Board. 2016. Air Quality Standards and Area Designations. Accessed September 8, 2016 at https://www.arb.ca.gov/desig/desig.htm.

California Air Resources Board. 2011. California Air Basins and Air Quality. http://www.arb.ca.gov/knowzone/basin/basin.swf.

California Department of Conservation. 2007. California Geological Survey. Landslides. <http://www.quake.ca.gov/gmaps/WH/landslidemaps.htm>.

California Department of Conservation. 2010. California Geological Survey (CGS). Alquist-Priolo Earthquake Fault Zoning map. http://www.conservation.ca.gov/cgs/geologic_hazards/earthquakes/Pages/Index.aspx.

California Department of Conservation. 2010. Geologic Map of California. http://maps.conservation.ca.gov/cgs/gmc/.

California Department of Conservation. California Geological Survey (CGS). 2002. Geology and soils. http://www.consrv.ca.gov/CGS/Pages/Index.aspx.

California Department of Conservation. California Geological Survey (CGS) 2016.Probablistic Seismic Hazards Assessment - Peak Ground Acceleration (accessed August 18,2016) http://www.conservation.ca.gov/cgs/rghm/psha/Pages/pga.aspx

California Department of Conservation. Farmland Mapping and Monitoring Program (FMMP). 2016. Nevada County Important Farmland. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/nev10.pdf>.

California Department of Fish and Wildlife (CDFW). 2016a. California Endangered Species Act (CESA). California Department of Fish and Wildlife. Sacramento, California. Accessed September 8, 2016. <https://www.wildlife.ca.gov/Conservation/CESA>.

California Department of Fish and Wildlife (CDFW). 2016b. California Laws Protecting Native Plants. California Department of Fish and Wildlife. Sacramento, California. Accessed September 8, 2016. <https://www.wildlife.ca.gov/Conservation/Plants/Laws>.

California Department of Fish and Wildlife (CDFW). 2016c. California Environmental Quality Act (CEQA). California Department of Fish and Wildlife. Sacramento, California. Accessed September 8, 2016. <https://www.wildlife.ca.gov/Conservation/CEQA/Purpose>.

California Department of Fish and Wildlife (CDFW). 2016d. Lake and Streambed Alteration Program. California Department of Fish and Wildlife. Sacramento, California. Accessed June 5, 2016. <https://www.wildlife.ca.gov/Conservation/LSA>.

California Department of Fish and Wildlife (CDFW). 2016e. California Natural Diversity Database. California Department of Fish and Wildlife. Sacramento, California. Accessed June 5, 2016. <https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>.

California Department of Transportation (Caltrans). 2004. Transportation-and Construction-Induced Vibration Guidance Manual. <http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf>. Accessed September 2016.

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. <http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf>. Accessed September 2016.

California Department of Transportation. 2016. California Scenic Highway Mapping System http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm.

Caltrans & JRP Historical Consulting Services. 2000. Water Conveyance Systems in California. On file, Caltrans, Sacramento, CA.

California Department of Toxic Substances Control (DTSC). 2016. http://www.dtsc.ca.gov/.

California Department of Water Resources. 1993. Water Facts. <http://www.water.ca.gov/waterconditions/drought/docs/water_facts_6.pdf>.

California Department of Water Resources. 2014. Groundwater Information Center. <http://www.water.ca.gov/groundwater/>.

California Emissions Estimator Model. 2013. South Coast Air Quality Management District Developed by ENVIRON International Corporation in collaboration with SCAQMD and other California Air Districts.

California Geological Survey (CGS). 2002. Geology and soils. Accessed April 2016

California Historical Resources Information System. 2016. North Central Information Center: Records Search for the City of Nevada City Little Deer Creek Restoration and Flood Mitigation Project NCIC File No. NEV-16-29.

California Herps. 2016. A Guide to the Amphibians and Reptiles of California. Available: <http://www.californiaherps.com/>.

California Invasive Plant Council (Cal-IPC). 2016. Plant Inventory and Assessment. Accessed June 5, 2016. <http://www.cal-ipc.org/paf/site/paf/417>.

City of Nevada City. 2012. Pioneer Park Master Plan. http://www.nevadacityca.gov/files/documents/PPMasterPlan1317035223020416PM.pdf.

City of Nevada City. 1986. General Plan. http://www.nevadacityca.gov/files/documents/GeneralPlan1313015909011116PM.pdf

California Legislative Information (CLI). 2016a. Public Resources Code – PRC. Official California Legislative Information. <http://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=PRC&tocTitle=+Public+Resources+Code+-+PRC>. Accessed September 2016.

California Legislative Information (CLI). 2016b. Fish and Game Code Section 3500-3864. Official California Legislative Information. <http://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=FGC&division=4.&title=&part=2.&chapter=&article=>. Accessed August 2016.

California Native Plant Society (CNPS). 2016 Rare and Endangered Plant Inventory. <http://www.rareplants.cnps.org/> Accessed June 5, 2016

California Natural Diversity Data Base (CNDDB) https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

California Natural Resources Agency (CNRA). 2009. CEQA: The California Environmental Quality Act. [online application]. California Environmental Resources Evaluation System, California Natural Resources Agency. California. <http://ceres.ca.gov/ceqa/>.

Chartkoff, J. L. and K. K. Chartkoff. 1984. The Archaeology of California. Stanford University Press, Palo Alto, California.

Clark, William B. 1970. Gold Districts of California. California Division of Mines, Bulletin 193. San Francisco, California.

The Cooperative Soil Survey. 2014. California Soil Series Data. < http://soils.missouri.edu/soilseries.asp?x=A&sort=Series&st=CA>.

Davis, E.L. 1978. The Ancient Californians: Rancholabrean Hunters of the Mojave Lakes Country. Natural History Museum of Los Angeles County, Science Series 29, Los Angeles.

Davis, E. L. and R. Shulter, Jr. 1969. Recent Discoveries of Fluted Points in California and Nevada. Nevada State Museum Anthropological Papers 14: 154-169.

eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Accessed March 2016. <http://www.ebird.org>.

Evans, E., Thorp, R, Jepsen, S., and S. Hoffman Black. 2008. Status Review of Three Formerly Common Species of Bumble Bee in the Subgenus Bombus: Bombus affinis (the rusty patched bumble bee), B. terricola (the yellowbanded bumble bee), and B. occidentalis (the western bumble bee). As cited in Hatfield et al. 2015.

Faye, P. L. 1923. "[Untitled]." In American Anthropologist, 25 , no. 3: 421--422. American Anthropological Association.

Federal Emergency Management Agency (FEMA). 2010. Flood Map Service Center. <https://msc.fema.gov/portal/search>.

Federal Highway Administration (FHWA). 2006. Construction Noise Handbook. <http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/>.

Federal Highway Administration. 2011. Highway Traffic Noise. Website: http://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/keepdown.cfm.

Fellers, G. M., and P. M. Kleeman. 2007. California Red-Legged Frog (Rana draytonii) Movement and Habitat Use: Implications for Conservation. Journal of Herpetology 41(2) 276-286.

Fredrickson, D. 1974. Cultural Diversity in Early Central California: A View from the North Coast Ranges. Journal of California Anthropology 1(1): 41-53.

Gifford. 1927. Gifford, Edward Winslow. 1927. "Southern Maidu Religious Ceremonies." In American Anthropologist, 29 , no. 3: 214--257. American Anthropological Association.

City of Grass Valley. 1998.City of Grass Valley General Plan Background Report, Chapter 8: Transportation/Circulation.

Gudde, Erwin G. 1998. California Place Names: The Origin and Etymology of Current Geographical Names. University of California Press. Berkeley, California.

Harrington, M. 1948. An Ancient Site at Borax Lake, California. Southwest Museum Papers 16, Los Angeles.

Hatfield, R., S. Jepsen, R. Thorp, L. Richardson, S. Colla and S. Foltz Jordan. 2014. Bombus occidentalis. The IUCN Red List of Threatened Species 2015: e.T44937492A46440201. <http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937492A46440201.en>.

Hayes, Derek. 2007. Historical Atlas of California. University of California Press, Berkeley.

Haynes, G. 1991. Mammoths, Mastodons, and Elephants: Biology, Behavior and the Fossil Record. Cambridge University Press, Cambridge.

Heizer, Robert F. 1949. The Archaeology of Central California, I: The Early Horizon. University of California Anthropological Records 12: 1-84.

Heizer, R. F. and F. Fenenga. 1939. Archaeological Horizons in Central California. In American Anthropologist 41(3): 378-399.

Hoover, Mildred Brooke, Rensch, H.E., Rensch, E.G., Abeloe, William N. 1990. Historic Spots in California. Revised by Douglas E. Kyle.

Jennings, M.R. and M.P. Hayes. 1985. Pre-1900 overharvest of the California red-legged frog (*Rana aurora draytonii*): the inducement for bullfrog (*Rana catesbeiana*) introduction. Herpetologica 41: 94–103.

Jennings, M. R., and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA, under contract 8023.

Kroeber, Alfred L. 1925. Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, DC. (Reprinted by Dover Publications, New York, 1976.)

Lillard, Jeremiah B. and William K. Purves. 1936. The Archeology of the Deer Creek-Cosumnes Area, Sacramento County, California. Sacramento Junior College, Department of Anthropology Bulletin 1. Sacramento, California.

Lillard, J. B., R. F. Heizer, and F. Fenenga. 1939. Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology Bulletin 2. Sacramento, California.

Lincoln, A. E. 2016. Herpetofauna of the Bear River Watershed: Results from 2016 Surveys. Sierra Streams Institute, Nevada City, CA. 35 pp.

Littlejohn, H. 1928. Nisenan Geography: Fieldnotes and Manuscript. Ethnological Documents, 35 (Cu-25.1, ms. No 18). University of California Archives, Museum of Anthropology Archives, Berkeley, California.

Macfarlane R. P., K. D. Patten, L. A. Royce, B. K. W. Wyatt, and D. F. Mayer. 1994. Management potential of sixteen North American bumble bee species. Melanderia 50: 1-12.

Meighan, C. W. and C. V. Haynes. 1970. The Borax Lake Site Revisited. Science 167(3922): 1213-1221.

Meredith, H. C. 1900. Archaeology of California: Central and Northern California. In Prehistoric Implements: A Reference Book, edited by W. K. Moorehead. Robert Clarke, Cincinnati.

Milliken R.1995. A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810. Ramona, CA: Ballena Press.

Moratto, Michael J. 1984. California Archaeology. Academic Press, Orlando.

Moyle, P. B. 1973. Effects of introduced bullfrogs, Rana catesbeiana, on the native frogs of the San Joaquin Valley, California. Copeia (1):18–22.

Myer, Chuck. 2002. Placer County: An Illustrated History, pp. 20, 23-26. Heritage Media Corporation.

Nafis, G. 2000-2013. A Guide to Amphibians and Reptiles in California. Online database. <http://www.californiaherps.com/index.html>.

National Oceanic and Atmospheric Administration (NOAA). 2010. Climatography of the United States No. 20 1971-2000, Station Nevada City, CA. National Climatic Data Center. <http://cdo.ncdc.noaa.gov/climatenormals/clim20/ca/046136.pdf>.

Natural Resources Conservation Service (NRCS). 2013. Web soil survey. Nevada County Area, California (CA619). United States Department of Agriculture. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

Nevada County. 1995. Nevada County Master Environmental Inventory. <http://www.mynevadacounty.com/nc/cda/planning/Pages/Nevada-County-General-Plan.aspx>.

Nevada County. 1996, 2008, 2010, 2014. Nevada County General Plan. <http://www.mynevadacounty.com/nc/cda/planning/Pages/Nevada-County-General-Plan.aspx>.

Nevada County Transportation Commission. 2007. Airport Land Use Commission. http://www.nctc.ca.gov/about-nctc/aluc/.

Nevada County. 2010. Western Nevada County Non-Motorized Recreational Trails Master Plan. https://www.mynevadacounty.com/nc/cda/planning/Pages/Western-Nevada-County-Non-motorized-Recreational-Trails-Master-Plan.aspx.

Nevada County. 2015. Williamson Act Map. < Farmland Mapping and Monitoring Program (FMMP). <http://www.mynevadacounty.com/nc/igs/gis/docs/GIS%20Maps%20(Public)/Assessor%20GIS%20Maps/WilliamsonActParcels2014.pdf>.

Nevada Irrigation District and Pacific Gas & Electric Company. 2010. Technical Memorandum 3-9: Special-Status Aquatic Reptiles, Western Pond Turtle. Prepared for the FERC Relicensing of NID's Yuba-Bear Hydroelectric Project and PG&E's Drum-Spaulding Project.

Northern Sierra Air Quality Management District (NSAQMD). 2009, 2012, & 2014. Air Quality. <http://www.myairdistrict.com/>.

Ragir, S.R. 1972. The Early Horizon in Central California Prehistory. Berkeley: Contributions of the University of California Publications in American Archaeology and Ethnology 14(5): 489-502.

Riddell, F. 1949. Appraisal of the Archaeological Resources of Farmington Reservoir, Littlejohns Creek, San Joaquin and Stanislaus Counties, California. Smithsonian Institution, River Basin Surveys, Pacific Coast Area, Washington, D.C.

Riddell, F. and W. Olsen. 1969. An Early Man Site in the San Joaquin Valley, California. American Antiquity 34(2): 121- 130.

River Partners. 2011. Restoration Plan for the Dry Creek Riparian Area, Beale Air Force Base. Yuba County, California. Prepared for Tulsa District, U.S. Army Corps of Engineers.

Rives, George L. 1913. The United States and Mexico: 1821 - 1848. Charles Scribner's Sons, New York.

Sacramento Metro Air Quality Management District (SMAQMD). 2014. Guide to Air Quality Assessment in Sacramento County, Greenhouse Gasses. <http://www.airquality.org/LandUseTransportation/Documents/Ch6GHG%20Final5-2016.pdf>.

Saucedo and Wagner. 1992. Geological Map of the Chico Quadrangle, California. http://www.quake.ca.gov/gmaps/RGM/chico/chico.html.

Sawyer, John, T. Keller-Wolf, and J. Evens. 2009. A manual of California vegetation, second edition. California Native Plant Society. Sacramento, California.

Schenk, W. E., and E. J. Dawson. 1929. Archaeology of the Northern San Joaquin Valley. University of California Publications American Archaeology and Ethnology 25(4): 289-413.

Shapiro, W., K. Beck and J. Marine. 2000. Site Record, CA-PLA-930. On file, North Central Information Center, California State University-Sacramento.

Sierra Streams Institute. 2014. Site Characterization Report and Final Removal Action Workplan for Providence Mine.

State Water Resources Control Board (SWRCB). 2016. Porter-Cologne Water Quality Control Act. <http://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf>. Accessed September 2016.

Stebbins, R. C., and S. M. McGinnis. 2012. Field Guide to Amphibians and Reptiles of California: Revised Edition (California Natural History Guides) University of California Press.

Thorp, R.W., D.S. Horning, and L.L Dunning. 1983. Bumble bees and cuckoo bumble bees of California (Hymenoptera: Apidae). Bulletin of the California Insect Survey 23: viii+79 pp. As cited in Hatfield et al. 2015.

Thorp, R.W. 2008. Franklin's Bumble Bee, Bombus (Bombus) franklini (Frison) (Hymenoptera: Apidae). Report on 2006-2007 Seasons. As cited in Hatfield et al. 2015.

Treganza, A. E. 1952. Archaeological Investigations in the Farmington Reservoir Area, Stanislaus County, California. University of California Archaeological Survey Reports 14: 1-37.

Tunstall, T. and G. Fellers. 1999. Rana draytonii: California Red-Legged Frog. <http://amphibiaweb.org/cgi/amphib_query?where-genus=Rana&where-species=draytonii&account=amphibiaweb>.

U.S. Environmental Protection Agency (EPA). 2009. Greenhouse Gas Emissions. http://www.epa.gov/climatechange/ghgemissions/.

U.S. Environmental Protection Agency (EPA). 2010. Clear Water Act Section 401- Water Quality Certification. A Water Quality Protection Tool for States and Tribes. U.S. Environmental Protection Agency- Office of Wetlands, Oceans, and Watersheds. Accessed August 16, 2016. <http://water.epa.gov/lawsregs/guidance/cwa/upload/cwa-401-handbook-2010-interim.pdf>.

U.S. Fish and Wildlife Service. 2000. Draft recovery plan for the California red-legged frog (Rana aurora draytonii). Portland, OR.

U.S. Fish and Wildlife Service (USFWS). 2002. Recovery Plan for the California Red-Legged Frog-Rana aurora draytonii. Region 1, U.S. Fish and Wildlife Service. Portland, Oregon. <http://ecos.fws.gov/docs/recovery_plans/2002/020528.pdf>.

U.S. Fish and Wildlife Service (USFWS). 2010a. California Red-Legged Frog Critical Habitat. U.S. Fish and Wildlife Service. <http://www.fws.gov/sacramento/es/Critical-Habitat/CA-Red-Legged-Frog/Current/es_critical-habitat-maps_ca-red-legged-frog.htm>.

U.S. Fish and Wildlife Service (USFWS). 2010b. Questions and Answers– Designation of Critica Habitat for the California Red-Legged Frog Background. U.S. Fish and Wildlife Service. <http://www.fws.gov/sacramento/es/Critical-Habitat/CARed-Legged-Frog/Current/Documents/Critical_Habitat_CA_Red-Legged_Frog_2010_Q_and_A.pdf>.

U.S. Fish and Wildlife Service (USFWS). 2016a. IPaC Trust Resources Report for Camptonville, Challenge, Chicago Park, French Corral, Grass Valley, Nevada City, North Bloomfield, Pike, Rough and Ready 7.5 minute U.S. Geological Survey Quadrangles. Results from online search for threatened and endangered species, critical habitat, migratory birds, refuges, hatcheries, and jurisdictional wetlands. From IPaC v3.0.8 - Information for Planning and Conservation (https://ecos.fws.gov/ipac/): A project planning tool to help streamline the U.S. Fish & Wildlife Service environmental review process. Sacramento Fish and Wildlife Office. Online report generated August 17, 2016. <https://ecos.fws.gov/ipac/project/MVPB5-SZCOR-CTFPA-JEM5R-5XJPDI>.

U.S. Fish and Wildlife Service. 2016b. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog, the Northern DPS of the Mountain Yellow-Legged Frog, and the Yosemite Toad. Federal Register Vol. 81, No. 166, Pages 59046-59119. 50 CFR Part 17. Docket No. FWS–R8–ES–2012–0074; 4500030113. August 26, 2016.

U.S. Fish and Wildlife Service. 2016c. Sierra Nevada Yellow-legged Frog (Rana sierrae) Species Information. Sacramento Fish and Wildlife Office Online Database. <https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/es_sn-yellow-legged-frog.htm>. Updated September 16, 2016.

United States Geological Survey (USGS). 2014. Earthquake Hazards Program: Quaternary Fault and Fold Database of the United States- Interactive Fault Map. U.S. Geological Survey. Accessed September 12, 2016 <http://earthquake.usgs.gov/hazards/qfaults/map/#qfaults

Waechter, S. A. and S. D. Mikesell. 1994. Research Design for Prehistoric, Ethnographic, and Historic Cultural Resources at Folsom Reservoir, California. USDI Bureau of Reclamation, Sacramento.

Willig, J. 1988. Clovis Technology and Adaptation in Far Western North America: Regional Pattern and Environmental Context. In Clovis: Origins and Adaptations, edited by R. Bonnichsen and K. Turnmire. Center for the Study of the First Americans, Corvallis.

Willig, J. and C. M. Aikens. 1988. The Clovis-Archaic Interface in Far Western North America. In Early Human Occupation in the Far Western North America: The Clovis-Archaic Interface, edited by J. Willig. Nevada State Museum Anthropological Papers No. 21, Carson City.

Williams et al. 2014. Bombus, bumblebees of the world. Web pages based on Williams, P.H. 1998. An annotated checklist of bumblebees with an analysis of patterns of description (Hymenoptera: Apidae, Bombini). Bulletin of the Natural History Museum (Entomology) 67: 79-152. <http://www.nhm.ac.uk/research-curation/research/projects/bombus/index.html>.

Wilson, Norman L., and Arlean H Towne. 1978. Nisenan. In California, edited by Robert F. Heizer, pp. 387-397. Handbook of North American Indians Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, DC.

Wetland Training Institute, Inc. 2001. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. Glenwood, NM. WTI 01-2. 143 pp.

Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

Appendix A CALEEMOD CALCULATIONS

deer creek_field grading and trail

Northern Sierra AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.70	Acre	3.70	161,172.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment - non-default values based on PD

Trips and VMT - half the trip to Grass Valley, half to Wheatland = 40 miles average

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	50.00
tblGrading	AcresOfGrading	25.00	3.70
tblGrading	MaterialExported	0.00	1,750.00
tblGrading	MaterialImported	0.00	1,525.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	2.9124	30.3294	23.4926	0.0343	6.3627	1.5639	7.9266	3.3887	1.4388	4.8275	0.0000	3,405.5640	3,405.5640	0.8435	0.0000	3,423.2777
Total	**2.9124**	**30.3294**	**23.4926**	**0.0343**	**6.3627**	**1.5639**	**7.9266**	**3.3887**	**1.4388**	**4.8275**	**0.0000**	**3,405.5640**	**3,405.5640**	**0.8435**	**0.0000**	**3,423.2777**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	2.9124	30.3294	23.4926	0.0343	6.3627	1.5639	7.9266	3.3887	1.4388	4.8275	0.0000	3,405.5640	3,405.5640	0.8435	0.0000	3,423.2777
Total	**2.9124**	**30.3294**	**23.4926**	**0.0343**	**6.3627**	**1.5639**	**7.9266**	**3.3887**	**1.4388**	**4.8275**	**0.0000**	**3,405.5640**	**3,405.5640**	**0.8435**	**0.0000**	**3,423.2777**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	6/11/2018	8/17/2018	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.7

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	8.00	0.00	219.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1080	0.0000	6.1080	3.3198	0.0000	3.3198			0.0000			0.0000
Off-Road	2.7367	28.4405	21.6621	0.0266		1.5338	1.5338		1.4111	1.4111		2,680.3245	2,680.3245	0.8344		2,697.8474
Total	**2.7367**	**28.4405**	**21.6621**	**0.0266**	**6.1080**	**1.5338**	**7.6418**	**3.3198**	**1.4111**	**4.7309**		**2,680.3245**	**2,680.3245**	**0.8344**		**2,697.8474**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1368	1.8373	1.2570	6.4500e-003	0.1525	0.0293	0.1819	0.0418	0.0270	0.0687		630.6179	630.6179	4.1100e-003		630.7042
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0389	0.0517	0.5735	1.2500e-003	0.1022	8.2000e-004	0.1030	0.0271	7.5000e-004	0.0279		94.6216	94.6216	4.9800e-003		94.7261
Total	**0.1757**	**1.8889**	**1.8306**	**7.7000e-003**	**0.2547**	**0.0301**	**0.2849**	**0.0689**	**0.0277**	**0.0966**		**725.2395**	**725.2395**	**9.0900e-003**		**725.4303**

3.2 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1080	0.0000	6.1080	3.3198	0.0000	3.3198			0.0000			0.0000
Off-Road	2.7367	28.4405	21.6621	0.0266		1.5338	1.5338		1.4111	1.4111	0.0000	2,680.3245	2,680.3245	0.8344		2,697.8474
Total	**2.7367**	**28.4405**	**21.6621**	**0.0266**	**6.1080**	**1.5338**	**7.6418**	**3.3198**	**1.4111**	**4.7309**	**0.0000**	**2,680.3245**	**2,680.3245**	**0.8344**		**2,697.8474**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1368	1.8373	1.2570	6.4500e-003	0.1525	0.0293	0.1819	0.0418	0.0270	0.0687		630.6179	630.6179	4.1100e-003		630.7042
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0389	0.0517	0.5735	1.2500e-003	0.1022	8.2000e-004	0.1030	0.0271	7.5000e-004	0.0279		94.6216	94.6216	4.9800e-003		94.7261
Total	**0.1757**	**1.8889**	**1.8306**	**7.7000e-003**	**0.2547**	**0.0301**	**0.2849**	**0.0689**	**0.0277**	**0.0966**		**725.2395**	**725.2395**	**9.0900e-003**		**725.4303**

4.0 Operational Detail - Mobile

deer creek_field grading and trail

Northern Sierra AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.70	Acre	3.70	161,172.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment - non-default values based on PD

Trips and VMT - half the trip to Grass Valley, half to Wheatland = 40 miles average

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	50.00
tblGrading	AcresOfGrading	25.00	3.70
tblGrading	MaterialExported	0.00	1,750.00
tblGrading	MaterialImported	0.00	1,525.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	2.9518	30.4659	24.3526	0.0342	6.3627	1.5640	7.9267	3.3887	1.4388	4.8275	0.0000	3,397.2805	3,397.2805	0.8435	0.0000	3,414.9949
Total	**2.9518**	**30.4659**	**24.3526**	**0.0342**	**6.3627**	**1.5640**	**7.9267**	**3.3887**	**1.4388**	**4.8275**	**0.0000**	**3,397.2805**	**3,397.2805**	**0.8435**	**0.0000**	**3,414.9949**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	2.9518	30.4659	24.3526	0.0342	6.3627	1.5640	7.9267	3.3887	1.4388	4.8275	0.0000	3,397.2805	3,397.2805	0.8435	0.0000	3,414.9949
Total	**2.9518**	**30.4659**	**24.3526**	**0.0342**	**6.3627**	**1.5640**	**7.9267**	**3.3887**	**1.4388**	**4.8275**	**0.0000**	**3,397.2805**	**3,397.2805**	**0.8435**	**0.0000**	**3,414.9949**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	6/11/2018	8/17/2018	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.7

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	8.00	0.00	219.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1080	0.0000	6.1080	3.3198	0.0000	3.3198			0.0000			0.0000
Off-Road	2.7367	28.4405	21.6621	0.0266		1.5338	1.5338		1.4111	1.4111		2,680.3245	2,680.3245	0.8344		2,697.8474
Total	**2.7367**	**28.4405**	**21.6621**	**0.0266**	**6.1080**	**1.5338**	**7.6418**	**3.3198**	**1.4111**	**4.7309**		**2,680.3245**	**2,680.3245**	**0.8344**		**2,697.8474**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1761	1.9570	2.1059	6.4600e-003	0.1525	0.0294	0.1819	0.0418	0.0270	0.0688		629.8686	629.8686	4.1500e-003		629.9557
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0390	0.0685	0.5847	1.1500e-003	0.1022	8.2000e-004	0.1030	0.0271	7.5000e-004	0.0279		87.0874	87.0874	4.9800e-003		87.1919
Total	**0.2151**	**2.0255**	**2.6906**	**7.6100e-003**	**0.2547**	**0.0302**	**0.2849**	**0.0689**	**0.0278**	**0.0966**		**716.9560**	**716.9560**	**9.1300e-003**		**717.1476**

3.2 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1080	0.0000	6.1080	3.3198	0.0000	3.3198			0.0000			0.0000
Off-Road	2.7367	28.4405	21.6621	0.0266		1.5338	1.5338		1.4111	1.4111	0.0000	2,680.3245	2,680.3245	0.8344		2,697.8474
Total	**2.7367**	**28.4405**	**21.6621**	**0.0266**	**6.1080**	**1.5338**	**7.6418**	**3.3198**	**1.4111**	**4.7309**	**0.0000**	**2,680.3245**	**2,680.3245**	**0.8344**		**2,697.8474**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1761	1.9570	2.1059	6.4600e-003	0.1525	0.0294	0.1819	0.0418	0.0270	0.0688		629.8686	629.8686	4.1500e-003		629.9557
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0390	0.0685	0.5847	1.1500e-003	0.1022	8.2000e-004	0.1030	0.0271	7.5000e-004	0.0279		87.0874	87.0874	4.9800e-003		87.1919
Total	**0.2151**	**2.0255**	**2.6906**	**7.6100e-003**	**0.2547**	**0.0302**	**0.2849**	**0.0689**	**0.0278**	**0.0966**		**716.9560**	**716.9560**	**9.1300e-003**		**717.1476**

4.0 Operational Detail - Mobile

deer creek_field grading and trail

Northern Sierra AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.70	Acre	3.70	161,172.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment - non-default values based on PD

Trips and VMT - half the trip to Grass Valley, half to Wheatland = 40 miles average

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	50.00
tblGrading	AcresOfGrading	25.00	3.70
tblGrading	MaterialExported	0.00	1,750.00
tblGrading	MaterialImported	0.00	1,525.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0733	0.7608	0.5990	8.6000e-004	0.1588	0.0391	0.1979	0.0847	0.0360	0.1206	0.0000	77.0895	77.0895	0.0191	0.0000	77.4912
Total	**0.0733**	**0.7608**	**0.5990**	**8.6000e-004**	**0.1588**	**0.0391**	**0.1979**	**0.0847**	**0.0360**	**0.1206**	**0.0000**	**77.0895**	**77.0895**	**0.0191**	**0.0000**	**77.4912**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0733	0.7608	0.5990	8.6000e-004	0.1588	0.0391	0.1979	0.0847	0.0360	0.1206	0.0000	77.0894	77.0894	0.0191	0.0000	77.4911
Total	**0.0733**	**0.7608**	**0.5990**	**8.6000e-004**	**0.1588**	**0.0391**	**0.1979**	**0.0847**	**0.0360**	**0.1206**	**0.0000**	**77.0894**	**77.0894**	**0.0191**	**0.0000**	**77.4911**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8162	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.9800e-003	0.0160	0.0638	9.0000e-005	5.4100e-003	1.9000e-004	5.6000e-003	1.4500e-003	1.8000e-004	1.6300e-003	0.0000	7.0200	7.0200	3.0000e-004	0.0000	7.0263
Waste						0.0000	0.0000		0.0000	0.0000	0.0650	0.0000	0.0650	3.8400e-003	0.0000	0.1456
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4.4887	4.4887	2.0000e-004	4.0000e-005	4.5060
Total	**0.8222**	**0.0160**	**0.0638**	**9.0000e-005**	**5.4100e-003**	**1.9000e-004**	**5.6000e-003**	**1.4500e-003**	**1.8000e-004**	**1.6300e-003**	**0.0650**	**11.5087**	**11.5737**	**4.3400e-003**	**4.0000e-005**	**11.6779**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	6/11/2018	8/17/2018	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.7

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	8.00	0.00	219.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1527	0.0000	0.1527	0.0830	0.0000	0.0830	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0684	0.7110	0.5416	6.7000e-004		0.0383	0.0383		0.0353	0.0353	0.0000	60.7887	60.7887	0.0189	0.0000	61.1862
Total	**0.0684**	**0.7110**	**0.5416**	**6.7000e-004**	**0.1527**	**0.0383**	**0.1910**	**0.0830**	**0.0353**	**0.1183**	**0.0000**	**60.7887**	**60.7887**	**0.0189**	**0.0000**	**61.1862**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9500e-003	0.0482	0.0434	1.6000e-004	3.6700e-003	7.3000e-004	4.4000e-003	1.0100e-003	6.7000e-004	1.6800e-003	0.0000	14.2950	14.2950	9.0000e-005	0.0000	14.2970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	1.5600e-003	0.0140	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.0057	2.0057	1.1000e-004	0.0000	2.0081
Total	**4.8700e-003**	**0.0498**	**0.0574**	**1.9000e-004**	**6.1200e-003**	**7.5000e-004**	**6.8700e-003**	**1.6600e-003**	**6.9000e-004**	**2.3500e-003**	**0.0000**	**16.3007**	**16.3007**	**2.0000e-004**	**0.0000**	**16.3051**

3.2 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1527	0.0000	0.1527	0.0830	0.0000	0.0830	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0684	0.7110	0.5416	6.7000e-004		0.0383	0.0383		0.0353	0.0353	0.0000	60.7887	60.7887	0.0189	0.0000	61.1861
Total	**0.0684**	**0.7110**	**0.5416**	**6.7000e-004**	**0.1527**	**0.0383**	**0.1910**	**0.0830**	**0.0353**	**0.1183**	**0.0000**	**60.7887**	**60.7887**	**0.0189**	**0.0000**	**61.1861**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9500e-003	0.0482	0.0434	1.6000e-004	3.6700e-003	7.3000e-004	4.4000e-003	1.0100e-003	6.7000e-004	1.6800e-003	0.0000	14.2950	14.2950	9.0000e-005	0.0000	14.2970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	1.5600e-003	0.0140	3.0000e-005	2.4500e-003	2.0000e-005	2.4700e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.0057	2.0057	1.1000e-004	0.0000	2.0081
Total	**4.8700e-003**	**0.0498**	**0.0574**	**1.9000e-004**	**6.1200e-003**	**7.5000e-004**	**6.8700e-003**	**1.6600e-003**	**6.9000e-004**	**2.3500e-003**	**0.0000**	**16.3007**	**16.3007**	**2.0000e-004**	**0.0000**	**16.3051**

4.0 Operational Detail - Mobile

Deer Creek_Creek Restoration

Northern Sierra AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.20	Acre	0.20	8,712.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment -

Trips and VMT - half trips to Grass Valley, half to Wheatland = average 40 miles

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	50.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	6/10/2017	6/12/2017
tblGrading	AcresOfGrading	12.50	0.20
tblGrading	MaterialExported	0.00	480.00
tblGrading	MaterialImported	0.00	200.00
tblOffRoadEquipment	HorsePower	162.00	174.00
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.2445	20.8399	16.7357	0.0261	1.0093	1.2405	2.2498	0.4815	1.1657	1.6472	0.0000	2,563.2114	2,563.2114	0.5352	0.0000	2,574.4503
Total	**2.2445**	**20.8399**	**16.7357**	**0.0261**	**1.0093**	**1.2405**	**2.2498**	**0.4815**	**1.1657**	**1.6472**	**0.0000**	**2,563.2114**	**2,563.2114**	**0.5352**	**0.0000**	**2,574.4503**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.2445	20.8399	16.7357	0.0261	1.0093	1.2405	2.2498	0.4815	1.1657	1.6472	0.0000	2,563.2114	2,563.2114	0.5352	0.0000	2,574.4503
Total	**2.2445**	**20.8399**	**16.7357**	**0.0261**	**1.0093**	**1.2405**	**2.2498**	**0.4815**	**1.1657**	**1.6472**	**0.0000**	**2,563.2114**	**2,563.2114**	**0.5352**	**0.0000**	**2,574.4503**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/5/2017	6/9/2017	5	5	
2	Creek Restoration	Grading	6/12/2017	8/18/2017	5	50	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Creek Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Creek Restoration	Excavators	1	8.00	174	0.41
Creek Restoration	Graders	1	4.00	174	0.41
Creek Restoration	Rubber Tired Dozers	1	1.00	255	0.40
Creek Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Creek Restoration	6	15.00	0.00	85.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089		955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**		**955.8663**	**955.8663**	**0.2929**		**962.0167**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0285	0.0368	0.4118	7.8000e-004	0.0639	5.4000e-004	0.0644	0.0169	5.0000e-004	0.0174		61.4725	61.4725	3.4600e-003		61.5452
Total	**0.0285**	**0.0368**	**0.4118**	**7.8000e-004**	**0.0639**	**5.4000e-004**	**0.0644**	**0.0169**	**5.0000e-004**	**0.0174**		**61.4725**	**61.4725**	**3.4600e-003**		**61.5452**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089	0.0000	955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**	**0.0000**	**955.8663**	**955.8663**	**0.2929**		**962.0167**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0285	0.0368	0.4118	7.8000e-004	0.0639	5.4000e-004	0.0644	0.0169	5.0000e-004	0.0174		61.4725	61.4725	3.4600e-003		61.5452
Total	**0.0285**	**0.0368**	**0.4118**	**7.8000e-004**	**0.0639**	**5.4000e-004**	**0.0644**	**0.0169**	**5.0000e-004**	**0.0174**		**61.4725**	**61.4725**	**3.4600e-003**		**61.5452**

3.3 Creek Restoration - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7585	0.0000	0.7585	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	2.1009	19.9517	14.9661	0.0213		1.2264	1.2264		1.1528	1.1528		2,129.8655	2,129.8655	0.5231		2,140.8515
Total	**2.1009**	**19.9517**	**14.9661**	**0.0213**	**0.7585**	**1.2264**	**1.9849**	**0.4145**	**1.1528**	**1.5673**		**2,129.8655**	**2,129.8655**	**0.5231**		**2,140.8515**

3.3 Creek Restoration - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0581	0.7778	0.5341	2.5100e-003	0.0592	0.0124	0.0716	0.0162	0.0114	0.0276		248.9284	248.9284	1.6500e-003		248.9631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.1103	1.2355	2.3400e-003	0.1916	1.6300e-003	0.1932	0.0508	1.4900e-003	0.0523		184.4175	184.4175	0.0104		184.6357
Total	**0.1436**	**0.8881**	**1.7696**	**4.8500e-003**	**0.2508**	**0.0141**	**0.2649**	**0.0670**	**0.0129**	**0.0799**		**433.3459**	**433.3459**	**0.0120**		**433.5988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7585	0.0000	0.7585	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	2.1009	19.9517	14.9661	0.0213		1.2264	1.2264		1.1528	1.1528	0.0000	2,129.8655	2,129.8655	0.5231		2,140.8514
Total	**2.1009**	**19.9517**	**14.9661**	**0.0213**	**0.7585**	**1.2264**	**1.9849**	**0.4145**	**1.1528**	**1.5673**	**0.0000**	**2,129.8655**	**2,129.8655**	**0.5231**		**2,140.8514**

3.3 Creek Restoration - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0581	0.7778	0.5341	2.5100e-003	0.0592	0.0124	0.0716	0.0162	0.0114	0.0276		248.9284	248.9284	1.6500e-003		248.9631
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0855	0.1103	1.2355	2.3400e-003	0.1916	1.6300e-003	0.1932	0.0508	1.4900e-003	0.0523		184.4175	184.4175	0.0104		184.6357
Total	**0.1436**	**0.8881**	**1.7696**	**4.8500e-003**	**0.2508**	**0.0141**	**0.2649**	**0.0670**	**0.0129**	**0.0799**		**433.3459**	**433.3459**	**0.0120**		**433.5988**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9000e-003	4.7000e-003	0.0174	3.0000e-005	1.6800e-003	6.0000e-005	1.7400e-003	4.5000e-004	6.0000e-005	5.1000e-004		2.4546	2.4546	1.1000e-004		2.4569
Unmitigated	1.9000e-003	4.7000e-003	0.0174	3.0000e-005	1.6800e-003	6.0000e-005	1.7400e-003	4.5000e-004	6.0000e-005	5.1000e-004		2.4546	2.4546	1.1000e-004		2.4569

Deer Creek_Creek Restoration

Northern Sierra AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.20	Acre	0.20	8,712.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment -

Trips and VMT - half trips to Grass Valley, half to Wheatland = average 40 miles

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	50.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	6/10/2017	6/12/2017
tblGrading	AcresOfGrading	12.50	0.20
tblGrading	MaterialExported	0.00	480.00
tblGrading	MaterialImported	0.00	200.00
tblOffRoadEquipment	HorsePower	162.00	174.00
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.2648	20.9262	17.0991	0.0259	1.0093	1.2405	2.2498	0.4815	1.1658	1.6472	0.0000	2,548.2607	2,548.2607	0.5352	0.0000	2,559.4998
Total	**2.2648**	**20.9262**	**17.0991**	**0.0259**	**1.0093**	**1.2405**	**2.2498**	**0.4815**	**1.1658**	**1.6472**	**0.0000**	**2,548.2607**	**2,548.2607**	**0.5352**	**0.0000**	**2,559.4998**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.2648	20.9262	17.0991	0.0259	1.0093	1.2405	2.2498	0.4815	1.1658	1.6472	0.0000	2,548.2607	2,548.2607	0.5352	0.0000	2,559.4998
Total	**2.2648**	**20.9262**	**17.0991**	**0.0259**	**1.0093**	**1.2405**	**2.2498**	**0.4815**	**1.1658**	**1.6472**	**0.0000**	**2,548.2607**	**2,548.2607**	**0.5352**	**0.0000**	**2,559.4998**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/5/2017	6/9/2017	5	5	
2	Creek Restoration	Grading	6/12/2017	8/18/2017	5	50	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Creek Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Creek Restoration	Excavators	1	8.00	174	0.41
Creek Restoration	Graders	1	4.00	174	0.41
Creek Restoration	Rubber Tired Dozers	1	1.00	255	0.40
Creek Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Creek Restoration	6	15.00	0.00	85.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089		955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**		**955.8663**	**955.8663**	**0.2929**		**962.0167**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0487	0.4262	7.2000e-004	0.0639	5.4000e-004	0.0644	0.0169	5.0000e-004	0.0174		56.5874	56.5874	3.4600e-003		56.6602
Total	**0.0291**	**0.0487**	**0.4262**	**7.2000e-004**	**0.0639**	**5.4000e-004**	**0.0644**	**0.0169**	**5.0000e-004**	**0.0174**		**56.5874**	**56.5874**	**3.4600e-003**		**56.6602**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089	0.0000	955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**	**0.0000**	**955.8663**	**955.8663**	**0.2929**		**962.0167**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0291	0.0487	0.4262	7.2000e-004	0.0639	5.4000e-004	0.0644	0.0169	5.0000e-004	0.0174		56.5874	56.5874	3.4600e-003		56.6602
Total	**0.0291**	**0.0487**	**0.4262**	**7.2000e-004**	**0.0639**	**5.4000e-004**	**0.0644**	**0.0169**	**5.0000e-004**	**0.0174**		**56.5874**	**56.5874**	**3.4600e-003**		**56.6602**

3.3 Creek Restoration - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7585	0.0000	0.7585	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	2.1009	19.9517	14.9661	0.0213		1.2264	1.2264		1.1528	1.1528		2,129.8655	2,129.8655	0.5231		2,140.8515
Total	**2.1009**	**19.9517**	**14.9661**	**0.0213**	**0.7585**	**1.2264**	**1.9849**	**0.4145**	**1.1528**	**1.5673**		**2,129.8655**	**2,129.8655**	**0.5231**		**2,140.8515**

3.3 Creek Restoration - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0768	0.8284	0.8546	2.5100e-003	0.0592	0.0125	0.0717	0.0162	0.0115	0.0277		248.6329	248.6329	1.6700e-003		248.6679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0871	0.1460	1.2785	2.1500e-003	0.1916	1.6300e-003	0.1932	0.0508	1.4900e-003	0.0523		169.7623	169.7623	0.0104		169.9804
Total	**0.1639**	**0.9745**	**2.1330**	**4.6600e-003**	**0.2508**	**0.0141**	**0.2649**	**0.0670**	**0.0129**	**0.0800**		**418.3952**	**418.3952**	**0.0121**		**418.6483**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7585	0.0000	0.7585	0.4145	0.0000	0.4145			0.0000			0.0000
Off-Road	2.1009	19.9517	14.9661	0.0213		1.2264	1.2264		1.1528	1.1528	0.0000	2,129.8655	2,129.8655	0.5231		2,140.8514
Total	**2.1009**	**19.9517**	**14.9661**	**0.0213**	**0.7585**	**1.2264**	**1.9849**	**0.4145**	**1.1528**	**1.5673**	**0.0000**	**2,129.8655**	**2,129.8655**	**0.5231**		**2,140.8514**

3.3 Creek Restoration - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0768	0.8284	0.8546	2.5100e-003	0.0592	0.0125	0.0717	0.0162	0.0115	0.0277		248.6329	248.6329	1.6700e-003		248.6679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0871	0.1460	1.2785	2.1500e-003	0.1916	1.6300e-003	0.1932	0.0508	1.4900e-003	0.0523		169.7623	169.7623	0.0104		169.9804
Total	**0.1639**	**0.9745**	**2.1330**	**4.6600e-003**	**0.2508**	**0.0141**	**0.2649**	**0.0670**	**0.0129**	**0.0800**		**418.3952**	**418.3952**	**0.0121**		**418.6483**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.1900e-003	5.3100e-003	0.0236	3.0000e-005	1.6800e-003	6.0000e-005	1.7400e-003	4.5000e-004	6.0000e-005	5.1000e-004		2.3345	2.3345	1.1000e-004		2.3368
Unmitigated	2.1900e-003	5.3100e-003	0.0236	3.0000e-005	1.6800e-003	6.0000e-005	1.7400e-003	4.5000e-004	6.0000e-005	5.1000e-004		2.3345	2.3345	1.1000e-004		2.3368

Deer Creek_Creek Restoration

Northern Sierra AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.20	Acre	0.20	8,712.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	72
Climate Zone	1			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - non-default values based on PD

Off-road Equipment - non-default values based on PD

Off-road Equipment -

Trips and VMT - half trips to Grass Valley, half to Wheatland = average 40 miles

Grading - non-default values based on PD

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	50.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	PhaseStartDate	6/10/2017	6/12/2017
tblGrading	AcresOfGrading	12.50	0.20
tblGrading	MaterialExported	0.00	480.00
tblGrading	MaterialImported	0.00	200.00
tblOffRoadEquipment	HorsePower	162.00	174.00
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0595	0.5544	0.4417	6.7000e-004	0.0265	0.0329	0.0594	0.0122	0.0309	0.0431	0.0000	60.1552	60.1552	0.0128	0.0000	60.4242
Total	**0.0595**	**0.5544**	**0.4417**	**6.7000e-004**	**0.0265**	**0.0329**	**0.0594**	**0.0122**	**0.0309**	**0.0431**	**0.0000**	**60.1552**	**60.1552**	**0.0128**	**0.0000**	**60.4242**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0595	0.5544	0.4417	6.7000e-004	0.0265	0.0329	0.0594	0.0122	0.0309	0.0431	0.0000	60.1551	60.1551	0.0128	0.0000	60.4241
Total	**0.0595**	**0.5544**	**0.4417**	**6.7000e-004**	**0.0265**	**0.0329**	**0.0594**	**0.0122**	**0.0309**	**0.0431**	**0.0000**	**60.1551**	**60.1551**	**0.0128**	**0.0000**	**60.4241**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0441	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.6000e-004	9.3000e-004	3.7600e-003	0.0000	2.9000e-004	1.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.3888	0.3888	2.0000e-005	0.0000	0.3892
Waste						0.0000	0.0000		0.0000	0.0000	4.0600e-003	0.0000	4.0600e-003	2.4000e-004	0.0000	9.1000e-003
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.2426	0.2426	1.0000e-005	0.0000	0.2436
Total	**0.0445**	**9.3000e-004**	**3.7600e-003**	**0.0000**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**4.0600e-003**	**0.6315**	**0.6355**	**2.7000e-004**	**0.0000**	**0.6419**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/5/2017	6/9/2017	5	5	
2	Creek Restoration	Grading	6/12/2017	8/18/2017	5	50	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Creek Restoration	Concrete/Industrial Saws	1	8.00	81	0.73
Creek Restoration	Excavators	1	8.00	174	0.41
Creek Restoration	Graders	1	4.00	174	0.41
Creek Restoration	Rubber Tired Dozers	1	1.00	255	0.40
Creek Restoration	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Creek Restoration	6	15.00	0.00	85.00	16.80	6.60	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0317	0.0181	2.0000e-005		1.9300e-003	1.9300e-003		1.7700e-003	1.7700e-003	0.0000	2.1679	2.1679	6.6000e-004	0.0000	2.1818
Total	**3.1700e-003**	**0.0317**	**0.0181**	**2.0000e-005**	**1.3300e-003**	**1.9300e-003**	**3.2600e-003**	**1.4000e-004**	**1.7700e-003**	**1.9100e-003**	**0.0000**	**2.1679**	**2.1679**	**6.6000e-004**	**0.0000**	**2.1818**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.1000e-004	1.0200e-003	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1303	0.1303	1.0000e-005	0.0000	0.1305
Total	**7.0000e-005**	**1.1000e-004**	**1.0200e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1303**	**0.1303**	**1.0000e-005**	**0.0000**	**0.1305**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0317	0.0181	2.0000e-005		1.9300e-003	1.9300e-003		1.7700e-003	1.7700e-003	0.0000	2.1679	2.1679	6.6000e-004	0.0000	2.1818
Total	**3.1700e-003**	**0.0317**	**0.0181**	**2.0000e-005**	**1.3300e-003**	**1.9300e-003**	**3.2600e-003**	**1.4000e-004**	**1.7700e-003**	**1.9100e-003**	**0.0000**	**2.1679**	**2.1679**	**6.6000e-004**	**0.0000**	**2.1818**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	1.1000e-004	1.0200e-003	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1303	0.1303	1.0000e-005	0.0000	0.1305
Total	**7.0000e-005**	**1.1000e-004**	**1.0200e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1303**	**0.1303**	**1.0000e-005**	**0.0000**	**0.1305**

3.3 Creek Restoration - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0190	0.0000	0.0190	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0525	0.4988	0.3742	5.3000e-004		0.0307	0.0307		0.0288	0.0288	0.0000	48.3045	48.3045	0.0119	0.0000	48.5537
Total	**0.0525**	**0.4988**	**0.3742**	**5.3000e-004**	**0.0190**	**0.0307**	**0.0496**	**0.0104**	**0.0288**	**0.0392**	**0.0000**	**48.3045**	**48.3045**	**0.0119**	**0.0000**	**48.5537**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0204	0.0179	6.0000e-005	1.4200e-003	3.1000e-004	1.7400e-003	3.9000e-004	2.9000e-004	6.8000e-004	0.0000	5.6428	5.6428	4.0000e-005	0.0000	5.6436
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	3.3300e-003	0.0305	5.0000e-005	4.5800e-003	4.0000e-005	4.6300e-003	1.2200e-003	4.0000e-005	1.2600e-003	0.0000	3.9096	3.9096	2.4000e-004	0.0000	3.9146
Total	**3.7500e-003**	**0.0238**	**0.0484**	**1.1000e-004**	**6.0000e-003**	**3.5000e-004**	**6.3700e-003**	**1.6100e-003**	**3.3000e-004**	**1.9400e-003**	**0.0000**	**9.5524**	**9.5524**	**2.8000e-004**	**0.0000**	**9.5582**

3.3 Creek Restoration - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0190	0.0000	0.0190	0.0104	0.0000	0.0104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0525	0.4988	0.3742	5.3000e-004		0.0307	0.0307		0.0288	0.0288	0.0000	48.3045	48.3045	0.0119	0.0000	48.5536
Total	**0.0525**	**0.4988**	**0.3742**	**5.3000e-004**	**0.0190**	**0.0307**	**0.0496**	**0.0104**	**0.0288**	**0.0392**	**0.0000**	**48.3045**	**48.3045**	**0.0119**	**0.0000**	**48.5536**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7100e-003	0.0204	0.0179	6.0000e-005	1.4200e-003	3.1000e-004	1.7400e-003	3.9000e-004	2.9000e-004	6.8000e-004	0.0000	5.6428	5.6428	4.0000e-005	0.0000	5.6436
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	3.3300e-003	0.0305	5.0000e-005	4.5800e-003	4.0000e-005	4.6300e-003	1.2200e-003	4.0000e-005	1.2600e-003	0.0000	3.9096	3.9096	2.4000e-004	0.0000	3.9146
Total	**3.7500e-003**	**0.0238**	**0.0484**	**1.1000e-004**	**6.0000e-003**	**3.5000e-004**	**6.3700e-003**	**1.6100e-003**	**3.3000e-004**	**1.9400e-003**	**0.0000**	**9.5524**	**9.5524**	**2.8000e-004**	**0.0000**	**9.5582**

4.0 Operational Detail - Mobile

Appendix B NATIVE AMERICAN CORRESPONDENCE

NEVADA CITY PLANNING DEPARTMENT

City Hall
317 Broad Street
Nevada City CA 95959-8617
Fax No: (530) 265-9851

INITIAL DISTRIBUTION / PROJECT DESCRIPTION

DATE: August 31, 2016

TO: Colfax-Todds Valley Consolidated Tribe – Judith Marks
Colfax-Todds Valley Consolidated Tribe – Pamela Cubbler
Washoe Tribe of Nevada and California - Darrel Kizer
United Auburn Indian Community of
the Auburn Rancheria - Gene Whitehouse
Nevada City Rancheria Tribal Council
T'si-Akim Maidu - Grayson Coney
T'si-Akim Maidu - Don Ryberg

Nevada City is preparing an environmental document pursuant to the California Environmental Quality Act (CEQA) to restore the portion of Little Deer Creek that flows through Pioneer Park. As part of the application process the City is required to consult with local Native American groups. This project is being distributed to you for your review and comment. Your comments and/or conditions are requested by ***Wednesday, September 21, 2016.*** In addition to sending a signed copy, **please e-mail** a digital copy, to the City Planner and/or Parks and Recreation Supervisor listed below. If you need additional information to complete your review, please contact City staff before the comment deadline.

PROJECT: The purpose of the proposed Project is to restore Little Deer Creek to a more stable and natural condition (e.g., flows, floodplain, and riparian) as it moves through Pioneer Park. Another vital concern at the site is the relatively high levels of arsenic in the Lower Field soil. The overall proposal will involve the following:

- Remove existing concrete channel lining that confines Little Deer Creek, thus widening the stream channel and reconnecting it to its original floodplain;
- Re-vegetate and restore the area with native plants;
- Increase Pioneer Park's recreational value by reducing annual flooding;
- Create accessibility through the construction of a "Roll and Stroll" trail, which will also enhance community enjoyment and the use of Little Deer Creek and Pioneer Park;
- Improve urban stream health and water quality management issues
- Removal and disposal of arsenic impacted soil. Clean fill material would then be placed and compacted in the newly graded portions of the stream channel to minimize public exposure and improve water quality

APPLICANT: City of Nevada City

OWNER: City of Nevada City

APNs: 05-440-02 & 05-460-17 **FILE NAME**: Little Deer Creek Resoration

LOCATION: Pioneer Park is located along the eastern bounds of the City with its main access driveways coming off of Nimrod Street and Park Avenue.

General Plan:	Public	**Water**:	City Water
Region:	Nevada City	**Sewage**:	City Sewer
Zoning:	Public	**Fire**:	Nevada City Fire Dist
Flood Map:	369 **Zone** X	**Schools**:	Nevada City School Dist
ZDM #:	124	**Recreation**:	Nevada City Park & Rec District
Parcel Size:	54.66 & 79.08 acres	**Sup. Dist.**:	Nate Beeson, District I
Prev. File #(s):	PM78-203, RS09-037	**Date Filed:**	11/10/2015

Farmland Map Designation: Urban, Built-up

CITY PLANNER: Amy Wolfson
(530) 265-2496 ext.130 Email: amy.wolfson@nevadacityca.gov

PARKS & RECREATION SUPERVISOR: Dawm Zydonis
(530) 265-2496 ext.130 Email: dawn.zydonis@nevadacityca.gov

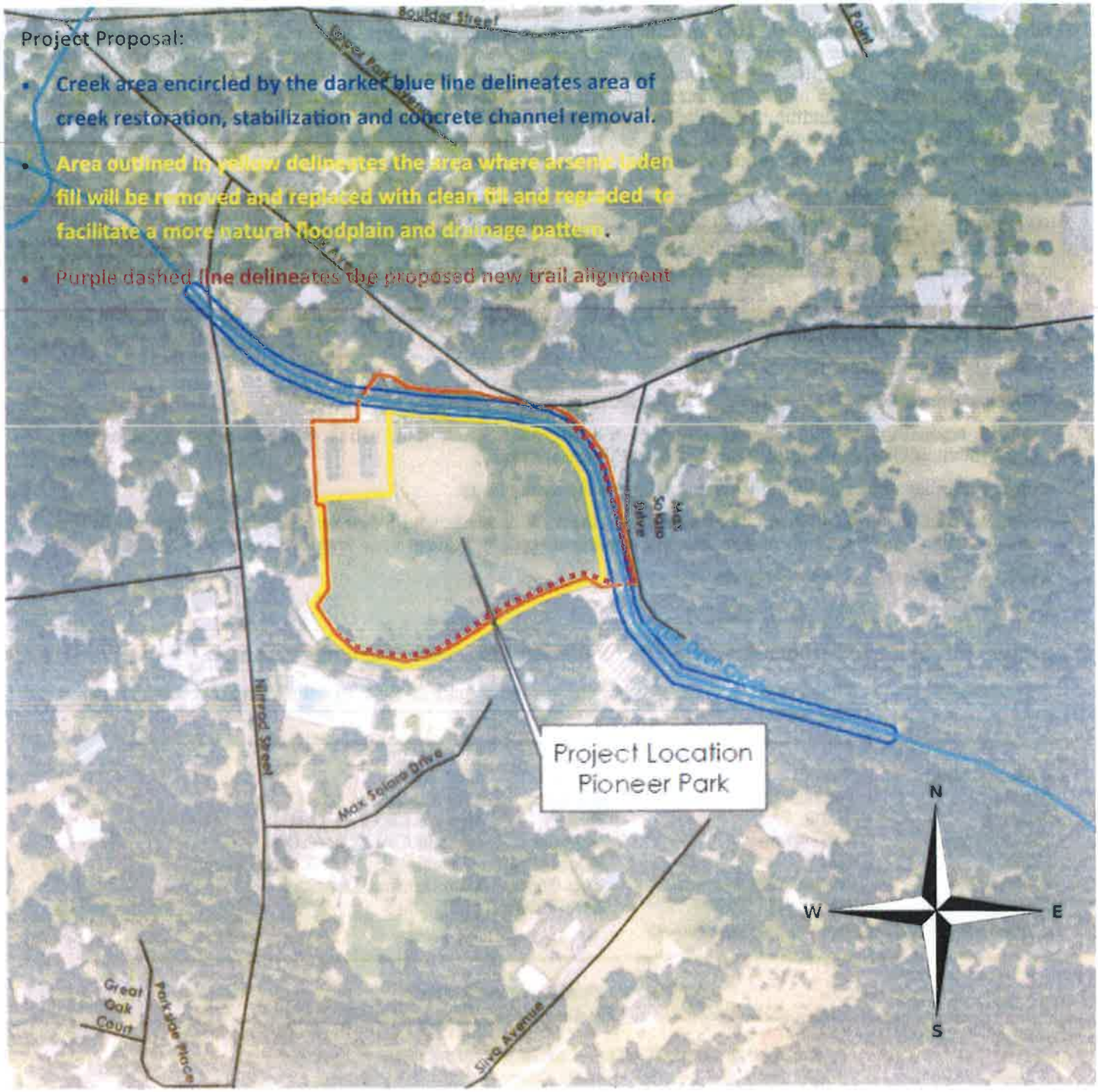
City of Nevada City

Little Deer Creek Restoration Project at Pioneer Park

Location: Pioneer Park, Nevada City; Corner of Park Avenue and Max Solaro Drive; Latitude, Longitude: 39.2600, -121.0109

Project Proposal:

- Creek area encircled by the darker blue line delineates area of creek restoration, stabilization and concrete channel removal.
- Area outlined in yellow delineates the area where arsenic laden fill will be removed and replaced with clean fill and regraded to facilitate a more natural floodplain and drainage pattern.
- Purple dashed line delineates the proposed new trail alignment



MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman | John L. Williams, Vice Chairman | Danny Rey, Secretary | Jason Camp, Treasurer | Calvin Moman, Council Member

September 14, 2016

Any Wolfson
Nevada City Planning Department
317 Broad Street
Nevada City, CA 95959

Subject: Little Deer Creek Resoration Project

Dear Any Wolfson,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction. The UAIC would like to consult on this project.

In order to ascertain whether the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that are completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources in and around your project area, and would like to recommend that a tribal monitor be present during any ground disturbing activities. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the documents requested above and consulting on your project. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

Tribal Office 10720 Indian Hill Road Auburn, CA 95603 (530) 883-2390 FAX (530) 883-2380

From: Dawn Zydonis
Sent: Monday, October 24, 2016 3:55 PM
To: 'mguerrero@auburnrancheria.com' <mguerrero@auburnrancheria.com>
Cc: Kyle Leach <kleach08@gmail.com>
Subject: Little Deer Creek Restoration Project

Marcos
I am writing in response to the letter the City of Nevada City received from the United Auburn Indian Community related to a project that we are doing in our City park. UAIC requested to have a tribal monitor present during any ground disturbing activities. We thought it might be helpful to show you the site prior to that time. Please let me know when you are available to meet with regarding this project. Kyle Leach from Sierra Streams Institute would be joining us. They are our partners on this project and Kyle is the Project Manager and can answer questions about the work to be completed.

We look forward to hearing from you.
Thank you
Dawn

Dawn Zydonis
Parks & Recreation Supervisor
317 Broad St. Nevada City, CA 95959
530-265-2496 x129
530-265-0187 (f)
www.nevadacityca.gov

From: Dawn Zydonis
Sent: Tuesday, November 01, 2016 9:18 AM
To: 'mguerrero@auburnrancheria.com' <mguerrero@auburnrancheria.com>
Cc: 'Kyle' <kleach08@gmail.com>
Subject: Little Deer Creek Restoration Project

Marcos

This email is a follow up to an email that I sent on October 24th. The UAIC has made several requests related to our project (Little Deer Creek Restoration Project) in Nevada City.

1. UAIC would like to receive copies of any archaeological reports that are completed for the project.
2. UAIC requested copies of future environmental documents for the proposed project.
3. UAIC would like tribal monitors to be present during the field survey.
4. UAIC requested that a tribal monitor be present during any ground disturbing activities.

#1 & #2, are included in the CEQA document that we are currently working on and trying to complete by the end of this week. However, we must attempt to communicate with you about your concerns prior to completing those documents.
#3, the Field Survey has already been completed. Kyle Leach (our project partner) and I would be happy to do a site visit with you to review the project.
#4. Your tribal monitor is welcome to be on site during any ground disturbance. This will not take place until next year, so we will keep in touch with you to let you know when that will be taking place.

I look forward to hearing from you, so that we can finalize our DRAFT CEQA document and make it available to you for review.

Dawn Zydonis

Dawn Zydonis
Parks & Recreation Supervisor
317 Broad St. Nevada City, CA 95959
530-265-2496 x129
530-265-0187 (f)
www.nevadacityca.gov

Appendix C SITE CHARACTERIZATION REPORT

SITE CHARACTERIZATION REPORT

Little Deer Creek, Pioneer Park
Restoration and Flood Mitigation Project
Nevada City, California

Prepared by:

Sierra Streams Institute
431 Uren Street, Suite C
Nevada City, California 95959

August 2016

August 4, 2016

California Department of Water Resources
DIRWM - Northern Region
2440 Main Street,
Red Bluff, California, 96080

Attention: Mr. Kevin Pond

Project: Little Deer Creek Pioneer Park Restoration
Pioneer Park
Nevada City, California

Transmittal: Site Characterization Report

Dear Mr. Pond:

Sierra Streams Institute prepared this Site Characterization Report for the Little Deer Creek Pioneer Park Restoration Project located at Pioneer Park in Nevada City, California This report summarizes previous soil investigations at the site and presents the results of recent soil sampling and metals analysis in areas adjacent to Little Deer Creek at Pioneer Park. Characterization of site soil was performed to facilitate project planning, permitting and cost estimates. The report also summarizes the results of over 10 years of surface water quality monitoring including recent stormwater sampling and metals analysis performed by Sierra Streams Institute as well as six years of biological monitoring of the site.

If you have any questions regarding this Report please contact the undersigned.

Sincerely,

Sierra Streams Institute

PROFESSIONAL GEOLOGIST
KYLE R. LEACH
No. 7108
PROFESSIONAL GEOLOGIST
STATE OF CALIFORNIA

Kyle Leach, P.G. 7108
Project Geologist

copies: 1 Nevada City/Attn: Mark Prestwich
1 Central Valley Regional Water Quality Control Board/Attn: Elizabeth Lee

INTRODUCTION

The City of Nevada City and Sierra Streams Institute (SSI) are managing the proposed Little Deer Creek/Pioneer Park Restoration and Flood Mitigation Project located at Pioneer Park in Nevada City, California (Figure 1 - Project Location Map). The project is funded by a Grant awarded to the City and SSI by the California Department of Water Resources (DWR) under the Urban Streams Restoration Program, Water Code 7048. The scope of the project includes restoration of Little Deer Creek, a tributary of Deer Creek, in the reach passing through Pioneer Park by removing concrete channelization, channel widening and placement of rock armoring to protect from scour and enhance habitat. The project also proposes to remove a soil berm currently located along the creek adjacent to the lower playing field to improve drainage and create an accessible flood plain. The lower playing field will also be regraded to improve drainage with associated irrigation system upgrades and turf replacement. A trail will also be completed around the playing field and stream restoration areas.

This Site Characterization Report presents a review of site history, summarizes the results of previous environmental assessments and restoration efforts at Pioneer Park, and presents the results of additional soil sampling performed in 2016 to complete a characterization of environmental conditions at the site. The Report also summarizes previous monitoring of Little Deer Creek and presents the results of additional surface water sampling and metals analysis during storm events and during a period of relatively low flow prior project implementation. The report also presents the results of biological monitoring of Little Deer Creek including benthic macroinvertebrate and algae sampling results and evaluation.

Site History

Longtime residents of Nevada City reported that prior to construction of Pioneer Park in the 1950's, Little Deer Creek flowed through the middle of what is now the lower playing field. When Pioneer Park was developed, imported fill soil was used to fill the Little Deer Creek stream channel and grade the lower field. The stream was relocated around the eastern and northern perimeter of the field and confined within a concrete lined channel. A soil berm was also constructed along the eastern edge of the field to control flooding. The borrow source for the fill material was reportedly a site approximately one mile southeast of the park. Soil used for fill consisted of reddish brown clayey loam soil which may have been overburden from an abandoned mine. Elevated arsenic is a common constituent of mine waste in the local area.

SOIL ASSESSMENT RESULTS

Previous Soil Sampling and Analytical Results

SSI reviewed the results of an unpublished investigation of soil and stream bank conditions at the site conducted by GeoTrans in 2003. Thirty six soil samples were obtained from the berm and stream banks of Little Deer Creek, mostly between the river right side of the stream and the adjacent field where restoration activities had been proposed. All samples were analyzed for total arsenic. Twelve samples were also analyzed for total lead and mercury. Results of 36 samples analyzed for total arsenic indicated concentrations ranging from less than 2.4 milligrams per kilogram (mg/kg) to 155 mg/kg. The mean arsenic concentration was 46.5 mg/kg. Results of 12 samples analyzed for total

lead ranged from 13.3 mg/kg to 39.8 mg/kg with a mean of 24.6 mg/kg. Results of 12 samples analyzed for total mercury ranged from 0.11 mg/kg to 0.66 mg/kg with a mean of 0.34 mg/kg. One sample with a total arsenic concentration of 78 mg/kg was analyzed for soluble arsenic by the Waste Extraction Test (WET) Method using deionized (DI) water as the extractant solution. Results were non-detect with a reporting limit of 0.10 milligrams per liter (mg/L). These results indicate total arsenic is a constituent of concern (COC) in site soil. Based on this unpublished investigation, Geotrans recommended that proposed stream restoration activities involving excavation of stream bank soil not be implemented due to "unacceptable levels of arsenic". Subsequent restoration work at the park conducted in 2003/2004 by Friends of Deer Creek included planting of native willows and other trees and shrubs.

Friend of Deer Creek conducted soil sampling at the lower play field at Pioneer Park as part of a US EPA Brownfields Community Wide Assessment of City owned properties conducted in 2006-2009 (City of Nevada City, 2010). Twenty four soil samples were obtained from near surface soil in the field and screened for total metals. Based on results indicating elevated arsenic concentrations, EPA staff analyzed eight duplicate samples for total arsenic, lead and chromium by EPA Method 6010B. Total arsenic results ranged from 7.9 mg/kg to 100 mg/kg with a mean concentration of 63.2 mg/kg. Total lead ranged from 5.6 to 24 with a mean of 15.1. Total chromium ranged from 21 mg/kg to 35 mg/kg with a mean of 28 mg/kg. These results indicate total arsenic is a COC in near surface soil in the lower play field at Pioneer Park.

2016 Soil Sampling

Soil samples were obtained in spring 2016 from the stream sediment and banks of Little Deer Creek in areas of the proposed stream restoration in order to complete a preliminary characterization of soil conditions to inform design, permitting and cost estimations. Samples were obtained using decontaminated hand tools, placed in glass jars stored in coolers and transported to EPA certified analytical laboratories. A California Professional Geologist oversaw all soil sampling and analysis, evaluated initial sample results to determine where additional sampling was necessary and selected samples for further analysis as described below.

A total of 22 discrete soil samples and three duplicate samples were obtained from the locations described below. Sample locations are indicated on the Sample Location Map (Figure 2).

Five sediment samples (Sample ID prefix "SS") were obtained from the upper 6-inches of mobile sediment within the active stream channel. Samples were obtained from sediment at regular intervals within, upstream and downstream of the proposed channel modification areas.

Four soil samples and one field duplicate sample were obtained along concrete channelization segments (Sample prefix "CS") to determine metals concentrations in soil immediately adjacent to the concrete proposed to be removed during the restoration project. Samples were obtained from soil adjacent to the outside edge of the concrete currently situated along the right and left banks of the stream at depths ranging from 0.75 to 1.5 feet below ground surface (bgs).

Three soil samples were obtained from the soil berm (Sample prefix “BS”) located along the river left bank of the creek in the upstream portion of the proposed channel modification area. Samples were obtained from depths of approximately 2.0 to 2.5 feet in the berm soil to confirm the results of previous sampling indicating elevated arsenic in berm and fill soil.

Three soil samples and one field duplicate sample were also obtained from the proposed new stream bank location on river left (Sample prefix “RL”) in the proposed channel modification areas. Samples were obtained from depths of approximately 1.5 to 2.0 feet bgs to confirm the results of previous sampling indicating elevated arsenic in fill soil in these areas.

Three soil samples were also obtained from the river right stream bank (Sample name prefix “RR”). Samples were obtained at the approximate ordinary high water elevation where erosion potential is relatively high at depths between 0.25 and 0.5 feet bgs.

Four soil samples and one field duplicate sample were also obtained from a proposed trail alignment that was initially proposed to be graded upslope of the river right side of Little Deer Creek between the creek and Park Avenue. Samples were obtained at depths of 0.5 to 1.0 feet bgs.

Soil Sample Analysis

All samples including three field duplicate samples and one laboratory split sample were analyzed for total arsenic by EPA Method 6010B (Table 1). Four selected samples (one stream sediment sample, one soil sample from each side of the creek and one trail sample) with relatively high arsenic concentrations were also analyzed for Title 22 Metals by EPA Method 6010/7474 to determine if other metal COCs are present (Table 2). Two soil samples with the highest total arsenic concentration likely to be left in place after restoration (one on each side of the creek) were also analyzed for soluble arsenic using the de-ionized water waste extraction test (DI WET) method (Table 1). A second selected sample of soil with an above average arsenic concentration at a representative location where soil is likely to be excavated and disposed of off-site was also analyzed for soluble arsenic by the STLC Standard WET Method (Table 2).

Soil Sample Analytical Results and Discussion

<u>Total Arsenic</u>

Five stream sediment samples were analyzed for total arsenic by EPA Method 6010B. Results ranged from 27 mg/kg to 69 mg/kg with a mean concentration of 42 mg/kg (Table 1).

A total of 13 stream bank soil samples were analyzed for total arsenic. Analysis was also performed on two field duplicates and one laboratory split sample. Results ranged from 4.7 mg/kg to 106 mg/kg with a mean concentration of 55 mg/kg (Table 1).

A total of five soil samples from a proposed trail alignment were analyzed for total arsenic. One field duplicate and one laboratory split sample were also analyzed. Results ranged from 34 mg/kg to 310 mg/kg with a mean concentration of 136 mg/kg (Table 1).

Total arsenic results for all samples analyzed exceeded the Regional Screening Levels (RSLs) established by US EPA (0.68 mg/kg) and California Department of Toxic Substances Control (DTSC) modified RSLs (0.067 mg/kg) (Table 1). Nearly all of the samples also exceed typical background arsenic concentrations in soil in the Nevada County area which range up to 20 mg/kg or higher.

Title 22 Metals

Analytical results for each of the Title 22 metals were compared with Regional Screening Levels (RSLs) established by US EPA and California Department of Toxic Substances Control (DTSC) modified RSLs (if established) (Table 2). Results indicated that with the exception of total arsenic, no Title 22 metal analytes exceeded EPA or DTSC RSLs (Table 2).

Soluble Arsenic

Arsenic solubility by the DI WET Method for sample CS-10d, obtained adjacent to the concrete channelization structure on river right indicated soluble arsenic at 37.5 micrograms per Liter (ug/L) (Table 1). Results of sample RL-19d, obtained from the approximate location of the river left stream bank after the proposed channel widening, were non-detect with a laboratory reporting limit of 10 ug/L (Table 1). These results were compared with the Maximum Contaminant Level (MCL) established for arsenic in drinking water of 10 ug/L. Sample CS-10d exceeded the MCL and sample RL-19d did not exceed the MCL.

STLC Standard WET Method results for sample BS-6 (with a total arsenic concentration of 106 mg/kg) indicated soluble arsenic at 0.8 milligrams per liter (mg/L) (Table 1). These results were compared to the Soluble Threshold Limit Concentration (STLC) for arsenic to determine likely off-site disposal outcomes. Results were significantly lower than the STLC (500 mg/L) indicating excavated soil is not likely to be characterized as Soluble Hazardous Waste. In addition, total arsenic concentrations detected in soil likely to be excavated and disposed of off-site were all below the total Threshold Limit Concentration (TTLC) for arsenic of 500 mg/kg, indicating excavated soil will not likely be characterized as Hazardous Waste.

WATER SAMPLING RESULTS

Water Quality Monitoring Background and Methods

Sierra Streams Institute monitors ambient water quality at eighteen long-term monitoring sites in the Deer Creek watershed, including at three sites on Little Deer Creek in the vicinity of the project site (Figure 1). Water quality monitoring takes place once a month at each site, with samples collected at the same time of day during each monitoring event. Standard water quality parameters are monitored in the field during each site visit, including specific conductivity, dissolved oxygen, pH, turbidity, and water temperature. In addition to the parameters measured in the field, water samples

are collected at each site for processing at the Sierra Streams Institute lab. Water samples are collected and processed for Bacteria (Total Coliform, *E. coli*) and Nutrients (Orthophosphate, Nitrate).

Water quality monitoring and lab sample processing follows the methods and standards outlined in the Water Monitoring Quality Assurance Project Plan (QAPP) for the Yuba Watershed Council Monitoring Committee (Yuba Watershed Monitoring Committee, 2008). Sierra Streams Institute participates in the Yuba Watershed Council Monitoring Committee as a member group.

Water Quality Monitoring Results and Discussion

To evaluate the pre-project baseline environmental conditions in Little Deer Creek and at the project site, water quality monitoring data from 2010 – 2015 was analyzed. Data was analyzed for Site 13 upstream of Pioneer Park, Site 12 within Pioneer Park, and Site 11 downstream of Pioneer Park.

The results presented in Table 3 represent average values from data collected on a monthly basis between 2010 and 2015 at three sites on Little Deer Creek. A summary of results is provided below:

- pH values at each site were less than the Basin Plan Objective of 6.5 – 8.5, with average values between 6.30 and 6.47. Site 13 upstream of Pioneer Park had the lowest average pH value, with the highest average pH value occurring at Site 12 within Pioneer Park.

- Specific Conductivity values at all sites were below the Secondary Maximum Contaminant Level standard used by the Regional Water Quality Control Board to evaluate inland water quality, with values between 42.9 and 48.3 µS/cm. Conductivity values increase from upstream to downstream, with Site 13 exhibiting the lowest average conductivity values and Site 11 the highest average conductivity values.

- Dissolved Oxygen values were greater than the Basin Plan Objective at each site, with values between 9.95 and 10.27 mg/L at the three sites. Dissolved oxygen levels at each site reflect suitable oxygenation levels for native aquatic species.

- Average water temperature values at each site indicated suitable water temperatures for cold water aquatic species, with average water temperatures between 9.7 and 10.8 °C, and maximum temperature values (not shown) below the Basin Plan Objective for the Bay-Delta for water temperature. Average water temperatures increase from upstream to downstream, with the lowest values observed at Site 13 upstream of Pioneer Park and the highest water temperatures observed at Site 11 downstream of Pioneer Park.

- Nitrate concentrations at each site were below the Primary Maximum Contaminant Level guideline of 10.0 mg/L, with average values between 0.09 – 0.14 mg/L across the sites. Average nitrate concentrations increase from upstream to downstream, with the lowest values observed at Site 13 upstream of Pioneer Park and the highest values observed at Site 11 downstream of Pioneer Park.

- There are no applicable Water Quality Guidelines for turbidity and orthophosphate, although these values are low compared to other sites within the Deer Creek and Yuba River watershed with known sediment or nutrient issues.

Constituent	Water Quality Guideline	Site 11	Site 12	Site 13
pH	6.5 - 8.5 (Basin Plan Objective)[2]	6.44	6.47	6.30
Conductivity (µS/cm)	≤ 900.0 µS/cm (Secondary Maximum Contaminant Level)[1]	48.3	43.7	42.9
Dissolved Oxygen (mg/L)	≥ 7.0 mg/L (Basin Plan Objective)[2]	10.27	10.27	9.95
Water Temperature (°C)	≤ 20.0°C (Basin Plan Objective for Bay-Delta)[2]	10.8	10.0	9.7
Turbidity (NTU)	N/A	2.6	2.1	3.1
Nitrate (mg/L)	10 mg/L (Primary Maximum Contaminant Level)[1]	0.14	0.1	0.09
Orthophosphate (mg/L)	N/A	0.06	0.05	0.04
	[1] Drinking Water [2] Aquatic Life			

Table 3: Water quality data summary for Sites 11, 12, and 13 on Little Deer Creek in Nevada City, using monthly water quality data. Average values from 2010-2015 are presented for each site and constituent, and are compared against an applicable water quality guideline, if available.

Heavy Metal Sampling of Surface Water Background and Methods

Sierra Streams Institute monitors surface water quality, suspended sediment, and heavy metals during runoff and storm events each year. As part of the pre-project baseline monitoring for this project, water samples were collected during storm events in the winter and spring of 2015-16. Water quality measurements and water samples were collected at three sites on Little Deer Creek including Site 13 upstream of Pioneer Park, Site 12 within Pioneer Park, and Site 11 downstream of Pioneer Park. Basic water quality parameters were measured in the field during each sampling event, including pH, dissolved oxygen, specific conductivity, water temperature, and turbidity. Storm water samples were collected for Total Suspended Solids (TSS) and heavy metals analysis. Water samples were processed for TSS at the Sierra Streams Institute lab, and water samples for heavy metal analysis were analyzed for total recoverable Arsenic, Cadmium, Lead, and Mercury at a US EPA-certified laboratory.

Water quality monitoring, storm sampling, and lab sample processing follows the methods and standards outlined in the Water Monitoring Quality Assurance Project Plan (QAPP) for the Yuba Watershed Council Monitoring Committee (Yuba Watershed Monitoring Committee, 2008).

Heavy Metal Sampling of Surface Water Results and Discussion

During the winter and spring of 2016, a total of four samples were collected between January and June. Three samples were collected during storm events in January and March, and one sample was collected during dry weather baseflow conditions in June 2016. The results of water quality sampling and heavy metal analysis are provided in Table 4.

The results in Table 4 show turbidity, total suspended solids (TSS), and heavy metal data for three sites on Little Deer Creek. The data reflects the general trend that as turbidity and TSS increase, heavy metal concentrations in the water column typically increased as well. The data shows that

Arsenic and Cadmium were detected in all three storm samples, but no constituents of concern were detected in the June baseflow sample. Constituents of concern were detected in samples collected upstream, within, and downstream of Pioneer Park. The highest concentrations of each constituent of concern were observed on 3/13/2016 during the largest storm event that was sampled. This was the only sampling event in which Mercury was detected in the samples.

Site	Date	Time	Turbidity (NTU)	TSS (mg/L)	As (µg/L)	Reporting Limit (µg/L)	Cd (µg/L)	Reporting Limit (µg/L)	Pb (µg/L)	Reporting Limit (µg/L)	Hg (µg/L)	Reporting Limit (µg/L)
11	1/29/16	13:22	7.07	12.2	6.8	2.0	2.1	1.0	2.4	2.0	ND	0.2
12	1/29/16	13:01	8.28	10.9	6.9	2.0	1.7	1.0	ND	2.0	ND	0.2
13	1/29/16	12:37	9.14	9.4	5.2	2.0	1.7	1.0	ND	2.0	ND	0.2
11	3/6/16	8:15	20.1	24.8	8.8	2.0	1.5	1.0	ND	2.0	-	-
12	3/6/16	7:50	22.9	28.2	6.5	2.0	3.7	1.0	ND	2.0	-	-
13	3/6/16	7:33	21.4	18.5	7.1	2.0	ND	1.0	ND	2.0	-	-
11	3/13/16	12:15	52.9	179.6	51.9	2.0	10.5	1.0	11.4	2.0	0.3	0.2
12	3/13/16	11:30	48.3	170.1	57.9	2.0	11.8	1.0	9.5	2.0	ND	0.2
13	3/13/16	11:10	43.6	167.1	53.3	2.0	11.5	1.0	8.0	2.0	ND	0.2
11	6/14/16	15:45	0.90	0.76	ND	10.0	ND	5.0	ND	5.0	-	-
12	6/14/16	15:15	1.1	0.76	ND	10.0	ND	5.0	ND	5.0	-	-
13	6/14/16	15:00	0.87	0.88	ND	10.0	ND	5.0	ND	5.0	-	-

Table 4: Results of water quality and heavy metal analysis for samples collected at three sites on Little Deer Creek. Values in red exceeded the MCL for the constituent of concern. ND = non-detect.

Results from the heavy metal sampling and analysis were compared against the Maximum Contaminant Level (MCL) for each constituent of concern in Table 5 (USEPA, 2016). Water samples collected on 3/13/2016 exceeded the MCL for Arsenic and Cadmium. This was the largest storm event of the water year. The MCL was not exceeded for any constituents of concern during storm events on 1/29/2016 and 3/6/2016, or during baseflow conditions on 6/14/2016.

Constituent	MCL (µg/L)
Arsenic	10
Cadmium	5
Lead	15
Mercury	2

Table 5: Maximum Contaminant Levels for each constituent of concern.

BIOLOGICAL SAMPLING RESULTS

Benthic Macroinvertebrates and Algae Background and Methods

Sierra Streams Institute monitors benthic macroinvertebrates and algae biomass at sixteen long-term monitoring sites in the Deer Creek watershed, including at three sites on Little Deer Creek in the vicinity of the project site (Figure 1). Benthic macroinvertebrate and algae sample collection takes place twice a year in June and October following standard methods developed by the State of

California Surface Water Ambient Monitoring Program (SWAMP) (Ode, 2007; Yuba Watershed Monitoring Committee, 2008; Fetscher et al., 2010). Macroinvertebrate and algae samples are processed and identified at the Sierra Streams Institute in-house lab following methods outlined by SWAMP and the Yuba Watershed Monitoring Committee, and undergo quality control and data review by a professional taxonomist (Ode, 2007; Yuba Watershed Monitoring Committee, 2008; Fetscher et al., 2010). Benthic macroinvertebrate data is evaluated using the Deer Creek Index of Biotic Integrity (IBI), a tool developed by Sierra Streams Institute for assessing the health of streams using benthic macroinvertebrate data (Bell, 2012). The Deer Creek Index of Biotic Integrity uses family-level macroinvertebrate data, and incorporates 8 metrics to classify stream health (Bell, 2012).

Benthic Macroinvertebrates and Algae Results and Discussion

To evaluate the pre-project baseline environmental conditions in Little Deer Creek and at the project site, benthic macroinvertebrate and algae monitoring data was analyzed. Benthic macroinvertebrate data from 2001 – 2012, and algae biomass data from 2012 – 2015 was used in the analysis. Benthic macroinvertebrate data is presented in Table 6 and shows the average Deer Creek IBI scores for each site on Little Deer Creek from 2001 – 2012. Table 7 shows the Stream Health Classification based on the Deer Creek IBI score (Bell, 2012). The following is a summary of the results presented in Table 6:

- Site 13, located upstream of Pioneer Park, had the highest average Deer Creek IBI score of 24.3, resulting in a stream health classification of Good.
- Site 12, located within Pioneer Park and the project area, had a Deer Creek IBI score of 19.8, resulting in a stream health classification of Marginal.
- Site 11, located downstream of Pioneer Park, scored an 18.7 on the Deer Creek IBI, resulting in a stream health classification of Marginal.

Site	Deer Creek IBI Score
11	18.7
12	19.8
13	24.3

Table 6: Average Deer Creek Index of Biotic Integrity score from 2001-2011 for each site (Bell, 2012).

IBI Score	Stream Health
<16	Poor
<22	Marginal
<27	Good
≥ 27	Very Good

Table 7: Generalized stream health classification, based on the Deer Creek IBI score (Bell, 2012).

The results of the benthic macroinvertebrate analysis indicate there is a trend of decreasing IBI scores from upstream to downstream. IBI scores decrease as Little Deer Creek flows through Pioneer Park from Site 13 to Site 11, reflecting a change in stream health as you move downstream. The low Deer Creek IBI score and Marginal stream health classification at Site 12 within Pioneer Park could be attributed to several factors including the presence of concrete and rip rap located on the banks and within the creek channel around the site, the confined and narrow channelized stream channel, and a lack of riparian and floodplain habitat along the creek.

Algae biomass data is presented in Table 8 and shows the average algae biomass in grams per square meter (g/m^2) at each site on Little Deer Creek from 2012 – 2015. Algae biomass sample

collection takes place twice a year in June and October, as part of paired sampling with benthic macroinvertebrate sample collection (Fetscher et al., 2010).

Site	Algae Biomass (g/m^2)
11	39.6
12	14.6
13	30.4

Table 8: Average algae biomass from 2012-2015 for each site on Little Deer Creek.

The results of the algae biomass analysis indicate that algae biomass values are higher on average upstream and downstream of Pioneer Park, compared to Site 12 within Pioneer Park. It should be noted that there is considerable seasonal and annual variability in algae biomass at each site, with no clear trends identified for the sites on Little Deer Creek.

Conclusions and Recommendations

Based on the results of soil, water, and biological sampling the following general conclusions and recommendations are presented regarding the site:

Arsenic is the primary constituent of concern in site soil. No other title 22 metals exceeded applicable regulatory standards.

Soil excavated during stream channel widening will likely require special handling, characterization and off-site disposal at a Class 2 landfill facility.

Soil in the originally proposed trail alignment exceeds levels likely to be acceptable for use in cut and fill type trail construction. Based on these results the originally proposed trail alignment (crossing a steep, thickly vegetated slope) was abandoned and a new alignment (as described in the CEQA Project Description) will involve clean imported fill placement with no significant soil excavation in this area.

Soil with elevated arsenic concentrations proposed to be left in place in the widened stream banks should be engineered to protect from stream scour by placement of rock armoring and woody materials in areas of high scour and or smaller rock or gravel fill placement in areas of relatively low scour. Grain size shall be determined by the Engineer based on a hydrological analysis. Alternatively some of the existing concrete channel lining may be left in place where necessary to minimize scour.

Surface water metals analytical results indicated elevated arsenic, cadmium and to a limited extent lead and mercury during storm events. Elevated metals concentrations generally correspond to higher total suspended solids and turbidity values. Detected results did not exceed MCLs except for arsenic and cadmium in the March 13, 2016 event, which was the largest storm event of the season. Metals were not detected above laboratory reporting limits during the base flow sampling event in June 2016, when flow levels were similar to those anticipated during the proposed project implementation.

Comparison of surface water metals sample results from upstream, onsite and downstream (sites 13, 12 and 11 respectively) did not indicate a consistent trend of increasing metals concentrations in the downstream direction. Thus erosion of sediment from the Pioneer Park site does not appear to be the

primary source of the loading of metals in stormwater samples. As the site is located in the lower portion of the Little Deer Creek watershed downstream of numerous abandoned mine sites, the bulk of the arsenic and cadmium loading is likely due to sediment transport of mine waste from upstream sources.

Surface water sampling and metals analysis should continue prior to, during and after the proposed project implementation. Long-term monitoring at sites on Little Deer Creek including surface water quality, benthic macroinvertebrate, and algae monitoring, should continue for several years following project completion. This data will be useful for evaluating the effects of the project on surface water quality and aquatic communities in Little Deer Creek, and potential long-term benefits associated with restoration activities.

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References

Bell, A. 2012. Development of an Index of Biotic Integrity (IBI) for Deer Creek, Nevada County, California: Family-level IBI for citizen-science bioassessment.

City of Nevada City. 2010. City of Nevada City Community Wide Brownfields Assessment: Pioneer Park Phase II Assessment.

Fetscher, E., Busse, L., Ode, P. 2010. Standard Operating Procedures for Collecting Stream Algae Samples and Associated Physical Habitat and Chemical Data for Ambient Bioassessments in California. Surface Water Ambient Monitoring Program Bioassessment Procedures.

Ode, P. 2007. Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessment in California, Surface Water Ambient Monitoring Program Bioassessment Procedures.

United States Environmental Protection Agency (USEPA). 2016. Regional Screening Levels (RSLs) – Generic Tables, accessed from https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016 on July 14, 2016.

Yuba Watershed Monitoring Committee. 2008. Water Monitoring Quality Assurance Project Plan for the Yuba Watershed Council Monitoring Committee: Citizen Water Monitoring Quality Assurance Project Plan for the Yuba Watershed Monitoring Committee.

Figure 1 Project Location Map

Figure 2 Sample Location Map

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Ordinance: Adding Section 3.26 to the Nevada City Municipal Code Relating to a Hotel Investment Incentive Program (First Reading)

RECOMMENDATION: Pass an Ordinance adding Section 3.26 to the Nevada City Municipal Code relating to a Nevada City Hotel Investment Incentive Program.

CONTACT: Mark Prestwich, City Manager

BACKGROUND/DISCUSSION:

Every successful hotel establishment periodically renovates to increase guest satisfaction and address aging or deteriorating assets. Needed safety improvements, competition, and improving visitor convenience are also factors that frequently drive hotel renovation projects.

A number of California municipalities have incentivized investment in their local hotels (or development of hotel rooms) concluding that incentive programs supporting renovation of a sufficient scale can drive significant additional tax revenues to the city (e.g. hotel tax, property tax, sales tax) and further improve their community's guest lodging amenities.

On November 9, 2016, staff presented the City Council with research related to Hotel Incentive Programs in other communities and received direction on key requirements for such a program in Nevada City. A summary of the proposed Hotel Investment Incentive Program is provided below, along with information about eligibility and application procedures.

Program Summary

The program consists of a 20-year incentivized cost-share methodology on the growth on the current Transient Occupancy Tax (TOT) revenues for each property. The revenue base would be established by calculating the average of the prior three-year average TOT annual revenue or prior twelve months, whichever is higher. The base will be tied to a consumer price index so the City's base revenue is protected by this program over the cost-sharing term. The cost-sharing methodology is intended to aggressively offset the private investment and return 85% of the TOT revenue growth to the property owner for the first ten years, 65% over years 11-15 and 50% over years 16-20. The program will automatically sunset in five years unless extended by the City Council.

Program Eligibility

- Minimum "Furniture, Fixture and Equipment" costs of not less than $10,000 per guestroom.

- Minimum “Shell/Property Improvements” averaging at least $15,000 per guestroom (expenses related to expansion of hotel rooms are considered eligible expenses).
- Obligation to comply with Prevailing Wage requirements for property improvements.
- Use good faith efforts to hire local residents and contract with local subcontractors, suppliers and other businesses for property improvements.

The City has five hotels that could qualify for the program.

Application Procedures

The following application procedures will guide participation in the Hotel Investment Incentive Program:

1. Submit an incentive program application to the City Manager;
2. Provide a business plan documenting planned improvements to the hotel property, including an estimate of revenues and expenditures for operation of the hotel through the program’s cost-sharing term; and
3. Execute and record an operating covenant approved by the City Council regarding continuing use of the hotel, maintenance of the property, non-discrimination, any other provisions the City Council may reasonably determine are necessary or appropriate to preserve the goals of the program.

ENVIRONMENTAL CONSIDERATIONS: Not applicable.

FISCAL IMPACT: It is anticipated this program has the potential to generate a minimum of $1 million in additional City TOT revenue over the next 20 years to support core City services, as well as private investment that will yield additional jobs/services. It is anticipated the program may also accelerate increases in City property and sales tax revenues.

ATTACHMENT:

- ✓ Ordinance Adding Section 3.26 to the Nevada City Municipal Code Relating to a Hotel Investment Incentive Program

ORDINANCE NO. 2016__

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEVADA CITY ADDING CHAPTER 3.26 TO THE NEVADA CITY MUNICIPAL CODE RELATING TO A HOTEL RENOVATION INCENTIVE PROGRAM

THE CITY COUNCIL OF THE CITY OF NEVADA CITY DOES ORDAIN AS FOLLOWS:

Chapter 3.26 Hotel Renovation Incentive Program

3.26.010 The purpose of this chapter is to provide an incentive program for the renovation and expansion of hotel facilities which: (A) enhance the tourist and travel experience for visitors to the City of Nevada City; (B) provide attractive amenities to the public and desirable visitor service facilities and experiences; (C) assist the City in achieving its tourism goals; (D) encourage continued investment in lodging facilities, and (D) increase the transient occupancy tax revenue to the City. In the implementation of this program, the City Council finds:

A. The general welfare and material well-being of the residents of the City depend in substantial measure upon the growth and expansion of the tourism and travel industries in the City.

B. The renovation and expansion of the inventory of hotels in the City will create desirable visitor-serving facilities that will: (1) contribute to the growth and expansion of tourism and travel opportunities in the City; (2) provide employment opportunities for the residents of the City; (3) provide additional transient occupancy tax revenues to the City; and (4) promote and enhance the economy of the City.

C. It is in the best interest of the City to induce and encourage the expanding, renovating and maintaining of hotel facilities that might not otherwise be as successful, thereby creating new sources of revenues for the city's general fund which supports the public services the City provides its residents and visitors.

D. The authority granted and the purposes to be accomplished by this chapter are proper local governmental and public purposes for which public funds can be expended and the renovating, maintaining and expanding of the inventory of hotels is of paramount importance to the City, its residents, and businesses.

3.26.020 Definitions.

For the purposes of this chapter, the following definitions shall apply:

"Approved hotel" means any existing hotel which has submitted an application and a business plan for participation in the Incentive Program and been approved by the City to participate in the Incentive Program.

"Business Plan" means a written plan submitted to the City documenting at a minimum 1) planned improvements to the hotel property, including the estimated costs of the improvements, and 2) an estimate of revenues and expenditures for the operation of the hotel through the term of the Hotel Renovation Incentive Program. The Business Plan shall compare past revenues with the future estimated revenues as a result of the proposed new expenditures.

"Existing hotel" means any property operating as a hotel containing nine or more guest rooms for compensation and where the guest rooms are: (1) designed and intended as transient

occupancy accommodations; and (2) that was issued a final certificate of occupancy on or before December 1, 2016.

"Furniture, Fixtures and Equipment" means movable furniture, fixtures or other equipment that have no permanent connection to the structure of a building or utilities within the Hotel. More specifically, furniture, fixtures and /or equipment would include decorative items, wall coverings, flooring treatment, window treatments, casework, furnishings and accessories, furniture, data communications equipment, voice communications equipment, audio visual communications equipment, electronic surveillance equipment, electronic detection and alarm equipment, commercial equipment, food service equipment, entertainment equipment, athletic and recreational equipment, collection and disposal equipment. Operational supplies include all supplies needed for the operation of the hotel such as stationery, computer equipment and accessories, guestroom TV's and mounts, alarm clocks in rooms, linens, pillows, housekeeping carts and supplies, trash cans, all items for the hotel restaurant and bar, banquet and conference facilities (including china, utensils, glasses, etc.). Furniture, fixtures and equipment, for qualifying cost purposes, include all taxes, freight, warehouse expense, installation fees and purchasing fees.

"Hotel" for the purposes of this Chapter, shall be defined as found in section 17.12.180, except that the Incentive Program shall only apply to properties containing nine or more guest rooms for compensation and where the guest rooms are designed and intended as transient occupancy accommodations and does not include those properties offered as a "bed and breakfast facilities" (as defined in section 17.20.040), "bed and breakfast inns" (as defined in section 17.52.020B), "campground", "guest houses", "homeless housing facilities" and "residential care homes."

"Hotel Renovation Incentive Program or "Incentive Program" means the transient occupancy tax increment rebate program established by this chapter.

"Indemnification agreement" means the agreement between the City and an operator in which the operator agrees to indemnify and defend the City against any claims or lawsuits that are brought against the City (and all liabilities, damages, and costs incurred by the City in connection therewith) as a result of the application of this chapter to a hotel participating in the incentive Incentive Program.

"Operating covenants" means the operating covenants to be recorded against hotel properties for hotels participating in the Incentive Program, which shall include provisions regarding continuing use of the hotel as a hotel, maintenance, and non-discrimination.

"Operator" means the person who runs and operates a hotel, whether in the capacity of owner, developer, lessee, sub-lessee, mortgagee in possession, licensee, franchisee, or any other capacity, or the assignee or designee of such person.

"Shell costs" mean actual and direct third party costs of all materials, labor, and equipment associated with the renovation or expansion of the Hotel as determined by the City Manager, acting in his/her sole and absolute discretion. Items excluded from Shell Costs include, without limitation, Furniture, Fixtures and Equipment costs, architectural and engineering fees, permits and fees, legal costs, accounting costs, taxes, sales or lease commissions, marketing expenses, initial operating capital and other indirect costs, as well as developer or hotel operator overhead.

"Tax sharing agreement" means an agreement between the Operator and the City setting forth the details and obligations of the parties to renovate a Hotel according to the approved Business Plan and receive transient occupancy tax increment as set forth in this Chapter.

"Transient occupancy" means a stay of no more than thirty consecutive calendar days.

"Transient occupancy tax" means the tax established by and paid to the City pursuant to Chapter 3.24 of this code.

"Transient occupancy tax base" means the historical production of transient occupancy tax by an existing hotel calculated as the average transient occupancy tax per year based on the prior three years or prior twelve months, whichever is greater, of reported transient occupancy tax due to the City, then subsequently adjusted on an annual basis based on the San Francisco Area Consumer Price Index – All Urban Consumers published by the U.S. Bureau of Labor Statistics.

"Transient occupancy tax increment" means, on an annual basis, the difference between the transient occupancy tax base and the amount of transient occupancy tax actually received by the City from the approved existing hotel after renovation. It is determined by reference to actual receipts by the City of transient occupancy tax from the improved approved hotel. Under no circumstances shall the City be liable for any reimbursement of transient occupancy tax increment not actually received and permanently retained by the City.

"Transient occupancy tax sharing" means the rebate from the City to the operator of an approved hotel of a portion of that hotel's transient occupancy tax increment, as determined each year for which the tax sharing agreement is valid. The payment of the approved hotel's portion of the transient occupancy tax increment shall be paid to the approved hotel within 30 days after the annual anniversary date of the tax sharing agreement.

"Under construction" means that all necessary discretionary entitlements have been approved by the City, grading and building permits have been issued, inspection approvals by the City of grading and foundations to grade level have been obtained, and vertical construction of hotel rooms has begun.

3.26.030 Participation requirements.

A. To participate in the Hotel Renovation Incentive Program, the operator of any existing eligible hotel which plans a renovation to improve the hotel facility must:

1. Complete and submit to the City Manager an application for participation in the Incentive Program on the City's official Incentive Program application form;

2. Submit a Business Plan in writing documenting at a minimum 1) planned improvements to the hotel property, and 2) an estimate of revenues and expenditures for the operation of the hotel through the term of the Hotel Renovation Incentive Program and transient occupancy tax sharing agreement.

3. Allow the City to inspect the existing hotel to determine that the improvements contemplated by the Business Plan, which are the justification for the transient occupancy tax sharing, do not already exist, and, upon demand of the City, provide the City with such evidence of the approved business' intention and ability to proceed to construct the necessary improvements or make the necessary purchases, as are reasonably satisfactory to the City;

4. Receive approval for participation in the Incentive Program from the City Council;

5. Enter into a transient occupancy tax sharing agreement in the form approved by the City which shall include provisions for payment of, and adherence to, prevailing wage requirements, and a commitment to use good faith efforts to hire local residents and contract with local subcontractors, suppliers and other local businesses for property improvements;

6. Execute and record against the hotel property the operating covenants provided in Section 3.26.050;

7. Execute an indemnification agreement in a form approved by the City; and

8. Upon completion of the subject improvements or purchases and before transient occupancy tax sharing commences, to allow the City to inspect the approved business to verify that in fact the contemplated improvements and/or purchases have been made and completed so as to enable the business to increase its occupancy and/or room rate.

B. Required Level of Improvements for Eligibility

1. Minimum Furniture, Fixture and Equipment Costs of not less than $10,000 per guestroom.

2. In addition to the Furniture, Fixture and Equipment expenditures, Shell/Property Improvements totaling at a minimum, $15,000 per guestroom.

3. Expenses related to hotel expansion projects are eligible expenses provided they are qualifying Shell Costs or Furniture, Fixture and Equipment costs.

3.26.040 City Council Authority; Incentives.

A. The City Council is authorized to enter into transient occupancy tax sharing agreements and required recordation of operating covenants with hotel operators who have demonstrated eligibility and satisfied all Incentive Program participation requirements.

B. The term of the Incentive Program shall be for 20 years from the date an eligible hotel has been approved for participation by the City Council and completes renovations.

C. From the first year through the tenth year of the date of Incentive Program participation approval and completed renovations, the hotel operator shall receive an amount of transient occupancy tax increment equal to 85% of the transient occupancy tax increment submitted to the City for the prior year.

D. Starting at the eleventh year and continuing through the fifteenth year of Incentive Program participation, the hotel operator shall receive an amount of transient occupancy tax increment equal to 65% of the transient occupancy tax increment submitted to the City for the prior year.

E. Starting at the sixteenth year and continuing through the twentieth year of Incentive Program participation, the hotel operator shall receive an amount of transient occupancy tax increment equal to 50% of the transient occupancy tax increment submitted to the City for the prior year.

3.26.050 Operating covenants.

Each operator of a hotel which enters into a transient occupancy tax sharing agreement with the City shall record against the participating hotel property the following operating covenants, to run with the land:

A. Continuing Use and Operation. During the hotel's participation in the transient occupancy tax sharing Incentive Program, the operator covenants and agrees for itself, its successors, assigns or designees, to continually operate and use the hotel property as a hotel. None of the rooms in the hotel will at any time be utilized as a non-transient residential property or rental periods that exceed 30 days, with the exception of senior living units, which may still qualify for the Incentive Program so long as they meet all other requirements of the Program. No part of the hotel will at any time be owned by a cooperative housing corporation. All uses conducted on the hotel property shall conform to all ordinances, statutes, rules and regulations of the City, the county of Nevada and the state of California.

B. Maintenance. During the hotel's participation in the transient occupancy tax sharing Incentive Program, the operator covenants and agrees for itself, its successors, assigns or

designees, to continually maintain and repair or cause to be maintained and repaired, the hotel property, including, but not limited to, buildings, structures, parking areas, lighting, signs, and landscaping, to be in good condition conforming to all applicable laws, including all applicable provisions of the City's Municipal code and to hotel industry standards applicable to that type of hotel, and shall keep the hotel property free from any accumulation of debris or waste materials.

C. Nondiscrimination. During the hotel's participation in the transient occupancy tax sharing Incentive Program, the operator covenants and agrees for itself, its successors, assigns or designees, that the hotel and any of its employees shall not discriminate against any person on the basis of sex, gender, gender identity, gender expression, marital status, domestic partnership status, sexual orientation, race, color, religion, ancestry, national origin, or disability.

3.26.060 General fund revenues.

All transient occupancy tax revenues or transient occupancy tax increment remitted to the City by an operator of a hotel which enters into a transient occupancy tax sharing agreement with the city shall be deemed general fund revenues of the City and shall be deposited in the City's general fund.

3.26.070 Termination of tax sharing.

The City may terminate the transient occupancy tax sharing agreement on ten days' notice if the operator violates any of the operating covenants, provided that such violation or violations continue to exist at the end of said ten-day period. Specifically, without limiting the generality of the foregoing, a failure to pay to the City, in a timely manner and in the correct amount, the transient occupancy tax which the operator collects shall permit the City to terminate the transient occupancy tax sharing agreement. The City shall give notice to the operator as required by the terms of the transient occupancy tax sharing agreement.

3.26.080 Administrative rules and regulations.

Consistent with the intent and goals of this chapter, the City Manager may adopt administrative rules and regulations for implementation and furtherance of the requirements of this chapter.

3.26.090 Limitation of remedy.

Upon any default of City, the Hotel Operator's remedy shall be limited to specific performance and monetary damages shall not be available. A term to that effect shall be included in the tax sharing agreement and/or operating covenants.

3.26.100 Records retention.

The Hotel Operator shall retain all Hotel financial records, whether audited or unaudited, regarding the Hotel's revenues subject to City's Transient Occupancy Tax during the term of the Tax Sharing Agreement plus five years. The Hotel Operator agrees to make the Hotel's financial records regarding the Hotel's revenues subject to City's Transient Occupancy Tax available to the City within 30 days of a written request for City audit purposes. Once the requested financial records have been supplied and reviewed or audited, the Hotel Operator's obligation to provide those financial records and subsequent retention shall cease.

3.26.110 Program sunset provision.

This Hotel Renovation Incentive Program shall terminate as to the acceptance of new approvals to the Program from participant Hotels five years after the effective date of the adopting ordinance, unless extended by the City Council.

PASSED AND ADOPTED at a regularly scheduled meeting of the City Council of the city of Nevada City , State of California, on _____, 2016, by the following vote:

AYES:

NOES:

ABSENT:

_____
Evans Phelps, Mayor

Attest:_____
Niel Locke, City Clerk

I, Niel Locke, duly deputized City Clerk of the City of Nevada City, California, do hereby certify that the above is a true and correct copy of Ordinance No. 2016-XX duly passed and adopted by the City council of the City of Nevada City on the ____ day of _____, 2016.

_____
Niel Locke, City Clerk

REPORT TO CITY COUNCIL

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

November 30, 2016

TITLE: Agreement between the City of Nevada City and Inn Town Development LLC to Convey Property and Allow Parking on City Property

RECOMMENDATION: Pass a Motion authorizing the Mayor to sign an Agreement between the CITY OF NEVADA CITY, owner of Railroad Museum property, and INN TOWN DEVELOPMENT LLC, owner of the Inn Town Campground, to convey property and allow parking on City property.

CONTACT: William J. Falconi, Assistant City Engineer

BACKGROUND / DISCUSSION: The City is owner of property at 5 Kidder Court consisting of 1.7 acres improved with the Nevada County Narrow Gauge Railroad Museum. Inn Town Development LLC is the owner of adjacent property at 9 Kidder Court consisting of 15.1 acres improved and operated as a campground.

The City needs additional property on the north side of its property to add and make proposed additions to the Railroad Museum and its exhibits and the Inn Town Campground needs access to additional nighttime overflow parking nearby for its guests. **Museum board members and owners of Inn Town Campground mutually agree with the terms of the attached agreement.** The agreement further describes Inn Town Campground's use of Off-Street Parking Spaces on City Property and Conveyance of a portion of the Inn Town Campground property to the City.

ENVIRONMENTAL CONSIDERATIONS: Reviewed as part of the campground approval process.

FISCAL IMPACT: The conveyance of property to the City of Nevada City will result in little to no maintenance costs to the City and has equity land value associated with use and expansion of the adjacent museum facilities.

ATTACHMENT:

- ✓ Agreement between the City of Nevada City and Inn Town Development LLC to Convey Property and Allow Parking on City Property
- ✓ Maps (sheets 1 & 2)

AGREEMENT BETWEEN THE CITY OF NEVADA CITY AND INN TOWN DEVELOPMENT LLC TO CONVEY PROPERTY AND ALLOW PARKING ON CITY PROPERTY

THIS AGREEMENT is made and entered into by and between the **CITY OF NEVADA CITY**, owner of Railroad Museum property, ("CITY") and **INN TOWN DEVELOPMENT LLC,** owner of the Inn Town Campground ("INN TOWN CAMPGROUND").

RECITALS

WHEREAS, CITY is the owner of property at 5 Kidder Court (APN 37-050-67) consisting of 1.7 acres improved with the Nevada County Narrow Gauge Railroad Museum open to the public Thursday through Monday from 10:00 a.m. to 4:00 p.m. together with outside exhibits and off-street parking consisting of 32 parking spaces accessed from Kidder Court; and

WHEREAS, INN TOWN CAMPGROUND is the owner of adjacent property at 9 Kidder Court (APN 37-050-66) consisting of 15.1 acres improved and operated as a campground with seventy (70) sites available to the public for rental for RVs, Trailers, Glamping and Tent Sites overnight or for periods not to exceed fourteen (14) nights, with daily check-in time of 3:00 p.m. and check-out time of 11:00 a.m.; and

WHEREAS, CITY needs additional property on the north side of its property to add and make proposed additions to the Railroad Museum and its exhibits and the INN TOWN CAMPGROUND needs access to additional nighttime overflow parking nearby for its guests; and

WHEREAS, INN TOWN CAMPGROUND is not making use of and has no plans for the additional property needed by CITY and the off-street parking on CITY's property underutilized during the evening and morning hours:

NOW, THEREFORE, THE PARTIES MUTUALLY AGREE as follows:

1.<u>USE OF OFF-STREET PARKING SPACES ON CITY PROPERTY</u>: In consideration of conveyance of a portion of the INN TOWN CAMPGROUND property to CITY as hereinafter provided, CITY hereby grants to the INN TOWN CAMPGROUND permission to use its off-street parking facilities at 5 Kidder Court for overflow overnight guest parking during the hours of 5:00 p.m. to 9:30 a.m., **provided that this use shall not interfere with or take precedence over the City's free use of its property for any purpose including special events.** CITY shall give at least five (5) days advance notice of any special events planned that would restrict parking available pursuant to this Agreement.

2.<u>CONVEYANCE OF LAND</u>: In consideration of being allowed use of off-street parking on CITY's property as provided herein, INN TOWN CAMPGROUND agrees to

grant and convey to CITY eleventh hundredths (0.11) of an acre of its property as shown on Exhibit “A”, attached hereto and incorporated by such reference. This conveyance may be accomplished by a lot line adjustment reflected in the official records of the office of the County Recorder for Nevada County and the parties agree to cooperate in requesting and securing approval of such a lot line adjustment and its recordation.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates hereinafter set forth.

DATED:_____ INN TOWN DEVELOPMENT LLC

By:_____

Its:_____

DATED:_____ CITY OF NEVADA CITY

By:_____

Mayor, City of Nevada City

APPROVED AS TO FORM:

_____

City Attorney for Nevada City

CITY OF NEVADA CITY LOT LINE ADJUSTMENT FILE NO. _____

RECORD OF SURVEY

FOR INN TOWN DEVELOPMENT, LLC

BEING A PORTION OF LOTS 16 AND 19 OF SECTION 18,
TOWNSHIP 16 NORTH, RANGE 9 EAST, MOUNT DIABLO MERIDIAN
WITHIN CITY OF NEVADA CITY, NEVADA COUNTY, CALIFORNIA

ALSO BEING THE REMAINDER PARCEL AS SHOWN ON RECORD OF SURVEY, RECORDED IN BOOK 12, PAGE 217, OFFICIAL RECORDS NEVADA COUNTY, OFFICIAL RECORDS NEVADA COUNTY

SEPTEMBER, 2016 SCALE: 1"=60'

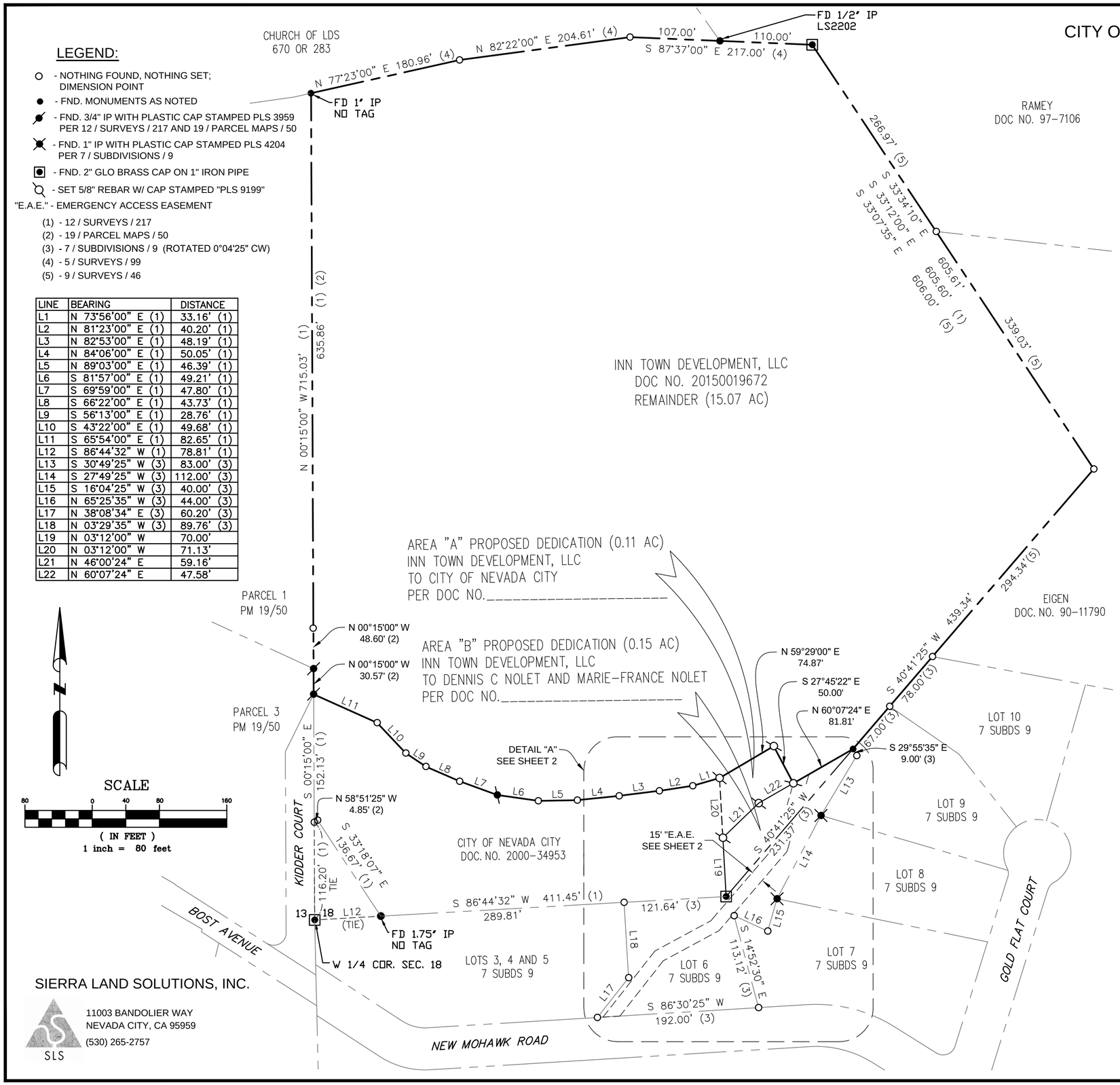
LEGEND:

- ○ - NOTHING FOUND, NOTHING SET; DIMENSION POINT
- ● - FND. MONUMENTS AS NOTED
- - FND. 3/4" IP WITH PLASTIC CAP STAMPED PLS 3959 PER 12 / SURVEYS / 217 AND 19 / PARCEL MAPS / 50
- - FND. 1" IP WITH PLASTIC CAP STAMPED PLS 4204 PER 7 / SUBDIVISIONS / 9
- - FND. 2" GLO BRASS CAP ON 1" IRON PIPE
- - SET 5/8" REBAR W/ CAP STAMPED "PLS 9199"

"E.A.E." - EMERGENCY ACCESS EASEMENT

(1) - 12 / SURVEYS / 217
(2) - 19 / PARCEL MAPS / 50
(3) - 7 / SUBDIVISIONS / 9 (ROTATED 0°04'25" CW)
(4) - 5 / SURVEYS / 99
(5) - 9 / SURVEYS / 46

LINE	BEARING	DISTANCE
L1	N 73°56'00" E (1)	33.16' (1)
L2	N 81°23'00" E (1)	40.20' (1)
L3	N 82°53'00" E (1)	48.19' (1)
L4	N 84°06'00" E (1)	50.05' (1)
L5	N 89°03'00" E (1)	46.39' (1)
L6	S 81°57'00" E (1)	49.21' (1)
L7	S 69°59'00" E (1)	47.80' (1)
L8	S 66°22'00" E (1)	43.73' (1)
L9	S 56°13'00" E (1)	28.76' (1)
L10	S 43°22'00" E (1)	49.68' (1)
L11	S 65°54'00" E (1)	82.65' (1)
L12	S 86°44'32" W (1)	78.81' (1)
L13	S 30°49'25" W (3)	83.00' (3)
L14	S 27°49'25" W (3)	112.00' (3)
L15	S 16°04'25" W (3)	40.00' (3)
L16	N 65°25'35" W (3)	44.00' (3)
L17	N 38°08'34" E (3)	60.20' (3)
L18	N 03°29'35" W (3)	89.76' (3)
L19	N 03°12'00" W	70.00'
L20	N 03°12'00" W	71.13'
L21	N 46°00'24" E	59.16'
L22	N 60°07'24" E	47.58'



SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS' ACT AT THE REQUEST OF DANIEL THIEM IN NOVEMBER, 2015.

_____
BRYAN MCALISTER, P.L.S. 9199 DATE
RENEWAL DATE: 3-31-17

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE PROFESSIONAL LAND SURVEYORS' ACT THIS _____ DAY OF _____, 20_____.

BY: _____
KEVIN J. NELSON, PLS 8423
COUNTY SURVEYOR
LICENSE EXPIRES 12-31-2016

RECORDER'S STATEMENT

FILED THIS_____DAY OF_____, 2016, AT_____.M. IN BOOK_____OF MAPS, AT PAGE_____ , PLACER COUNTY RECORDS,

AT THE REQUEST OF SIERRA LAND SOLUTIONS, INC.

DOCUMENT NO. 2016-_____

FEE: _____

_____
GREGORY J. DIAZ
NEVADA COUNTY CLERK-RECORDER

BY:_____
DEPUTY

NOTES:
BUILDINGS, SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO SUBJECT PROPERTY SURVEYED, ARE NOT SHOWN.

BASIS OF BEARINGS
THE MERIDIAN OF THIS SURVEY IS IDENTICAL TO THAT RECORD OF SURVEY RECORDED IN BOOK 12 AT PAGE 217, OFFICIAL RECORDS, NEVADA COUNTY AND WAS DETERMINED FROM MONUMENTS SHOWN HEREON AS FOUND.

SIERRA LAND SOLUTIONS, INC.
SLS
11003 BANDOLIER WAY
NEVADA CITY, CA 95959
(530) 265-2757

SHEET 1 OF 2

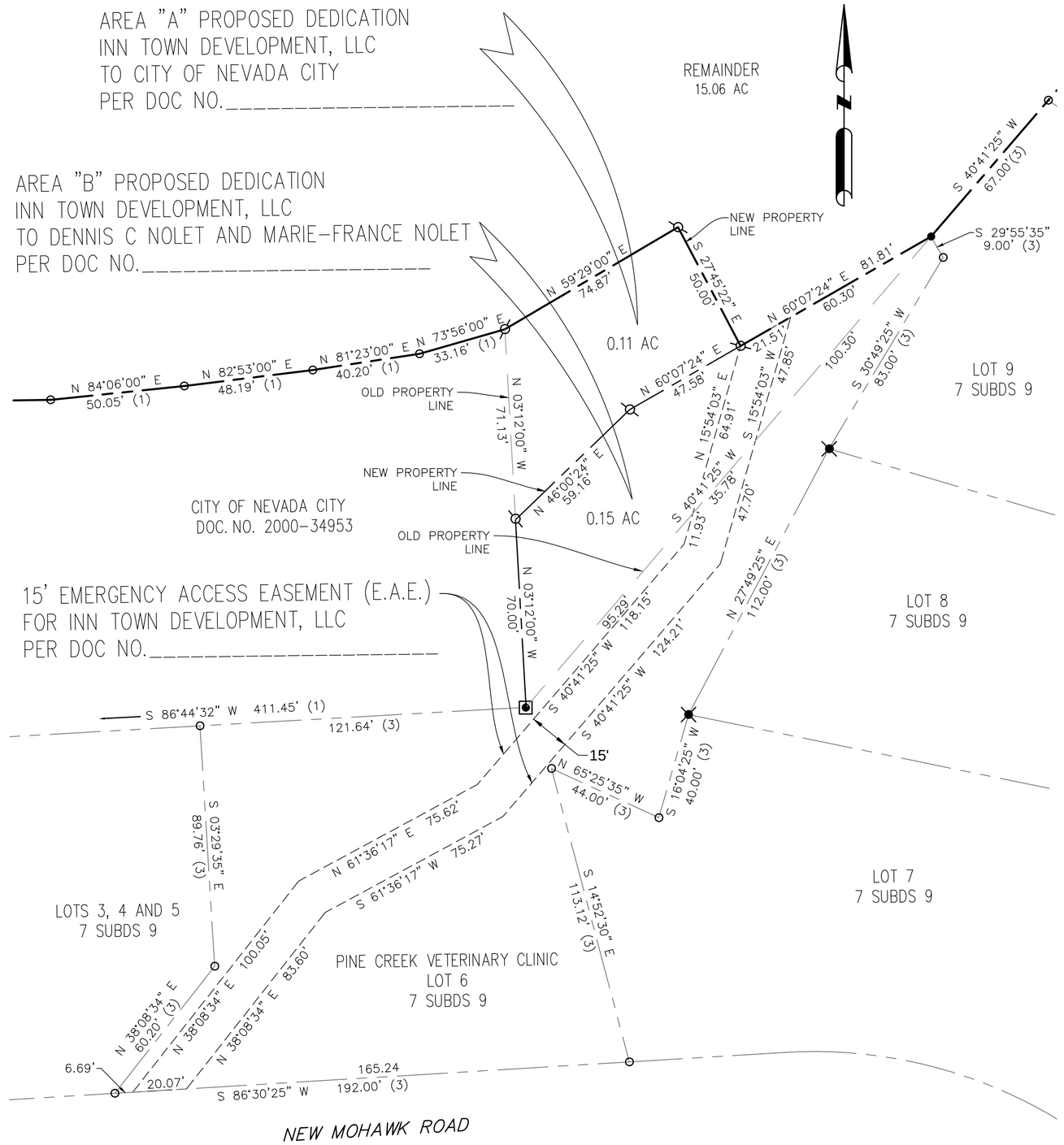
LEGEND:

- ○ - NOTHING FOUND, NOTHING SET; DIMENSION POINT
- ● - FND. MONUMENTS AS NOTED
- - FND. 1" IP WITH PLASTIC CAP STAMPED PLS 4204 PER 7 / SUBDIVISIONS / 9
- - FND. 2" GLO BRASS CAP ON 1" IRON PIPE
- - SET 5/8" REBAR W/ CAP STAMPED "PLS 9199"

"E.A.E." - EMERGENCY ACCESS EASEMENT

(1) - 12 / SURVEYS / 217

(3) - 7 / SUBDIVISIONS / 9 (ROTATED 0°04'25" CW)



DETAIL "A"

SCALE: 1"=30'

SIERRA LAND SOLUTIONS, INC.

SLS

11003 BANDOLIER WAY
NEVADA CITY, CA 95959
(530) 265-2757

SHEET 2 OF 2

REPORT TO CITY COUNCIL

November 30, 2016

City of Nevada City
317 Broad Street
Nevada City, CA 95959
www.nevadacityca.gov

TITLE: Request for Continuance for the Appeal of the Planning Commission Decision to Deny the Use Permit Application by Verizon Wireless to Install eight (8) cellular antennas to various points of the rooftop of 109 North Pine Street

RECOMMENDATION: Provide direction to either: 1) If the City Council is satisfied that Verizon's request to continue the appeal of their Use Permit is necessary to investigate alternative sites, continue the Verizon Appeal to be heard at the requested March 8, 2017 City Council Meeting; or 2) Set the date to hear the appeal of the Planning Commission's decision to deny the Use Permit on December 14, 2016.

CONTACT: Amy Wolfson, City Planner

BACKGROUND: In September 2016, the Planning Commission voted to deny the Use Permit Application of Epic Wireless, LLC acting on behalf of Verizon, to install eight (8) cellular antennas to various points of the rooftop of 109 North Pine Street. The applicant timely filed an appeal application on September 30, 2016 and at the same time requested that staff not agenize the appeal until January 2017. Staff had some concerns with this request to delay the appeal for the requested length of time for the following two reasons: 1) a delayed appeal may give the impression to those members of the public who have been following this project that an appeal was not filed; and 2) staff is concerned that there could be pending legislation expected to be resolved within the coming months that might benefit the applicant's appeal request.

A request to continue the appeal at a City Council meeting provides the public and Council a chance to comment on that request in an open and transparent manner rather than having staff make that decision. Staff has provided notice to those who had previously expressed an interest in this project. The notice provided is merely advisory in order to address concern no 1. However, the applicant has not provided a response to address concern no. 2. Setting the date to hear the appeal on December 14 would mitigate this concern.

CONTINUATION REQUEST: Because necessary noticing has not taken place, no action on whether to approve or deny the appeal may take place at this meeting. However, staff has advised that the applicant may request a continuance of their appeal application. Most recently, they have advised that a date in March 2017 would be sufficient to adequately investigate alternative sites for antenna placement.

FINANCIAL CONSIDERATIONS: Not applicable.

ATTACHMENTS:

- ✓ Verizon Use Permit Continuance Request
- ✓ September 19, 2016 Planning Commission Denial Letter

MACKENZIE & ALBRITTON LLP
220 SANSOME STREET, 14TH FLOOR
SAN FRANCISCO, CALIFORNIA 94104

TELEPHONE 415/288-4000
FACSIMILE 415/288-4010

November 21, 2016

VIA EMAIL AND FEDEX

Mayor Evans Phelps
Vice Mayor Duane Strawser
Council Members David Parker,
Valerie Moberg and Reinette Senum
City Council of Nevada City
317 Broad Street
Nevada City, California 95959

Re: Verizon Wireless Use Permit Application
Telecommunications Facility, 109 North Pine Street
City Council Agenda, November 30, 2016
Appeal Submittal and Request for Continuance

Dear Mayor Phelps, Vice Mayor Strawser and Council Members:

We write on behalf of Verizon Wireless in support of its appeal of the Planning Commission's denial of a rooftop wireless telecommunication facility in downtown Nevada City (the "Proposed Facility"). The findings of denial adopted by the Planning Commission are contrary to Planning Department staff's original recommendation of approval and architectural review approval by a Planning Commission committee. Further, the findings of denial are not supported by substantial evidence as required by federal law. As we explain below, the Proposed Facility – particularly with the option for antennas to be concealed within faux chimneys – complies with all requirements of the Nevada City Code of Ordinances (the "Code") and meets all findings for approval of a use permit. Verizon Wireless has provided substantial evidence to support approval, including support of over 490 area customers in favor of improved service and the Proposed Facility. Further, the Proposed Facility will fill a significant gap in Verizon Wireless service, and there is no confirmed less intrusive feasible alternative. For these reasons, denial of the application would violate the federal Telecommunications Act. We strongly urge you to grant Verizon Wireless's appeal and approve the Proposed Facility.

Since the denial of the Proposed Facility by the Planning Commission on September 15, 2016, Verizon Wireless has been asked by the City to review alternative locations for a wireless facility to serve downtown Nevada City. In good faith, Verizon Wireless is diligently reviewing potentially feasible alternatives identified by the City on November 2, 2016 and recently reviewed on a site walk with City Manager Mark Prestwich. Verizon Wireless requires several months to complete its review of

alternatives. In order to avoid conflict with the City enforcing federal laws as described below, Verizon Wireless urges the Council – if unable to grant this appeal – to continue the matter to March 2017 to allow for review of the identified alternatives prior to deciding the appeal.

I. The Project

The Proposed Facility has been thoughtfully designed and re-designed to minimize any impact on the adjacent community. Verizon Wireless proposes to mount eight panel antennas in four pairs on the roof of a two-story commercial building. Associated transmission equipment will be placed on the rooftop below the building parapet and will not be visible from public views. Cables placed below the parapet will connect the antennas to radio equipment cabinets placed inside the building. Backup batteries inside the building will ensure continued Verizon Wireless service in case of emergency.

Verizon Wireless presented the Planning Commission with the option for antennas to be reduced from six feet to four feet in height and concealed within faux chimneys matching the brick façade of the building. A Planning Commission committee approved architectural review of the Proposed Facility without concealment at a March 17, 2016, meeting, but the Planning Commission ultimately denied a use permit for a facility with unconcealed antennas. Verizon Wireless continues to offer the concealed, faux chimney design for consideration by the City Council.

Photosimulations of the Proposed Facility with four-foot antennas concealed within faux chimneys are attached as Exhibit A. Photosimulations of the Proposed Facility with unconcealed six-foot antennas are attached as Exhibit B. A report by Hammett & Edison, Inc., Consulting Engineers, attached as Exhibit C, confirms that the Proposed Facility will comply with Federal Communications Commission ("FCC") radio frequency exposure guidelines.

II. The Planning Commission Erred and Its Denial Should Be Reversed.

Planning Department staff recommended approval of the Proposed Facility in staff reports for the June 16, 2016, and August 18, 2016, hearings, but the Planning Commission adopted findings of denial at the September 15, 2016 hearing. As described below, the Planning Commission failed to identify substantial evidence for denial, which is required by federal law. In contrast, Verizon Wireless has provided ample evidence to support approval of a use permit and adoption of a mitigated negative declaration.

A. Federal Law Requires that Denial Be Supported by Substantial Evidence.

While state and local governments retain their traditional zoning authority to regulate the placement and modification of wireless facilities, the federal Telecommunications Act places several limitations on such authority. Among these

limitations is the requirement that any decision to deny a request to install or modify a personal wireless service facility "shall be in writing and supported by substantial evidence contained in a written record." 47 U.S.C. Section 332 (c)(7)(B)(iii). As interpreted under controlling federal court decisions, the "substantial evidence" requirement means that a local government's decision to deny a WCF application must be "authorized by applicable local regulations and supported by a reasonable amount of evidence (i.e., more than a 'scintilla' but not necessarily a preponderance)." *Metro PCS, Inc. v. City and County of San Francisco,* 400 F.3d 715, 725 (9th Cir. 2005). In other words, a local government must have specific reasons that are both consistent with the local regulations and supported by substantial evidence in the record to deny a wireless facility permit.

While a local government may properly consider aesthetics, mere generalized concerns about aesthetics or neighborhood compatibility, which is all the Planning Commission provided, do not constitute substantial evidence for denial. *See City of Rancho Palos Verdes v. Abrams*, 101 Cal. App. 4th 367, 381 (2002).

As set forth below, Verizon Wireless has provided substantial evidence to show that the Proposed Facility complies with all requirements for approval under the Code. In contrast, the findings of denial adopted by the Planning Commission are not based on substantial evidence and should be reversed.

B. The Planning Commission's Denial Was Not Based on Substantial Evidence.

All four of the Planning Commission's findings of denial are based on one factor: the effect on the historic district in downtown Nevada City. However, references to detriment on "character" and "charm" are bare conclusions with no evaluation of such impacts. Alleged impacts to the economy, general welfare and property values are speculative. The Planning Commission did not substantiate such claims and ignored the option presented by Verizon Wireless to conceal antennas within faux chimneys matching the building façade.

The findings of denial also contradict the City's conclusion in its thorough Initial Study that the Proposed Facility – even with unconcealed antennas – would not damage scenic or historic resources as long as mitigation measures were incorporated. The mitigation measures proposed by a Planning Commission committee were painting unconcealed antennas gray and moving one pair of antennas slightly. The Initial Study found that "With these measures the Planning Commission was able to make the finding that the proposal will substantially conform to Mother Lode Architecture… Therefore aesthetic impacts are anticipated to be less than significant with mitigation."[1] The Initial Study also found that "…addition of cellular infrastructure on the rooftop of the building at 109 N. Pine Street is anticipated to have a less than significant impact to an historical

[1] *See Initial Study,* 109 North Pine Street, May 27, 2016, p. 8.

or archeological resource…."[2] The Initial Study represents a more methodical approach to evaluating impacts than the cursory findings of denial.

In short, the Planning Commission's denial violates federal law because it is not based on substantial evidence. In fact, the denial contradicts the City's most thorough review of the Proposed Facility.

C. The Proposed Facility Meets All Code Requirements and Required Findings for Approval, and Verizon Wireless Has Provided Substantial Evidence for Approval.

Following the Code's direction, Verizon Wireless selected a building away from the major traffic corridor, Broad Street, and placed as much of its equipment as possible out of public view, leaving only the antennas rising above the building parapet. As required under Code § 17.80.020, Verizon Wireless obtained architectural review approval by a Planning Commission committee which stipulated that one pair of antennas be moved slightly to break up massing of antennas on the southeastern corner of the building. Acknowledging the direction of Code § 17.68.020(B) to avoid "a departure from the established type of architecture" in the historical combining district, Verizon Wireless has offered to conceal the antennas within faux chimneys exactly matching the façade of the building.

Even with the unconcealed antennas under consideration, Planning Department staff found that the Proposed Facility meets all required findings for approval, as set forth in the proposed findings attached as Exhibit D (the "Proposed Findings of Approval"). Notably, the Proposed Findings of Approval determine that the Proposed Facility is "consistent with the Historic District (HD) combining district with adequate aesthetic mitigation measures in place."[3] The Proposed Findings of Approval also adopt a mitigated negative declaration based on the Initial Study with an affirmation that, with proper mitigation measures, the Proposed Facility will not pose a significant effect on the environment.

The Proposed Findings of Approval are supported by substantial evidence. As demonstrated in photosimulations, the antennas and optional faux chimneys do not block views of any structures, only posing a minimal silhouette the sky similar to chimneys on nearby other structures. For example, there are several similar-sized chimneys on the front edge of the Masonic Building directly across the street at 108 North Pine Street. There is a chimney and an antenna on the National Exchange Hotel building at 211 Broad Street. (We also note that two satellite dishes protrude from the façade of the Matteo's Public building across the street at 300 Commercial street.)

---

[2] *Id.* at 14.
[3] *See Nevada City Planning Commission Staff Report*, 109 North Pine Street, Hearing Date September 15, 2016, p. 4.

III. Radio Frequency Emissions Are Not a Local Zoning Issue.

Certain local residents have objected to the Proposed Facility based on generalized fears of the health effects of radio frequency emission, and the Planning Department's "Current Projects" web page for the Proposed Facility contains links to videos provided by a Grass Valley resident that raise unsubstantiated alarm over RF emissions.[4] However, local governments may not consider any alleged health or environmental effects of RF emissions of proposed WCFs "to the extent such facilities comply with the FCC's regulations concerning such emissions." 47 U.S.C. §332(c)(7)(B)(iv). The Hammett & Edison report confirms that the Proposed Facility will comply with FCC exposure guidelines.

Moreover, federal preemption goes beyond decisions that are explicitly based on RF emissions. It also bars efforts to circumvent such preemption through some proxy such as aesthetics or property values. *See, e.g., AT&T Wireless Servs. of Cal. LLC v. City of Carlsbad,* 308 F. Supp. 2d 1148, 1159 (S.D. Cal. 2003) (in light of federal preemption, "concern over the decrease in property values may not be considered as substantial evidence if the fear of property value depreciation is based on concern over the health effects caused by RF emissions"). Where, as here, a wireless facility will comply with FCC guidelines, neither health concerns, nor any proxy for health concerns, can justify rejection of the Proposed Facility.

IV. Approval is Required in Order to Avoid Unlawful Prohibition of Service.

A local government's denial of a permit for a wireless facility violates the "effective prohibition" clause of the Telecommunications Act if the wireless provider can show two things: (1) that it has a "significant gap" in service; and (2) that the proposed facility is the "least intrusive means," in relation to the land use values embodied in local regulations, to address the gap. *See T-Mobile USA, Inc. v. City of Anacortes,* 572 F.3d 987 (9th Cir. 2009).

If a provider demonstrates both the existence of a significant gap, and that the proposed facility meets the "least intrusive means" standard, the local government *must* approve the facility, even if there is substantial evidence to deny the permit under local land use provisions. This is because the provider has met the requirements for federal preemption; i.e., denial of the permit would "have the effect of prohibiting the provision of personal wireless services." 47 U.S.C. §332(c)(7)(B)(1)(ii); *T-Mobile v. Anacortes,* 572 F.3d at 999. To avoid such preemption, the local government must show that another alternative is available, technologically feasible, and less intrusive than the proposed facility. *T-Mobile v. Anacortes*, 572 F.3d at 998-999.

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[4] *See* https://web.archive.org/web/20161030133913/http://nevadacityca.gov/pview.aspx?id=20767&catid=564

A. Verizon Wireless Has Demonstrated a Significant Gap in Service.

Verizon Wireless has identified a significant gap in service in downtown Nevada City and the greater vicinity, as described in the *Statement of Verizon Wireless Radio Frequency Engineer Jennifer Valencia* attached as Exhibit E (the "RF Engineer's Statement"). As shown through coverage maps included in the RF Engineer's Statement, there is a significant gap in Verizon Wireless coverage in Nevada City, affecting local residents, visitors and travelers on important roadways. The RF Engineer's Statement also demonstrates that existing Verizon Wireless facility serving the area has reached capacity exhaustion, compromising network reliability and resulting in slow data speeds and poor connectivity. Further, Verizon Wireless has received text messages of support from 490 residents in the Nevada City area, as documented in a letter from a Verizon Wireless marketing director attached as Exhibit F. These text messages of support provide additional evidence of the need for improved Verizon Wireless service in the area.

B. The Proposed Facility is the Least Intrusive Means to Fill the Significant Gap in Service and Verizon Wireless Must Complete Its Review of Alternatives Recently Offered by the City.

In an effort to address the significant gap, Verizon Wireless initially evaluated numerous locations in the vicinity for placement of a new facility. Verizon Wireless discounted locations that are infeasible, cannot serve the significant gap or are more intrusive, determining that the Proposed Facility is the least intrusive feasible alternative.

As noted above, on November 2, 2016, the City provided Verizon Wireless with a list of eight new alternatives to consider, including City-owned properties. Verizon Wireless has commenced evaluation of these alternatives to assess feasibility and ability to serve its significant gap in service. As Verizon Wireless does not anticipate that its review of these new alternatives will conclude until early 2017, we request that if the Proposed Facility is not approved at the November 30, 2016, hearing, the Council continue the appeal hearing to March 2017.

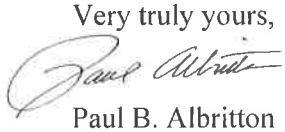
It would be premature for the Council to deny the Proposed Facility without evidence that any suggested alternative has been confirmed to be both feasible and less intrusive. Federal case law has established that when a wireless provider files an action in federal court claiming a prohibition of service, the court may consider additional evidence beyond the administrative record. *See, e.g., Industrial Tower and Wireless, LLC v. David Haddad,* 109 F.Supp.3d 284, 297 (D. Mass 2015). Also, when comparing the locations of the Proposed Facility to other potential alternatives, it is important to note that federal law does not require that a site be the "only" alternative, but rather that no feasible alternative is less intrusive than the Proposed Facility. *See MetroPCS v. San Francisco*, 400 F.3d 715, 734-35 (9th Cir. 2005).

In short, Verizon Wireless has identified a significant gap in coverage, and under the current record, the Proposed Facility is the least intrusive means to address it, based on the values expressed in the Code. Under these circumstances, denial of the Proposed Facility would constitute an unlawful prohibition of service.

Conclusion

Verizon Wireless has worked diligently to identify the ideal location for a wireless facility to provide improved service in Nevada City. The Proposed Facility is consistent with all requirements of the Code and meets all required findings for issuance of a use permit. Bringing improved Verizon Wireless service to this area is essential to the health, safety, and welfare of residents, visitors and emergency services providers in the surrounding community. We strongly encourage you to grant Verizon Wireless's appeal and approve the Proposed Facility. If for any reason the City Council believes it must deny this appeal, then we urge you to continue the public hearing until March 2017 to allow Verizon Wireless to complete its review of alternative locations proposed by the City and avoid conflicts under federal law.

Very truly yours,



Paul B. Albritton

cc: Harold DeGraw, Esq.
Amy Wolfson

Schedule of Exhibits

Exhibit A: Photosimulations of Proposed Facility with Antennas Concealed in Faux Chimneys
Exhibit B: Photosimulations of Proposed Facility with Unconcealed Antennas
Exhibit C: Statement of Hammett & Edison, Inc., Consulting Engineers Regarding Radio Frequency Exposure Compliance
Exhibit D: Proposed Findings of Approval Prepared by Planning Department Staff
Exhibit E: RF Engineer's Statement
Exhibit F: Letter from Verizon Wireless Marketing Director Regarding 490 Supporters for Proposed Facility

Photosimulations of Faux Chimney Design Option
Antennas Concealed

Exhibit A

Existing

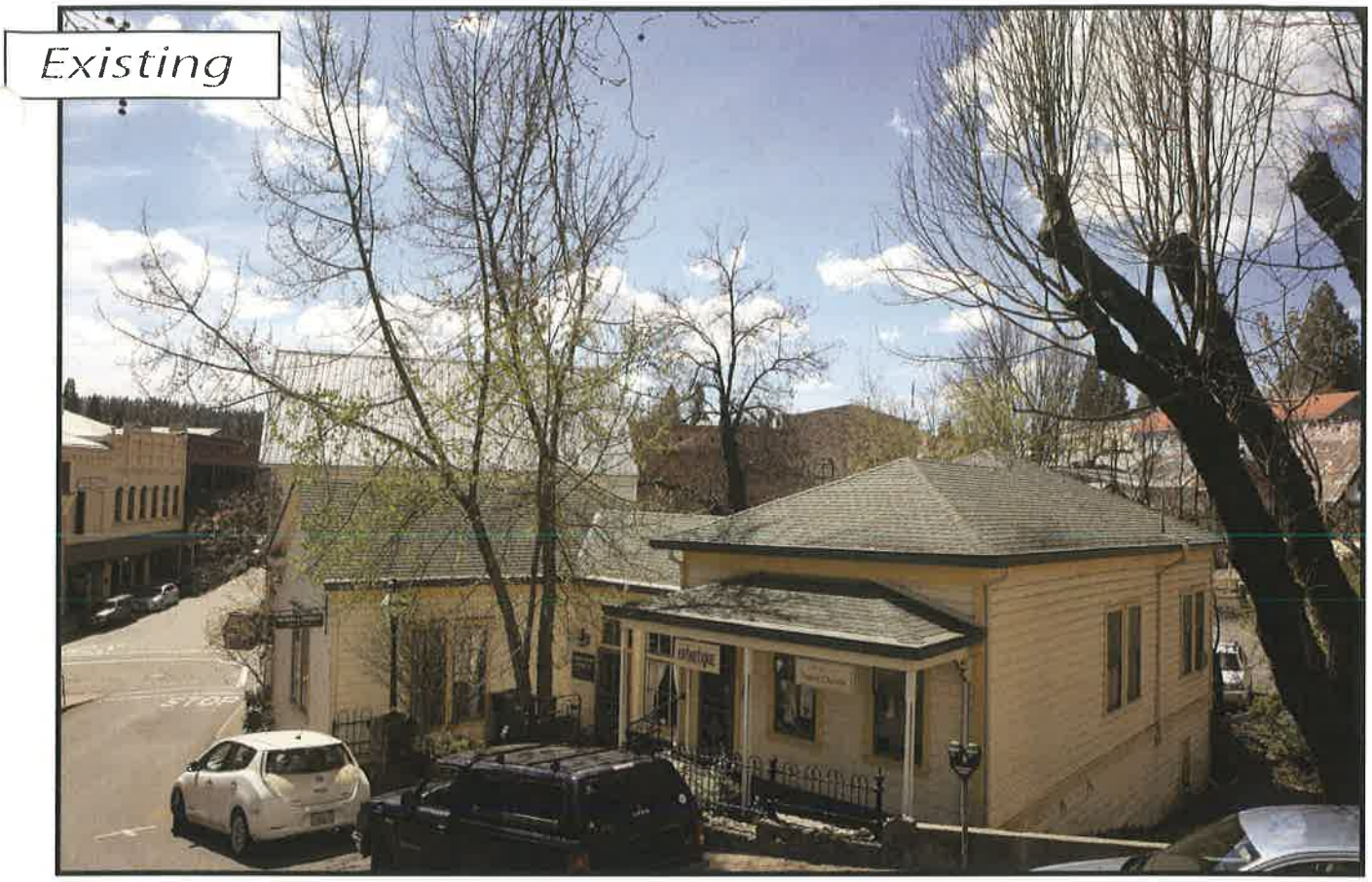
Proposed

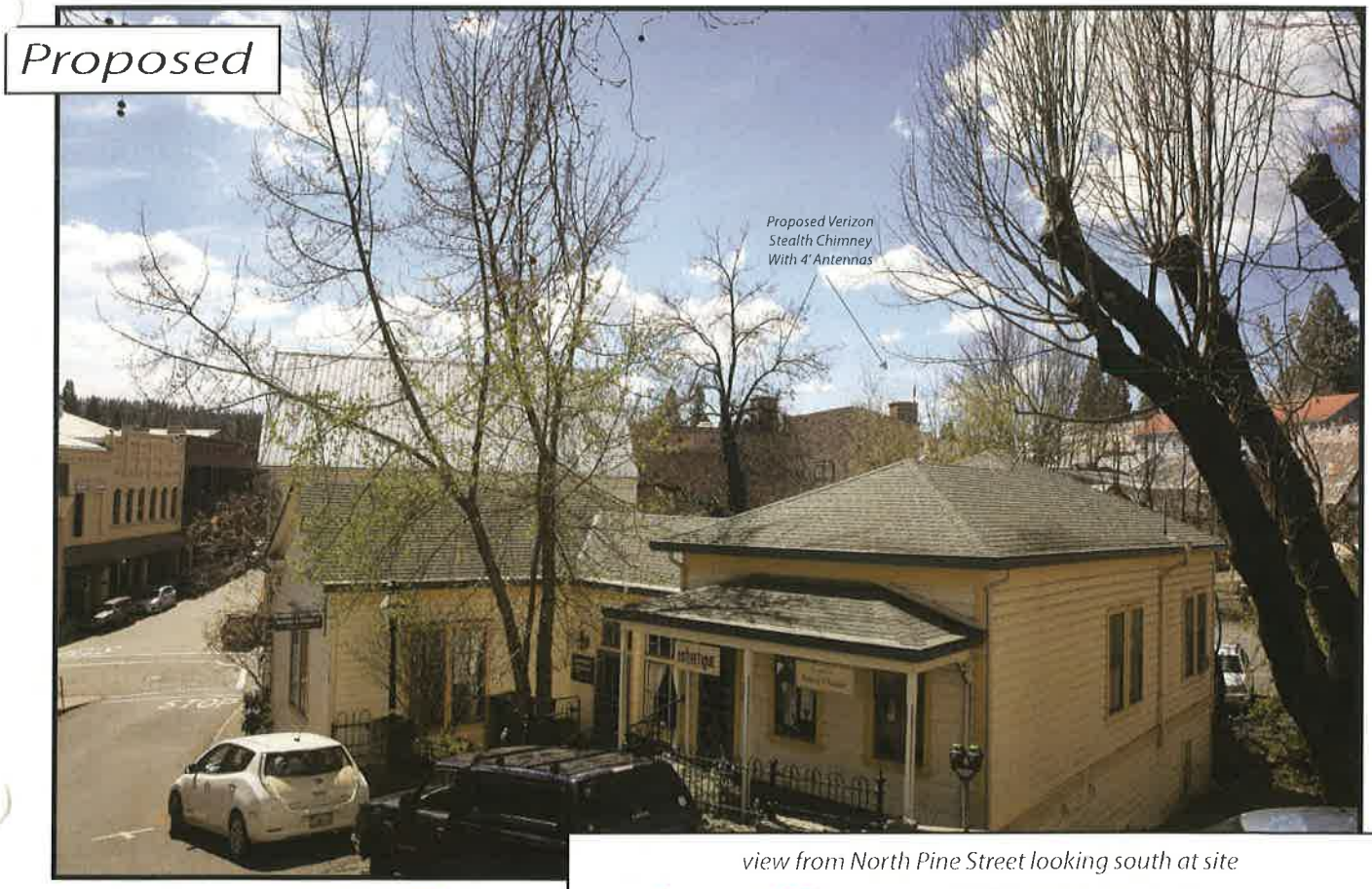
view from Commercial Street looking west at site

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

verizon





AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from North Pine Street looking south at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Broad Street looking north at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Commercial Street looking east at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Photosimulations of Facility with Unconcealed Antennas
(This design denied by Planning Commission)

Exhibit B

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

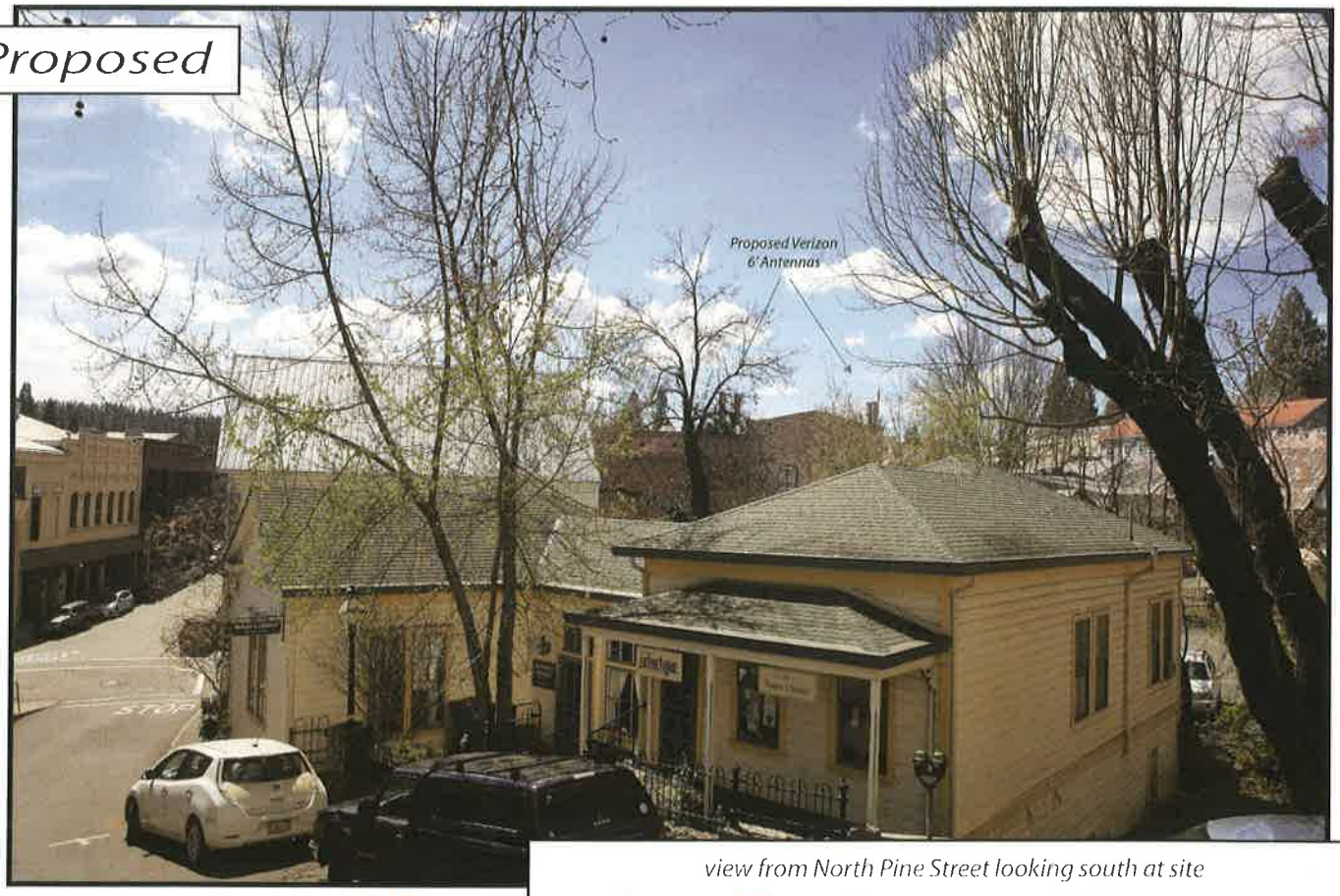
view from Commercial Street looking west at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing

Proposed



AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from North Pine Street looking south at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Existing

Proposed

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Broad Street looking north at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

AdvanceSim
Photo Simulation Solutions
Contact (925) 202-8507

view from Commercial Street looking east at site

verizon

278749 Historic Nevada City
109 North Pine Street, Nevada City, CA
Photosims Produced on 8-10-2016

Exhibit C

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 278749 "Historic Nevada City") proposed to be located at 109 North Pine Street in Nevada City, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas above the roof of the three-story commercial building located at 109 North Pine Street in Nevada City. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy; certain mitigation measures are recommended to comply with FCC occupational guidelines.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm^2	1.00 mW/cm^2
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A

small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by Borges Architectural Group, Inc., dated April 25, 2016, it is proposed to install eight Andrew Model SBNHH-1D45B directional panel antennas on short poles above the roof of the three-story Friar Tuck's Restaurant and Bar, located at 109 North Pine Street in Nevada City. The antennas would employ up to 6° downtilt, would be mounted at an effective height of about 46 feet above ground, 6 feet above the roof, and would be oriented in pairs toward 30°T, 105°T, 195°T, and 280°T, away from the building. The maximum effective radiated power in any direction would be 15,440 watts, representing simultaneous operation at 6,910 watts for AWS, 6,350 watts for PCS, and 2,180 watts for 700 MHz service; no operation on cellular frequencies is presently proposed from the site. There are reported no other wireless telecommunications base stations, at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.061 mW/cm^2, which is 6.7% of the applicable public exposure limit. The maximum calculated level at any nearby building* is 7.1% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation. Levels may exceed the applicable public exposure limit on the roof of the subject building, in front of the antennas.

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* Including the adjacent building.

Recommended Mitigation Measures

It is recommended that the roof access ladder and hatch be kept locked, so that the Verizon antennas are not accessible to unauthorized persons. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use and lockout/tagout procedures, be provided to all authorized personnel who have access to the roof, including employees and contractors of Verizon and of the property owner. No access within 18 feet directly in front of the Verizon antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that the boundary lines be marked on the roof with blue and yellow paint to identify areas in which exposure levels are calculated to exceed the public and occupational FCC limits, respectively, as shown in Figure 3. It is recommended that explanatory signs† be posted at the roof access ladder, at the roof access hatch, and at the antennas, readily visible from any angle of approach to persons who might need to work within that distance.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 109 North Pine Street in Nevada City, California, can comply with the prevailing standards for limiting human exposure to radio frequency energy and, therefore, need not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations. Locking the roof access ladder and hatch is recommended to establish compliance with public exposure limits; training authorized personnel, marking roof areas, and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

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† Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2017. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM F. HAMMETT
E-13026
M-20676
Exp. 6-30-2017
ELECTRICAL
MECHANICAL
STATE OF CALIFORNIA

William F. Hammett, P.E.
707/996-5200

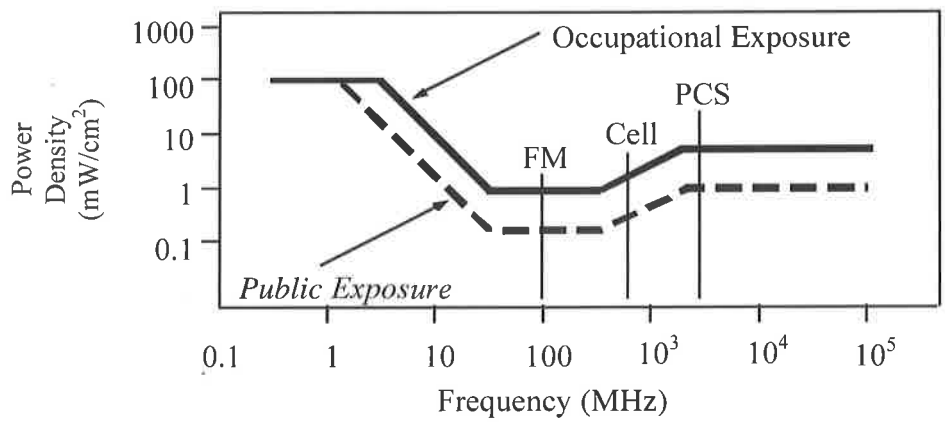
May 19, 2016

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/f*	1.63	*2.19/f*	100	*180/f²*
3.0 – 30	1842/ f	*823.8/f*	4.89/ f	*2.19/f*	900/ f²	*180/f²*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	3.54√f	*1.59√f*	√f /106	*√f/238*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

$$\text{power density } S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}, \text{ in mW/cm}^2,$$

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

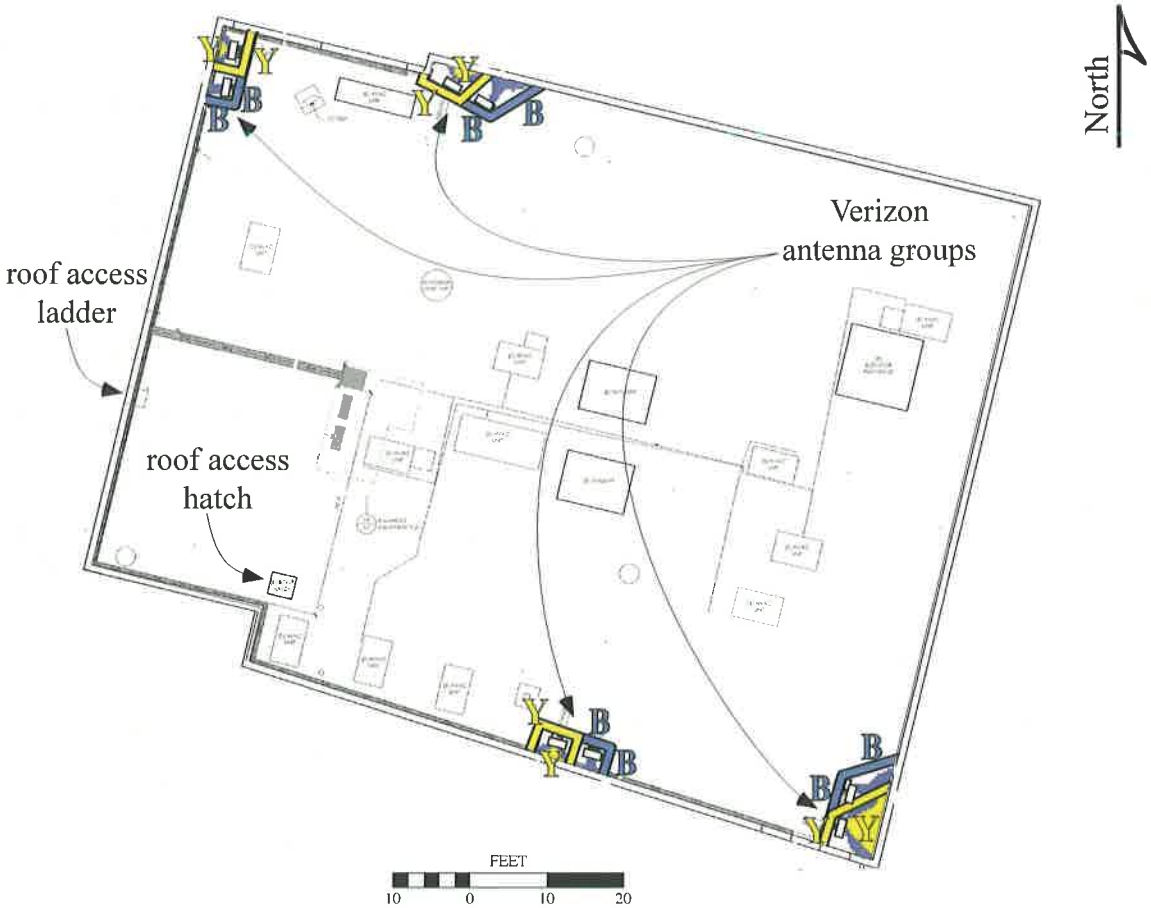
The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

Verizon Wireless • Proposed Base Station (Site No. 278749 "Historic Nevada City")
109 North Pine Street • Nevada City, California

Calculated RF Exposure Levels on Roof

Recommended Mitigation Measures

- Lock roof access ladder and hatch
- Mark boundaries as shown
- Post explanatory signs
- Provide training



Notes: See text.
Base drawing from Borges Architectural Group, Inc., dated April 25, 2016.
Calculations performed according to OET Bulletin 65, August 1997.

Legend:	Less Than Public	Exceeds Public	Exceeds Occupational	Exceeds 10x Occupational
Shaded color	N/A			
Boundary marking	N/A			
Sign type	I - Green INFORMATION	B - Blue NOTICE	Y - Yellow CAUTION	O - Orange WARNING

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

T9GZ.2
Figure 3

RECOMMENDED FINDINGS FOR APPROVAL:

In approving this application staff recommends the Planning Commission take the following actions:

I. Adopt a Mitigated Negative Declaration for the proposed cellular infrastructure project, making findings A-C:

A. The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major period of California history or prehistory.

B. That although the proposed project could have a significant effect on the environment (without proper precautions and preparations), there will not be a significant effect in this case because mitigation measures and conditions of approval have been attached to the project, and agreed to by the project proponents, and the project does not have impacts that are individually limited but cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

C. That the project does not have environmental effects which will cause substantial adverse effects on human beings either directly or indirectly.

II. Approve the proposed Use Permit subject to the attached Conditions of Approval shown in Attachment 1, or as may be modified at the public hearing, making findings, A-D, pursuant to Sections 17.88.20 of the Nevada City Municipal Code:

A. The proposed use, as conditioned is consistent with the purposes of the General Business (GB) base zoning district which allows public and quasipublic uses with an approved use permit and is consistent with the Historic District (HD) combining district with adequate aesthetic mitigation measures in place;

B. The proposed use as conditioned will not jeopardize, adversely affect, or be detrimental to public health, safety, and welfare or to the surrounding property and residents;

C. Adequate public facilities and public services exist within the project area and are available to serve the project without decreasing service levels to other area;

D. The conditions provided in Attachment 1 are deemed necessary to protect the public health, safety, and general welfare.

Exhibit E

verizon
295 Parkshore Drive
Folsom, CA 95630

November 21, 2016

To: City Council, Nevada City

**From: Jennifer Valencia, Radio Frequency Design Engineer,
Verizon Wireless Network Engineering Department**

Subject: Statement in Support of Verizon Wireless's Proposed Telecommunications Facility, 109 North Pine Street

Executive Summary

Verizon Wireless has identified a significant gap in its fourth-generation long-term evolution (LTE) service in Nevada City. This area currently receives inadequate LTE service coverage from the existing Verizon Wireless Nevada City facility located 0.55 miles northwest of the proposed facility and the Banner Mountain facility 3.1 miles southwest.

As a result of the distance of existing facilities and demands on the existing network, there is an absence of LTE service coverage in Nevada City, particularly in the downtown area and areas along Highway 20. Further, accelerated growth in voice and data usage by Verizon Wireless customers has increased the demand on the existing Verizon Wireless network in a manner that compromises network accessibility and reliability. This accelerating growth in demand has led to capacity exhaustion of a critical Verizon Wireless facility serving the gap area.

Verizon Wireless is expanding its fourth-generation LTE service in the Nevada City area. To meet demand, Verizon Wireless's existing 3G network is being replaced with the more efficient and higher-speed fourth-generation LTE technology. The majority of Verizon Wireless's LTE service – approximately 70 percent – is provided using AWS spectrum, which requires facilities closer together and closer to the end user in order to provide reliable LTE service. Verizon Wireless also provides 30 percent of its LTE sevice in the 700 MHz spectrum.

The coverage gap and capacity gap described below constitute the "significant gap" Verizon Wireless seeks to serve (the "Significant Gap"). To provide reliable LTE coverage and avoid further degradation of Verizon Wireless service in Nevada City, the Significant Gap must be remedied through construction of a rooftop facility at 109 North Pine Street (the "Proposed Facility").

Coverage Gap

Verizon Wireless is experiencing a gap in LTE in-building coverage including all of downtown Nevada City extending beyond Cottage Street to the north as well as commercial and residential areas along Highway 20 between the Highway 49 interchange and the Sacramento Street interchange. The in-building coverage gap includes numerous commercial and government buildings as well as residences. Further, a larger area lacks in-vehicle service, notably a one-half mile stretch of Highway 20 between Coyote Street and Manzanita Diggins Drive (including the Highway 49 interchange) with 17,600 vehicle trips per day.[1] (Collectively, the "Coverage Gap")

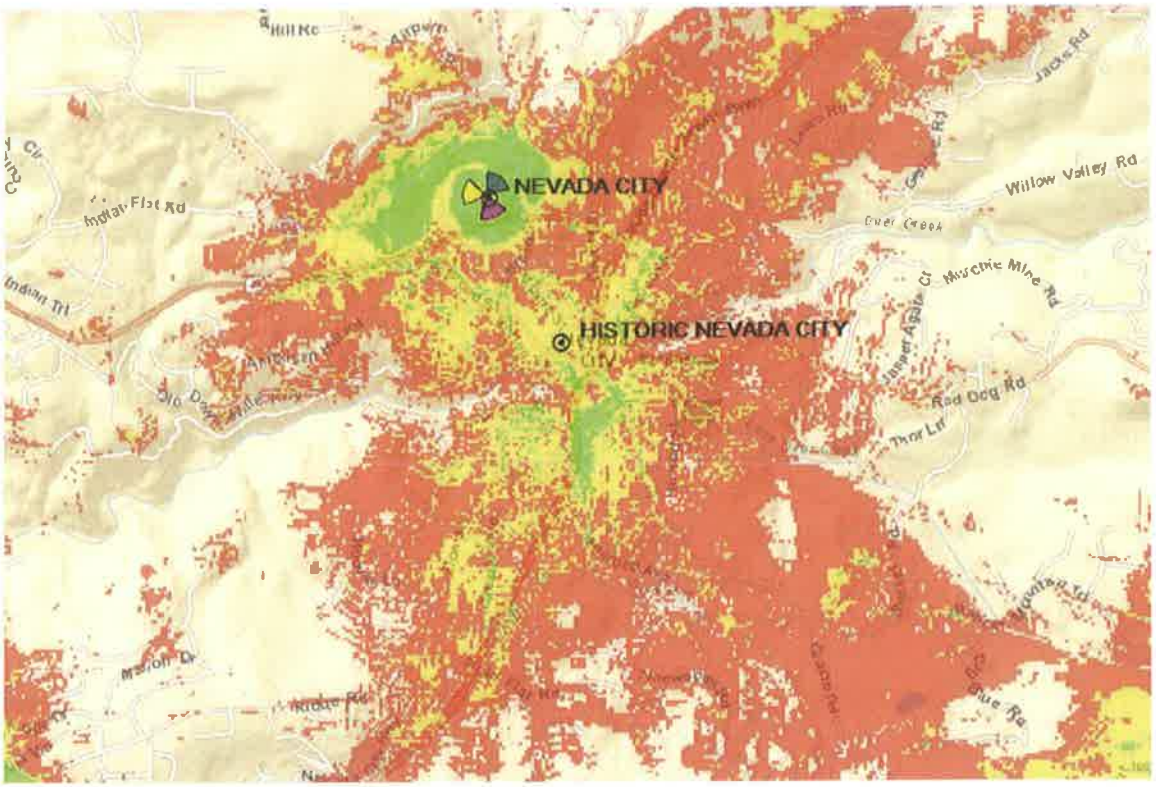
A graphic description of the current Coverage Gap is shown in the map below. The Proposed Facility will provide new reliable LTE service to an area of approximately 5.4 square miles and a population of 3,194 residents as well as workers and visitors in the area.

Coverage plot maps like that below provide important information regarding the anticipated level of signal, and therefore the projected coverage provided by a site at a given location. The areas in green reflect good coverage that meets or exceed thresholds to provide consistent and reliable network coverage in homes and in vehicles. The areas in yellow and red depict decreasing levels of coverage, respectively, with yellow areas generally representing reliable in-vehicle coverage, and red areas depicting poor service areas with marginal coverage unsuitable for in-vehicle use. Areas in white receive unreliable service levels.

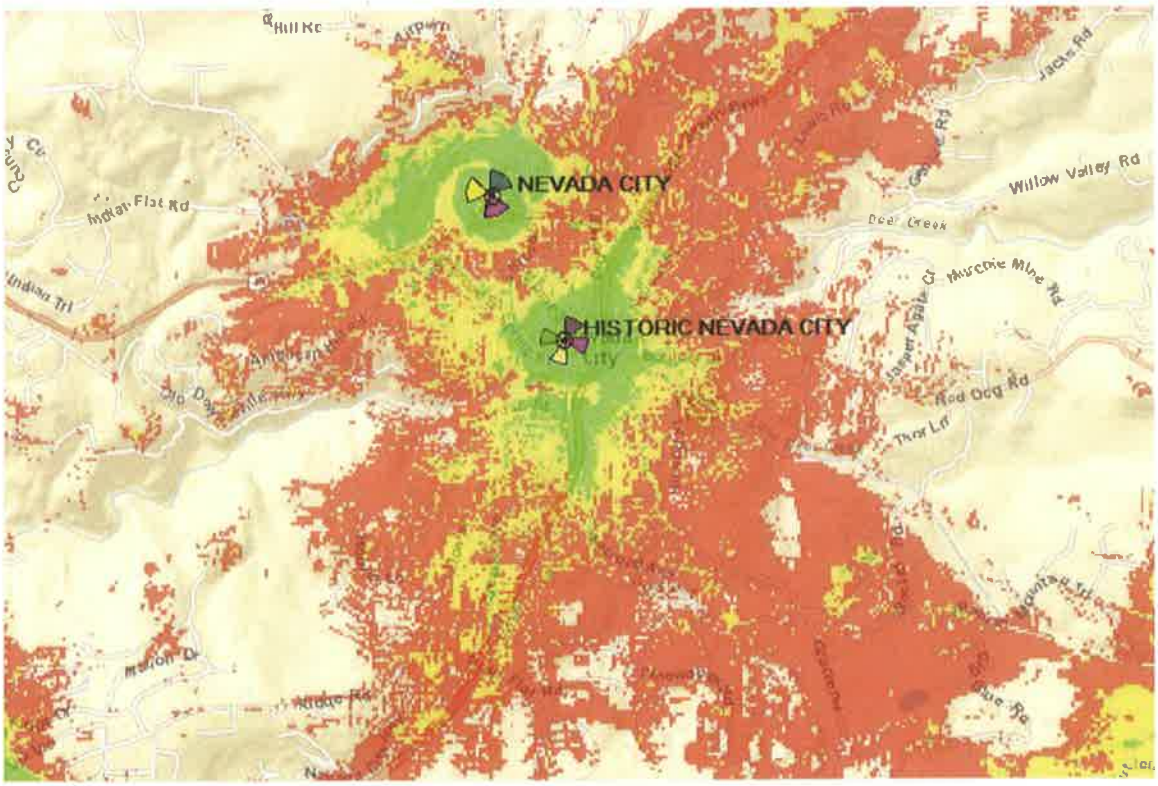
See Coverage Maps on Following Page

[1] CalTrans *2014 Traffic Volumes on California State Highways*.

Current AWS Coverage Map



Proposed AWS Coverage Map



Capacity Gap

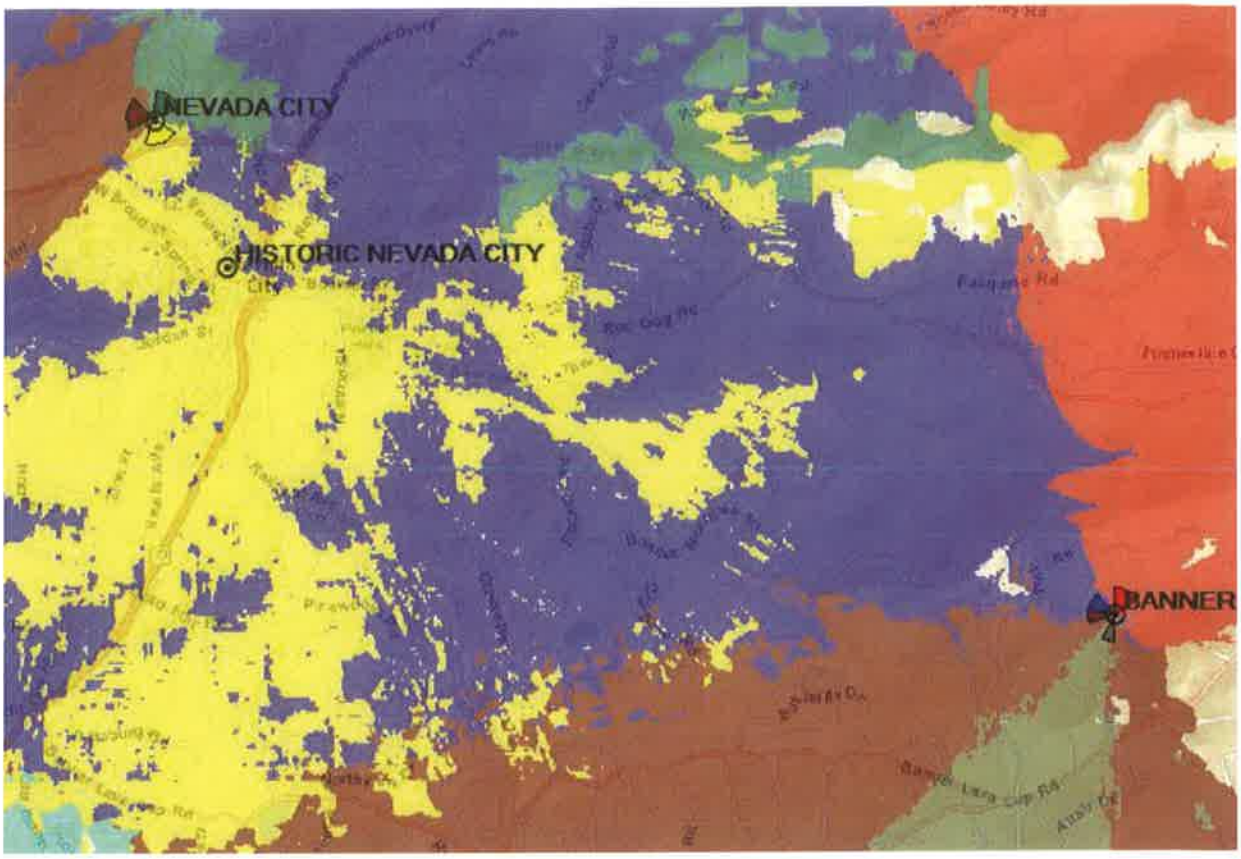
As described above, the identified gap area is served by the existing Verizon Wireless Nevada City facility, with limited unreliable service provided by the distant Banner Mountain facility. This is apparent in the following best server plots. Best server plots depict the dominant signal provided by each nearby Verizon Wireless facility. Signal from each antenna sector of these facilities is depicted in a different color.

Of note, the Nevada City facility southeast-facing antenna sector (shown in yellow) serves a large area including much of the gap, and as described below, that antenna sector has reached capacity exhaustion. The Banner Mountain west-facing antenna sector – over three miles distant – serves a broad area of Nevada County. As depicted on the existing best server plot, neither of these antenna sectors provides a strong dominant signal to downtown Nevada City or Highway 20; the signals are intermixed. The lack of dominant signal compromises system performance for Verizon Wireless customers, particularly those in transit.

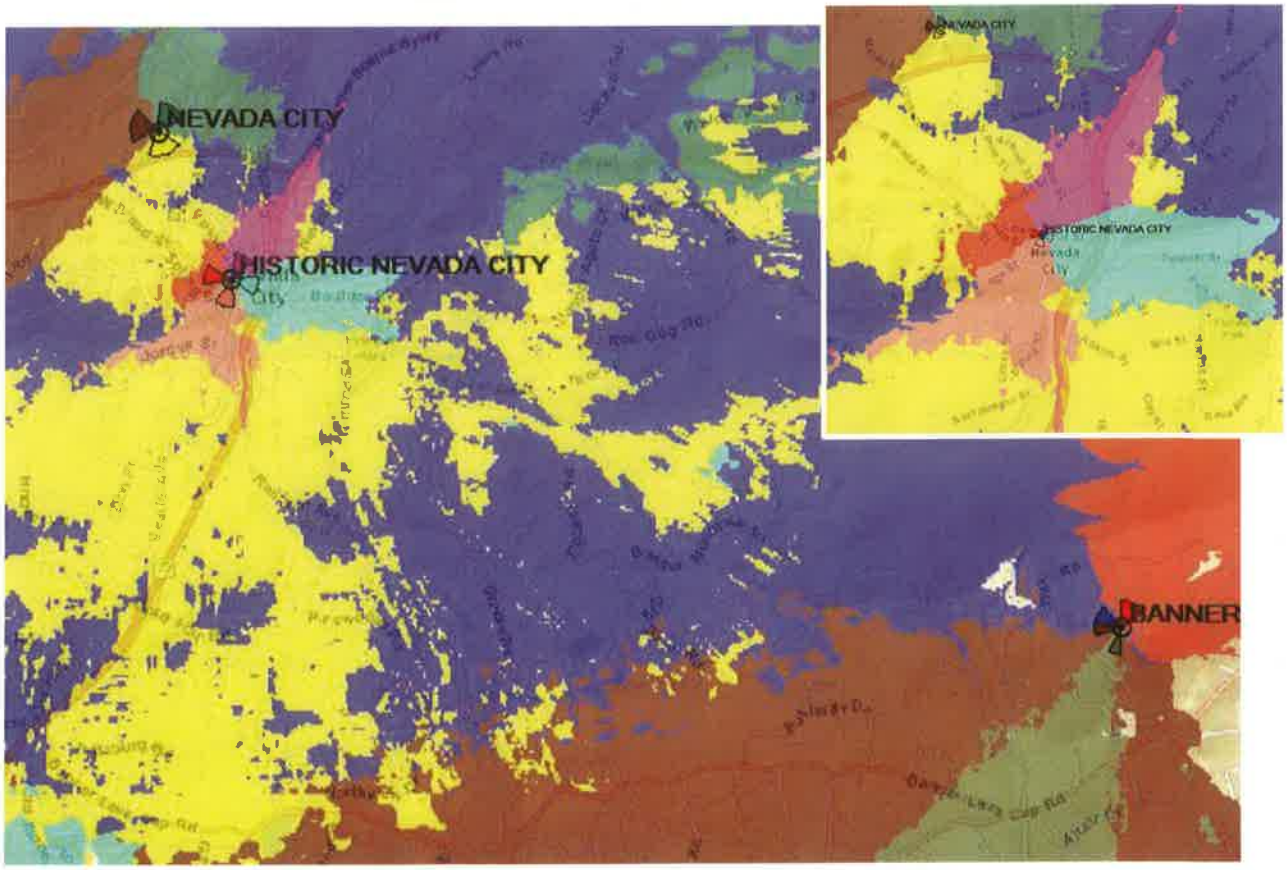
As shown on the proposed best server plot, the Proposed Facility is located such that all four of its antenna sectors will provide a dominant signal to the gap area, substantially relieving the exhausted Nevada City facility southeast-facing antenna sector. The Proposed Facility will provide dominant signal to the downtown area as well as critical stretches of Highway 20 that currently lack a dominant signal.

See Best Server Plots on Following Page

Current AWS Best Server Plot

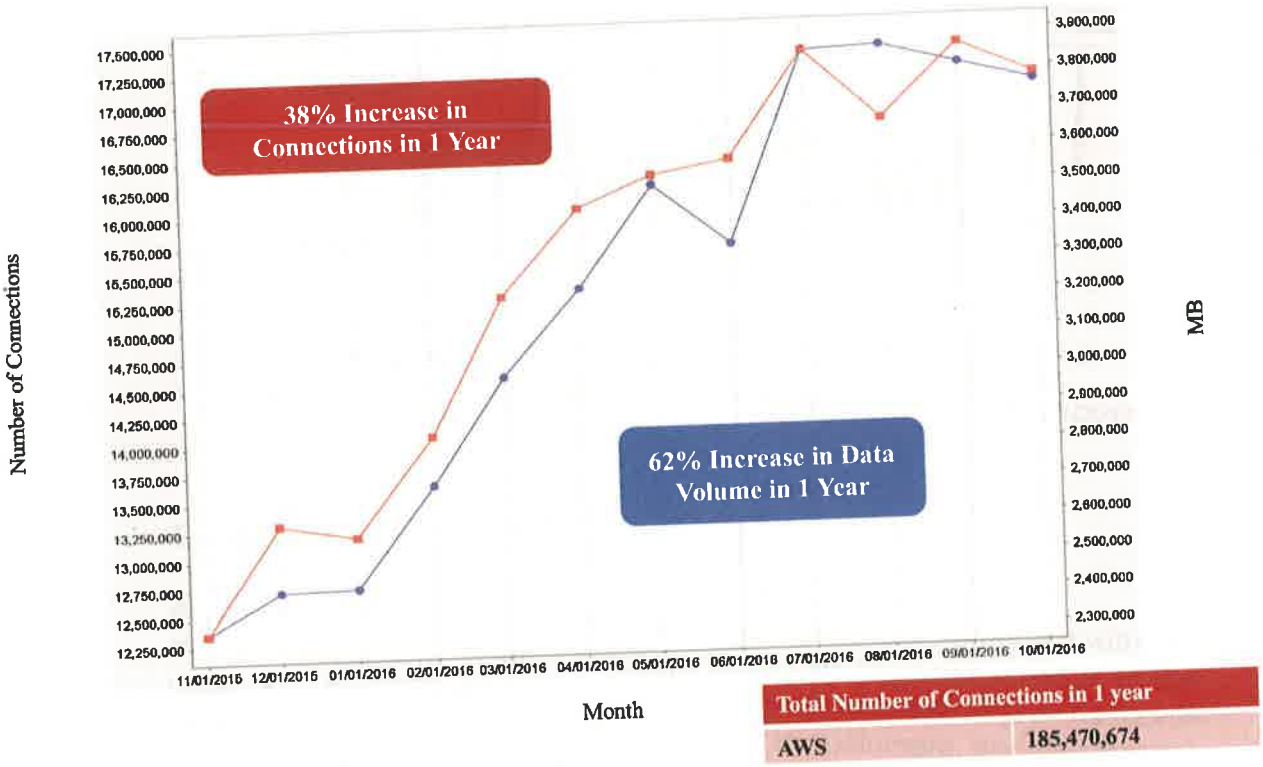


Proposed AWS Best Server Plot



At times of high traffic volume, the coverage area of the surrounding Verizon Wireless facilities shrinks to accommodate an increasing number of mobile devices closer to that facility. As a result, the Coverage Gap area is actually enlarged during times of high customer usage. In addition, the volume of voice and data services used by Verizon Wireless customers has been increasing rapidly over time, nearly doubling every year.[2] The following chart demonstrates the rapid increase in connections and data volume in Verizon Wireless AWS spectrum in the Nevada City area over the last year.

Connections v. Data Volume by Month, AWS Band



Total Number of Connections in 1 year	
AWS	185,470,674

Verizon Wireless has modified its existing facilities in an effort to maximize the capacity available; however, as shown in the chart below, increased demand for voice and data services has already outstripped the capacity of the existing Verizon Wireless Nevada City facility southeast-facing antenna sector (shown in yellow on the best server plots) that currently provides service to much of the coverage gap area.

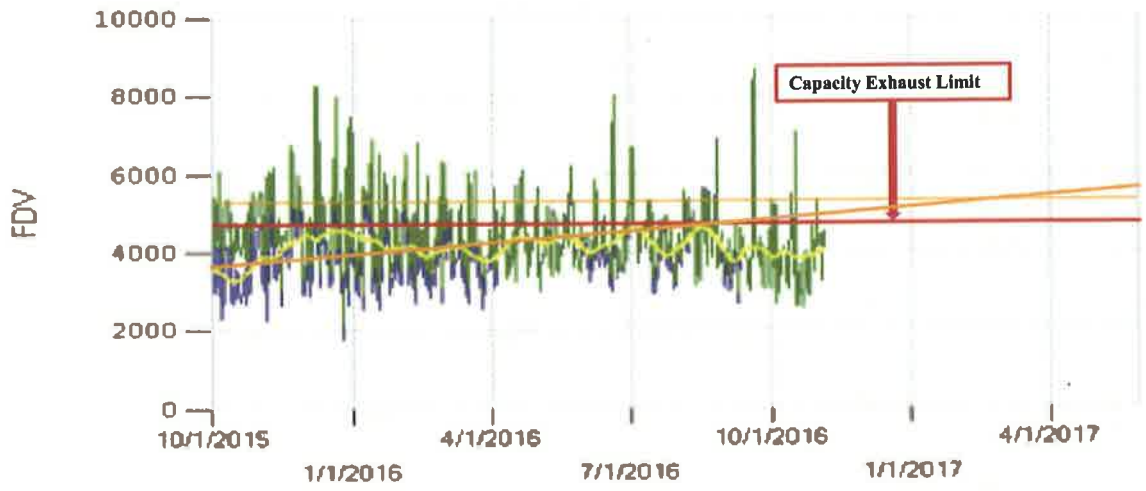
The below graph shows the increased usage over the last year as well as predicted usage of AWS spectrum through mid-2017 for the existing Nevada City facility southeast-facing antenna sector. FDV (Forward Data Volume) is the total volume of data the antenna sector is carrying.

By comparing the trend line of increasing usage (orange line) with the absolute maximum capacity throughput and spectrum availability of this existing facility (red line), Verizon Wireless RF engineering demonstrates that the Nevada City

[2] *Federal Communications Commission Report & Order 14-153*, October 17, 2014, ¶ 7.

facility southeast-facing antenna sector reached capacity exhaustion in mid-2016. Capacity exhaustion severely compromises the Verizon Wireless network serving the downtown area and areas along Highway 20, leading to call failures and slow data speeds (the "Capacity Gap").

Capacity Chart
Existing Nevada City Facility
Southeast-Facing Antenna Sector



Conclusion

As cellular networks mature, distant sites must be supplemented with more sites closer to customers, in large measure due to the increase in usage of the network. The LTE technology used by Verizon Wireless to provide fourth-generation service requires facilities closer to customers, and this technology cannot be provided by the current distant sites. These coverage and capacity demands have resulted in the Significant Gap in Verizon Wireless LTE coverage and network capacity in Nevada City. Verizon Wireless must deploy the Proposed Facility to provide the LTE service coverage required by customers and to avoid further degradation of its network in the area of the identified Significant Gap.

Please feel free to contact me with any questions or comments regarding Verizon Wireless's proposed facility.

Respectfully submitted,

Jennifer Valencia
RF Design Engineer

Exhibit F

Verizon Wireless
15505 Sand Canyon Ave, Bldg. D
Irvine, CA 92618

August 31, 2016

Planning Commission
Nevada City
317 Broad Street
Nevada City, California 95959

Re: 490 Supporters for Verizon Wireless Facility
109 North Pine Street, Nevada City

Dear Commissioners:

I am the Verizon Wireless Marketing Director over the team that maintains and manages all data and information messages that are sent to Verizon Wireless customers in California. In connection with the application referred to above, Verizon Wireless arranged for a text message to be sent to customers with billing addresses within the ZIP code 95959 in Nevada City. The entire text message sent reads as follows:

> Free VZW Message: Reply YES to this text to show your support for improved Verizon Wireless service in Nevada City. Add a message to tell the City that you support a rooftop facility on the County Probation Building at 109 N. Pine St. Include your email address for updates.

The text message above was sent on August 25, 2016. As of August 29, 2016, we have received 490 affirmative text message responses indicating support for the proposed facility and 76 respondents opposed. Text messages received confirmed the need to provide improved Verizon Wireless service in Nevada City. Samples of the text messages of support received from Verizon Wireless customers appear on the attached pages.

I am available to verify the above information as you may require.

Sincerely,

Jeremy McCarty
Director
Customer Relationship Management

Attachment

Sample Text Messages of Support
for Verizon Wireless Facility
109 North Pine Street, Nevada City

' yes, better wireless service in Nevada City!

Better verizon coverage would be greatly welcome. Totally support rooftop facility on the county probation building

Great idea forsure

I am strongly FOR the towers. We need good coverage for emergency services and no REPUTABLE study ties the them to cancer.

I support a rooftop facility in Nevada city I am on board you have my yes

I support a rooftop facility on the county probation building at 109 N Pine Street. Thank you,s

I support a rooftop facility on the County Probation Department at 109 No. Pine St., Nevada City Cheryl

I support improved wireless service in Nevada city ?=?

I support the rooftop antennas on top of the friar tuck building in Nevada City. we need better cell service.

I would love a rooftop facility for more bars

Much needed, consider the needs of tourists visiting our town.

Please improve cell service with a rooftop facility

Please my Internet is awful and planning on switching to cricket in the fall

The service is awful out here please put up more towers! Thank you

There are dead zones all over and a tower would help a lot !!!

Would love to see better service with a rooftop facility on Pine St. Thanks.

YES I support this tower!!!

YES Please help improve cellphone/wireless connectivity by allowing a rooftop antenna on top of 109 N Pine Street in Nevada City.

Yes - please put up the favility

Yes ..I support the facility to improve service in the downtown sector.The nay sayers have no

factual data to support their cry.

Yes and I support a rooftop facility on the county probation building at 109 N. Pine St.

Yes I agree. We need better cell coverage in NC. Why not cooperate?

Yes I support better wireless service in Nevada City. I support the rooftop facility on the country probation building.

Yes I support the antennas in dntn NC Alternatives are ridiculous

YES I support the tower on the county probation building

Yes I support this?=?_

Yes I support Verizon improvement.

Yes I would love better service in my area.

YES I would support a rooftop facility on the County Probation Building to improve Verizon wireless service in Nevada City

Yes I'm supporting the rooftop facility

Yes I support a rooftop facility at 109 n pine st in Nevada city.

Yes I support the rooftop facility @ 109 n. Pine street

Yes Nevada City must improve cell reception for enhanced business opportunity.

Yes please increase our service by providing a roof top facility on the county probation building Thank you

YES Please!! We need better service to be a competitive place for professionals to live!

Yes to improves verizon wireless in nevada city.

Yes to rooftop facility in nc.

Yes to wireless rooftop facility in Nevada

Yes we need a cell tower to improve the cell reception .

YES we need better phone service and this location will have little visual impact

Yes yay thank you & yes, please keep adding towers!

Yes yes please give us better service for safety and fire reporting please

Yes, please add stronger Verizon cell service in Nevada City!

YES, for the safety of everyone please improve the cell service in Nevada City

Yes, fully support rooftop cell facility on County Probation Building at 109 N. Pine St.

YES, I support a rooftop facility on the County Probation Bldg at 109 N. Pine Street.

Yes, i support better cell reception in NC and outlying areas.

Yes, I use verizon for my only phone.

Yes, let's do it. Improve the service.

Yes, please allow a rofftop facility as this is long overdue

Yes, Please improve Verizon services in Nevada City.

Yes, please!!

Yes, the city of Nevada City must approve this needed improvement. There is no reason not too!

Yes, yes, yes!!!!! I support the rooftop facilities.

Yes! Anything to improve cell phone reception in this area would be a good thing.

Yes! I support rooftop service at the County Probation Building in Nevada City!

Yes! I support the rooftop installation of a cellular facility. It is safe and needed for our business and consumer communities!

Yes! It's about time. Let's do it!

Yes! Please add tower.

Yes! Please do this! Our mountain town needs it

Yes! Please improve service in Nevada City, Ca or your Verizon customers will be forced to switch to ATT which does have more reliable service!!!

YES! Please! I support a rooftop facility atop 109 N. Pine St.

YES! We need better coverage in our city and county. Please allow this cell site.

YES!! I support rooftop facility on Co Probation Bldg

Yes!! We need better service in this town.

Yes!! Whole heartedly support any facility that would improve wifi service:

YES!!!! PLEASE!!!!

YES!!!! Pls Pls Pls bring us cell service in Nevada City

Yes. We need improved cell service throughout Nevada County. Julie

Yes. Why is there a problem with installing a Verizon for those of us who are not able to use our phones in the basin ?

Yes. A new facility is greatly needed to improve service.

Yes. Cell phone reception is spotty so come on city council OK the Verizon tower at 109 N. Pine St.

Yes. I support a roof top facility.

YES. I support a rooftop facility for Verizon on the Nevada County Probation building at 109 N. Pine Street.

Yes. I support a rooftop facility on probation building in Nevada city.

Yes. I support a rooftop facility on the County Probation Building at 109 N. Pine St.

YES. I support adding a rooftop facility to the probation building to improve signal strength.

Yes. I support improved service

Yes. I support this as long as there are no health risks involved.

YES. I would love to have signal at my house in the woods!

YES. Please put a tooftop facility on the County Probation Building!!!! In Nevada City.

Yes. We need more towers for increased reliability and to make sure Nevada city stays up with technology.

Yes. We really need this.

Yess I suport better Verizon svc in Nevada city my email address is.

City of Nevada City

September 19, 2016

Epic Wireless Group, Inc.
Mark Lobaugh
8700 Auburn Folsom Road
Granite Bay, CA 95746

Subject: Hearing Follow-up: Conditional Use Permit to install eight (8) cellular antennas on top of the rooftop of 109 North Pine Street

Dear Mr. Lobaugh,

On September 15, 2016 the Planning Commission considered your Conditional Use Permit application to install eight (8) cellular antennas at various points of the rooftop of 109 North Pine Street. The Commission voted to deny your Use Permit application subject to the findings below and found the project exempt from CEQA pursuant to Pubic Resource Code §21080(b)(5), which exempts those projects which a public agency rejects or disapproves:

A. That while the city recognizes cellular technology as an important component for business infrastructure and for our social and economic fabric, the proposed location, even with applied conditions is inconsistent with the purposes of the Historic District (HD) in that the proposed placement of the cellular antennas protrudes above the skyline and would be visible from a prominent intersection within said district, and therefore has the potential to be detrimental to the historic character of the subject building and to the historic district as a whole and that this has the potential to negatively impact the economy and general welfare of the city and its inhabitants;

B. That the proposed alteration is incompatible with the General Plan and its goal of Historic Preservation in that it has the potential to degrade the city's present charm and attractiveness and degrade Nevada City's strong sense of nineteenth century origin and contribute to an incremental degradation of the historic character;

C. That the alteration of the subject building with the placement of the proposed cellular antennas would constitute a departure from the established architectural appearance of the building and that this departure has the potential to depreciate the values of all properties within the Historic District;

D. That even though the subject building was constructed as recently as 2002, because it was reconstructed in the likeness of the preceding historic building, it continues to inform as to the historical environment and continues to contribute to an understanding of the city's historical past and the proposed alteration would render it incompatible with the architecture of the surrounding buildings;

Please note that pursuant to Section 17.88.050 of the City Municipal Code there is a fifteen (15) day appeal period applicable to any Planning Commission decision. Appeal applications must be made in writing on a form supplied by the Planning Department and must include the reason why the appeal is necessary and must be accompanied by the filing fee currently prescribed by ordinance. The deadline for appeal of this decision is **Friday, September 30, 2016 by 5:00 P.M.**

Sincerely,

Amy Wolfson
City Planner
(530) 265-2496 x130