BAKERSFIELD
THE SOUND OF *Something Better*

PLANNING COMMISSION AGENDA
MEETING OF APRIL 4, 2024
Council Chamber, City Hall South, 1501 Truxtun Avenue
Regular Meeting 05:30 P.M.

www.bakersfieldcity.us

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1. ROLL CALL

Zachary Bashirtash, Chair
Daniel Cater, Vice-Chair
Cassie Bittle
Gurtarpreet Kaur
Larry Koman
Candace Neal
Adam Strickland

2. PLEDGE OF ALLEGIANCE

3. PUBLIC STATEMENTS

a. Agenda Item Public Statements

b. Non-Agenda Item Public Statements

4. CONSENT CALENDAR ITEMS

a. Approval of Planning Commission minutes of March 21, 2024.

Staff recommends approval.

5. CONSENT PUBLIC HEARINGS

6. NON-CONSENT PUBLIC HEARINGS

Ward 5

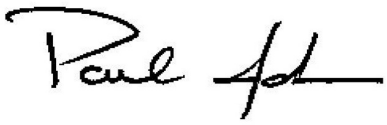
a. **Zone Change No. 23-0287:** McIntosh & Associates, representing Old River Properties, LLC (property owner), is proposing a change in zone classification from R-1 (One-Family Dwelling) to R-2 (Limited Multiple-Family Dwelling) on 20.56 acres located near the northwest of Panama Lane and Old River Road. A Mitigated Negative Declaration will also be considered.

Staff recommends approval.

7. COMMUNICATIONS

8. COMMISSION COMMENTS

9. ADJOURNMENT



Paul Johnson
Planning Director

COVER SHEET

PLANNING DEPARTMENT
STAFF REPORT

MEETING DATE: April 4, 2024 **ITEM NUMBER:** Roll Call1.()

TO:

FROM:

PLANNER:

DATE:

WARD:

SUBJECT:
Zachary Bashirtash, Chair
Daniel Cater, Vice-Chair
Cassie Bittle
Gurtarpreet Kaur
Larry Koman
Candace Neal
Adam Strickland

APPLICANT:

OWNER:

LOCATION:

STAFF RECOMMENDATION:

COVER SHEET

PLANNING DEPARTMENT
STAFF REPORT

MEETING DATE: April 4, 2024 **ITEM NUMBER:** Public Statements3.(a.)

TO:

FROM:

PLANNER:

DATE:

WARD:

SUBJECT: Agenda Item Public Statements

APPLICANT:

OWNER:

LOCATION:

STAFF RECOMMENDATION:

COVER SHEET

PLANNING DEPARTMENT
STAFF REPORT

MEETING DATE: April 4, 2024 **ITEM NUMBER:** Public Statements3.(b.)

TO:

FROM:

PLANNER:

DATE:

WARD:

SUBJECT:
Non-Agenda Item Public Statements

APPLICANT:

OWNER:

LOCATION:

STAFF RECOMMENDATION:

COVER SHEET
PLANNING DEPARTMENT
STAFF REPORT

MEETING DATE: April 4, 2024

ITEM NUMBER: Consent Calendar Items4.(a.)

TO:

FROM:

PLANNER:

DATE:

WARD:

SUBJECT:
Approval of Planning Commission minutes of March 21, 2024.

APPLICANT:

OWNER:

LOCATION:

STAFF RECOMMENDATION:
Staff recommends approval.

ATTACHMENTS:

	Description	Type
🗋	Draft PC Minutes 3/21/24	Cover Memo

PLANNING COMMISSION MINUTES

Regular Meeting of March 21, 2024 – 5:30 p.m.
Council Chambers, City Hall, 1501 Truxtun Avenue

ACTION TAKEN

1. ROLL CALL

Present: Chair Bashirtash, Vice-Chair Cater, Commissioners Kaur, Koman, Strickland

Absent: Commissioners Bittle, Neal

Staff Present: Paul Johnson, DS Planning Director; Viridiana Gallardo-King, Deputy City Attorney II; Manpreet Behl, PW Civil Engineer IV; Shannon Clark, DS Civil Engineer II; Susanna Kormendi, Civil Engineer III; Tony Jaquez, DS Principal Planner; Ashley Knight, DS Assistant Planner; Veronica Martinez, DS Assistant Planner; Ernie Medina, Fire Plans Examiner; Macy Iacopetti, DS Secretary I; Ana Solis, DS Secretary II

2. PLEDGE OF ALLEGIANCE

3. PUBLIC STATEMENTS

a. Agenda Item Public Statements

None.

b. Non-Agenda Item Public Statements

None.

4. CONSENT ITEMS

a. Approval of Minutes: Special Planning Commission meeting of February 29, 2024. — **APPROVED**

5. CONSENT PUBLIC HEARINGS

a. Conditional Use Permit No. 23-0306: Inland Architects, representing Union 18 LLC (property owner), is requesting a Conditional Use Permit for the multi-family development to include 2 one-bedroom units and 2 studio units in the C-1 (Neighborhood Commercial) zone located at 1106 Kentucky Street. (B.M.C. 17-22.040.2) — **RES 09-24**

ACTION TAKEN

Public hearing opened and closed.

Motion by Commissioner Koman, seconded by Commissioner Kaur, to approve Consent Public Hearing Item 5.a. Motion approved.

APPROVED BITTLE & NEAL ABSENT

6. NON-CONSENT PUBLIC HEARINGS

a. Planned Development Review No. 23-0562: Porter & Associates, Inc., representing Jacaranda Hood, LLC (property owner), is requesting a revised Planned Development Review to propose a 25, 060 square-foot physical fitness center on a portion of a 12.62-acre site in the C-2/PCD (Regional Commercial/Planned Commercial Development) zone district, located at the southwest corner of Hosking Avenue and Hughes Lane.

RES 10-24

Assistant Planner Veronica Martinez provided the staff report. Public hearing was opened. No speakers in favor. No speakers in opposition. No one spoke in rebuttal. Public hearing closed. Planning Commission deliberated. Motion by Commissioner Kaur, seconded by Commissioner Strickland, to approve Non-Consent Public Hearing Item 6.a. Motion approved.

APPROVED BITTLE & NEAL ABSENT CATER RECUSED

7. COMMUNICATIONS

a. Planning Director Johnson thanked the commissioners for their attending the 2024 Planning Commission Academy. He also announced the upcoming launch of eScribe, which will replace the current system for agenda preparation and publication.

RECEIVE & FILE

8. COMMISSION COMMENTS

None.

9. ADJOURNMENT

There being no further business, Chair Bashirtash adjourned the meeting at 5:46 p.m.

Ana Solis
Recording Secretary

Paul Johnson
Planning Director

COVER SHEET
PLANNING DEPARTMENT
STAFF REPORT

MEETING DATE: April 4, 2024

ITEM NUMBER: Non-Consent Public Hearings6.(a.)

TO: Chair Bashirtash & Planning Commission

FROM: Paul Johnson, Planning DIrector

PLANNER: Courtney Camps, Associate Planner

DATE:

WARD: Ward 5

SUBJECT:
Zone Change No. 23-0287: McIntosh & Associates, representing Old River Properties, LLC (property owner), is proposing a change in zone classification from R-1 (One-Family Dwelling) to R-2 (Limited Multiple-Family Dwelling) on 20.56 acres located near the northwest of Panama Lane and Old River Road. A Mitigated Negative Declaration will also be considered.

APPLICANT: McIntosh & Associates

OWNER: Old River Properties, LLC

LOCATION: Near the northwest of Panama Lane and Old River Road

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STAFF RECOMMENDATION:
Staff recommends approval.

ATTACHMENTS:

	Description	Type
🗋	ZC 6201 Old River_Staff Report	Staff Report
🗋	ZC 6201 Old River_Map Set	Backup Material
🗋	ZC 6201 Old River_IS_MND	Backup Material
🗋	ZC 6201 Old River_Bio	Backup Material
🗋	ZC 6201 Old River_Cultural	Backup Material
🗋	ZC 6201 Old River_SPAL	Backup Material
🗋	ZC 6201 Old River_Traffic Analysis	Backup Material
🗋	ZC 6201 Old River_RESO_MND	Resolution
🗋	ZC 6201 Old River_RESO_ZC	Resolution

CITY OF BAKERSFIELD
PLANNING COMMISSION

MEETING DATE: April 4, 2024 **AGENDA:** 6.a.

TO: Chair Bashirtash and Members of the Planning Commission

FROM: Paul Johnson, Planning Director PJ

DATE: March 29, 2024

FILE: Zone Change No. 23-0287

WARD: 5

STAFF PLANNER: Courtney Camps, Associate Planner

REQUEST: Change in zone classification from R-1 (One-Family Dwelling) to R-2 (Limited Multiple-Family Dwelling) or a more restrictive classification.

APPLICANT:
McIntosh & Associates
P.O. Box 21687
Bakersfield, CA 93390

OWNER:
Old River Properties, LLC
9100 Ming Avenue Suite 120
Bakersfield, CA 93311

PROJECT LOCATION: 6201 Old River Road

APN: 544-040-07

PROJECT SIZE: 20.56 acres

CEQA Section 15063 (b)(2) [MND]

EXISTING GENERAL PLAN DESIGNATION: LR (Low Density Residential)

EXISTING ZONE CLASSIFICATION: R-1 (One-Family Dwelling)

STAFF RECOMMENDATION: Adopt Resolution **APPROVING** the zone change from R-1 (One-Family Dwelling) to R-2/PUD (Limited Multiple-Family Dwelling/Planned Unit Development) or a more restrictive zone classification and recommend same to City Council.

SITE CHARACTERISTICS: The project site consists of a vacant parcel of land. Surrounding properties are primarily developed as: *north* – single-family residential; *east* – vacant multi-family residential land; *south* – vacant commercial land; and *west* – vacant single-family residential land.

BACKGROUND AND TIMELINE:

- **July 31, 1991** - Buena Vista No. 5 Annexation was annexed to the City. The project location was a portion of the 3,558-acre annexation area (No. 5150; Ordinance No. 3384).

- **July 28, 1993** - Bakersfield City Council approved the current City zoning of R-1 for the subject property (Ordinance No. 3549).

PROJECT ANALYSIS:

The proposed change in zone classification from R-1 to R-2 is to facilitate construction of up to 149 single-family homes on a 20.56 net acre parcel. This aligns with the existing land use designation of LR (Low Density), permitting up to 7.26 dwelling units per acre. It is relevant to note that the R-1 zone only allows for one (1) single-family dwelling on a parcel, while the R-2 zone allows for multiple single-family dwellings on a parcel. The homes most likely will be designated for rental purposes; therefore, owned and maintained by a business entity to provide for a well-maintained neighborhood. There are no plans to subdivide the parcel.

Uses in the R-1 zone are exempt from the Site Plan Review process; however, the same does not apply for the R-2 zone. In August 2023, the applicant submitted for a Site Plan Review (SPR No. 23-0415) to construct approximately 134 single-family units and a recreation facility. The SPR application has yet to be deemed complete for processing and the applicant elected not to process in conjunction with the zone change request. Consequently, staff is unable to provide information on how the site will be developed.

ENVIRONMENTAL REVIEW AND DETERMINATION:

Based upon an initial study and submitted studies, Staff determined the proposed project with mitigation would not have a significant effect on the environment. Therefore, a Mitigated Negative Declaration ("MND") was prepared for this project in accordance with the California Environmental Quality Act ("CEQA"). The MND was circulated for public agency review from January 29, 2024 to February 29, 2024 (SCH NO. 2024010882) and no comments were received.

Environmental Conclusion. The State CEQA Guidelines and the City of Bakersfield's CEQA Implementation Procedures have been followed in the evaluation of the environmental effects of this project. With mitigation addressing biological resources, tribal and cultural resources, and traffic/circulation, significant environmental impacts were reduced to less than significant levels.

PUBLIC NOTIFICATION:

Community Outreach Meeting. On November 27, 2023, the applicant held a community outreach meeting to discuss the proposed project with community members. Invitations for the community meeting were mailed by the applicant to all surrounding property owners located in the neighboring community. In response, two individuals attended the meeting. According to the applicant, the primary concerns was pedestrian traffic between the existing and proposed residential neighborhoods, and about the increased density. According to the applicant, relief came when they explained a block wall would be constructed between the neighborhoods and the proposed development was for single-family homes with no increase in density beyond what is already allowed.

Public Notice. Public notice for the proposed project and environmental determination was advertised in *The Bakersfield Californian* and posted on the bulletin board in the City of Bakersfield Development Services Building, 1715 Chester Avenue, Bakersfield, California. All property owners within 300 feet of the project site were notified by United States Postal Service mail regarding this public hearing in accordance with city ordinance and state law. Signs are required as part of the public notification process and must be posted between 20 to 60 days before the public hearing date. Photographs of the posted signage and the Declaration of Posting Public Hearing Notice signed by the applicant are on file at the Planning Division.

Comments Received. As of this writing, no written public comments have been received.

CONCLUSIONS:

Consistency with General Plan and Zoning Ordinance. The proposal is consistent with land use goals and policies as contained in the General Plan, which: encourage new development which provides a full mix of uses to support its population (Goal 2); the development of a variety of residential types and densities (Policy 2); retain existing residential neighborhoods as designated on the Land Use Plan, and allow for the infill of residential land uses which are compatible with the scale and character of the surrounding neighborhood (Policy 6); permit the conversion of existing single-family neighborhoods to higher densities in those areas in which there are physical and economic conditions which warrant the replacement of existing units, the uses are contiguous with other higher density uses, and adequate infrastructure services are available and/or provided for by developers (Policy 9). Additionally, any future development will comply with all applicable regulations, design standards, and Zoning Ordinance requirements through the Site Plan Review process.

Planning Commission Options. The Planning Commission has several options regarding this request:

1. Recommend project be approved as proposed by the applicant. Staff would bring forward the recommendation to City Council for a change in zone classification from R-1 to R-2.

2. Recommend project be approved with a more restrictive zone classification. Staff would bring forward the recommendation to City Council for a change in zone classification from R-1 to either the R-2/PUD zone or Exclusive PUD zone.

    - R-2/PUD Zone - This combining zone ensures site development is compatible with surrounding development and/or recognizes unique site characteristics. Once a site development plan is approved, changes to the plans must be approved by the Planning Commission and only considered by City Council on an appeal.

    - Exclusive PUD Zone - Like the combing zone, this zone ensures site development is compatible with surrounding development and/or recognizes unique site characteristics. Changes to site development plans require Planning Commission recommendation and City Council approval.

3. Recommend project be denied after considering all evidence in the record. If the project is denied, and no appeal is filed, such action by the Planning Commission shall be final and conclusive and the property would remain zoned as R-1.

Recommendation. Staff finds that the applicable provisions of CEQA have been complied with, and the proposal is compatible with the existing land use designation. However, lacking a commitment on how the site will be developed, Staff recommends your Commission adopt Resolution approving the zone change from R-1 to R-2/PUD and recommend same to City Council.

ATTACHMENTS:

Map Set

- Aerial
- Zone Classification
- General Plan Designation

Mitigated Negative Declaration with Attachments

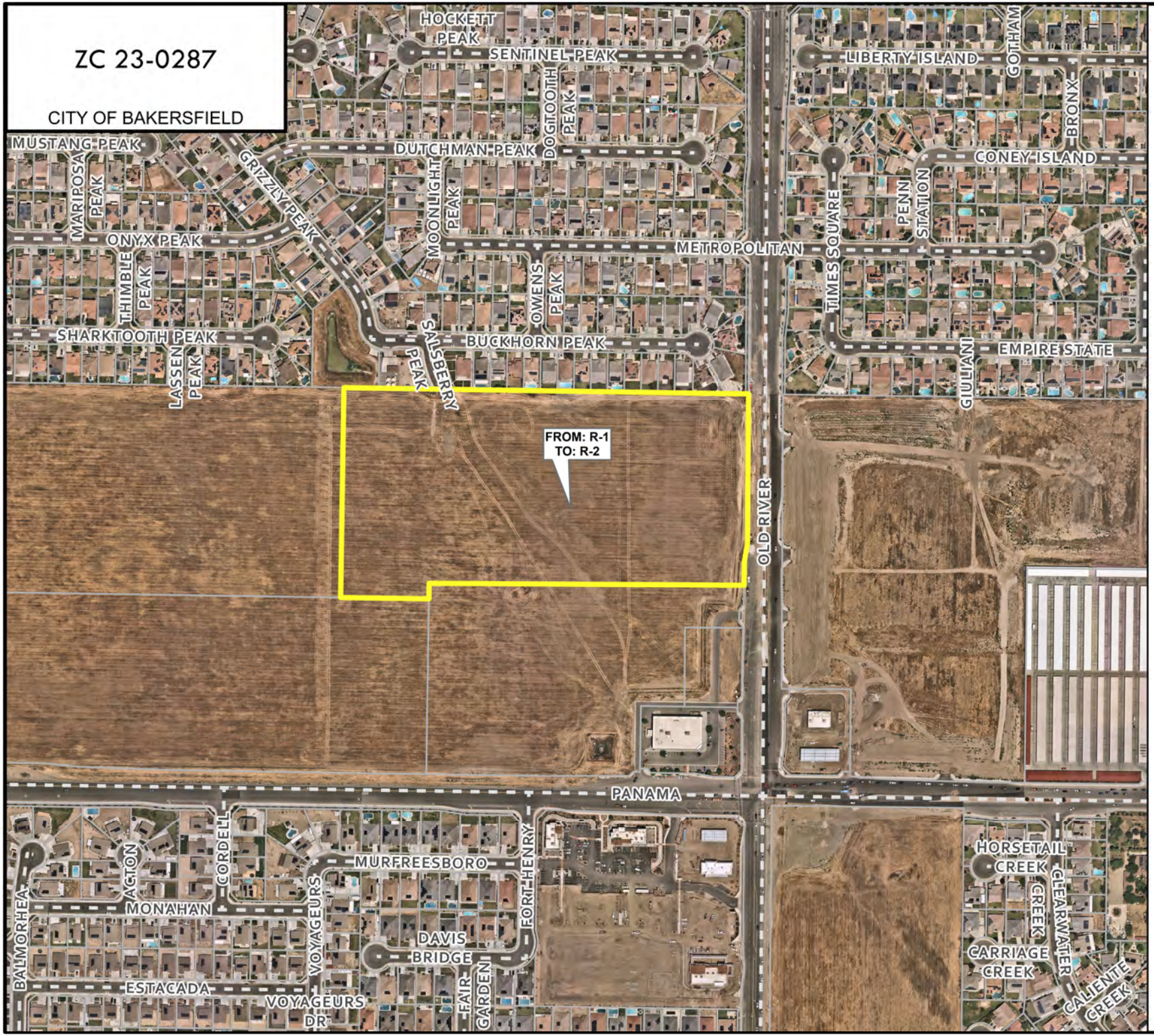
Planning Commission Draft Resolution

- MND
- ZC

MAP SET

ZC 23-0287

CITY OF BAKERSFIELD



AERIAL

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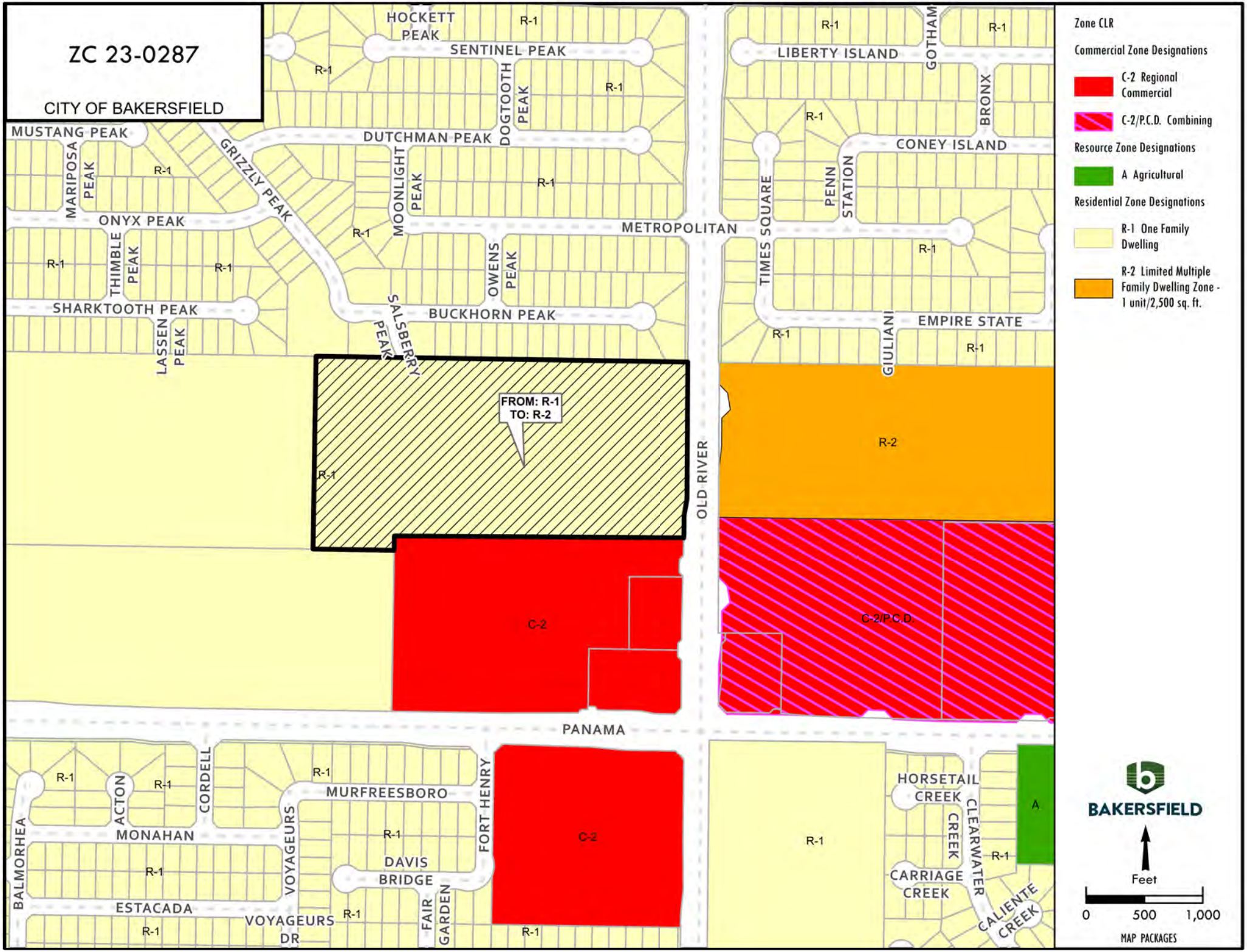
MAP PACKAGES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CORDELL
ACTON
MONAHAN
BALMORHEA
VOYAGEURS
MURFREESBORO
FORT HENRY
DAVIS
BRIDGE
ESTACADA
VOYAGEURS DR
FAIR GARDEN
HORSETAIL CREEK
CLEARWATER CREEK
CARRIAGE CREEK
CALIENTE CREEK
A
Zone CLR
Commercial Zone Designations
C-2 Regional Commercial
C-2/P.C.D. Combining
Resource Zone Designations
A Agricultural
Residential Zone Designations
R-1 One Family Dwelling
R-2 Limited Multiple Family Dwelling Zone - 1 unit/2,500 sq. ft.
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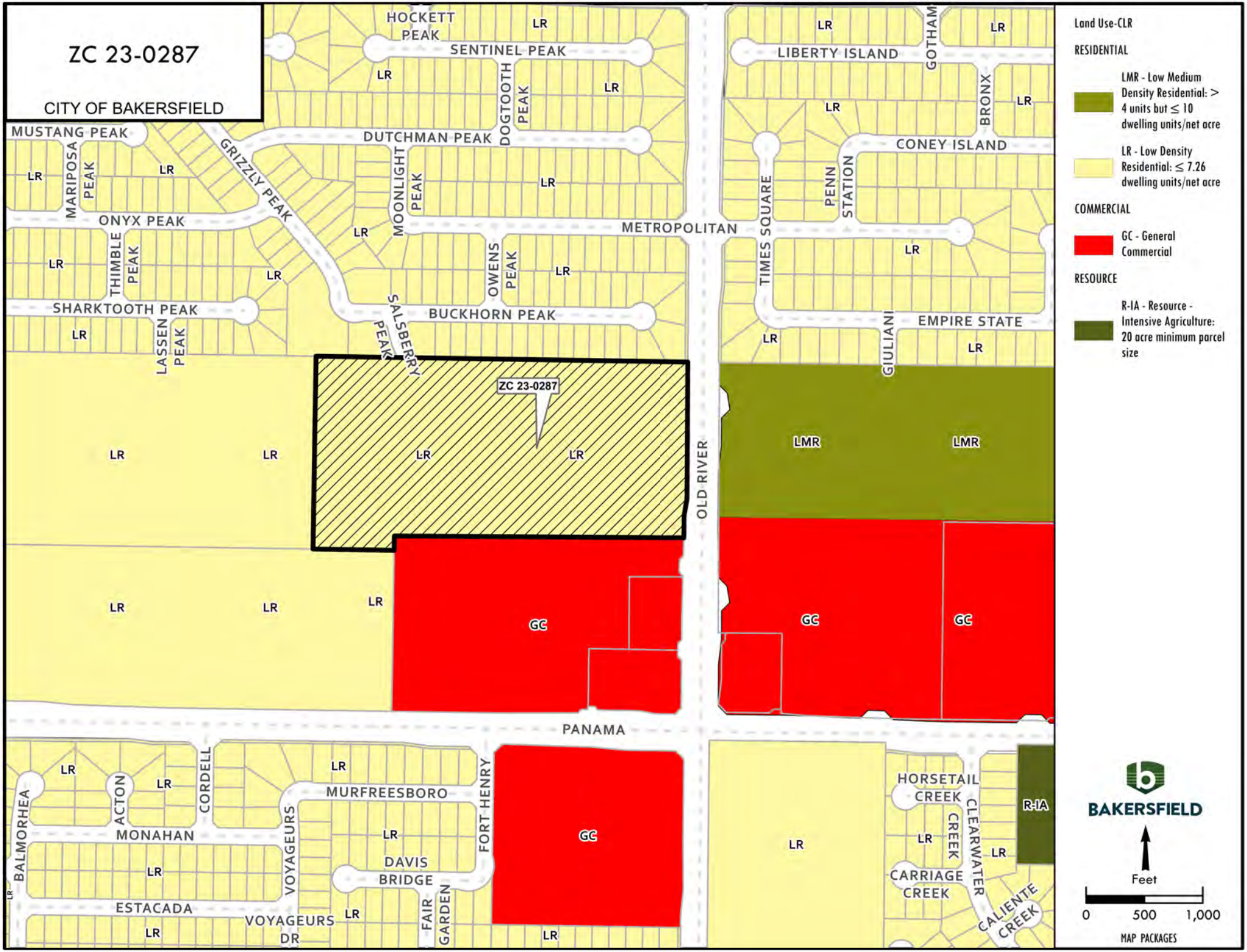
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FAIR GARDEN
HORSETAIL CREEK
CLEARWATER
CREEK
CARRIAGE CREEK
CALIENTE CREEK
R-IA
LR
Land Use-CLR
RESIDENTIAL
LMR - Low Medium Density Residential: > 4 units but ≤ 10 dwelling units/net acre
LR - Low Density Residential: ≤ 7.26 dwelling units/net acre
COMMERCIAL
GC - General Commercial
RESOURCE
R-IA - Resource - Intensive Agriculture: 20 acre minimum parcel size
BAKERSFIELD
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MITIGATED NEGATIVE DECLARATION

The City of Bakersfield Development Services Department has completed an initial study (attached) of the possible environmental effects of the following-described project and has determined that a Mitigated Negative Declaration is appropriate. It has been found that the proposed project, as described and proposed to be mitigated (if required), will not have a significant effect on the environment. This determination has been made according to the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the City of Bakersfield's CEQA Implementation Procedures.

PROJECT NO. (or Title): Zone Change 23-0287

COMMENT PERIOD BEGINS: January 29, 2024

COMMENT PERIOD ENDS: February 29, 2024

MITIGATION MEASURES *(included in the proposed project to avoid potentially significant effects, if required):*

Biological Resources Impact Mitigation Measures:

1. Prior to of ground disturbance and/or construction activities, applicant/developer shall consult with and follow all California Department of Fish and Wildlife and United States Fish and Wildlife Service requirements related to listed plant and animal species protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA).

2. Applicant/developer shall have a qualified professional conduct and prepare a biological resource pre-activity survey no more than 30 days prior to the beginning of ground disturbance and/or construction activities; biological resource monitoring during each initial phase of ground disturbance; compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted for the detection of listed, or otherwise special-status species, likely to be impacted by any project related activity.
   2.1. If known or natal dens are detected during the survey, protective measures enumerated in the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011) shall be initiated. If the identified dens are unavoidable, pursuant to the guidelines, the CDFW and USFWS shall be contacted for additional guidance and take authorization.
   2.2. The project is within the historic range of Tipton kangaroo rat. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability. Trapping would be required to confirm small mammal species occupying the project.
   2.3. If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground

disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows: 1) ground or low-shrub nesting non-raptors – 300 feet (91 meters); 2) burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted. 3) other raptors – 500 feet (152 meters).

Tribal and Cultural Resources Impact Mitigation Measures:

3. During construction, if archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

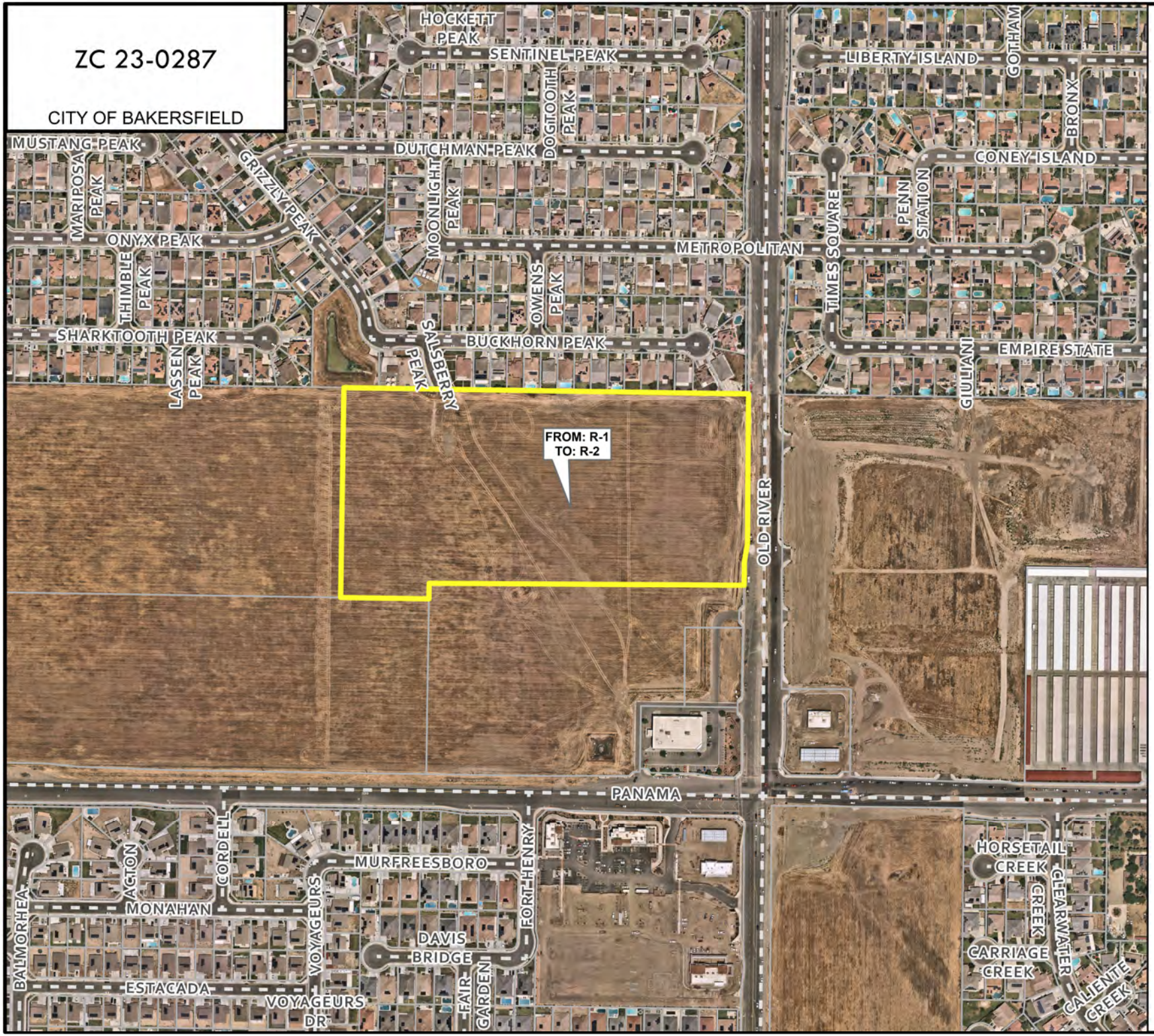
4. During construction, if human remains are discovered, further ground disturbance shall be prohibited pursuant to California Health and Safety Code Section 7050.5. and Public Resources Code Sections 5097.94, 5097.98 and 5097.99.

Traffic/Circulation Impact Mitigation Measures

5. Prior to issuance of building permits, the applicant/developer shall pay the Regional Transportation Impact Fee Program.

ZC 23-0287

CITY OF BAKERSFIELD



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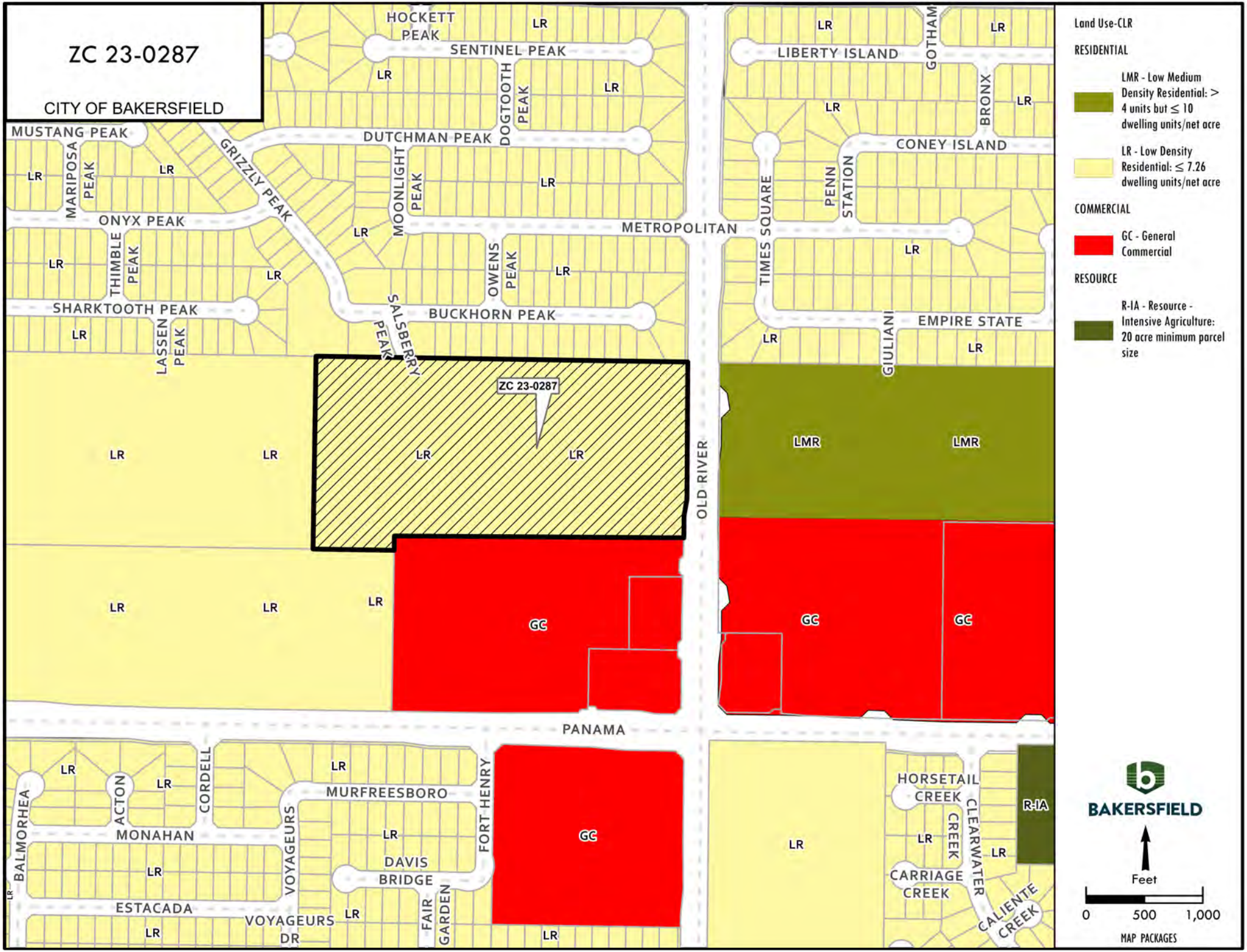
MAP PACKAGES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RESIDENTIAL
LMR - Low Medium Density Residential: > 4 units but ≤ 10 dwelling units/net acre
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COMMERCIAL
GC - General Commercial
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R-IA - Resource - Intensive Agriculture: 20 acre minimum parcel size
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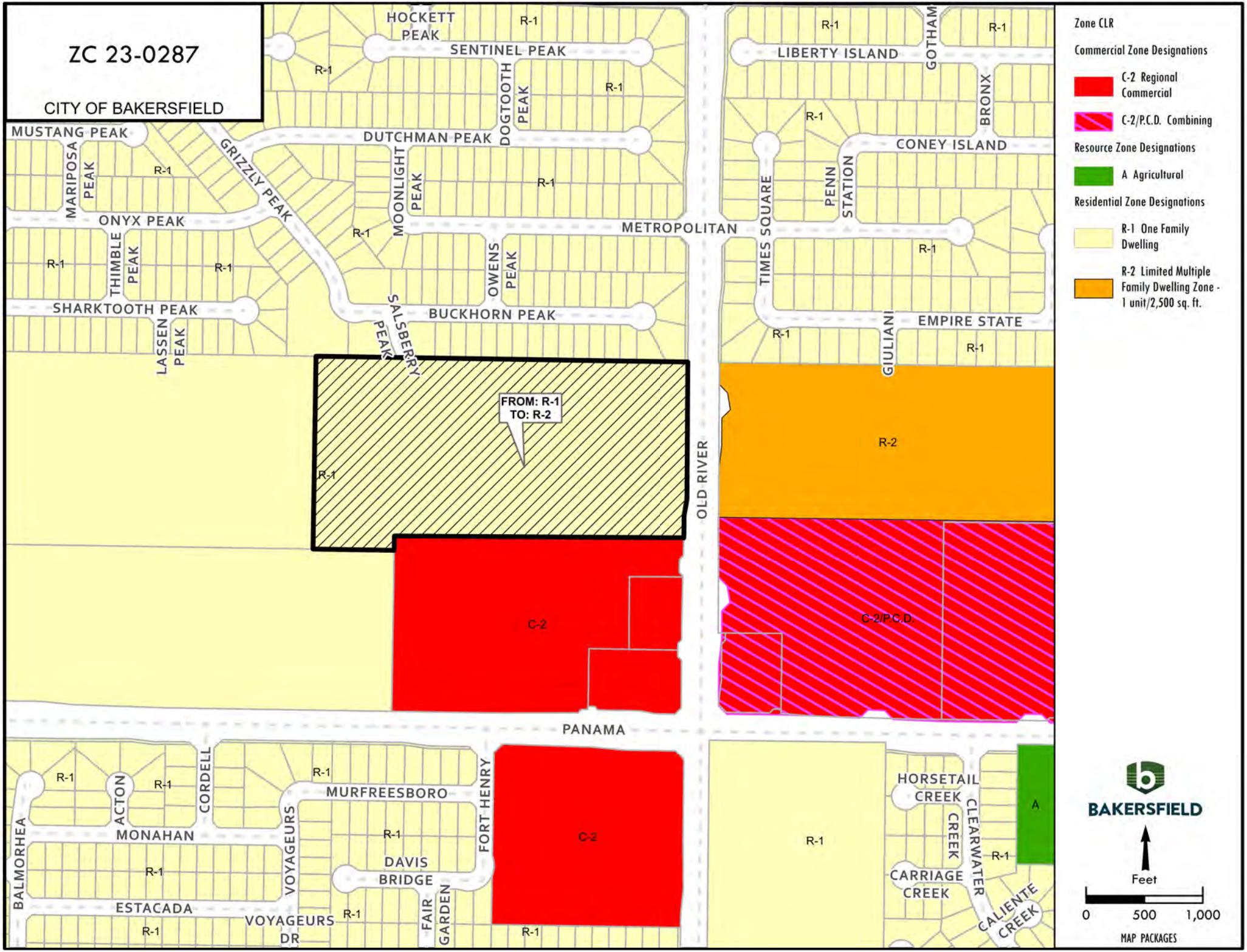
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C-2/P.C.D. Combining
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R-1 One Family Dwelling
R-2 Limited Multiple Family Dwelling Zone - 1 unit/2,500 sq. ft.
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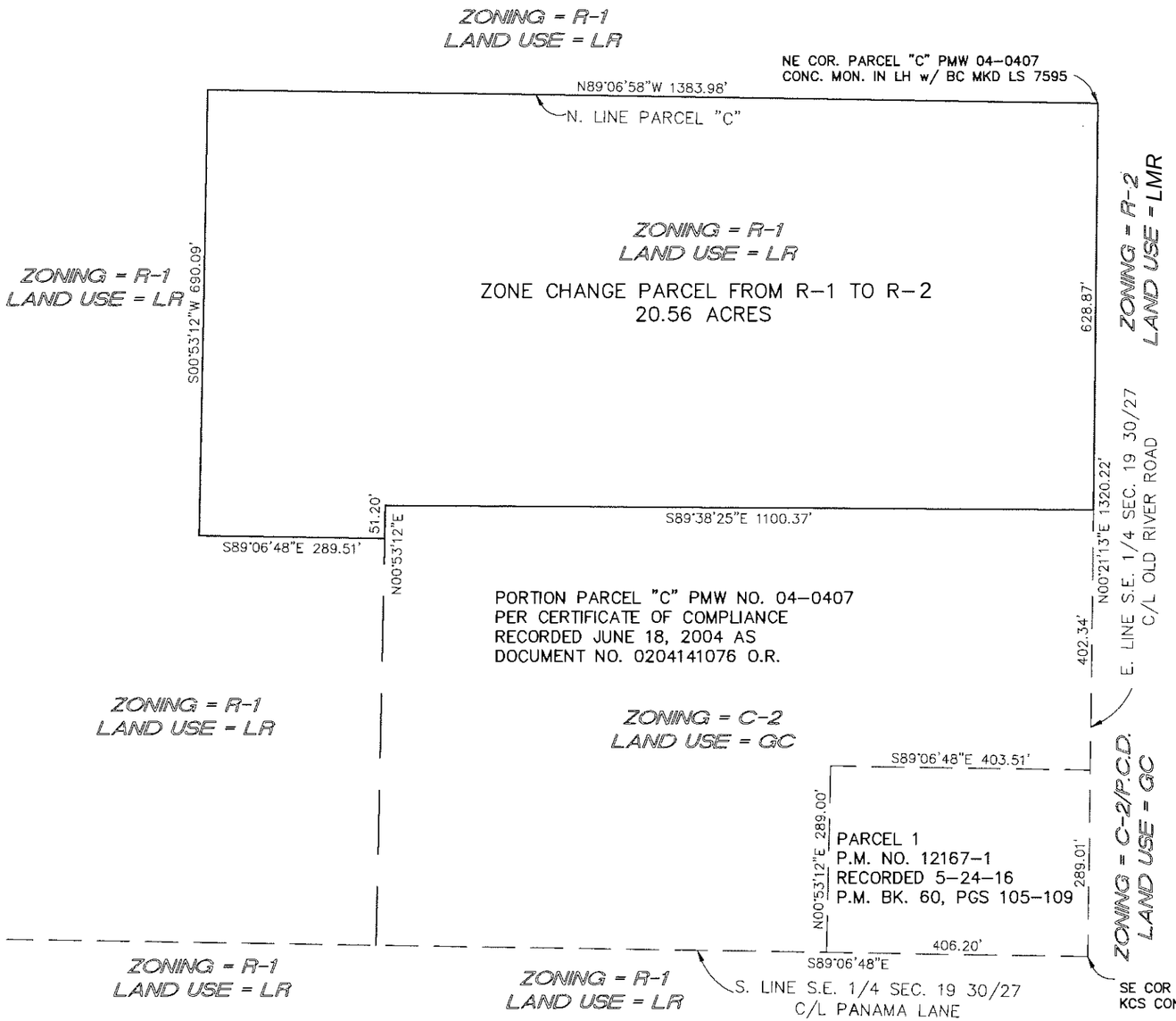
EXHIBIT "B"



SAMUEL M. WALKER JR. LS 7558 — DATE 18 NOV 2022

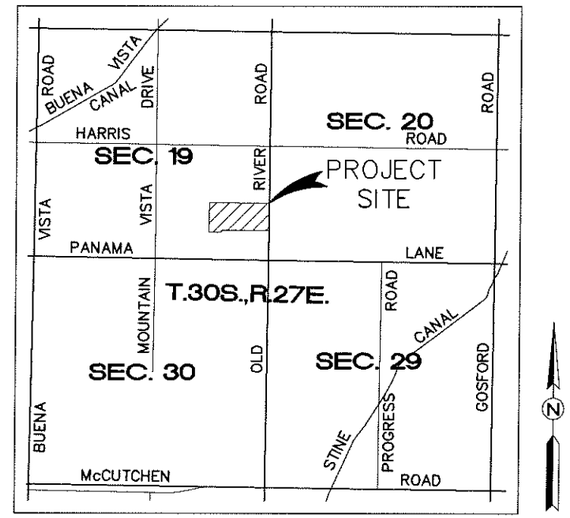
PROFESSIONAL LAND SURVEYOR
SAMUEL M. WALKER JR.
No. 7558
STATE OF CALIFORNIA

LEGEND

——————— PROPOSED ZONE CHANGE

BASIS OF BEARINGS

ALL BEARINGS AND DISTANCES ARE RECORD OR CALCULATED FROM RECORD FROM PARCEL MAP NO. 12167 – PHASE 1 RECORDED IN PARCEL MAP BOOK 60 AT PAGES 105-109.



VICINITY MAP
NO SCALE

SCALE: 1" = 200'

JOB NO. 08-049.04
DATE: 09/07/22
FILE NO. RGF
DONE BY: JKD/mjt
SHEET 1 OF 1

RGF PROPERTIES, LLC

PORTION SE 1/4 SEC. 19, T.30S., R.27E., M.D.M.
ZONE CHANGE FROM R-1 TO R-2

PREPARED BY:
McINTOSH & ASSOCIATES
LAND SURVEYING • CIVIL ENGINEERING © 2021
2001 WHEELAN CT. BAKERSFIELD, CA 93309 (661) 834-4814

INITIAL STUDY
ENVIRONMENTAL ANALYSIS

1. **Project** *(Title & No.)*: Zone Change 23-0287

2. **Lead Agency** *(name and address)*: City of Bakersfield
   Development Services Department
   1715 Chester Avenue
   Bakersfield, California 93301

3. **Contact Person** *(name, title, phone)*: Courtney Camps, Associate Planner
   (661) 326-3070

4. **Project Location:** Near the northwest of Panama Lane and Old River Road

5. **Applicant** ***(name and address)*:** McIntosh & Associates
   P.O. Box 21687
   Bakersfield, CA 93390

6. **General Plan Designation:** LR (Low Density Residential)

7. **Zoning:** Existing: R-1 (One-Family Dwelling)
   Proposed: R-2 (Limited Multiple-Family Dwelling)

8. **Description of Project (describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.):**
   McIntosh & Associates, representing Old River Properties, LLC (property owner), is proposing a Zone Change (ZC) on 20.56 acres located northwest of Panama Lane and Old River Road. The request is a change in zone classification from R-1 (One-Family Dwelling) to R-2 (Limited Multiple-Family Dwelling). The purpose of the zone change is for increased density on the site. The increased density will allow for multiple dwelling units to be constructed on a single parcel up to a density of 7.26 dwelling units per net acre, which may be up to 149 dwelling units.

9. **Environmental setting (briefly describe the existing onsite conditions and surrounding land uses):**
   The project site consists of a vacant parcel of land. Adjacent properties to the south, east and west are vacant land. There is existing single-family residential development to the north of the project site.

10. **Other public agencies whose approval is anticipated to be required** ***(e.g., permits, financing approval or participation agreement)*:**
    - City of Bakersfield – Mitigated Negative Declaration consideration and adoption
    - City of Bakersfield – Building permits
    - City of Bakersfield – Regional Transportation Impact Fee Program and Local Mitigation
    - San Joaquin Valley Air Pollution Control District – Indirect Source Rule compliance
    - State Water Resources Control Board – National Pollutant Discharge Elimination System General permit

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

As indicated by the checklist on the following pages, the project would result in potentially significant impacts with respect to the environmental factors checked below (*Impacts reduced to a less than significant level through the incorporation of mitigation are not considered potentially significant*):

ENVIRONMENTAL DETERMINATION:

☐ Aesthetics	☐ Agriculture / Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Population / Housing	☐ Public Services	☐ Public Services
☐ Noise	☐ Transportation / Traffic	☐ Tribal Cultural Resources
☐ Wildfire	☐ Wildfire	☐ Mandatory Findings of Significance

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 has been (1) adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) addressed by mitigation measures based on the earlier analysis as described on the 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 have been (1) analyzed adequately in an earlier environmental impact report or negative declaration pursuant to applicable legal standards, and (2) avoided or mitigated pursuant to that earlier environmental impact report or negative declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Courtney Camps — 1/29/2024

Signature — *Date*

Courtney Camps, Associate Planner

Printed name

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significant.

I. AESTHETICS:

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	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 outcrops, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

II. AGRICULTURE RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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 nonagricultural 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?	☐	☐	☒	☐

III. AIR QUALITY:

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

IV. BIOLOGICAL RESOURCES:
Would the project:

a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status 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, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☒	☐	☐

V. CULTURAL RESOURCES:
Would the project:

a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outsides of dedicated cemeteries?	☐	☒	☐	☐

VI. ENERGY:
Would the project:

a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

VII. GEOLOGY AND SOILS:
Would the project;

a)	Directly or indirectly cause 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 a geologic unit 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 (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

VIII. GREENHOUSE GAS EMISSIONS:
Would the project:

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?	☐	☐	☒	☐

IX. HAZARDS AND HAZARDOUS MATERIALS:
Would the project:

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?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY:
Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in a substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

XI. LAND USE AND PLANNING:

Would the project:

a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

XII. MINERAL RESOURCES:

Would the project:

a) Result in the loss of availability of a known mineral resource that would be a 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?	☐	☐	☐	☒

XIII. NOISE:

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

XIV. POPULATION AND HOUSING:
Would the project;

a)	Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

XV. PUBLIC SERVICES:

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:				
i.	Fire protection?	☐	☐	☒	☐
ii.	Police protection?	☐	☐	☒	☐
iii.	Schools?	☐	☐	☒	☐
iv.	Parks?	☐	☐	☒	☐
v.	Other public facilities?	☐	☐	☒	☐

XVI. RECREATION:

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?	☐	☐	☒	☐

XVII. TRANSPORTATION:

Would the project:

a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☒	☐	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d)	Result in inadequate emergency access?	☐	☐	☒	☐

XVIII. TRIBAL CULTURAL RESOURCES:
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

XVIV. UTILITIES AND SERVICE SYSTEMS:
Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water 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?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

XX. WILDFIRES:
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:

a) Does the project have the potential to substantially 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, substantially 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 cumulatively considerable? ("Cumulatively 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?	☐	☒	☐	☐

EVALUATION OF ENVIRONMENTAL EFFECTS

I. AESTHETICS

a. **Less-than-significant impact.** The project is located within the City limits at Panama Lane and Old River Road in southwest Bakersfield. The existing visual environment in the area adjacent to the project is predominately vacant land with adjacent single family residential to the north of the site. The project does not conflict with any applicable vista protection standards, scenic resource protection requirements or design criteria of federal, state, or local agencies, and is consistent with the City of Bakersfield Zoning and, with the GPA, the project would be consistent with the Metropolitan Bakersfield General Plan (MBGP) designations for the project area. The project site is located within an area having slopes from 0 to 5 %. The area is not regarded or designated within the Metropolitan Bakersfield General Plan as visually important or "scenic." The construction of multi-family residential at the site would be in character and compatible with existing urban land uses in the vicinity of the site and is a natural extension of the urban growth occurring in the project area. Therefore, the project would not have a substantial adverse effect on a scenic vista.

b. **No impact.** There are no trees, rock outcrops, or historic buildings (Hudlow 2021) located at the project site. Additionally, the project is not located adjacent to or near any officially designated or potentially eligible scenic highways to be listed on the California Department of Transportation (Caltrans) State Scenic Highway System. The closest section of highway eligible for state scenic highway designation is State Route (SR) 14 located in Kern County over 55 miles to the east. Therefore, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcrops, and historic buildings within a state scenic highway.

c. **No impact.** Please refer to responses I.a, I.b and I.d. The project does not conflict with any applicable vista protection standards, scenic resource protection requirements or design criteria of federal, state, or local agencies and, the project would be consistent with the Metropolitan Bakersfield General Plan (MBGP) designations and Zoning Ordinance classifications for the project area. The area is not regarded or designated with in the Metropolitan Bakersfield General Plan as visually important or "scenic." Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings.

d. **Less-than-significant impact.** This project involves incremental urban growth within the City of Bakersfield's jurisdiction. This project would have to comply with City development standards, including Title 17 (zoning ordinance), Title 15 (buildings and construction), as well as California Code of Regulations Title 24. Together, these local and state requirements oblige project compliance with current lighting and signage standards that minimize unwanted light or glare to spill over into neighboring properties. Therefore, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

II. AGRICULTURE RESOURCES

a. **Less-than-significant impact.** The 20.56-acre project site is designated as Grazing Land by the Farmland Mapping and Monitoring Program (DOC 2020). The site is zoned R-1 and is currently fallow land not used for grazing. The project will not convert 100 acres or more of farmlands designated Prime, Unique, or of Statewide Importance to nonagricultural uses. Large parcel size is, in general, an important indicator of potential agricultural suitability and productivity. CEQA Guidelines Section 15206 does not regard the cancellation of less than 100 acres of land from the Williamson Act to be of statewide, regional, or area wide significance. Therefore, the project would not significantly convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use.

b. **No impact.** The project site is currently zoned R-1 (One Family Dwelling) and is not under a Williamson Act contract. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

c. **No impact.** As discussed in II.b, the project site is zoned R-1. There are no forest lands located on the site. Therefore, the project would not conflict with existing zoning for, or cause rezoning of forest land or timberland, or timberland zoned Timberland Production.

d. **No impact.** Please refer to response II.c. Therefore, the project would not result in the loss of forestland or conversion of forest land to non-forest.

e. **Less-than-significant impact.** Please refer to responses II.a through II.d. This project is in an area designated for urban development by the Metropolitan Bakersfield General Plan. The project itself is typical of the development found in Metropolitan Bakersfield. Therefore, the project would not 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.

III. AIR QUALITY

a. **Less-than-significant impact.** The project is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD) jurisdiction, in the San Joaquin Valley Air Basin (SJVAB). The SJVAB is classified by the state as being in severe nonattainment for the state 1-hour ozone standard as well as in nonattainment for the state particulate matter less than 10 microns (PM10) and particulate matter less than 2.5 microns (PM2.5). The SJVAB is also classified as in extreme nonattainment for the federal 8-hour ozone standard, nonattainment for the federal PM2.5 standard, and attainment/maintenance for the federal carbon monoxide (CO) and PM10 standards.

Emission sources because of the project would include ground disturbance and other construction-related work as well as operational emissions typical of a residential development (e.g., predominantly emissions from personal vehicles traveling in and through the development).

The SJVAPCD encourages local jurisdictions to design all developments in ways that reduce air pollution from vehicles, which is the largest single category of air pollution in the San Joaquin Valley. The *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) (SJVAPCD 2015) lists various land uses and design strategies that reduce air quality impacts of new development. Local ordinance and general plan requirements related to landscaping, sidewalks, street improvements, level of traffic service, energy efficient heating and cooling building code requirements, and location of residential development

in proximity to other residential development are consistent with these listed strategies. Regulation and policy that will result in the compliance with air quality strategies for new residential and commercial developments include, but are not limited to, Title 24 efficiency standards, Title 20 appliance energy efficiency standards, 2005 building energy efficiency standards, Assembly Bill (AB) 1493 motor vehicle standards, and compliance with the Metropolitan Bakersfield General Plan Air Quality Conservation Element as well as the SJVAPCD air quality guidelines and rules.

As shown in the following table, the SJVAPCD has established specific criteria pollutants thresholds of significance for the operation of specific projects.

SJVAPCD Significance Thresholds for Criteria Pollutants	
Air Pollutant	**Tons/Year**
CO	100
Reactive Organic Gas (ROG)	10
Nitrogen Oxides (NOX)	10
Sulfur Oxides (SOX)	27
PM10	15
PM2.5	15

Source: Insight 2018.

Construction of the project would result in air pollutant emissions. Emissions from construction would result from fuel combustion and exhaust from equipment as well as vehicle traffic, grading, and the use of toxic materials (e.g., lubricants). The proposed project do not exceed the thresholds under The San Joaquin Valley Air Pollution Control District (District) has published guidance for Small Project Analysis Levels (SPAL) Assessment. Project operations would also result in air pollutant emissions but not exceed thresholds established by the SJVAPCD.

b. **Less-than-significant impact.** Under GAMAQI, any project that would have individually significant air quality impacts would also be considered to have significant cumulative air quality impacts. Impacts of local pollutants are cumulatively significant when the combined emissions from the project and other planned projects exceed air quality standards. As described above, the project does not pose a significant individual increase to estimated cumulative emissions for criteria pollutants in nonattainment within Kern County and the greater SJVAB. The project's regional contribution to cumulative impacts would be negligible and therefore, the project's contribution is not cumulatively considerable. Additionally, the project is subject to SJVAB Rules and Regulations.

c. **Less-than-significant impact.** Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The District considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest off-site sensitive receptors are existing residences to the north. The SPAL Assessment concluded that the project would not significantly affect such receptors. There is no evidence on the record that the project would not expose sensitive receptors to substantial pollutant concentrations.

d. **Less-than-significant impact.** There is no evidence on the record that the project would not emit any objectionable odors because the emitted odors would be typical of other

residential development surrounding the project site. Therefore, the project would not create objectionable odors affecting a substantial number of people.

IV. BIOLOGICAL RESOURCES

a. **Less-than-significant with mitigation incorporated.** A Biological Resource Evaluation was prepared for the project to document biological resources identified during a reconnaissance field study and identify potential impacts. The project site consists of 19.74 gross acres previously farmed in row crops. Historical imagery indicates the project site may have been taken out of production in about around 2006. Aerial imagery also shows the site and has since been regularly disced and maintained for vegetation control. However, no special status species or evidence of presence were observed during the site survey (Pruett Biological Resources Consulting, Inc. 2023). The project must comply with listed plant and animal species protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), as directed by the U.S. Fish and Wildlife Service and the California State Department of Fish and Wildlife, respectively. Therefore, the project would result in a less than significant with mitigation incorporated on special status species.

   Mitigation Measure 1 requires consultation and compliance with mitigation measures prior to ground disturbance for any special-status wildlife species that have the potential to occur at the project site. Mitigation Measure 2 requires a pre activity survey for kit fox, Tipton kangaroo rat and migratory birds in coordination with CDFW in the event that any are found onsite. With implementation of Mitigation Measures 1 and 2, the project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

b. **No Impact.** There is no riparian habitat or other sensitive natural communities located at the site. This project is also not located within, or adjacent to, the Kern River riparian habitat area. Therefore, the project would result in no impacts on any riparian habitat or other sensitive natural community.

c. **No Impact.** There are no wetlands, as defined by Section 404 of the federal Clean Water Act, located at the project site, and no features identified as wetlands categories are found in the National Wetlands Inventory within the project site (United States Fish and Wildlife Service, 2021). Therefore, the project would result in no impacts on federally protected wetlands.

d. **Less than significant with mitigation incorporated.** The project site is isolated from natural area, is not within the Kern River floodplain.

   There is the potential during construction to temporarily affect nursery sites such as dens and burrows. Project construction could cause the direct destruction of a nursery site or cause enough of an indirect disturbance to cause special-status wildlife to abandon a nursery site. However, Mitigation Measures 1 and 2 require preconstruction surveys and, if necessary, additional mitigation recommended by a qualified biologist and CDFW to reduce potential impacts to nursery sites. With the implementation of Mitigation Measures 1 and 2, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e. **Less-than-significant Impact.** The project site does not include biological resources that are protected by local policies. Therefore, the project would result in no impact on any local policies or ordinances protecting biological resources.

f. **Les-than-significant with mitigation incorporated.** Please refer to response IV.e. With implementation of Mitigation Measures 1 and 2, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES

a. **No Impact.** A Cultural Resources Assessment was prepared for the project to identify historic and cultural resources within the project site. A records search and field survey of the project site was conducted. No prehistoric or historical cultural resources were discovered during the field survey (Hudlow 2021)**.** According to the Historic Buildings and Sites in Bakersfield Map, the project site does not include a historic building or site (City of Bakersfield 2022). Therefore, the project would not result in substantial adverse effects on historical resources.

b. **Less than significant with mitigation incorporated.** No archeological resources have been documented within the project site (Hudlow 2021). However, there is still the potential to unearth previously unknown archaeological resources at the site, and grading and other ground-disturbing activities have the potential to damage or destroy such resources. Mitigation Measure 3 requires ceasing work and investigating any discovery in the event that previously unknown archaeological resources are unearthed during construction. With the implementation of Mitigation Measure 3, the project would not cause a substantial adverse change in the significance of an archaeological resource.

c. **Less than significant with mitigation incorporated.** There are no known human remains found at the project site. The project could inadvertently uncover or damage previously unknown human remains. Mitigation Measure 4 requires that if any human remains are found at the site during construction, work would cease and the remains would be handled pursuant to applicable law. With implementation of Mitigation Measure 4, the project would not significantly disturb any human remains.

VI ENERGY

a. **Less-than-significant impact.** The project would comply with modern building standards, including California Code of Regulations Title 24, which outlines energy efficiency standards for new residential buildings to ensure that they do not wastefully, inefficiently, or unnecessarily consume energy.

b. **Less-than-significant impact.** There is no adopted plan by the City of Bakersfield for renewable energy or energy efficiency. As mentioned above, the project would comply with California Code of Regulations Title 24. Additionally, the City encourages applicants and developers to go beyond the required standards and make their developments even more efficient through programs such as LEED, or Leadership in Energy and Environmental Design, which is a green building rating system that provides a framework to create healthy, highly efficient, and cost-saving green buildings. Other encouraged programs available to applicants and developers are Title 20 appliance energy efficiency standards and 2005 building energy efficiency standards. Therefore, the project would result in a less than significant impact on a state or local plan for renewable energy or energy efficiency.

VII. GEOLOGY AND SOILS

a. The following discusses the potential for the project to expose people or structures to substantial adverse effects because of various geologic hazards. The City is within a seismically active area. According to the *Metropolitan Bakersfield General Plan*, major active fault systems border the southern portion of the San Joaquin Valley. Among these major active fault systems include the San Andreas, Breckenridge-Kern County, Garlock, Pond Poso, and White Wolf faults. There are numerous additional smaller faults suspected to occur within the Bakersfield area, which may or may not be active. The active faults have a maximum credible Richter magnitude that ranges from 6.0 (Breckenridge-Kern County) to 8.3 (San Andreas). Potential seismic hazards in the planning area involve strong ground shaking, fault rupture, liquefaction, and landslides.

a.i **No impact.** Ground rupture is ground deformation that occurs along the surface trace of a fault during an earthquake. The project site is not included within the boundaries of an "Earthquake Fault Zone" as defined in the Alquist-Priolo Earthquake Fault Zoning Act. Therefore, the project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault.

a.ii **Less-than-significant impact.** The City is within a seismically active area. Future structures proposed on the project site are required by state law and City ordinance to be constructed in accordance with the Uniform Building Code (specifically Seismic Zone 4, which has the most stringent seismic construction requirements in the United States), and to adhere to all modern earthquake construction standards. Therefore, the project would not expose people or structures to potential substantial adverse effects involving strong seismic ground shaking.

a.iii **Less-than-significant impact.** The most common seismic-related ground failure is liquefaction and lateral spreading. In both cases, during periods of ground motion caused by an event such as an earthquake, loose materials transform from a solid state to near-liquid state because of increased pore water pressure. Such ground failure generally requires a high water table and poorly draining soils in order for such ground failure to occur. The potential for liquefaction at the project site is low. In addition, future structures proposed on the project site are required by state law and City ordinance to be constructed in accordance with the Uniform Building Code, including those relating to soil characteristics. Therefore, the project would not expose people or structures to potential substantial adverse effects involving seismic-related ground failure, including liquefaction.

a.iv **No impact.** In Kern County, the common types of landslides induced by earthquake occur on steeper slopes found in the foothills and along the Kern River Canyon; in these areas, landslides are generally associated with bluff and stream bank failure, rockslide, and slope slip on steep slopes. The project site is generally flat, there are no such geologic features located at the project site, and the site is not located near the Kern River Canyon. Therefore, the project would not expose people or structures to potential substantial adverse effects involving landslides.

b. **Less-than-significant impact.** The project site's soils have low-to-medium susceptibility to erosion by rainfall (USDA 2022). The relatively low precipitation in the project area [on average about 6 inches/year results in surface runoff that is intermittent and temporary in nature. The erosion potential at the site and the fact that the soils are well drained coupled with low average rainfall in the area does not make the project site susceptible to substantial soil erosion or loss of topsoil.

Construction of the site would temporarily disturb soils, which could loosen soil, and the removal of vegetation could contribute to future soil loss and erosion by wind and storm water runoff. The project would have to request coverage under the National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction Activities* (No. 2012-0006-DWQ) (General Permit) because the project would result in 1 or more acres of ground disturbance. To conform to the requirements of the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) would need to be prepared that specifies best management (BMPs) to prevent construction pollutants, including eroded soils (such as topsoil), from moving offsite. Implementation of the General Permit and BMPs requirements would mitigate erosion of soil during construction activities.

During operation, the soils would be sufficiently compacted to required engineered specifications, revegetated in compliance with City requirements, or paved over with impervious surfaces such that the soils at the site would not be particularly susceptible to soil erosion. Therefore, the project would not result in substantial soil erosion or the loss of topsoil.

c. **Less-than-significant impact.** As discussed in VII.a.iii and VII.a.iv, the project site's soils would not expose people or structures to potential substantial adverse effects involving seismic-related ground failure, including liquefaction, lateral spreading, or landslides.

Subsidence is part of the baseline condition in the project area due to historic groundwater pumping the resultant subsidence that occurs with such activities. The project would not substantially contribute to this baseline condition because the projected water use would be consistent with Cal Water's *2015 Urban Water Management Plan* (UWMP) (Cal Water 2016), which takes into consideration sustainability of the groundwater basin and the need to reduce reliance on groundwater pumping in the future.

Future structures proposed on the project site are required by state law and City ordinance to be constructed in accordance with the Uniform Building Code, including those relating to soil characteristics. Therefore, the project would not be located on a geologic unit 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. **Less-than-significant impact.** When a soil has 35% or more clay content, it is considered a clayey soil. The project site consists of Kimberlina Urban Land-Cajon complex 0-2% slope soils type and Granoso 0-2% slope soils type. The typical profile for these soil types is fine sandy loam and alluvium with little clay content and therefore, do not have a high potential to be expansive. Additionally, future structures proposed on the project site are required by state law and City ordinance to be constructed in accordance with the Uniform Building Code, including those relating to soil characteristics. Therefore, the project would not be located on expansive soil creating substantial risks to life or property.

e. **No impact.** The project would not require the use of septic tanks or alternative wastewater disposal system. The project would hook up to existing City sewer in the area. Therefore, the project would not 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.

f. **Less-than-significant impact.** Paleontological sensitivity is determined by the potential for a geologic unit to produce scientifically significant fossils. Because paleontological resources typically occur in the substratum soil horizon, surface expressions are often not visible during a pedestrian survey. Paleontological sensitivity is therefore derived from known fossil data collected from the entire geologic unit.

VIII. GREENHOUSE GAS EMISSIONS

a. **Less-than-significant impact**. Total greenhouse gas emissions (GHG) emissions generated during all phases of construction were combined and are presented in **Table 4**. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the South Coast Air Quality Management District and the Sacramento Metropolitan Air Quality Management District, have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of the total emissions generated during construction were based on the life of the development (residential—30 years) and added to the operational emissions (Trinity Consultants 2021).

Total GHG emissions generated during operations are presented in **Table 4**. The project would result in a 42.9 percent reduction in emissions, meeting the goal set by Assembly Bill (AB) 32. By meeting the reduction goal set by AB 32 and through compliance with applicable local, state, and federal plans and policies, the project would not have a substantial adverse effect related to greenhouse gas emissions (Trinity Consultants 2021).

Table 4 Construction Emissions, Greenhouse Gases

	$MTCO_{2e}$	Percent Reduction
2023 Project Operations	1,081.21	-
2005 Operational Emissions plus Amortized Construction Emissions	1,892.62	-
Business as Usual Reduction	-	42.9%

Source: (Trinity Consultants 2021)
Notes: $MTCO_{2e}$ =metric tons of carbon dioxide equivalent

b. **Less-than-significant impact.** The City of Bakersfield has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for Senate Bill (SB) 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018 (Trinity Consultants 2021).

The SJVAPCD has adopted a Climate Action Plan, but it does not include measures that are applicable to development projects. Therefore, the SJVAPCD Climate Action Plan cannot be applied to the project. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with Air Resources Board's (ARB) adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update (Trinity Consultants 2021).

IX. HAZARDS AND HAZARDOUS MATERIALS

a. **Less-than-significant impact.** The project would not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. However, construction activities would require the transport, storage, use, and/or disposal of hazardous materials such as fuels and greases for the fueling/servicing of construction equipment, and there is the potential for upset and accident conditions that could release such material into the environment. Such substances would be stored in temporary storage tanks/sheds that would be located at the site. Although these types of materials are not acutely hazardous, they are classified as hazardous materials and create the potential for accidental spillage, which could expose construction workers. All transport, storage, use, and disposal of hazardous materials used in the construction of the project would be in strict accordance with federal and state laws and regulations. During construction of the project, Material Safety Data Sheets (MSDS) for all applicable materials present at the site would be made readily available to onsite personnel. During construction, non-hazardous construction debris would be generated and disposed of at approved facilities for handling such waste. Also, during construction, waste disposal would be managed using portable toilets located at reasonably accessible onsite locations.

   The project is the development of up to 135 duplex units and community center. Day-to-day activities in residences do not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. Maintenance of residences would require the transport, storage, use, and/or disposal of hazardous materials such as paints, cleaners, oils, batteries, and pesticides. Residential users should follow any instructions for use and storage provided on product labels carefully to prevent any accidents at home. Users should also read product labels for disposal directions to reduce the risk of products exploding, igniting, leaking, mixing with other chemicals, or posing other hazards on the way to a disposal facility. Additionally, residential hazardous waste can be dropped off at Metro Kern County Special Waste Facility located at 4951 Standard Street or at one-day hazardous waste collection events that take place throughout the year. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. **Less-than-significant impact.** Please refer to response VIII.a. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous material into the environment.

c. **No impact.** The closest school is Buena Vista Elementary School located just about 1.0 mile southwest of the site and Independence High School about 1.0 mile south of the site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

d. **No impact.** According to EnviroStor, no hazardous waste sites or materials are located within the project site (DTSC 2022). Therefore, the project would not result in a substantially adverse effect related to hazardous materials listed on Government Code 65962.5.

e. **No impact.** The project site is not located within the Kern County *Airport Land Use Compatibility Plan* area (Kern County 2012). The closest airport to the project site is the Bakersfield Municipal Airport located about 9 miles to the southeast of the site. Therefore, the project would not result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

f. **Less-than-significant impact.** The project would not interfere with any local or regional emergency response or evacuation plans because the project would not result in a substantial alteration to the adjacent and area circulation system. The project is typical of urban development in Bakersfield and is not inconsistent with the adopted City of Bakersfield Hazardous Materials Area Plan (Bakersfield 1997). This plan identifies responsibilities and provides coordination of emergency response at the local level to hazardous materials incidents. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g. **Less-than-significant impact.** The project site is not located within a "very high," "high," or "moderate" fire hazard severity zone. The site consists of developed and vacant land, and its vicinity is developed with residential land uses that do not possess high fuel loads that have a high potential to cause a wildland fire. The project site would be developed with hardscapes and irrigated landscaping, which would further reduce fire potential at the site. Therefore, the project would not expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands.

X. HYDROLOGY AND WATER QUALITY

a. **Less-than-significant impact.** Construction would include ground disturbing activities. As discussed in VI.b, the project site's soil types have a low-to-medium susceptibility to sheet and rill erosion by rainfall and a low susceptibility to wind erosion at the ground surface. Disturbance of onsite soils during construction could result in soil erosion and siltation, and subsequent water quality degradation through increased turbidity and sediment deposition during storm events to offsite locations. Additionally, disturbed soils have an increased potential for fugitive dust to be released into the air and carried offsite. As described in VI.b, the project would be required to comply with the General Permit. To conform to the requirements of the General Permit, a SWPPP would need to be prepared that specifies BMPs to prevent construction pollutants from moving offsite. The project is required to comply with the General Permit because project-related construction activities would disturb at least 1 acre of soil.

The City owns and maintains a municipal separate storm sewer system (MS4). The project's operational urban storm water discharges are covered under the Central Valley Water Quality Control Board (CVRWQCB) *National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements General Permit for Discharges from Municipal Separate Storm Sewer Systems* (Order No. R5-2016-0040; NPDES No. CAS0085324) (MS4 Permit) (CVRWQCB 2016). The MS4 Permit mandates the implementation of a storm water management framework to ensure that water quality is maintained within the City as a result of operational storm water discharges throughout the City, including the project site. By complying with the General Permit and MS4 Permit, the project would not violate any water quality standards or waste discharge requirements.

b. **Less-than-significant impact.** Potable water from the project would be supplied by California Water Service (Cal Water). Cal Water provided a "Will Serve Letter" (Cal Water 2023) for the project, and therefore groundwater levels have already been accounted for in the UWMP with the project (a future entitlement). Therefore, the project would not 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.

c.i **Less-than-significant impact.** The project site contains ephemeral channels that do not have connectivity to a jurisdictional waterway and discharge to land. The project site would be graded and, as a result, the internal drainage pattern at the site would be altered from the baseline condition. Additionally, the project would result in increased impervious surfaces (i.e., building pads, sidewalks, asphalt parking area, etc.) at the site, which would reduce percolation to ground and result in greater amounts of storm water runoff concentrations at the site. If uncontrolled, differences in drainage patterns and increased impervious surfaces could result in substantial erosion or siltation on- or offsite. However, the project would be required to comply with the General Permit during construction and MS4 permit during operation. In order to comply with the MS4 Permit, the City requires compliance with adopted building codes, including complying with an approved drainage plan, which avoids on- and offsite flooding, erosion, and siltation problems. Therefore, the project would not 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 offsite.

c.ii **Less-than-significant impact.** Please refer to response IX.c.i Therefore, the project would not 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.

c.iii **Less-than-significant impact.** Please refer to responses IX.a and IX.c.i. Therefore, the project would not 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.

c.iv **No Impact.** The project site is located within an area designated Zone X (FEMA 2017), which is outside the 100-year flood hazard area. Therefore, the project would not 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.

d. **No Impact.** The project is not located near any ocean or an enclosed body of water and therefore, would not be subject to inundation by tsunami or seiche. A mudflow is a type of landslide where earth and surface materials are rapidly transported downhill under the force of gravity. As discussed in VII.a.iv, landslides, including mudflow, occur on steeper slopes in the foothills and along the Kern River Canyon. The project site is generally flat, there are no such geologic features located at the project site, and the site is not located near the Kern River Canyon. Therefore. The project site would not be inundated by seiche, tsunami, or mud flow.

e. **Less-than-significant impact**. Please refer to response X.c.i. There is currently no adopted groundwater management plan for the project site or its vicinity. Therefore, the project

would result in a less than significant impact related to obstructing a water quality control plan or a sustainable groundwater management plan.

XI. LAND USE AND PLANNING

a. **No impact.** The project is a continuation of the existing urban development pattern of the City or is an infill development. The project is not a long and linear feature, such as a freeway, railroad track, block wall, etc., that would have the potential to divide a community. The project is the development of a finite 20.56-acre project site that does not impede existing or future movement or development of the City. Therefore, the project would not physically divide an established community.

b. **No impact.** The project is required to be consistent with the Metropolitan Bakersfield General Plan. The project is to change the zone district to a corresponding compatible zone with the General Plan Land Use designation. The record does not indicate that there are identified environment conflicts or inconsistencies with said policies or zoning regulations.

XII. MINERAL RESOURCES

a. **No impact.** The project site is not within the administrative boundaries of an oilfield and there are no oil wells found on the site (DOGGR 2022). The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b. **No impact.** The project site is currently designated LR (Low Density Residential). No portion of the site is designated for a potential mineral resource extraction use such as R-MP (Mineral and Petroleum). Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site that is delineated in a local general plan, specific plan, or other land use plan.

XIII. NOISE

a. **Less-than-significant impact.** The project would generate noise during construction by the use of construction equipment. Typical construction equipment generates sound levels between 80 and 85 A-weighted decibels (dBA), which is a decibel system reflective of human hearing characteristics. At 80 to 85 dBA, the human response to such a sound level is annoyance and difficulty hearing conversation. Using the rule of thumb that noise attenuates 7.5 dBA per a doubling of distance away from the sound-emitting source, it would require 800 feet away from an 85-dBA sound-emitting source to obtain a 55 dBA sound level, which is considered "quiet" to the human ear. There are sensitive receptors (existing SFR) within 800 feet to the northeast of the project site. However, project construction would be limited to 6 a.m. and 9 p.m. on weekdays and 8 a.m. and 9 p.m. on weekends per Bakersfield Municipal Code Chapter 9.22 (Noise).

   Project operations would generate sound levels typical of residential land uses and residents would have to comply with Bakersfield Municipal Code regarding noise. Therefore, the project would not expose 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. **Less-than-significant impact.** Some groundborne vibration and noise would originate from earth movement and building activities during the project's construction phase. However, blasting, pile-driving, break-ramming, jackhammering, chipping, and other high

impact-related construction activities that result in the creation of the greatest groundborne vibrations and noise levels would not occur as a consequence of the project. Additionally, groundborne vibration and noise attenuates at a shorter distance than airborne noise. Operation of single- and multi-family residential would not result in appreciable groundborne vibration or noise. Therefore, the project would not expose persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

c. **No impact.** The project would not expose people residing or working in the project area to excessive noise levels for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

XIV. POPULATION AND HOUSING

a. **Less-than-significant impact.** The project would accommodate population growth in this area through the development of new multi-family residential, and the project is the logical extension of existing urban development. The project would also require the extension of infrastructure. Therefore, the project would result in a less than significant impact on growth.

b. **No impact.** The project site consists of vacant land. Therefore, the project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

XV. PUBLIC SERVICES

a.i **Less-than-significant impact.** Fire protection services for the Metropolitan Bakersfield area are provided through a joint fire protection agreement between the City and County. The project may necessitate the addition of fire equipment and personnel to maintain current levels of service, and this potential increase in fire protection services can be paid for by property taxes generated by this development. Therefore, the project would not 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 fire protection.

a.ii **Less-than-significant impact.** Police protection will be provided by the Bakersfield Police Department upon project build out. Current City Police services standards require 1.09 officers for every 1,000 people in the City. However, this potential increase in services can be paid for by property taxes generated by this development. Therefore, the project would result in a less than significant impact on police protection performance objectives.

a.iii **Less-than-significant impact**. The project is growth accommodating and therefore, is a driver for population growth, including the need for additional schools. The need for additional schools can be paid for by existing school impact fees and increased property tax revenues. Therefore, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools.

a.iv **Less-than-significant impact.** The project is growth accommodating and therefore, is a driver for population growth, including the need for additional recreational opportunities.

However, residential projects follow the parkland requirements that are calculated based on the General Plan and City Ordinance park standards of 2.5 acres for every 1,000 people. Every residential unit must pay a park land development fee at the time of the issuance of building permits. Compliance with the park acreage dedication ordinance and the park development fee ordinance ensures that parks are dedicated and built in accordance with City standards to accommodate the increased population. Therefore, the project would not 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 parks.

a.v **Less-than-significant impact.** The project and eventual buildup of this area would result in an increase in maintenance responsibility for the City. Though the project may necessitate increased maintenance for other public facilities, this potential increase can be paid for by property taxes generated by this development. Therefore, the project would not 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 other public facilities.

XVI. RECREATION

a. **Less-than-significant impact.** Please refer to response XV.a.iv. Therefore, the project would not 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. **Less-than-significant impact.** Please refer to response XV.a.iv. Therefore, the project would not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

XVII. TRANSPORTATION AND TRAFFIC

a. **Less-than-significant with mitigation incorporated.** The project would result in temporary construction-related traffic impacts. Construction workers traveling to and from the project site as well as construction material delivery would result in additional vehicle trips to the area's roadway system. Construction material delivery may require a number of trips for oversized vehicles that may travel at slower speeds than existing traffic and, due to their size, may intrude into adjacent travel lanes. These trips may temporarily degrade level of service (LOS) on area roadways and at intersections. Additionally, the total number of vehicle trips associated with all construction-related traffic (including construction worker trips) could temporarily increase daily traffic volumes on local roadways and intersections. The project may require temporary lane closures or the need for flagmen to safely direct traffic on roadways near the project site. However, once the project is built, it would not result in any permanent traffic-related effects.

Policy 36 of the Metropolitan Bakersfield General Plan Circulation Element states:

> Prevent streets and intersections from degrading below Level of Service "C" where possible due to physical constraints (as defined in a Level of Service standard) or when the existing Level of Service if below "C" prevent where possible further degradation

due to new development or expansion of existing development with a three-part mitigation program: adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical changes for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date.

Policy 36 of the Circulation Element of the MBGP requires the City to prevent streets and intersections from degrading below a level of service C, where possible, through dedication of adjacent right-of-way, access improvements, or an area wide impact fee. In addition, the Subdivision Ordinance requires all on-site street improvements and a proportional share of boundary street improvements to be built at the time the property is developed.

Mitigation Measure 5 requires that the applicant/developer participation in the Regional Transportation Impact Fee Program and the payment of Local Mitigation fees. With the implementation of this mitigation measure, the project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

b. **Less-than-significant with mitigation incorporated.** Please refer to response XVII.a. Therefore, the project would result in a less than significant impact related to CEQA section 15064.3, subdivision (b).

c. **Less-than-significant impact.** The project would have to comply with all conditions placed on it by the City Traffic Engineering Division in order to comply with accepted traffic engineering standards intended to reduce traffic hazards, including designing the roads so that they do not result in design feature hazards. The project is with the City limits and surrounded by compatible existing and planned land uses and land use designations. Therefore, the project would not substantially increase hazards due to a design feature or incompatible uses.

d. **Less-than-significant impact.** There may be the potential that, during the construction phase, the project would impede emergency access. For projects that require minor impediments of a short duration (e.g., pouring a new driveway entrance), the project would be required to obtain a street permit from City Public Works. If a project requires lane closures and/or the diversion of traffic, then a Traffic Control Plan would be required. During operations, the project would have to comply with all applicable City policies and requirements to ensure adequate emergency access.

XVIII. TRIBAL CULTURAL RESOURCES

a. **Less-than-significant impact with mitigation incorporated.** The Cultural Resources Assessment (Hudlow 2021) determined that there is no landscape, sacred place, or object with cultural value to a California Native American tribe located at the project site. Additionally, no portion of the site is eligible for listing in the California Register of Historical Resources or in a local register of historical resources (Hudlow 2021). However, in the event that any unknown resources are encountered, Mitigation Measure 3 and Mitigation Measure 4 would be implemented. Therefore, the project would result in a less than significant impact with mitigation incorporated on tribal cultural resources.

b. **Less-than-significant impact with mitigation incorporated.** See response XVII.a. above. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency to be significant.

XIX. UTILITIES AND SERVICE SYSTEMS

a. **Less-than-significant impact.** Refer to responses XIX.d and XIX.e. Therefore, the project would not 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.

b. **Less-than-significant impact.** The Cal Water has provided a "Will Serve Letter" stating that water service can be supplied to the development (Cal Water 2022). The proposed development would not result in a need for significant additional systems or substantially alter the existing water utilities in the area. Therefore, the project would have sufficient water supplies available from existing entitlements and resources, and new or expanded entitlements would not be needed.

c. **Less-than-significant impact.** Wastewater as a result of the project would be treated at WWTP No. 2, which is owned and operated by the City. Based on previous analyses, it is assumed that average daily water demand per dwelling unit is 325 gallons. With 299 dwelling units for the project, the project's average daily water demand would be 97,175 gpd [or 0.05 million gallons per day (MGD)] and therefore, it is assumed that wastewater capacity requirements to serve the project would also be 0.05 MGD. WWTP No. 2 has an overall capacity of 25 MGD with an average daily flow of 13.7 MGD. The current available capacity of 13.3 MGD (Bakersfield 2022). The project's contribution would account for less than 0.5% of the available capacity and therefore, WWTP No. 2 has sufficient capacity to serve the project. As a result, it has been determined that 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.

d. **Less-than-significant impact.** It is assumed that solid waste generated as a result of the project would be disposed at the Bena Landfill located at 2951 Neumarkel Road, Bakersfield, CA 93307. The amount of solid waste generated by the project would be negligible. The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

e. **Less-than-significant impact.** By law, the project would be required to comply with federal, state, and local statutes and regulations, including those relating to waste reduction, litter control, and solid waste disposal.

XX. WILDFIRE

a. **Less-than-significant impact.** Please refer to response IX.f. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

b. **Less-than-significant impact.** Please refer to response IX.g. Additionally, the project site is relatively flat, not near wildlands, the site and its surrounding do not possess high fuel loads (i.e., lots of vegetation and other burnable material) to exacerbate wildfire risks and therefore, fire-related pollutant concentrations. Therefore, the project would not exacerbate wildfires and expose project occupants to pollutant concentrations from a

wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.

c. **Less-than-significant impact.** Please refer to response XX.b above.

d. **Less-than-significant impact.** Please refer to response XX.b above.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

a. **Less-than-significant with mitigated incorporated.** The project must comply with listed plant and animal species protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), as directed by the U.S. Fish and Wildlife Service and the California State Department of Fish and Wildlife, respectively. There are no important examples of the major periods of California history or prehistory found at the site. Therefore, the project with mitigation would 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 periods of California history or prehistory.

b. **Less-than-significant impact.** As described in the responses above, the project has no impacts that would be defined as individually limited, but cumulatively considerable.

c. **Less-than-significant impact with mitigation incorporated.** As described in the responses above, with mitigation incorporated, the project would have less than significant impacts and environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

BIBLIOGRAPHY/REFERENCE LIST

1. Bakersfield (City of Bakersfield). 1997. Hazardous Materials Area Plan. January.

2. Bakersfield. 1999. Proposed Subdivision & Engineering Design Manual. June.

3. Bakersfield. 2001. Metropolitan Bakersfield Habitat Conservation Plan and Final Environmental Impact Report.

4. Bakersfield. 2002. Bikeway Master Plan.

5. Bakersfield. 2013. City of Bakersfield Bicycle Transportation Plan. November.

6. Bakersfield 2016. Metropolitan Bakersfield General Plan and Final Environmental Impact Report. Revised: January 20, 2016.

7. Bakersfield. 2017. Wastewater Treatment Plants.

8. City of Bakersfield. (2022, July 26). Historic Buildings and sites in Bakersfield. ArcGIS StoryMaps. https://storymaps.arcgis.com/stories/eb1b154414724e1d8b39ef7ff1ee46a2

9. CalFire (Department of Forestry and Fire Protection). 2008. Draft Fire Hazard Severity Zones in LRA, Kern County.

10. Caltrans (California Department of Transportation). California State Scenic Highway Mapping System.

11. Cal Water (California Water Service), https://www.calwater.com/docs/uwmp2020/BK_2020_UWMP_FINAL.pdf

12. Cal Water. Will Serve Letter, 2023.

13. CBOC (California Burrowing Owl Consortium). 1993. Burrowing Owl Protocol and Mitigation Guidelines. April.

14. CDFW. (2010, February). California Essential Habitat Connectivity Project. California, United States. Retrieved May 17, 2023, from https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18366&inline

15. DOC (Department of Conservation). 2018. Farmland Mapping and Monitoring Program https://maps.conservation.ca.gov/DLRP/CIFF/

16. DOC (Department of Conservation Seismic Zones and soils https://maps.conservation.ca.gov/cgs/gmc/

17. 2020 Federal Census https://www.census.gov/quickfacts/bakersfieldcitycalifornia (2022).

18. CalGEM Well Finder. https://maps.conservation.ca.gov/doggr/wellfinder , (2022).

19. DTSC (Department of Toxic Substance Control). 2017. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=bakersfield%2C+ca

20. DWR (Department of Water Resources 2022) https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels

21. FEMA (Federal Emergency Management Agency). 2017. FEMA Flood Map Service Center: Welcome! Available:<https://msc.fema.gov/portal>. Accessed: October 19, 2017.

22. Kern County. 2009. Lake Isabella Dam Failure Evacuation Plan.

23. Kern County. 2012. Airport Land Use Compatibility Plan. November.

24. Kern County. 2017. Lake Isabella Flood Area.

25. SJVAPCD (San Joaquin Valley Air Pollution Control District). 2022. Guide for Assessing and Mitigating Air Quality Impacts.

26. USDA (U.S. Department of Agriculture). Soil survey of Kern County, northeastern part, and southeastern part of Tulare County, California. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

27. United States Fish and Wildlife Service. (2021, May 1). National Wetlands Inventory. United States. Retrieved May 17, 2023, from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

28. Biological Resource Evaluation, Assessor's Parcel Map Number 544-040-07, County of Kern, Bakersfield, California, Pruett Biological Resource Consulting, December 12, 2023.

29. A Phase 1 Cultural Resource Survey of Vesting Tentative Parcel Map 12167, City of Bakersfield, California. Scott M. Hudlow, Hudlow Cultural Resource Associates, November 2021.

30. Small Project Analysis Level Assessment ,NWC Panama & Old River Multi-Family Residential SPAL, Trinity Consultants, December 2021.

BIOLOGICAL RESOURCE EVALUATION

General Plan Amendment/Zone Change
Assessor's Parcel Map Numbers
544-040-07
County of Kern
Bakersfield, California

Prepared for:

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12 December 2023

EXECUTIVE SUMMARY

Pruett Biological Resource Consulting, Inc. (PruettBio) has prepared this biological resource evaluation for a proposed General Plan Amendment (GPA) and Zone Change (ZC) of Assessor's Parcel Numbers (APN) 544-040-07**.** The project consists of 19.74 gross acres (7.98 hectares)(project) Section 19, Township 30 South, Range 27 East, Mount Diablo Base and Meridian. The project is located northwest of the intersection of Panama Lane and Old River Road, within the incorporated limits of the City of Bakersfield, County of Kern southwest Bakersfield, County of Kern, California.

The project is located within the geographic range of several federal-, and state-listed, threatened and/or endangered plant and animal taxa. Several non-listed, special-status species also have the potential to occur in the vicinity of the project.

The purpose of this report is to document biological resources identified during a reconnaissance-level field study of the project site and include potential biological resources identified during a literature review of the site and vicinity, identify potential impacts to biological resources resulting from the project. Evaluation of potential impacts to plant and animal species are required under federal and state regulation during a General Plan Amendment and Zone Change. California Environmental Quality Act (CEQA) Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project development. Avoidance and minimization measures for implementation prior to and during project activities are recommended as appropriate.

The California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have not been contacted regarding the preparation of this report. Appendix B, Special-Status Plant and Animal Evaluations, satisfy the requirements for an initial determination of potential impacts under the CEQA Appendix G thresholds. If CEQA threshold determinations warrant, further consultation may be required with CDFW and USFWS. If additional consultation with the agencies results in the need for Application for a California Incidental Take Permit, Cal. Code Regs., tit. 14, § 783.2 outlines requirements for detailed species-specific take analysis, proposed measures to minimize and fully mitigate impacts, compliance monitoring, and funding. A detailed description satisfying Cal. Code Regs., tit. 14, § 783.2 is not required to meet the CEQA Appendix G thresholds.

A literature review was conducted of the site and vicinity, prior to the field study, of the biological resources known to occur based on recorded, direct observation, or potentially occurring in the project impact area based on current or historical habitat conditions. During the field study, existing habitat conditions, direct observations and/or species sign was recorded to assess the potential for occurrence of special-status species. This report includes an evaluation of the potential for those special-status biological resources not observed during the field study, with the potential to occur on the property based on the habitat conditions observed.

The project is in southwest Bakersfield in an area historically farmed. Urban development has increased along the margins of Metropolitan Bakersfield in the past 50 years and has resulted in the conversion of farmland to residential and commercial properties. The project site consists of 19.74 gross acres previously farmed in row crops. Historical aerial imagery indicates the project site may have been taken out of production in about around 2006. Aerial imagery also shows the project site and has since been regularly disced and maintained for vegetation control. No undisturbed, native, or recovering habitat is present on the site or adjacent parcels.

The federal and state database queries yielded 14 special-status plant species and 39 special-status animal species as potentially occurring within the vicinity of the project site. Of these, 5 plant species, and 18 animal species have federal-, and/or state-listing and are afforded protection under federal or state law.

A query of the California Native Plant Society (CNPS) database was made for the nine-quadrangles surrounding the project. The CNPS tracks plant species that do not meet the CEQA Section 15380 criteria for listing as threatened or endangered and are afforded no protection under federal or state law. A USGS nine-quadrangle query additionally includes a search area beyond a standard 10-mile radius. Plant species meeting the criteria for Special Status Plants as defined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) and evaluated under CEQA Section 15380 have been included in this report.

Some CRPR 4 taxa may meet the Section 15380 definition of an endangered, rare, or threatened species, and in the definition of CRPR 4, CNPS and CDFW suggest additional reasons for including CRPR 4 taxa in a CEQA analysis. These reasons include Regionally Rare Taxa. Considered locally significant plants, that is, plants that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region (CEQA Guidelines, § 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). “Locally rare” has not been generally defined, but in counties where a “locally rare” policy exists, it applies to taxa with only five to 10 known occurrences in that county.

The CNDDB, iPac, and CNPS lists were cross-referenced for consistency. A separate CNDDB query for the County of Kern was also generated to evaluate plant species for local significance.

The project will not conflict with existing or adopted Habitat Conservation Plans, Natural Community Conservation Plans, local or regional conservation plans, or local ordinances protecting biological resources.

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INTRODUCTION

Pruett Biological Resource Consulting, Inc. (PruettBio) has prepared this biological resource evaluation for the proposed development of APN 544-040-07**.** The project consists of 19.74 gross acres (7.98 hectares) Section 19, Township 30 South, Range 27 East, Mount Diablo Base and Meridian. The project is northwest of the intersection of Panama Lane and Old River Road, within the incorporated limits of the City of Bakersfield, County of Kern, California. The report documents biological resources identified during fieldwork conducted on the project site and those identified through a literature search as potentially occurring based on known observations or historic habitat conditions. The report uses the information collected during the field study and literature search to evaluate potential impacts to biological resources, resulting from the project. The report is intended to assist in the analysis of the proposed project for a GPA and ZC.

Listed plant and animal species are protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). Protection of other non-listed, special-status species is afforded under additional regulation including the Migratory Bird Treaty Act (MBTA). Pursuant to the California Environmental Quality Act (CEQA) impacts to non-listed, special-status species must be evaluated. Where necessary, the report recommends avoidance and minimization measures for implementation prior to and during project activities. The report is intended to provide technical information in support of a CEQA preliminary review. For the purposes of this report, potential impacts to the biological resources of the proposed project were evaluated in accordance with Appendix G of the *CEQA Guidelines* (2021).

PROJECT LEGAL DESCRIPTION

The project consists of 19.74 gross acres (7.98 hectares) of APN 544-040-07. The project site is located northwest of the intersection of Panama Lane and Old River Road, Section 19, Township 30 South, Range 27 East, Mount Diablo Base and Meridian.

PROJECT SETTING AND PHYSICAL DESCRIPTION

The project site is in the southern San Joaquin Valley; a broad, treeless plain in the rain shadow of the Inner Coast Ranges. The region's climate can be characterized as Mediterranean; with hot, dry summers and cool, moist winters. Summer high temperatures typically exceed 100 °Fahrenheit (°F); with an average of 110 days per year over 90 °F. Winter temperatures in the San Joaquin Valley are mild, with an average of only 16 days per year with frost (Twisselmann 1967).

Rainfall varies, increasing from west to east, with the west side of the valley receiving an average of around 4 inches (10 centimeters) per year and the east side averaging about 6 inches (15 centimeters) per year. Winter fog, called Tule fog, sometimes forms during the months of November, December, and January, supplementing the annual precipitation. Approximately 90% of the rainfall in the region occurs between November 1 and April 1. Drought cycles occur periodically, becoming severe enough that plant and animal populations can experience large fluctuations. The vegetation communities in the San Joaquin Valley are distinguishable from the Mojave Desert to the east due to Tule fog, higher humidity, and isolation from continental climatic influences by mountain ranges (Twisselmann 1967).

The general topography of the area slopes very subtly south with the project generally flat at about 350 feet (107 meters) above mean sea level. The project and vicinity have been historically farmed for decades. The project site was completely cleared and disced at the time of the field study. The project site is surrounded by mixed use residential, agricultural, and commercial development with scattered oil production. No undisturbed, native, or recovering habitat is present on the project site or adjacent parcels.

METHODS

LITERATURE REVIEW

PruettBio conducted a literature review to identify known observations and potential for listed, or otherwise special-status, species to occur in the vicinity of the project site. A standard, 10-mile (16-kilometer) radius query was performed. Database records reviewed included:

- **United States Fish & Wildlife Service (USFWS) iPac:** The iPac report generates a list of federal-listed species and other resources under the jurisdiction of the USFWS, including designated critical habitat for listed species, National Wildlife Refuge lands, and Wetlands in the National Wetlands Inventory. The list includes resources that are outside of the project site, but that have the potential to be impacted by project activities.

- **USFWS National Wetlands Inventory:** The Wetlands Mapper is an online inventory integrating digital map data and other resources to provide current information regarding the status of national wetlands, riparian, and deepwater habitats.

- **United States Department of Agriculture (USDA) WebSoil Survey:** The report is an online database providing soil data produced by the National Cooperative Soil Survey, a joint effort of the USDA and other federal, state, and local agencies. The information drawn for the Soil Survey of Kern County, California, Northwestern Part was originally drawn from fieldwork completed in 1981 with soil names and descriptions approved in 1982.

- **California Natural Diversity Database (CNDDB-RareFind 5):** The CNDDB is a database of listed, or otherwise special-status, plant and animal species and sensitive communities maintained by the California Department of Fish and Wildlife (CDFW). The information queried for this report included a standard 10-mile radius of the project site.

- **California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants:** CNPS is a private, professional organization that maintains a database evaluating the current conservation status of California's rare, threatened, and endangered plant species. The information queried for this report included a standard 10-mile radius of the project site. The list includes resources that are outside of the project site, but that have the potential to be impacted by project activities based on known historic or current habitat features. The data base was compared to the CNDDB and iPac queries for consistency.

FIELD STUDY

A reconnaissance-level, biological field study was conducted by Steven P. Pruett on 02 November 2023. The project was surveyed by walking the perimeter and random transects to evaluate all representative habitat features of the site. The field study conducted, allowed for 100% visual coverage of the project site habitat types. Field notes included observations of all plant and wildlife species observed. Direct observations and/or species sign was recorded to assess the potential for occurrence. Land cover types and general habitat conditions were recorded and photographed. Special-status species and habitat features, such as vegetation communities or ephemeral channels, were also recorded and photographed if observed.

Coordinates for important biological resource elements and direct observations of special-status species were recorded using a handheld geographic positioning system unit. If observed, San Joaquin kit fox (SJKF) dens were classified as defined by the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011). All plant taxa encountered were identified to the extent possible given the diagnostic features present. Identifications were made using keys contained in *The Jepson Manual: Vascular Plants of California* and online updates containing revisions to taxonomic treatments (Baldwin et al. 2012; Jepson Flora Project 2015).

RESULTS

This section summarizes the results of the field study conducted on the project site and evaluates those results for the known or potential for occurrence of special-status species based on the literature review and database queries and pursuant to statutory regulation. Discussions are provided describing the existing habitat conditions including vegetation communities, land cover and current use; soils; special-status biological resources potentially occurring in the vicinity of the project site; the potential for jurisdictional resources including designated critical habitat and riparian/wetland/water resource features; the potential for wildlife migration corridors and nursery sites; and regional and local policy.

VEGETATION COMMUNITIES AND LAND COVER

The project site is located at the northwest edge of urban development of Metropolitan Bakersfield. Before conversion to farmland, the original vegetive communities of the project site were Non-native Grassland (Holland 42200) and Valley Saltbush Scrub (Holland 36220). No undisturbed, native, or recovering habitat is present on the project site, adjacent parcels, or general vicinity of the project. The project site and surrounding area have been intensively farmed for decades. Urban development has increased along the margins of Metropolitan Bakersfield in the past 50 years and has resulted in the conversion of farmland to residential and commercial properties. The project site was cleared and disced at the time of the field study. No undisturbed, native, or recovering habitat is present on the site or adjacent parcels. The potential for any native herbaceous species is extremely low due to ongoing disturbance. The project site and margins are dominated by ruderal/invasive plant species.

SOILS

The USGS soil survey map describes the soil of the project site as Unit 127, Granoso sandy loan, 0-2 percent slopes, overwash and Unit 174, Kimberlina fine sandy loam. Unit 127 is alluvium derived from mixed rock sources found on alluvial fans and flood plains. It is comprised of sandy loam, loamy sand, and sand to a depth of about 62 inches. The depth to the restrictive feature is more than 80 inches and the available water storage in profile is listed as low (about 4.9 inches). Unit 174 is alluvium derived from igneous and sedimentary rock found on alluvial fans. It is comprised of fine sandy loam and silt loam to a depth of about 71 inches. The depth to the restrictive feature is more than 80 inches and the available water storage in profile is listed as moderate (about 8.7 inches). This soil has a prime farmland classification and is of statewide importance.

BIOLOGICAL RESOURCES

The literature review and database queries yielded 14 special-status plant species as potentially occurring within the vicinity of the project site. Thirty-nine animal species were identified as potentially occurring in the region of the project site. No evidence of any listed animal species was observed during the field study. No evidence of otherwise special-status plant or animal species, or animal species sign was observed during the field study.

No focused, protocol-level surveys were conducted for the preparation of this report. The field study was conducted outside of the blooming period for many of the special-status plant species potentially occurring in the vicinity of the project. The evaluation of special-status species that were found during the literature review with a potential to occur in the region are included in Appendix B.

Special-Status Plant Species

The federal and state database queries yielded 14 special-status plant species as potentially occurring within the vicinity of the project site. A query of the California Native Plant Society (CNPS) database was

mde for the nine-quadrangles surrounding the project. A USGS nine-quadrangle query additionally includes a search area beyond a standard 10-mile radius. Plant species meeting the criteria for Special Status Plants as defined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) were evaluated under CEQA Section 15380.

Special-status plant species considered in this evaluation include all plant species that meet one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR §17.12).

- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code §2050 et seq.). A species, subspecies, or variety of plant is endangered when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors (Fish and Game Code §2062). A plant is threatened when it is likely to become endangered in the foreseeable future in the absence of special protection and management measures (Fish and Game Code §2067).

- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.). A plant is rare when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code §1901).

- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
    - Species considered by the California Native Plant Society (CNPS) to be “rare, threatened or endangered in California” (Lists 1A, 1B and 2);
    - Species that may warrant consideration on the basis of local significance or recent biological information.
    - Some species included on the California Natural Diversity Database’s (CNDDB) Special Plants, Bryophytes, and Lichens List (California Department of Fish and Game 2008).

- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Some CRPR 4 taxa may meet the Section 15380 definition of an endangered, rare, or threatened species, and in the definition of CRPR 4, CNPS and CDFW suggest additional reasons for including CRPR 4 taxa in a CEQA analysis. These reasons include Regionally Rare Taxa. Considered locally significant plants, that is, plants that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region (CEQA Guidelines, § 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). “Locally rare” has not been generally defined, but in counties where a “locally rare” policy exists, it applies to taxa with only five to 10 known occurrences in that county. The CNDDB, iPac, and CNPS lists were cross-referenced for consistency.

Precipitation has been well above average to date, resulting in a good year for annual plant species observations. Of the 21 special-status plant species returned during database queries for the project vicinity, 5 species are either federally- or state-listed as threatened or endangered. Although CEQA requires consideration for impacts to locally significant plant species, no mitigation is legally required to compensate for impacts to non-listed plant species. No listed, or otherwise special-status plant species

was observed during the fieldwork conducted for the preparation of this report. No listed, or otherwise special-status plant species, has been recorded as occurring within the project site.

Special-Status Animal Species

Special-status animal species considered in this evaluation include those that may occur in the project vicinity that have statutory protections. This includes federal- and state-listed (rare, threatened, or endangered; fully protected) species and candidates for listing under the respective endangered species acts. Species that are of special concern to the CDFW or the USFWS are included in this evaluation. Special-status bird species that are afforded protection under the MBTA which may nest on or within an approximate 10-mile (16-kilometer) radius of the project site are also evaluated. No evidence of any listed animal species was observed during the field study. No evidence of otherwise special-status animal species, or animal species sign was observed during the field study

Designated Critical Habitat

The USFWS iPac report and USFWS Designated Critical Habitat Mapper lists no Designated Critical Habitat (USFWS 2023). Designated Critical Habitats closest to the project site include California condor (*Gymnogyps californianus*) approximately 22-miles south/southwest and Buena Vista Lake shrew (*Sorex ornatus relictus*) west of the project site. No suitable habitat for either species exists on the project site.

Jurisdictional Water Resource Features

Section 404 of the Federal Clean Water Act (CWA) regulates discharge of dredged and fill material into Waters of the United States. Wetlands are included under this jurisdiction. Proposed activities that may result in discharge of material into Waters of the U.S. require a permit review process by the U.S. Army Corps of Engineers as set forth under CWA section 404(b)(1). Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will substantially modify a river, stream, or lake.

A search of the USFWS National Wetlands Inventory resulted in no riparian, wetlands, or other jurisdictional water features mapped on the project site (USFWS 2023). These results are consistent with the observed conditions within the survey area.

Special-Status Natural Communities

No special-status vegetation communities on the project site were identified by the USFWS iPac query, the CNDDB, or the CNPS Inventory (USFWS 2023, CDFW 2023, CNPS 2023). These results are consistent with the observed conditions within the survey area.

Wildlife Migration Corridors and Nursery Sites

Wildlife corridors can be defined as connections between wildlife blocks that meet specific habitat needs for species movement generally during migratory periods but seasonally as well. Wildlife corridors generally contain habitat dissimilar to the surrounding vicinity and include examples such as riparian areas along rivers and streams, washes, canyons, or otherwise undisturbed areas within urbanization. Corridor width requirements can vary based on the needs of the species utilizing them. Development of the project would not impact wildlife migration corridors or nursery sites.

Regional and Local Policies

The proposed, modified project will not conflict with existing or adopted Habitat Conservation Plans, Natural Community Conservation Plans, local or regional conservation plans, or local ordinances protecting biological resources.

IMPACT ANALYSIS AND RECOMMENDED MITIGATION MEASURES

CEQA Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project. Appendix G provides an analysis of the impacts of the proposed project following the standards of CEQA and provides recommendations that, when implemented, would reduce impacts to less-than-significant levels. It is important to note that potential take of any federal- or state-listed species from project activities would require contacting the appropriate wildlife agency (the USFWS and/or the CDFW).

The California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have not been contacted regarding the preparation of this report. Appendix B, Special-Status Plant and Animal Evaluations, satisfy the requirements for an initial determination of potential impacts under the CEQA Appendix G thresholds. If CEQA threshold determinations warrant, further consultation may be required with CDFW and USFWS. If additional consultation with the agencies results in the need for Application for a California Incidental Take Permit, Cal. Code Regs., tit. 14, § 783.2 outlines requirements for detailed species-specific take analysis, proposed measures to minimize and fully mitigate impacts, compliance monitoring, and funding. A detailed description satisfying Cal. Code Regs., tit. 14, § 783.2 is not required to meet the CEQA Appendix G thresholds.

The project would create a significant impact to biological resources, based on the specifications in Appendix G of the CEQA Guidelines, if the following were to occur:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

2. 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 Game or U.S. Fish and Wildlife Service;

3. 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;

4. 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;

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The following analysis discusses potential impacts associated with the development of the project and provides recommendations where appropriate to further reduce potential impacts.

1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, by the CDFW, or the USFWS?

Direct and indirect impacts, in the form of “incidental take” of a threatened, endangered, or otherwise protected species, are not expected as a result of the development of the proposed project. Implementation of standard measures for the protection of biological resources are recommended to

avoid and minimize potential impact to general wildlife. These measures include, but may not be limited to:

- A biological resource pre-activity survey conducted by a qualified biologist no more that 30-days before the start of construction activities,
- Biological resource monitoring during each initial phase of ground disturbance,
- Compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted.

If known or natal SJKF dens are identified at any time during construction, protocols enumerated in the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011) should be implemented, and the appropriate agencies contacted for guidance.

The project is within the historic range of Tipton kangaroo rat. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability. Trapping would be required to confirm small mammal species occupying the project.

2. 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 CDFW or the USFWS?

No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service exists on the project site. No adverse effect will occur as a result of the development of the proposed project and no mitigation measures are recommended.

3. 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?

No features, identified in wetland categories, appear on the USFWS National Wetlands Inventory mapping (USFWS 2021) on the proposed, modified project site. No federally protected wetlands as defined by Section 404 of the Clean Water Act were identified during the field study conducted for the preparation of this report. No substantial adverse effect will occur as a result of the development of the project. No mitigation measures are recommended.

4. 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?

No migratory wildlife corridors were identified during the literature search or field study. The project will not interfere substantially with the movement of any native fish of wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The following recommendations are provided for the general protection of bird species that may occur on the project site or vicinity in compliance with the MBTA:

If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows: 1) ground or low-shrub nesting non-raptors – 300 feet (91 meters); 2) burrowing owl – as appropriate based on nest location, existing surrounding

activity, and evaluation of owl behavior. Coordination with CDFW may be warranted. 3) Sensitive raptors (e.g., prairie falcon, golden eagle) – 0.5 miles (0.8 kilometers); 3) other raptors – 500 feet (152 meters).

5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

There are no biological resources on the site which are protected by local policies. Impacts from conflicts with local policies will not occur. No additional mitigation measures are recommended.

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The project does not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No additional mitigation measures are recommended.

REFERENCES

Baldwin, B. G., Goldman, D. H., Keil, D. J., Patterson, R., Rosatti, T. J., & Wilken, D. H. (Eds.). (2012). *The Jepson manual: Vascular plants of California* (2nd ed.). Berkeley, CA: University of California Press. 1568 pp.

CDFG. (2009). *Protocols for surveying and evaluating impacts to special status native plant populations and natural communities*. Sacramento, CA: Author. 7 pp.

CDFG. (2012). *Staff report on burrowing owl mitigation*. Sacramento, CA: Author.

CNDDB. (2023). *Occurrence for U.S. Geologic Survey 7.5 minute quadrangles*. Sacramento, CA: CDFW

California Endangered Species Act of 1970, C.F.G.C § 2050 et seq. (2023).

California Environmental Quality Act of 1970, 13 P.R.C. § 21000 et seq. (2023).

California Environmental Quality Act of 1970 Guidelines, 14 C.C.R. § 15000 et seq. (2023).

California Native Plant Society (CNPS). (2023). Inventory of rare and endangered plants (Online edition, v8-01a) 7.5 minute quadrangles and corresponding plant species accounts. Sacramento, CA: Author.

California Native Plant Protection Act of 1977, C.F.G.C § 1904 et seq. (2023).

Clean Water Act of 1972, 33 U.S.C. § 1251 et seq. (2014).

Dunn, J. L., & Alderfer, J., (Eds.). (2008). *Field guide to the birds of western North America.* Washington, DC: National Geographic Society. 447 pp.

Ehrlich, P. R., Dobkin, D. S., & Wheye, D. (1988). *The birder's handbook: A field guide to the natural history of North American birds.* New York, NY: Simon and Schuster, Inc. 785 pp.

Federal Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq. (2023).

Harris, J. H., & Stearns, D. M. (1991). Population density, census methods, habitat relationships, and home range of the San Joaquin antelope squirrel, 1988–89. *California Department of Fish and Game, Nongame Bird and Mammal Section, Report 91-02*. Oakland, CA: CDFG. Retrieved from http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2953

Jennings, M. R., Hayes, M. P., & Metro Washington Park Zoo. (1994). *Amphibian and reptile species of special concern in California* (Final report to the California Department of Fish and Game, Inland Fisheries Division, Contract No. 8023). Rancho Cordova, CA: CDFG. 255 pp.

Jepson Flora project (Eds.). (2015). Jepson eFlora. Retrieved from http://ucjeps.berkeley.edu/IJM.html

Luce, B. (2005). Eumops perotis: Western mastiff bat. In C. Chambers & M. Herder, (Eds.), *Species accounts*. Portland, OR: Western Bat Working Group. 5 pp. Retrieved from http://www.wbwg.org/speciesinfo/species_accounts/molossidae/eupe.pdf

Migratory Bird Treaty Act of 1918, 16 U.S.C. § 703 et seq. (2023).

Nafis, G. (2000–2021a). North American legless lizards - Anniella. *A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/lizards/pages/a.pulchra.html

Nafis, G. (2000–2021b). San Joaquin coachwhip – *Coluber flagellum ruddocki. A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/snakes/pages/c.f.ruddocki.html

Nafis, G. (2000–2021c). Blainville's horned lizard – *Phrynosoma blainvillii*. *A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/lizards/pages/p.blainvillii.html

Native Fish and Wildlife Endangered Species, 32 Fed. Reg. 4001 (Mar. 11, 1967). Retrieved from http://ecos.fws.gov/docs/federal_register/fr18.pdf

Papenfuss, T. J., Parham, J. F. (2013). Four new species of California legless lizards (*Anniella*). *Breviora 536*, 1–17. Retrieved from http://mczbase.mcz.harvard.edu/specimen_images/publications/Breviora_536.pdf

Porter-Cologne Water Quality Control Act, C.W.A. § Section 13000 et seq. (2023).

Reid, F. A. (2006). *Mammals of North America (*Peterson field guide*)*. Boston, MA: Houghton Mifflin Company. 579 pp.

Sherwin, R. (2005). Antrozous pallidus: Pallid bat. In D. A. Rambaldini, (Eds.). *Species accounts*. Portland, OR: Western Bat Working Group. 5 pp. Retrieved from http://www.wbwg.org/speciesinfo/species_accounts/vespertilonidae/anpa.pdf

Shuford, W. D., Gardali, T., (with Comrack, L.A.). (Eds.). (2008). *California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*. Sacramento, CA: CDFG.

Stebbins, R. C. (1985). *A field guide to western reptiles and amphibians (*Peterson field guide*)*, (2nd ed.). Boston, MA: Houghton Mifflin Company. 336 pp.

Stebbins, R. C. (2003). *A field guide to western reptiles and amphibians (*Peterson field guide*)*, (3rd ed.). Boston, MA: Houghton Mifflin Company. 533 pp.

Twisselmann, E. C. (1967). A flora of Kern County, California. The Wasmann Journal of Biology, *25*, 1–395.

Uptain, C. E. (1989). *Survey for Tipton kangaroo rats (Dipodomys nitratoides nitratoides) on the proposed Delano prison site, Kern County, California* (Prepared for the California Department of Corrections). Sacramento, CA: 11 pp.

U.S. Fish and Wildlife Service (USFWS). (1996). *California condor recovery plan, third revision*. Portland, OR: Author. 62 pp.

USFWS. (1998). *Recovery plan for upland species of the San Joaquin Valley, California*. Portland, OR: Author. Retrieved from http://ecos.fws.gov/docs/recovery_plan/980930a.pdf

USFWS. (2011). *U.S. Fish and Wildlife Service standardized recommendations for protection of the endangered San Joaquin kit fox prior to or during ground disturbance*. Sacramento, CA: Author. 9 pp. Retrieved from http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/kitfox_standard_rec_2011.pdf

USFWS. (2013). *California condor recovery program population size and distribution, December 31, 2013 overview page*. Retrieved from http://www.fws.gov/uploadedFiles/Region_8/NWRS/Zone_1/Hopper_Mountain_Complex/Hopper_Mountain/Sections/News/News_Items/PDFs/2013-12-31.pdf

USFWS. (2023a). *Federal endangered and threatened species that may occur in or may be affected by project in the counties and/or USGS 7 ½ minute quads you requested: quadrangle* [August]. Author. Retrieved from http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm

USFWS. (2023b). *National Wetlands Inventory Website* [August]. Washington, D.C.: Author. Retrieved from http://www.fws.gov/wetlands/

Williams, D. F. (1980). *Distribution and population status of the San Joaquin antelope squirrel and giant kangaroo rat*. (Nongame Wildlife Investigation Final Report E-W-4). Sacramento, CA: CDFG. 48 pp.

Williams, D. F. (1986). *Mammalian species of special concern in California* (Prepared for the State of California, The Resources Agency Department of Fish and Game). Turlock, CA: CSUS. 112 pp. Retrieved from http://esrp.csustan.edu/resources/publications/pdf/mammalian_scc_ca_esrp5.pdf

Zeiner, D. C., Laudenslayer, W. F., Jr., Mayer, K. E., & White, M., (Eds.). (1990a). *California's wildlife volume II birds* (California Statewide Wildlife Habitat Relationships System). Sacramento, CA: CDFG.

Zeiner, D. C., Laudenslayer, W. F., Jr., Mayer, K. E., & White, M., (Eds.). (1990b). *California's wildlife volume III mammals* (California Statewide Wildlife Habitat Relationships System). Sacramento, CA: CDFG.

APPENDIX A

PROJECT VICINTY AND SITE

Figure A-1. Aerial photograph of the project and vicinity (Google Earth Pro 2023).

Figure A-2. Aerial photograph of the project site (Google Earth Pro 2023).

Figure A-3 Soil map of the project site (USDA, Natural Resources Conservation Service 2023).

Figure A-4. Photograph of the project site taken from the SW corner facing NE (02Nov23).

Figure A-5. Photograph of the project site taken from near the NW corner facing SSE (02Nov23).

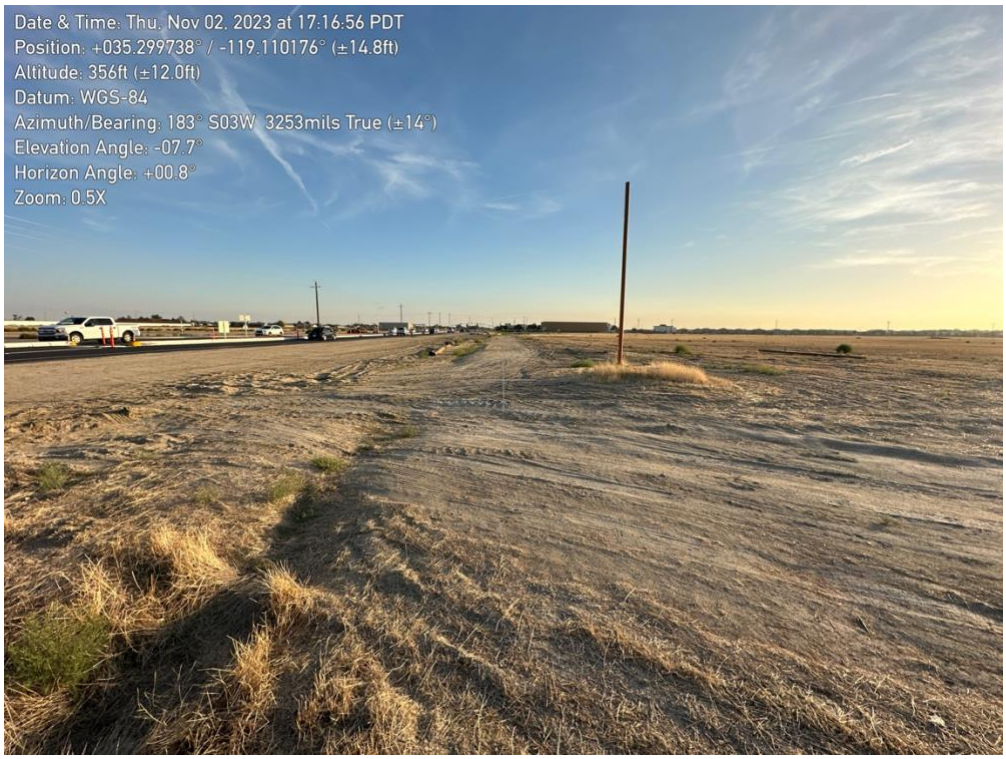

Figure A-6. Photograph taken from near the NE corner facing S along Old River Road (02Nov23).

Figure A-7. Photograph of the project site taken from near SE corner facing NW (02Nov23).

APPENDIX B

SPECIAL-STATUS PLANT AND ANIMAL EVALUATION

Table B-1: Special-status Plants That May Occur in the Vicinity of the Project.

Scientific Name **Common Name**	**Status Fed/State/CNPS**	**Description**	**Blooming Period**	**Field Study Results/Potential for Occurrence**
Astragalus hornii var. *hornii* Horn's milk vetch	S/-/1B.1	Annual herb in the Fabaceae found in meadows and seeps and on playas and lake margins on alkaline soils between 197 and 2,789 feet (60–850 meters) in elevation. Known from occurrences in the Southern San Joaquin Valley, the Tehachapi Mountains and the Western Transverse Ranges in Kern, Los Angeles, and San Bernardino Counties.	May to October	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Atriplex cordulata var. *cordulata* Heartscale	S/-/1B.2	Herbaceous annual in the Chenopodiaceae found in chenopod scrub, meadows and weeps, and valley and foothill grasslands in sandy, saline or alkaline soils below 1,837 feet (560 meters) in elevation. Known to occur in the Great Central Valley from Kern County north to Southern Butte County.	April to October	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Atriplex coronata var. *vallicola* Lost Hills crownscale	S/-/1B.2	Herbaceous annual in the Chenopodiaceae found in valley and foothill grasslands, playas, and vernal pools on alkaline soils between 456 and 1,640 feet (139–500 meters) in elevation.	April to August	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Atriplex tularensis Bakersfield smallscale	-/E/1A	Annual herb in the Chenopodiaceae found in valley and foothill grasslands, between 131 and 328 feet (40–100 meters) in elevation. Known to occur in the San Joaquin Valley from Northwestern Kern County north to Southern Merced County and in the Sacramento Valley in Southern Butte County.	June to August (occasionally October)	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Calochortus striatus Alkali mariposa lily	S/-/1B.2	Bulbiferous perennial herb in the Liliaceae found in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grasslands on sandy often granitic, sometimes serpentine soils, between 1,296 and 3,281 feet (395–1,000 meters). Known to occur in the Outer South Coast Ranges in Santa Barbara and San Luis Obispo Counties.	April to May	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Caulanthus californicus California jewelflower	E/E/1B.1	Annual herb in the Brassicaceae family found on serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland between 1,542 and 4,003 feet (470–1,220 meters) in elevation.	May to July	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.

Scientific Name **Common Name**	**Status Fed/State/CNPS**	**Description**	**Blooming Period**	**Field Study Results/Potential for Occurrence**
Chloropyron molle ssp. *hispidum* Hispid bird's-beak	S/-/1B.1	Hemiparasitic annual herb in the Orobanchaceae family found on coastal dunes and coastal saltwater marshes and swamps below 98 feet (30 meters) in elevation.	May to October	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Delphinium recurvatum Recurved larkspur	S/-/1B.2	Perennial herb in the Ranunculaceae family found in chaparral, cismontane woodland, and pinyon and juniper woodland on rocky, carbonate soils between 984 and 4,396 feet (300–1,340 meters) in elevation. Known to occur in Kern and Tulare Counties.	April to May	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Eremalche parryi ssp. *kernensis* Kern mallow	E/-/1B.1	Perennial, stoloniferous herb in the Onagraceae family found in meadows ad seeps, and subalpine coniferous forest in mesic soils between 6,562 and 10,236 feet (2,000–3,120 meters) in elevation. Known to occur in Alpine, El Dorado, Fresno, Madera, Mono, Nevada, Sierra, and Tuolumne Counties.	July to August	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Imperata brevifolia *California satintail*	-/-/2B.1	Perennial herb in the Poaceae family found in chaparral, coastal sage scrub, creosote bush scrub and wetland-riparian communities. Known to occur in Butte, Lake, Fresno, Tulare, Inyo, Kern, Santa Barbara, Ventura, San Bernadino, Orange, Riverside, San Diego and Imperial Counties.	September to May	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Lasthenia glabrata ssp. Coulteri *Coulter's goldfields*	-/-/1B.1	Annual herb in the Asteraceae family found in vernal pools and saline places at elevations below 1000m. Known to occur in Kern and San Joaquin Counties	February to June	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Monolopia congdonii San Joaquin woolly-threads	E/-/1B.2	Perennial, rhizomatous herb in the Ericaceae family found in broadleafed upland forest and North Coast coniferous forest between 328 and 3,609 feet (100–1,100 meters) in elevation. Known to occur in Del Norte, Fresno, Humboldt and Siskiyou Counties.	May to August	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.
Opuntia basilaris var. *treleasei* Bakersfield cactus	E/E/1B.1	Perennial stem succulent in the Cactaceae family found in chenopod scrub, cismontane woodland, and valley and foothill grasslands between 394 and 1,804 feet (120–550 meters) in elevation. Known to occur in the Southeast San Joaquin Valley and Southern Sierra Nevada Foothills in Kern County.	April to May	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.

Scientific Name **Common Name**	**Status Fed/State/CNPS**	**Description**	**Blooming Period**	**Field Study Results/Potential for Occurrence**
Stylocline masonii Mason's neststraw	S/-/1B.1	Annual herb in the Asteraceae family found in chenopod scrub, coastal scrub, and valley and foothill grasslands on clay soils between 164 and 1,312 feet (50–400 meters) in elevation. Known from locations in Kern and San Diego Counties.	March to April	**Not Observed/Not Expected**. Decades of intensive farming has resulted in vegetation limited to invasive/ruderal species.

STATUS: Federal and State Listing Code
- D Delisted
- E Federally or State-listed Endangered
- T Federally or State-listed Threatened

CNPS
- 1A Plants presumed extirpated in California, and either rare or extinct elsewhere
- 1B.1 Plants considered rare, threatened, or endangered in California and elsewhere; seriously threatened in California
- 1B.2 Plants considered rare, threatened, or endangered in California and elsewhere; fairly threatened in California
- 2B.1 Plants considered rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
- 4.2 Plants of limited distribution in California; fairly threatened in California

Table B-2: Special-status Animals That May Occur in the Vicinity of the Project.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
Invertebrates			
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T/-	Central Valley riparian forest; nearly always found on or close to its host plant, elderberry (*Sambucus* species).	**Not Present.** No suitable habitat for the species. No host plants present on the project or vicinity.
Branchinect lynchi Vernal pool fairy shrimp	T/-	Found in vernal pools throughout California. Exist as cysts during the dry season and reproduce when pools are filled with water again.	**Not Present**. No suitable habitat present.
Fishes			
Hypomesus transpacificus Delta smelt	T/-	Found only in the low-salinity and freshwater habitats of the Sacramento-San Joaquin Estuary. Historically, it was one of the most common pelagic fish in the estuary	**Not Present.** No suitable habitat present.
Amphibians			
Rana draytonii California red-legged frog	T/-	Found in habitat characterized by dense, shrubby, riparian vegetation and associated still, or slow-moving water that is at least 2.3 feet deep. The arroyo willow (*Salix lasiolepis*) cattails (*Typha* sp.) and bulrushes (*Scirpus* sp.) provide good habitat.	**Not Present.** No suitable habitat present.
Spea hammondii Western spadefoot toad	-/ CSC	Central valley and adjacent foothills, Coast Ranges from Point Conception south to the Mexico border; valley-foothill grasslands and valley-foothill hardwood, shallow temporary pools used for breeding, below 4,472 feet (1,363 meters).	**Not Observed/Not Expected**. No known records in the vicinity of the project. Marginal habitat present on the project.
Reptiles			
Anniella spp. California legless lizard	-/CSC	Found in coastal dunes, chaparral, pine-oak woodlands, desert scrub, and sandy washes in warm moist loose soils, below 5,085 feet (1550 meters).	**Not Observed/Not Expected**. Suitable habitat absent from the site. Potential habitat in the project vicinity.
Arizona elegans occidentalis California glossy snake	-/CSC	Found in low elevation scrub, grasslands and chaparral habitats.	**Not Present**. No suitable habitat present.
Emys marmorata *Western pond turtle*	-/CSC	Completely aquatic requiring calm waters such as pools or streams with vegetation banks or logs for basking. Will utilize upland habitat up to about 0.5 km from water.	**Not Present.** No suitable habitat present.
Gambelia sila Blunt-nosed leopard lizard (BNLL)	E/E,SFP	Found only in the San Joaquin Valley, adjacent Carrizo Plain, Elkhorn Plain, Cuyama Valley, and Panoche Valley; inhabits sparsely vegetated plains, lower canyon slopes, on valley floors, and washes; open grassland, saltbush scrub, and alkali sink are more common habitat types.	**Not Present.** No suitable habitat present.

Scientific Name **Common Name**	**Status** **Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
Masticophis flagellum ruddocki San Joaquin coachwhip	-/CSC	Found in the San Joaquin Valley in open, dry habitats. Associated with valley grassland and saltbush scrub habitats containing small mammal burrows which are used for refugia and oviposition sites.	**Not Present**. No suitable habitat present.
Phrynosoma blainvillii Coast horned lizard	-/CSC	Inhabits valley-foothill hardwood, coniferous and riparian, as well as pine-cypress, juniper, and annual grasslands, in Sierra Nevada below 3,937 feet (1,200 meters) and in mountains of Southern California and into the adjacent valleys.	**Not Present**. No suitable habitat present.
Thamnophis gigas Giant gartersnake	T/T	Found in areas of freshwater marshes or low-gradient streams. Can also be found in human-made habitats, such as drainage canals and irrigation ditches, especially those associated with rice farming.	**Not Present**. No suitable habitat present. Species believed to be extirpated from Kern County.
Birds			
Agelaius tricolor Tricolored blackbird	S/CSC	Forages in grasslands, wetlands, rice fields, croplands, and weedy uplands dominated by mustards and thistles, etc.; breeds in marshes containing heavy growth of bulrushes, cattails, and blackberries; found throughout the Central Valley.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site. Potential for marginal foraging habitat in farmlands in the vicinity of the project.
Ardea alba Great egret	-/-	Common resident in the southern San Joaquin Valley. Nests in large trees. Forages in saline and freshwater ponds, streams, wetlands, and irrigated farmland. Rookeries are considered sensitive by CDFW.	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. No suitable nesting or foraging habitat present on the site. Suitable habitat for nesting and foraging in the vicinity of the project.
Athene cunicularia Burrowing owl	-/CSC	Inhabits dry, open grasslands, rolling hills, desert floors, prairies, savannas, agricultural land, and other areas of open, bare ground. These owls will also inhabit open areas near human habitation, such as airports, golf courses, shoulders of roads, railroad embankments, and the banks of irrigation ditches and reservoirs.	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. Suitable habitat for nesting and foraging in the vicinity of the project. No burrowing owls or owl burrows observed.
Buteo swainsoni Swainson's hawk	-/T	Riparian and sometimes large isolated trees used for nesting; grasslands and agricultural lands used for foraging; in California, breeds primarily in the Sacramento Valley, with occasional nesting to the south through Kern County; migrate through the Central and San Joaquin Valleys to their wintering grounds in South America.	**Not Observed/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting sites on the project. Low suitable foraging habitat exists across the row-crop farmland south of metropolitan Bakersfield.
Charadrius nivosus nivosus Western snowy plover	T/-	Nests, feeds, and takes cover on sandy or gravelly beaches along the coast, on estuarine salt ponds, alkali lakes, and at the Salton Sea. On the Pacific coast, it nests on barren to sparsely vegetated sand beaches,	**Not Present**. No suitable wintering habitat or foraging habitat exists on the project.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
		dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, and river bars.	
Circus cyaneus Northern harrier	-/CSC	Widespread breeding resident, other than in the Central Valley, most lowland birds are winter migrants; ground nester that forages and nests in a wide variety of open habitats with low perches such as marshes, fields, and other treeless areas.	**Not Observed/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting sites on the project. Suitable foraging habitat exists across the row-crop farmland south of metropolitan Bakersfield.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	T/E	Nests in walnut and almond orchards in California, natural nesting habitat is in cottonwood-tree willow riparian forest. Known populations of breeding western yellow-billed cuckoo are several disjunct locations in California, Arizona, and western New Mexico.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Dendrocygna bicolor *Fulvous whistling duck*	-/CSC	Nests in fresh emergent wetlands and quiet riverine waters. Uncommon to fairly common in the San Joaquin Valley, April to November.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Egretta thula *Snowy egret*	-/-	Colony nesting in trees, shrubs, mangroves on or near ground in mashes, swamps, ponds. Widespread in the San Joaquin Valley in all aquatic habitat types.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Elanus leucurus White tailed kite	-/SFP	Associated habitats include open grasslands, savannahs, agriculture, wetlands, oak woodland and riparian areas with associated open space.	**Not Observed/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting sites on the project. Suitable foraging habitat exists across the row-crop farmland south of metropolitan Bakersfield.
Empidonax traillii Willow Flycatcher	-/E	Nests and forages in riparian habitats with dense vegetation characterized by willows, buttonbush and coyote brush, with a scattered overstory of cottonwood. Have also been known to nest in thickets dominated by tamarisk.	**Not Present**. No suitable nesting or foraging habitat present.
Eremophila alpestris actica	-/WL	Resident throughout California from the coast to the deserts up to alpine dwarf-shrub habitat above tree line	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. Horned lark occur throughout the southern San Joaquin Valley and undoubtedly forage in the project vicinity.
Lanius ludovicianus Loggerhead shrike	-/CSC	Common resident and winter visitor in lowlands and foothills throughout California; species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches; nests on stable branches in densely-foliaged shrubs or trees, usually well-concealed.	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat present. Loggerhead shrike occur throughout the southern San Joaquin Valley and undoubtedly forage in the project vicinity.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
Plegadis chihi White-faced ibis	-/WL	Nesting associated with large emergent wetlands. Will forage in a variety of wet meadows, irrigated pastures, flooded pond edges and wet cropland.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Vireo bellii pusillus Least Bell's vireo	E/E	Occurs in riparian habitat along slow-moving, meandering rivers of southern California. Requires dense riparian shrubbery for nesting.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Xanthocephalus xanthocephalus	-/CSC	Yellow-headed blackbirds are found in freshwater marshes during the summer. They particularly like to live among cattails, tule, and bulrush. During migration and over winter months, the Yellow-headed Blackbird is found in open, cultivated lands, in fields, and in pastures.	**Not Present**. No suitable nesting habitat exists on the project for this species. The site represents poor foraging habitat.
Mammals			
Ammospermophilus nelsoni San Joaquin antelope squirrel	-/T	Found in grasslands or open shrublands; formerly more extensive, current range includes southwestern portion of the San Joaquin Valley and in adjacent valleys to the west.	**Not Present**. Beyond the current published range of the species.
Dipodomys ingens Giant kangaroo rat	E/E	Western side of the San Joaquin Valley, including the Carrizo Plain and the Panoche Valley; grassland and shrub-land habitats with sparse vegetative cover and soils that are well-drained, fine sandy loams with gentle slopes.	**Not Present**. Beyond the current published range of the species.
Dipodomys nitratoides brevinasus Short-nosed kangaroo rat	E/E	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	**Not Present**. Beyond the published range of the species.
Dipodomys nitratoides nitratoides Tipton kangaroo rat	E/E	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	**Low Probability of Occurrence.** Habitat suitable for *Dipodomys* sp. The project is not within the southwest focus area of the previous Habitat Conservation Plan. Burrows typical of kangaroo rat were observed scattered across the project. Small mammal trapping would be required to determine species occupation.
Eumops perotis californicus Greater western mastiff bat	-/CSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, annual and perennial grasslands, chaparral, desert scrub, and urban areas; roosts in cliff faces, as well as high buildings, trees, and	**No Roosting Sites Present.** No known occurrences in the vicinity of the project. Information on some bat species indicates foraging may occur over 10's of

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
		tunnels; uncommon resident in southwestern San Joaquin Valley.	miles from roosting sites. Impacts not expected.
Lasiurus cinereus Hoary bat	-/CSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, annual and perennial grasslands, chaparral, desert scrub, and urban areas; roosts in cliff faces, as well as high buildings, trees, and tunnels; uncommon resident in southwestern San Joaquin Valley.	**No Roosting Sites Present.** No known occurrences in the vicinity of the project. Information on some bat species indicates foraging may occur over 10's of miles from roosting sites. Impacts not expected.
Onychomys torridus tularensis Tulare grasshopper mouse	-/CSC	Found in valley grasslands habitats, blue oak savanna, desert associations dominated by annual grasses and California ephedra, alkali sink scrub, saltbush scrub, and upper Sonoran shrub associations, dominated by ephedra.	**Not Observed/Not Expected**. Beyond the current published range of the species.
Perognathus inornatus inornatus San Joaquin pocket mouse	S/-	Found in west-central California in the Upper Sacramento Valley, Tehama County, southward through the San Joaquin and Salinas valleys and contiguous areas to the Mojave Desert in Los Angeles, Kern and extreme western San Bernardino counties. Inhabits dry, open, grassy or weedy areas and annual grasslands, savannas, and desert-scrub associations with sandy washes or finely textured soils.	**Not Observed/Not Expected**. Beyond the current published range of the species.
Sorex ornatus relictus Buena Vista Lake shrew	E/CSC	Formerly occupied marshlands of the San Joaquin Valley and the Tulare Basin. Its range has become much restricted due to the loss of lakes and sloughs in the area. It has been recorded from the Kern Lake Preserve area and the Kern National Wildlife Refuge. Current distribution is unknown but likely to be very restricted due to the loss of habitat.	**Not Present**. No suitable habitat present.
Taxidea taxus American badger	-/CSC	Uncommon resident found through California; in less disturbed grassland and shrubland habitats in San Joaquin Valley.	**Not Present** No suitable habitat.
Vulpes macrotis mutica San Joaquin kit fox (SJKF)	E/T	Found in valley saltbush scrub, valley sink scrub, Interior Coast Range saltbush scrub, upper Sonoran sub-shrub scrub, non-native grassland, and valley sacaton grassland in the Central Valley and adjacent foothills and valleys, infrequently to the outer Coast Ranges; generally not found in densely wooded areas, wetland areas, or areas subject to frequent periodic flooding.	**Moderate to High Probability of Occurrence.** No potential, known, or natal dens were observed. SJKF potential for occurrence moderate to high in the vicinity of the project.

STATUS:
Federal State

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***

S Listed as a BLM Sensitive Species
D Delisted
E Listed as Endangered
PT Proposed as Threatened
T Listed as Threatened
C Candidate for Endangered Status

CSC California Department of Fish and Wildlife Designated Species of Special Concern
D Delisted
E Listed as Endangered
SFP California Department of Fish and Wildlife Designated Fully Protected
T Listed as Threatened

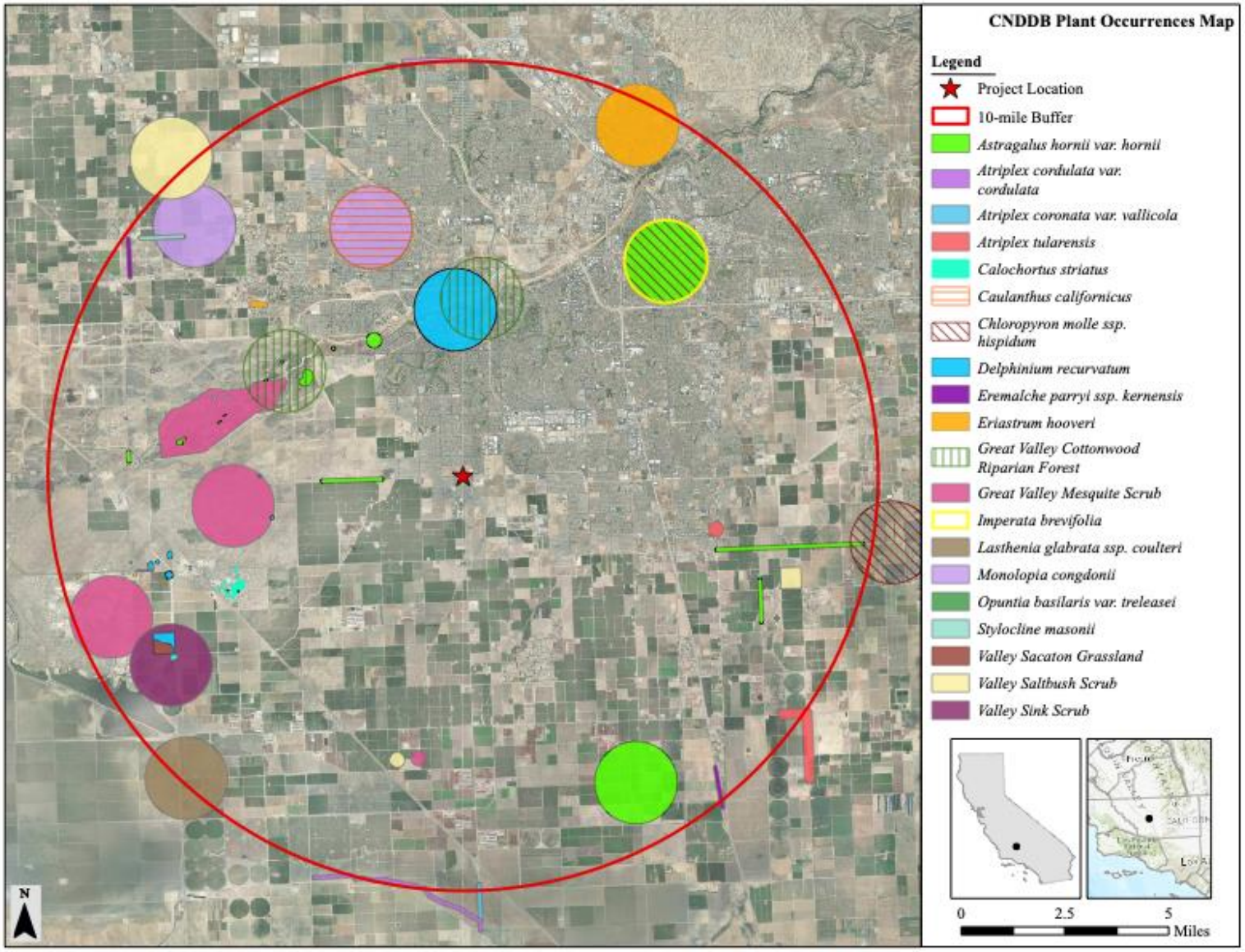

Figure B-1. CNDDB special-status plant species occurrences within a 10-mile radius of the project (CDFW 2023).

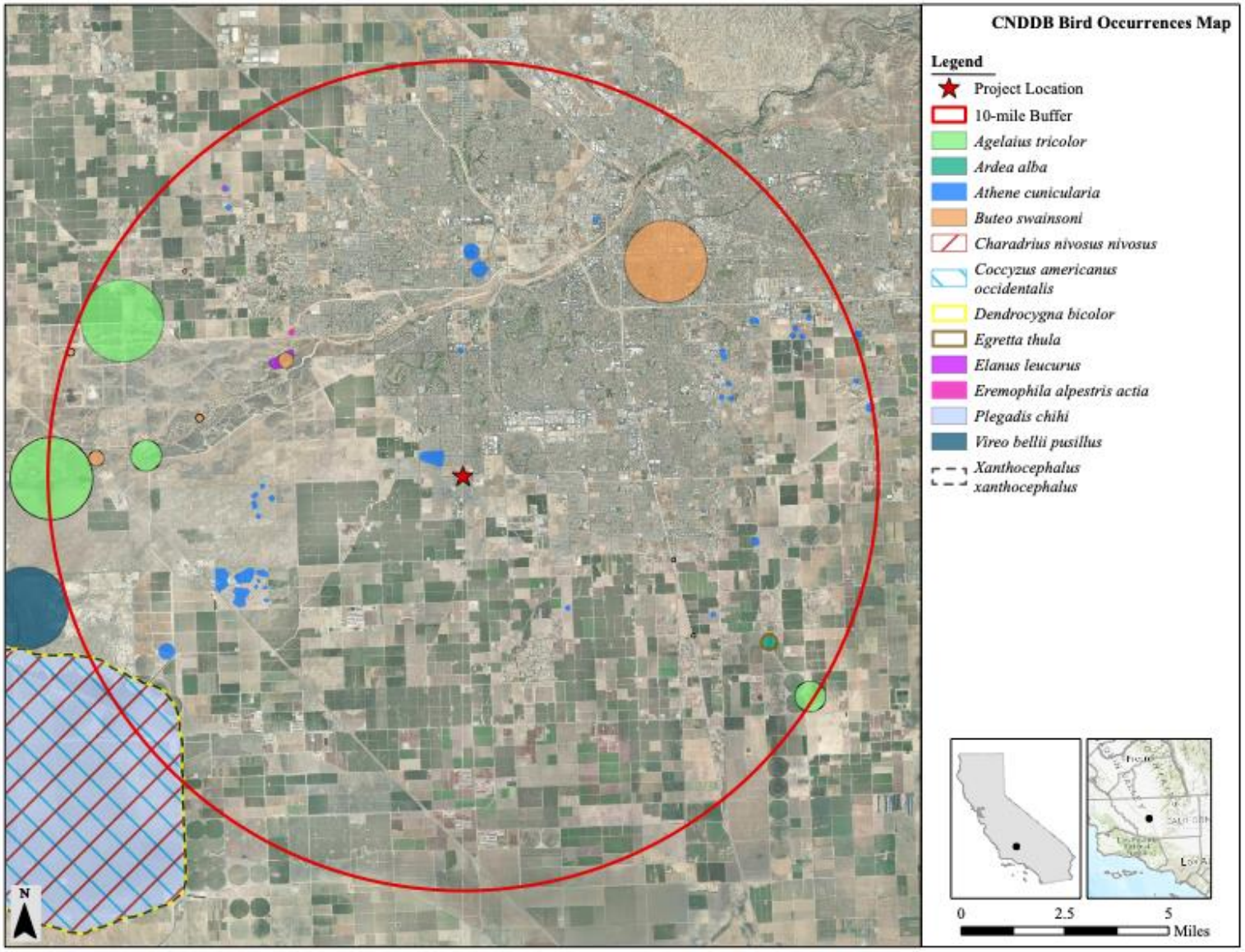

Figure B-2. CNDDB special-status bird species occurrences within a 10-mile radius of the project (CDFW 2023).

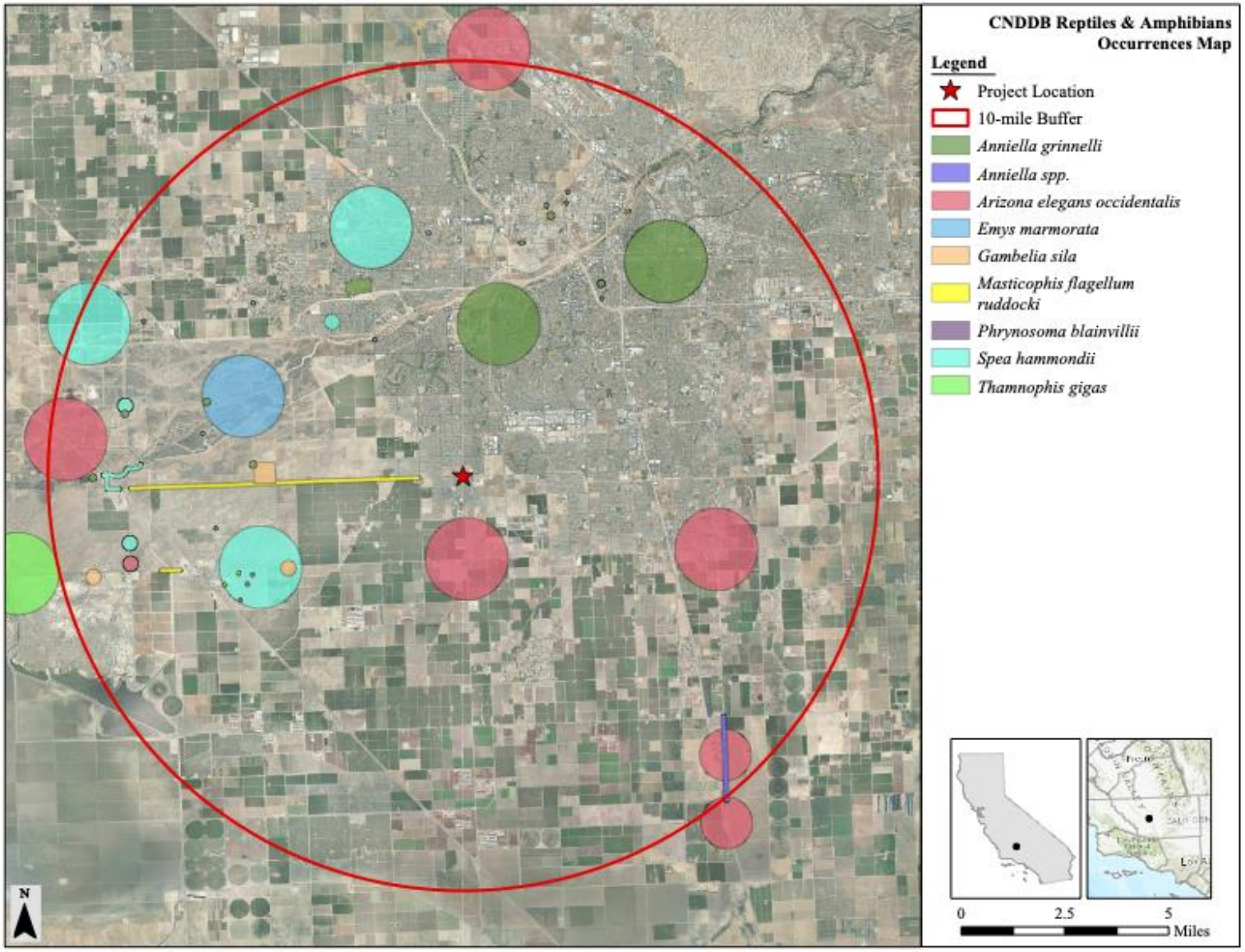

Figure B-3. CNDDB special-status amphibian and reptile species occurrences within a 10-mile radius of the project (CDFW 2023).

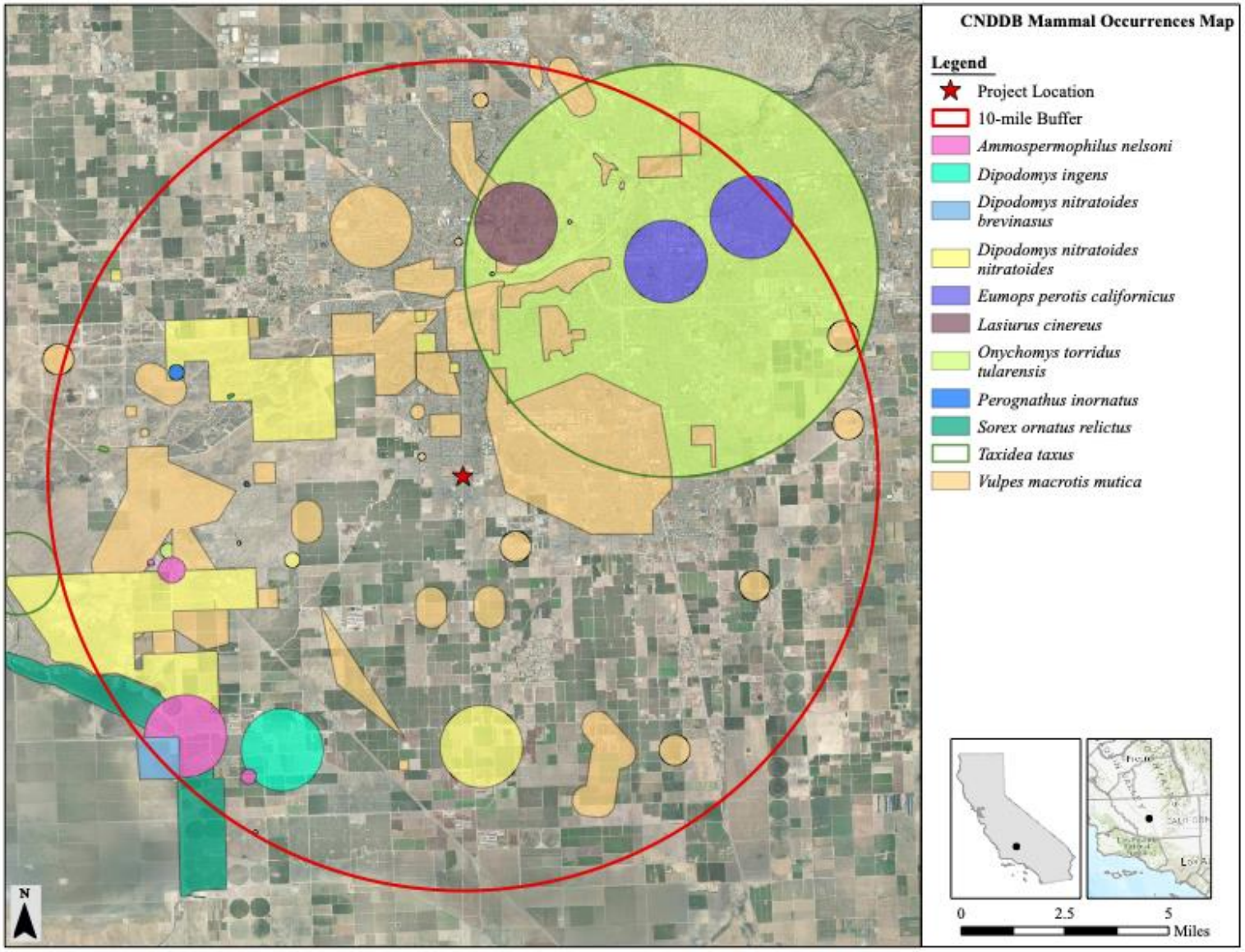

Figure B-4. CNDDB special-status mammal species occurrences within a 10-mile radius of the project (CDFW 2023).

APPENDIX C

PLANTS AND ANIMALS OBSERVED ON THE PROJECT

FIELD STUDY CONDUCTED
02 November 2023

Table C-1. Vascular plant species observed during the field study conducted on the project site.

Scientific Name	**Common Name**
Asteraceae	
Lactuca seriola	Prickly lettuce
Senecio vulgaris	Common groundsel
Boraginaceae	
Amsinkia menziesii	Fiddleneck
Brassicaceae	
Sisymbrium irio	London rocket
Chenopodiaceae	
Salsola tragus	Russian thistle
Geraniaceae	
Erodium cicutarium	Redstem filaree
Malvaceae	
Malva parviflora	Cheeseweed
Poaceae	
Bromus madritensis ssp. rubens	Red brome
Cynodon dactylon	Bermudagrass
Cyperus rotundus	Nut sedge
Digitaria sp.	Crabgrass
Hordeum vulgare	Farmer's foxtail
Poa annua	Annual bluegrass
Zygophyllaceae	
Tribulus terrestris	Punctervine

Table C-2. Vertebrate animal species observed during the field study conducted on the project site.

Scientific Name	**Common Name**
Birds	
Columba livia	Rock Dove
Corvus corax	Common raven
Haemorhous mexicanus	House finch
Passer domesticus	House sparrow
Sturnus vulgaris	European starling

Scientific Name	**Common Name**
Zenaida macroura	Mourning dove
Mammals	
Canis lupus familiaris	Domestic dog
Otospermophilus beecheyi	California ground squirrel
Thomomys bottae	Pocket gopher

A
PHASE I CULTURAL RESOURCE SURVEY,
VTPM 12167,
PANAMA LANE AND OLD RIVER ROAD,
CITY OF BAKERSFIELD, CALIFORNIA

Submitted to:
McIntosh and Associates
2001 Wheelan Court
Bakersfield, California 93309

Keywords:
Gosford 7.5' Quadrangle,
City of Bakersfield, California Environmental Quality Act

Submitted by:
Hudlow Cultural Resource Associates
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Author:
Scott M. Hudlow

November 2021

Management Summary

At the request of McIntosh and Associates, a Phase I Cultural Resource Survey was conducted on approximately 20.55. The property lies at the northwest corner of Panama Lane and Old River Road, City of Bakersfield, California. The Phase I Cultural Resource Survey consisted of a pedestrian survey of the 20.55 - acre site and a cultural resource record search.

No cultural resources were identified. No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

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1.0 Introduction

At the request of McIntosh and Associates, *Hudlow Cultural Resource Associates* conducted a Phase I Cultural Resource Survey on approximately 81.35 for a proposed commercial and residential development. The site lies at the northwest corner of Panama Lane and Old River Road. It is VTPM 12167, in the City of Bakersfield, California. This project is being undertaken in accordance with the California Environmental Quality Act (CEQA) with the City of Bakersfield responsible as Lead Agency to implement CEQA. The Phase I Cultural Resource Survey consisted of a pedestrian survey and a cultural resource record search.

2.0 Survey Location

The project area is in the City of Bakersfield. The parcel is in the S ½ of the SE ¼ of Section 19, T.30S., R.27E., Mount Diablo Baseline and Meridian, as displayed on the United States Geological Survey (USGS) Gosford 7.5-minute quadrangle map (Figure 1). The proposed multi-family residential development, which includes a zone change from R-1 to R-2 lies at the northwest corner of Panama Lane and Old River Road, City of Bakersfield, California.

3.0 Record Search

A record search of the project area and the environs within one-half mile was conducted at the Southern San Joaquin Archaeological Information Center. Scott M. Hudlow conducted the record search, RS# 21-453 on November 15, 2021. The record search revealed that twenty-four cultural resource surveys have been conducted within one-half mile radius of the project area. Two previous cultural resource surveys have been conducted within the current project area. The first project was a right-of-way project crossing the project, southeast to the northwest, along an existing pipeline corridor (Clay and Hause 1990). The second was a previous residential survey project (Hudlow 2016). Four cultural resources have been recorded within one half-mile of the current project area, three are historic resources and one is a prehistoric resource. Of the three historic resources, two are related to historic houses, and one is Panama Lane. The prehistoric resource is a lithic scatter.

4.0 Environmental Background

The project area is located at an elevation of 350 feet above mean sea level in the Great Central Valley, which is composed of two valleys-- the Sacramento Valley and the San Joaquin Valley. The project area is located in the southwestern portion of the southern San Joaquin Valley, south of the Kern River. The former agricultural field is denuded of native vegetation; and is partially covered in saltbush (Figures 2 and 3).

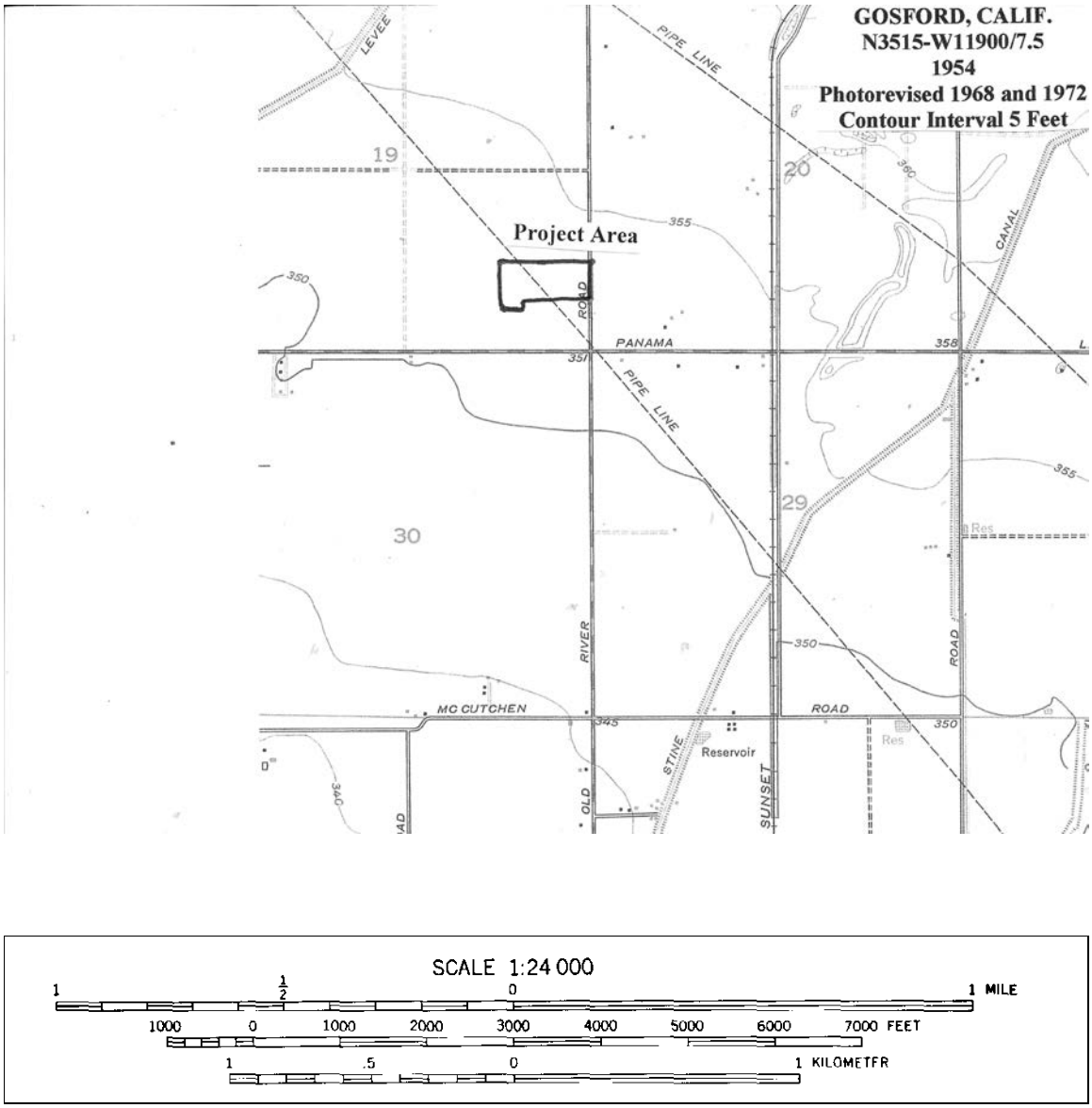

Figure 1
Project Area Location Map

5.0 Prehistoric Archaeological Context

Limited archaeological research has been conducted in the southern San Joaquin Valley. Consensus on a generally agreed upon regional cultural chronology has yet to be developed. Most cultural sequences can be summarized into several distinct time periods: Early, Middle, and Late. Sequences differ in their inclusion of various "horizons," "technologies," or "stages." A prehistoric archaeological summary of the southern San Joaquin Valley is available in Moratto (Moratto 1984).

Despite the preoccupation with chronological issues in most of the previous research, most suggested chronological sequences are borrowed from other regions with minor modifications based on sparse local data.

The following chronology is based on Parr and Osborne's Paleo-Indian, Proto-Archaic, Archaic, Post-Archaic periods (Parr and Osborne 1992:44-47). Most existing chronologies focus on stylistic changes of time-sensitive artifacts such as projectile points and beads rather than addressing the socioeconomic factors, which produced the myriad variations. In doing so, these attempts have encountered similar difficulties. These cultural changes are implied as environmentally determined, rather than economically driven.

Paleo-Indians, whom roamed the region approximately 12,000 years ago, were highly mobile individuals. Their subsistence is assumed to have been primarily big game, which was more plentiful 12,000 years ago than in the late twentieth century. However, in the Great Basin and California, Paleo people were also foragers who exploited a wide range of resources. Berries, seeds, and small game were also consumed. Their technology was portable, including manos (Parr and Osborne 1992:44). The paleo period is characterized by fluted Clovis and Folsom points, which have been identified throughout North America. The Tulare Lake region in Kings County has yielded several Paleo-Indian sites, which have included fluted points, scrapers, chipped crescents, and Lake Mojave-type points (Morratto 1984:81-2).

The Proto-Archaic period, which dates from approximately 11,000 to 8,000 years ago, was characterized by a reduction in mobility and conversely an increase in sedentism. This period is classified as the Western Pluvial Lake Tradition or the Proto-Archaic, of which the San Dieguito complex is a major aspect (Moratto 1984: 90-99; Warren 1967). An archaeological site along Buena Vista Lake in southwestern Kern County displays a similar assemblage to the San Dieguito type-site. Claude Warren proposes that a majority of Proto-Archaic southern California could be culturally classified as the San Dieguito Complex (Warren 1967). The Buena Vista Lake site yielded manos, millingstones, large stemmed and foliate points, a mortar, and red ochre. During this period, subsistence patterns began to change. Hunting focused on smaller game and plant collecting became more integral. Large stemmed, lancelote (foliate) projectile points represent lithic technology. Millingstones become more

Figure 2
Project Area, View to the Southwest

Figure 3

Project Area, View to the Southeast

prevalent. The increased sedentism possibly began to create regional stylistic and cultural differences not evident in the paleo period.

The Archaic period persisted in California for the next 4000 years. In 1959, Warren and McKusiak proposed a three-phase chronological sequence based on a small sample of burial data for the Archaic period (Moratto 1984:189; Parr and Osborne 1992:47). It is distinguished by increased sedentism and extensive seed and plant exploitation. Millingstones, shaped through use, were abundant. Manos and metates were the most prevalent types of millingstones (Parr and Osborne 1992:45). The central valley began to develop distinct cultural variations, which can be distinguished by different regions throughout the valley, including Kern County.

In the Post-Archaic period enormous cultural variations began manifesting themselves throughout the entire San Joaquin Valley. This period extends into the contact period in the seventeenth, eighteenth and nineteenth centuries. Sedentary village life was emblematic of the Post-Archaic period, although hunting and gathering continued as the primary subsistence strategy. Agriculture was absent in California, partially due to the dense, predictable, and easily exploitable natural resources. The ancestral Yokuts have possibly been in the valley by the sixteenth or seventeenth century, and by the eighteenth century were the largest pre-contact population, approximately 40,000 individuals, in California (Moratto 1984).

6.0 Ethnographic Background

The Yokuts are a Penutian-speaking, non-political cultural group. Penutian speakers inhabit the San Joaquin Valley, the Bay Area, and the Central Sierra Nevada Mountains. The Yokuts are split into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts.

The southern San Joaquin Valley in the Bakersfield and associated Kern County area was home to the Yokuts tribelet, Yawelmani. The tribelets averaged 350 people in size, had a special name for themselves, and spoke a unique dialect of the Yokuts language. Land was owned collectively and every group member enjoyed the right to utilize food resources. The Yawelmani inhabited a strip of the southeastern San Joaquin Valley, north of the Kern River to the Tehachapi Mountains on the south, and from the mountains on the east, to approximately the old south fork of the Kern River on the west (Wallace 1978:449; Parr and Osborne 1992:19). The Yawelmani were the widest ranging of the Yokuts tribelets. One half dozen villages were located along the Kern River, including *Woilo* ("planting place" or "sowing place"), which was located in downtown Bakersfield, where the original Amtrak station was located. A second village was located across the Kern River from *Woilo*, on the west bank.

The Southern Valley Yokuts established a mixed domestic economy emphasizing fishing, hunting, fowling, and collecting shellfish, roots, and seeds. Fish were the most prevalent natural resource; fishing was a productive activity throughout the entire year. Fish were caught in many different manners, including nets, conical basket traps, catching with bare hands, shooting with bows and arrows, and stunning fish with mild floral toxins. Geese, ducks, mud hens and other waterfowl were caught in snares, long-handled nets, stuffed decoys, and brushing brush to trick the birds to fly low into waiting hunters. Mussels were gathered and steamed on beds of tule. Turtles were consumed, as were dogs, which might have been raised for consumption (Wallace 1978:449-450).

Wild seeds and roots provided a large portion of the Yokuts' diet. Tule seeds, grass seeds, fiddleneck, alfilaria were also consumed. Acorns, the staple crop for many California native cultures, were not common in the San Joaquin Valley. Acorns were traded into the area, particularly from the foothills. Land mammals, such as rabbits, ground squirrels, antelope and tule elk, were not hunted often (Wallace 1978:450).

The Yokuts occupied permanent structures in permanent villages for most of the year. During the late and early summer, families left for several months to gather seeds and plant foods, shifting camp locations when changing crops. Several different types of fiber-covered structures were common in Yokuts settlements. The largest was a communal tule mat-covered, wedge-shaped structure, which could house upward of ten individuals. These structures were established in a row, with the village chief's house in the middle and his messenger's houses were located at the ends of the house row. Dance houses and assembly buildings were located outside the village living area (Nabokov and Easton 1989:301).

The Yokuts also built smaller, oval, single-family tule dwellings. These houses were covered with tall mohya stalks or with sewn tule mats. These small houses were framed by bent-pole ribs, which met a ridgepole held by two crotched poles. The Yokuts also built a cone-shaped dwelling, which was framed with poles tied together with a hoop and then covered with tule or grass. These cone-shaped dwellings were large enough to contain multiple fireplaces (Nabokov and Easton 1989:301). Other structures included mat-covered granaries for storing food supplies, and a dirt-covered communally owned sweathouse.

Clothing was minimal; men wore a breechclout or were naked. Women wore a narrow fringed apron. Rabbitskin or mud hen blankets were worn during the cold season. Moccasins were worn in certain places; however, most people went barefoot. Men wore no head coverings, but women wore basketry caps when they carried burden baskets on their heads. Hair was worn long. Women wore tattoos from the corners of the mouth to the chin; both men and women

had ear and nose piercings. Bone, wood or shell ornaments were inserted into the ears and noses (Wallace 1978:450-451).

Tule dominated the Yokut's material culture. It was used for many purposes, including sleeping mats, wall coverings, cradles, and basketry. Ceramics are uncommon to Yokuts culture as is true throughout most California native cultures. Basketry was common to Yokuts culture. Yokuts made cooking containers, conical burden baskets, flat winnowing trays, seed beaters, and necked water bottles. Yokuts also manufactured wooden digging sticks, fire drills, mush stirrers, and sinew-backed bows. Knives, projectile points, and scraping tools were chipped from imported lithic materials including obsidian, chert, and chalcedony. Stone mortars and pestles were secured in trade. Cordage was manufactured from milkweed fibers, animal skins were tanned, and awls were made from bone. Marine shells, particularly olivella shells, were used in the manufacture of money and articles of personal adornment. Shells were acquired from the Chumash along the coast (Wallace 1978:451-453).

The basic social and economic unit was the nuclear family. Lineages were organized along patrilineal lines. Fathers transmitted totems, particular to each paternal lineage, to each of his children. The totem was a bird or animal that no lineage member would kill or eat; the totems were dreamed of and prayers were given to the totems. The mother's totem was not passed to her offspring, but was treated with respect. Families sharing the same totem formed an exogamous lineage. The lineage had no formal leader nor did it own land. The lineage was a mechanism for transmitting offices and performing ceremonial functions. The lineages formed two moieties, East and West, which consisted of several different lineages. Moieties were customarily exogamous. Children followed the paternal moiety. Certain official positions within the villages were associated with certain totems. The most important was the Eagle lineage from which the village chief was appointed. A member of the Dove lineage acted as the chief's assistant. He supervised food distribution and gave commands during ceremonies. Another hereditary position was common to the Magpie lineage, was that of spokesman or crier.

7.0 Historical Overview

Kern County was settled in the 1860s, soon after California joined the United States after the passage of the Compromise of 1850. The Compromise of 1850 allowed California to join the Union as a free state even though a major portion of the state lied beneath the Missouri Compromise line, and was potentially subject to southern settlement and slavery. Americans had long been visiting and working in California prior to the admission of California into the Union.

The Spanish moving north from Baja California into Alta California began European settlement of California 1n 1769. Father Junipero Serra, a Franciscan friar founded Mission San Diego de Alcala, beginning California active European

settlement. However, Spanish mission efforts were focused on California's coastal regions. Spanish exploration of the San Joaquin Valley region begins in the 1770s. In 1772, Pedro Fages arrived in the San Joaquin Valley searching for army deserters. Father Francisco Garces, a Franciscan priest, soon visited the vicinity in 1776. The Spanish empire collapsed in 1820, all of Spain's former Central and South American colonies became independent nations. As a result, California became Mexican territory. California stayed in Mexican hands until the Mexican-American War. Mexican California remained a coastal society with little interest in settling in California's hot, dry interior valleys.

American exploration of the San Joaquin Valley begins in the 1820s with Jedediah Smith, Kit Carson, and Joseph Walker looking for commercial opportunities. The United States government began exploring California in the 1830s. Soon, the Americans will be searching for intercontinental railroad routes to link the eastern and western halves of the continent.

The defeat of the Mexicans during the Mexican-American War and the subsequent discovery of gold will drastically alter the complicated political realities of the west. The Mexican-American War was ostensible fought to settle a boundary dispute with the Mexicans over the western boundary of the newly-annexed state of Texas, which had fought a successful rebellion against the Mexican Army in the mid 1830s. The Republic of Texas was an independent country for nine years until Texas was annexed by the United States in 1845. One major outcome of the Mexican-American War was that Mexico rescinded its claims to much of the American southwest. In 1848 these territories were folded into the United States, including California.

In January 1848, the discovery of gold in Coloma, California changed the settlement of California, forever. In the summer of 1848, when the gold strike was publicly announced, the overnight settlement of California began. The Mexican population of California was small and limited to the coasts and a few of southern California's interior valleys. A sizable native population settled the remainder of California; Bakersfield and Kern County was Yokuts territory. The Gold Rush tipped the balance of native communities throughout California, as many of California's natives were decimated.

Many areas experienced smaller gold rushes, including the Kern River Valley, when gold was discovered in Keyesville in 1853. The gold was soon played and the true future of the region was soon identified, farming, as the gold prospectors came down from the mountains. Kern Island, a median point along the Kern Delta, between the mouth of the Kern River and the Kern Lake, was settled in 1860. Soon, Col. Thomas Baker bought the property from the original owner, Christian Bohna and the settlement of Bakersfield began in earnest.

Col. Baker was lured to California by the prospects of gold. He was a practicing lawyer and surveyor and was slowing moved west from Ohio. He was

involved in Iowa's territorial government and served in both the California senate and assembly. Col. Baker realized he had to drain the Kern Delta to manufacture usable farmland. He also improved his land, creating one of the only transit locations between Los Angeles and Visalia in the 1860s.

Baker laid out the town and began the process of draining, diverting, and controlling the Kern River. In 1873, Bakersfield was incorporated and was the first city in the newly-created Kern County, which was previously a portion of Tulare County. In 1874, Bakersfield got a rail link with the establishment of the Southern Pacific line over the Tehachapi Pass connecting Kern County to northern California to points east. The train station was located in Sumner, a spite town that was established by the Southern Pacific about a mile east of downtown Bakersfield, now located in east Bakersfield. The train brought Bakersfield agricultural prosperity, since it now had quick, rail connections to larger California and eastern markets for its fruits and grains.

The city of Bakersfield was expanding to the north in the early twentieth-century toward the Kern River, after its 1898 reincorporation. The city centered along Chester Avenue, which was the main north/south thoroughfare. The community of Sumter lied to the east, and the surrounding area in all directions was farmland. The city of Bakersfield was a small community at the turn of the century, slightly less than 5,000 people lived in Bakersfield; an additional 17,000 people lived in Kern County (Maynard 1997:43). Bakersfield was a quiet city in the center of a farming region.

However, the discovery of the Kern River oil field in May 1899 quickly changed the face of the region. Bakersfield quickly became the center of a California oil boom, which remade the community. The population more than doubled in less than ten years, bringing prosperity to the area (Maynard 1997:43). Many people recognized that prosperity could not only be achieved through working in oil, but also through providing necessary services, such as milk products and lodging. The city of Bakersfield grew.

Between 1900 and 1950, Bakersfield and the greater Kern County region grew tremendously under the influence of two economic forces, agriculture and oil. By 1950, Bakersfield was a mid-sized city of approximately 50,000. It sported minor league baseball, had a regional airport, and was a major automobile link along Route 99, which connected northern and southern California. In the late 1960s, Bakersfield was beginning to change again, as the Kern County Land Company was sold to Tenneco West, and Bakersfield began to suburbanize.

8.0 Field Procedures and Methods

On November 15, 2016, Scott M. Hudlow (for qualifications see Appendix I) conducted a pedestrian survey of the entire proposed project area. Hudlow surveyed in east/west transects at 10-meter (33 feet) intervals across the entire

parcel. All archaeological material more than fifty years of age or earlier encountered during the inventory would have been recorded.

9.0 Report of Findings

No cultural resources were identified.

10.0 Management Recommendations

At the request of McIntosh and Associates, a Phase I Cultural Resource Survey was conducted on approximately 20.55. The property lies at the northwest corner of Panama Lane and Old River Road, City of Bakersfield, California. The Phase I Cultural Resource Survey consisted of a pedestrian survey of the 20.55 -acre site and a cultural resource record search.

No cultural resources were identified. No further work is required. If archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and they will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

11.0 References

Clay, Vickie L. and Larry L. Hause

1990 *An Archaeological Inventory of the Proposed PG&E Pipeline Corridor Segments: Newberry Springs to Hinkley 29.6 Miles, Kern County, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Hudlow, Scott M.

2016 *A Phase I Cultural Resource Survey, VTPM 12167, Panama Lane and Old River Road, City of Bakersfield, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Maynard, John A.

1997 *Bakersfield: A Centennial Portrait.* Cherbo Publishing, Encino, California.

Moratto, Michael J.

1984 *California Archaeology*. Orlando, Florida, Academic Press.

Nabokov, Peter and Robert Easton

1989 *Native American Architecture.* Oxford University Press, New York, New York.

Parr, Robert E. and Richard Osborne
1992 *Route Adoption Study for Highway 58, Kern County, California.* Report on file, Southern San Joaquin Archaeological Information Center, California State University, Bakersfield, Bakersfield, California.

Wallace, William J.
1978 "Southern Valley Yokuts" in *Handbook of North American Indians.* Vol. 8, California, Robert F. Heizer, ed. Washington, D.C.: Smithsonian Institution, pp. 437-445.

Warren, Claude N. and M. B. McKusiak
1959 A Burial Complex from the southern San Joaquin Valley. Los Angeles: *University of California, Los Angeles, Archaeological Survey Annual Report, 1959*: 17-26.

Warren, Claude N.
1967 "The San Dieguito Complex: A Review and Hypothesis" *American Antiquity* 32(2): 168-185.

Appendix I

Scott M. Hudlow
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(661) 834-9183

Education

The George Washington University
M.A. American Studies, 1993
Specialization in Historical Archaeology
and Architectural History

University of California, Berkeley
B.A. History, 1987
B.A. Anthropology, 1987
Specialization in Historical Archaeology
and Colonial History

Public Service

3/94-12/02 *Historic Preservation Commission.* City of Bakersfield, Bakersfield, California 93305.

7/97-12/01 *Newsletter Editor. California History Action,* newsletter for the California Council for the Promotion of History.

Relevant Work Experience

8/96- *Adjutant Faculty.* Bakersfield College, 1801 Panorama Drive, Bakersfield, California, 93305. Teach History 17A, Introduction to American History and Anthropology 5, Introduction to North American Indians.

Owner, Sole Proprietorship. Hudlow Cultural Resource Associates. 1405 Sutter Lane, Bakersfield California 93309. Operate small cultural resource management business. Manage contracts, respond to RFP's, bill clients, manage temporary employees. Conduct Phase I archaeological and architectural surveys for private and public clients; including the cultural resource survey, documentary photography, measured drawings, mapping of structures, filing of survey forms, historic research, assessing impact and writing reports. Evaluated archaeological and architectural sites and properties in lieu of their eligibility for the National Register of Historic Places in association with Section 106 and 110 requirements of the National Historic Preservation Act of 1966 and CEQA (California Environmental Quality Act).

Full resume available upon request.

SMALL PROJECT ANALYSIS LEVEL ASSESSMENT

NWC Panama & Old River Multi-Family Residential SPAL
Bakersfield, CA

Prepared For:

McIntosh & Associates
2001 Whelan Court
Bakersfield, CA 93309

Prepared By:

TRINITY CONSULTANTS
4900 California Avenue, Suite 420A
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(661) 282-2200

December 2021

Project 210505.0208

Trinity Consultants

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1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for a multi-family residential community to be located on APN 544-040-01 on the northwest corner of the intersection of Panama Lane and Old River Road in Bakersfield, CA. The Project includes the construction of 135 one-family dwelling units.

This limited air quality assessment uses the San Joaquin Valley Air Pollution Control District's (SJVAPCD) screening tool, Small Project Analysis Level (SPAL) (SJVAPCD 2017). This SPAL assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the SPAL established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this SPAL assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a less than significant air quality impact.

2. PROJECT INFORMATION

2.1 Introduction

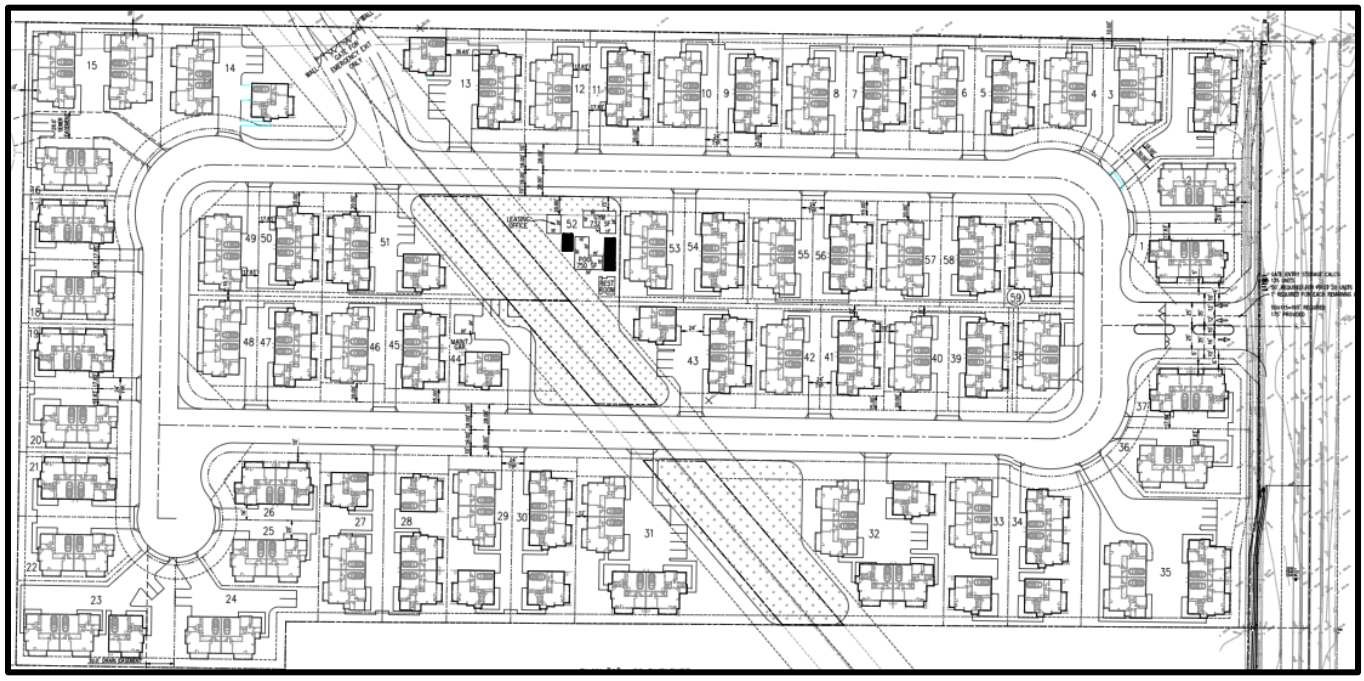
The Project site is located in the City of Bakersfield northwest corner of the intersection of Panama Lane and Old River Road in Bakersfield, CA. The Project includes the construction of 135 multi-family dwelling units. The Project was assessed as if it would be developed in one phase. This assessment examines the projected gross impacts to air quality posed by this Project to the San Joaquin Valley Air Basin to determine whether or not the Project remains below established air quality thresholds of significance.

2.2 Project Location

The Project is located in the City of Bakersfield, California on the northwest corner of the intersection of Panama Lane and Old River Road in Bakersfield, CA. **Figure 2-1** depicts the Project location within the City of Bakersfield and **Figure 2-2** depicts the proposed site plan.

Figure 2-1. Project Location

Figure 2-2. Proposed Site Plan



3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION

This assessment was prepared pursuant to the SJVAPCD's GAMAQI (SJVAPCD 2015), the CEQA (Public Resources Code 21000 to 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to GAMAQI, the SJVAPCD "pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds"[1].

The SJVAPCD SPAL process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters has "no possibility of exceeding criteria pollutant emissions thresholds". **Table 3-1** presents the SPAL size parameters for residential projects.

Table 3-1. Small Project Analysis Level in Units for Residential

Land Use Category - Residential	Project Size (dwelling unit)*
Single Family	155
Apartment, Low Rise	224
Apartment, Mid Rise	225
Apartment, High Rise	340
Condominiums/Townhouse	256
Condominiums, High Rise	352
Mobile Home Park	292
Retirement Community	580
Congregate Care Assisted Living	536
Proposed Project – Condominiums/Townhouse	**135**
SPAL Exceeded?	No
*Project size based on SPAL Table 5-3(b), as posted on SJVAPCD webpage: https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF	

As shown in **Table 3-1**, the proposed Project would not exceed the established SPAL limits for an "Condominiums/Townhouse" residential project. The Project would construct 135 one-family dwelling units compared to the allowable project size for an "Condominiums/Townhouse" project which is 256 units. Based on the above information, this Project qualifies for a limited air quality analysis applying the SPAL guidance to determine air quality impacts.

[1] SJVAPCD GAMAQI, Section 8.3.4, Page 85.

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan;
- 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;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 4-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 (California Air Pollution Control Officers Association (CAPCOA) 2016). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens, and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e., the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

5. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI and SPAL guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

5.1 Short-Term Emissions

Table 5-1 shows the construction emission levels using default CalEEMod factors for construction of 135 one-family dwelling units (see Attachment A) except for the following:

- Project site acres was changed from the default to the actual acreage of the Project site.

Construction emission estimates also included the following SJVAPCD's required measures for all projects:

- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 5-1. Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
2022 Construction Emissions	0.30	2.59	2.63	0.01	0.32	0.19
2023 Construction Emissions	1.43	1.33	1.67	0.00	0.14	0.08
Max Construction Emissions	*1.43*	*2.59*	*2.63*	*0.01*	*0.32*	*0.19*
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

5.2 Long-Term Emissions

Table 5-2 presents the Project's long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. Most of these emissions impacts are from mobile sources traveling to and from the Project area. The following changes to default values were incorporated during the CalEEMod analysis:

- Vehicle Fleet Mix was updated to reflect SJVAPCD approved residential fleet mix for 2023.

Operational emission estimates also included the following mitigation measures even though the project was less than significant before mitigation:

- Improved Walkability Design;
- Improved Destination Accessibility;
- Improved Pedestrian Network; and
- Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).

Table 5-2. Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
Unmitigated						
Operational Emissions	1.44	0.83	8.79	0.02	1.72	0.93
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated						
Operational Emissions	1.00	0.67	4.61	0.01	0.97	0.27
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

As calculated (see **Appendix A**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL screening thresholds.

5.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO_2e) (**see Appendix A**). The proposed Project's operational CO_2e emissions were estimated using CalEEMod. These emissions are summarized in **Table 5-3**.

Table 5-3. Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
2023 Project Operations	1,037.35	1.11	0.05	1,081.21
2005 BAU	1,807.05	1.26	0.18	1,892.62
BAU less Project emissions				**42.9%**

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2008 Climate Change Scoping Plan supports the 2011 IPPC estimates. The 2008 Climate Change Scoping Plan also indicates that GHG emissions will increase to 596.41 million metric tons of CO_2e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO_2 that would be generated by the Project is so small in relation to the California CO_2 equivalent estimates for 2020 (596 million metric tons CO_2e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 811.41 metric tons CO_2e, which is a 42.9% reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is less than significant.

5.4 Potential Impact on Sensitive Receptors

The proposed Project is located east of the northwest corner of the intersection of Panama Lane and Old River Road. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. The closest sensitive receptors are at Independence High School located at 0.99 miles to the south of the proposed Project site. There are no other known schools, hospitals, or nursing homes within a one-mile radius of the Project.

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any on-site or off-site sensitive receptors and is not expected to have any adverse impacts on any known sensitive receptor.

5.5 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Dome Land Wilderness or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

5.6 Potential Odor Impacts

The proposed Project is a multi-residential community located near commercial and residential neighborhoods. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

5.7 Ambient Air Quality Impacts

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 5-1** and **5-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

5.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows:

- Minimize health risks from new and modified sources of air pollution.

- Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- Avoid unreasonable restrictions on permitting.

The proposed Project would result in emissions of Hazardous Air Pollutants (HAPs) during construction and would be located near existing residents and businesses; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required. To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased HAPs. HAP emissions from anticipated on-site construction activities were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for onsite construction equipment. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for each source. The time-of-day variable emissions rates were applied in AERMOD since construction emissions are expected to be limited to specific work hours provided by the project proponent. This scenario places the highest level of activity and impact in the closest proximity to potential receptors to determine if, at the Project's highest potential impact, it would present adverse health risks to nearby receptors. Operational emissions from the apartment community would not generate HAP emissions.

Discrete receptors were placed on residences and businesses within close proximity of the Project site and receptor grids over more densely populated areas. A total of 700 discrete off-site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided, AERMET processed meteorological datasets for the Bakersfield monitoring station, calendar years 2013 through 2017 was input to AERMOD (SJVAPCD 2018). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility is considered "rural" under the Auer land use classification method (Auer 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT v21081) program in the Hotspots Analysis and Reporting Program Version 2 (HARP 2) (CARB 2021). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute noncancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA). HARP2 site parameters were set for the mandatory minimum pathways of inhalation, soil ingestion, dermal, and mother's milk for residential receptors and inhalation, soil ingestion, and dermal for worker receptors. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2

output files. Total cancer risk was predicted for each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor. A hazard index for acute non-cancer health effects was not computed since DPM does not have a risk exposure level for acute risk.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 2-year exposure for the construction activities.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of twenty in one million (20E-06) and 1.0, respectively for the proposed Project. The PMIs are identified by receptor location and risk and are provided in **Table 5-4**. The electronic AERMOD and HARP2 output files are provided in Appendix B.

Table 5-4. Potential Maximum Health Risk Impacts

	Value	UTM East	UTM N
Excess Cancer Risk	1.22E-05	307945.1	3908356
Chronic Hazard Index	7.15E-03	307945.1	3908356

As shown above in **Table 5-4**, the maximum predicted cancer risk for the proposed Project is 1.22E-05. The maximum chronic non-cancer hazard index for the proposed Project is 7.15E-03. Since the PMI remained below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk was not calculated since there is no acute risk associated with DPM emission; therefore, the proposed Project is considered below the significance level.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

5.9 Cumulative Impacts

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project that provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be less than significant.

6. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and SPAL guidelines, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

7. REFERENCES

California Environmental Quality Act (CEQA). 2021. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

---------. 2021. CEQA, Appendix G – Environmental Checklist Form, Final Text.

California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model tm (CalEEMod), version 2020.4.0.

----------. 2016. "Air Toxic Hot Spots" Facility Prioritization Guidelines, Revised 2016.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2020. Small Project Analysis Level (SPAL) Memorandum. November 13, 2020. http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF

----------. 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

----------. 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009.

APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

210505.0208 NW Panama-Old River SPAL - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

210505.0208 NW Panama-Old River SPAL

Kern-San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	135.00	Dwelling Unit	20.55	135,000.00	386

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site acreage = 20.55 acres

Construction Phase -

Woodstoves - New development does not have woodstoves or fireplaces.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Fleet Mix - Fleet Mix values used from the District Accepted Fleex Mix for Residential Projects for an operational year of 2023.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	HHD	0.04	0.02
tblFleetMix	LDA	0.48	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	9.8160e-003	9.0000e-004
tblFleetMix	MCY	0.03	2.5000e-003
tblFleetMix	MDV	0.17	0.06
tblFleetMix	MH	4.7320e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	5.9100e-004	0.00
tblFleetMix	SBUS	1.5170e-003	4.0000e-004
tblFleetMix	UBUS	2.4100e-004	4.3000e-003
tblLandUse	LotAcreage	8.44	20.55

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	0.2955	2.5901	2.6262	5.1900e-003	0.3548	0.1230	0.4778	0.1400	0.1150	0.2550	0.0000	456.9447	456.9447	0.0971	6.5300e-003	461.3179
2023	1.4301	1.3317	1.6733	3.2100e-003	0.0728	0.0625	0.1352	0.0195	0.0587	0.0782	0.0000	283.1048	283.1048	0.0524	4.7200e-003	285.8213
Maximum	**1.4301**	**2.5901**	**2.6262**	**5.1900e-003**	**0.3548**	**0.1230**	**0.4778**	**0.1400**	**0.1150**	**0.2550**	**0.0000**	**456.9447**	**456.9447**	**0.0971**	**6.5300e-003**	**461.3179**

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					
2022	0.2955	2.5901	2.6262	5.1900e-003	0.1966	0.1230	0.3196	0.0702	0.1150	0.1852	0.0000	456.9443	456.9443	0.0971	6.5300e-003	461.3175
2023	1.4301	1.3317	1.6733	3.2100e-003	0.0728	0.0625	0.1352	0.0195	0.0587	0.0782	0.0000	283.1046	283.1046	0.0524	4.7200e-003	285.8210
Maximum	**1.4301**	**2.5901**	**2.6262**	**5.1900e-003**	**0.1966**	**0.1230**	**0.3196**	**0.0702**	**0.1150**	**0.1852**	**0.0000**	**456.9443**	**456.9443**	**0.0971**	**6.5300e-003**	**461.3175**

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	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**	**37.00**	**0.00**	**25.81**	**43.77**	**0.00**	**20.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**12-13-2021**	**3-12-2022**	0.9337	0.9337
2	**3-13-2022**	**6-12-2022**	0.6134	0.6134
3	**6-13-2022**	**9-12-2022**	0.6131	0.6131
4	**9-13-2022**	**12-12-2022**	0.6073	0.6073
5	**12-13-2022**	**3-12-2023**	0.5607	0.5607
6	**3-13-2023**	**6-12-2023**	0.5615	0.5615
7	**6-13-2023**	**9-12-2023**	0.6624	0.6624
8	**9-13-2023**	**9-30-2023**	0.8248	0.8248
		Highest	0.9337	0.9337

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1089	0.1241	4.8274	0.0128		0.6301	0.6301		0.6301	0.6301	83.0780	60.1204	143.1983	0.3911	1.0700e-003	153.2946
Energy	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	181.5556	181.5556	0.0123	3.4100e-003	182.8782
Mobile	0.3155	0.6010	3.9167	0.0105	1.0749	8.2400e-003	1.0831	0.2864	7.6800e-003	0.2940	0.0000	996.4167	996.4167	0.0829	0.0489	1,013.0574
Waste						0.0000	0.0000		0.0000	0.0000	12.6057	0.0000	12.6057	0.7450	0.0000	31.2302
Water						0.0000	0.0000		0.0000	0.0000	2.7905	6.1993	8.9898	0.2876	6.8900e-003	18.2331
Total	**1.4365**	**0.8286**	**8.7881**	**0.0240**	**1.0749**	**0.6467**	**1.7215**	**0.2864**	**0.6461**	**0.9325**	**98.4742**	**1,244.2919**	**1,342.7661**	**1.5188**	**0.0603**	**1,398.6934**

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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	0.6837	0.0115	0.9954	5.0000e-005		5.5100e-003	5.5100e-003		5.5100e-003	5.5100e-003	0.0000	1.6226	1.6226	1.5500e-003	0.0000	1.6614
Energy	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	131.5927	131.5927	4.2100e-003	2.4300e-003	132.4213
Mobile	0.3077	0.5500	3.5686	9.3200e-003	0.9480	7.3600e-003	0.9554	0.2526	6.8600e-003	0.2594	0.0000	882.5357	882.5357	0.0755	0.0444	897.6624
Waste						0.0000	0.0000		0.0000	0.0000	12.6057	0.0000	12.6057	0.7450	0.0000	31.2302
Water						0.0000	0.0000		0.0000	0.0000	2.7905	6.1993	8.9898	0.2876	6.8900e-003	18.2331
Total	**1.0035**	**0.6650**	**4.6080**	**0.0100**	**0.9480**	**0.0212**	**0.9693**	**0.2526**	**0.0207**	**0.2733**	**15.3962**	**1,021.9503**	**1,037.3466**	**1.1139**	**0.0538**	**1,081.2084**

	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	**30.14**	**19.75**	**47.57**	**58.14**	**11.80**	**96.72**	**43.70**	**11.80**	**96.79**	**70.69**	**84.37**	**17.87**	**22.75**	**26.66**	**10.80**	**22.70**

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	1/8/2022	1/21/2022	5	10	
2	Grading	Grading	1/22/2022	3/11/2022	5	35	
3	Building Construction	Building Construction	3/12/2022	8/11/2023	5	370	

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4	Paving	Paving	8/12/2023	9/8/2023	5	20	
5	Architectural Coating	Architectural Coating	9/9/2023	10/6/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 273,375; Residential Outdoor: 91,125; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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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	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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3.2 Site Preparation - 2022

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	2.9000e-004	2.1000e-004	2.3500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6075	0.6075	2.0000e-005	2.0000e-005	0.6134
Total	**2.9000e-004**	**2.1000e-004**	**2.3500e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6075**	**0.6075**	**2.0000e-005**	**2.0000e-005**	**0.6134**

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					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0383**	**8.0600e-003**	**0.0464**	**0.0197**	**7.4200e-003**	**0.0271**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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3.2 Site Preparation - 2022

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	2.9000e-004	2.1000e-004	2.3500e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6075	0.6075	2.0000e-005	2.0000e-005	0.6134
Total	**2.9000e-004**	**2.1000e-004**	**2.3500e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6075**	**0.6075**	**2.0000e-005**	**2.0000e-005**	**0.6134**

3.3 Grading - 2022

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					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4356	95.4356	0.0309	0.0000	96.2072
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.1611**	**0.0286**	**0.1897**	**0.0639**	**0.0263**	**0.0903**	**0.0000**	**95.4356**	**95.4356**	**0.0309**	**0.0000**	**96.2072**

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3.3 Grading - 2022

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	1.1100e-003	8.1000e-004	9.1200e-003	3.0000e-005	2.8200e-003	2.0000e-005	2.8400e-003	7.5000e-004	2.0000e-005	7.6000e-004	0.0000	2.3626	2.3626	8.0000e-005	7.0000e-005	2.3853
Total	**1.1100e-003**	**8.1000e-004**	**9.1200e-003**	**3.0000e-005**	**2.8200e-003**	**2.0000e-005**	**2.8400e-003**	**7.5000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3626**	**2.3626**	**8.0000e-005**	**7.0000e-005**	**2.3853**

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					0.0628	0.0000	0.0628	0.0249	0.0000	0.0249	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4354	95.4354	0.0309	0.0000	96.2071
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.0628**	**0.0286**	**0.0914**	**0.0249**	**0.0263**	**0.0513**	**0.0000**	**95.4354**	**95.4354**	**0.0309**	**0.0000**	**96.2071**

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3.3 Grading - 2022

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	1.1100e-003	8.1000e-004	9.1200e-003	3.0000e-005	2.8200e-003	2.0000e-005	2.8400e-003	7.5000e-004	2.0000e-005	7.6000e-004	0.0000	2.3626	2.3626	8.0000e-005	7.0000e-005	2.3853
Total	**1.1100e-003**	**8.1000e-004**	**9.1200e-003**	**3.0000e-005**	**2.8200e-003**	**2.0000e-005**	**2.8400e-003**	**7.5000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3626**	**2.3626**	**8.0000e-005**	**7.0000e-005**	**2.3853**

3.4 Building Construction - 2022

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					
Off-Road	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799	0.0000	243.3115	243.3115	0.0583	0.0000	244.7688
Total	**0.1792**	**1.6396**	**1.7182**	**2.8300e-003**		**0.0850**	**0.0850**		**0.0799**	**0.0799**	**0.0000**	**243.3115**	**243.3115**	**0.0583**	**0.0000**	**244.7688**

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3.4 Building Construction - 2022

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	3.2700e-003	0.0807	0.0244	3.1000e-004	9.8100e-003	9.1000e-004	0.0107	2.8300e-003	8.7000e-004	3.7100e-003	0.0000	29.7571	29.7571	1.8000e-004	4.4100e-003	31.0749
Worker	0.0324	0.0235	0.2655	7.4000e-004	0.0821	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222	0.0000	68.7507	68.7507	2.2100e-003	2.0400e-003	69.4134
Total	**0.0357**	**0.1042**	**0.2899**	**1.0500e-003**	**0.0919**	**1.3900e-003**	**0.0933**	**0.0246**	**1.3100e-003**	**0.0260**	**0.0000**	**98.5079**	**98.5079**	**2.3900e-003**	**6.4500e-003**	**100.4884**

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					
Off-Road	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799	0.0000	243.3112	243.3112	0.0583	0.0000	244.7685
Total	**0.1792**	**1.6396**	**1.7182**	**2.8300e-003**		**0.0850**	**0.0850**		**0.0799**	**0.0799**	**0.0000**	**243.3112**	**243.3112**	**0.0583**	**0.0000**	**244.7685**

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3.4 Building Construction - 2022

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	3.2700e-003	0.0807	0.0244	3.1000e-004	9.8100e-003	9.1000e-004	0.0107	2.8300e-003	8.7000e-004	3.7100e-003	0.0000	29.7571	29.7571	1.8000e-004	4.4100e-003	31.0749
Worker	0.0324	0.0235	0.2655	7.4000e-004	0.0821	4.8000e-004	0.0826	0.0218	4.4000e-004	0.0222	0.0000	68.7507	68.7507	2.2100e-003	2.0400e-003	69.4134
Total	**0.0357**	**0.1042**	**0.2899**	**1.0500e-003**	**0.0919**	**1.3900e-003**	**0.0933**	**0.0246**	**1.3100e-003**	**0.0260**	**0.0000**	**98.5079**	**98.5079**	**2.3900e-003**	**6.4500e-003**	**100.4884**

3.4 Building Construction - 2023

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					
Off-Road	0.1258	1.1508	1.2995	2.1600e-003		0.0560	0.0560		0.0527	0.0527	0.0000	185.4438	185.4438	0.0441	0.0000	186.5467
Total	**0.1258**	**1.1508**	**1.2995**	**2.1600e-003**		**0.0560**	**0.0560**		**0.0527**	**0.0527**	**0.0000**	**185.4438**	**185.4438**	**0.0441**	**0.0000**	**186.5467**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.3000e-003	0.0496	0.0161	2.3000e-004	7.4800e-003	3.2000e-004	7.8000e-003	2.1600e-003	3.1000e-004	2.4700e-003	0.0000	21.8344	21.8344	8.0000e-005	3.2300e-003	22.7978
Worker	0.0227	0.0157	0.1856	5.5000e-004	0.0625	3.4000e-004	0.0629	0.0166	3.1000e-004	0.0169	0.0000	51.0115	51.0115	1.5100e-003	1.4300e-003	51.4756
Total	**0.0240**	**0.0653**	**0.2017**	**7.8000e-004**	**0.0700**	**6.6000e-004**	**0.0707**	**0.0188**	**6.2000e-004**	**0.0194**	**0.0000**	**72.8459**	**72.8459**	**1.5900e-003**	**4.6600e-003**	**74.2734**

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					
Off-Road	0.1258	1.1508	1.2995	2.1600e-003		0.0560	0.0560		0.0527	0.0527	0.0000	185.4436	185.4436	0.0441	0.0000	186.5464
Total	**0.1258**	**1.1508**	**1.2995**	**2.1600e-003**		**0.0560**	**0.0560**		**0.0527**	**0.0527**	**0.0000**	**185.4436**	**185.4436**	**0.0441**	**0.0000**	**186.5464**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

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	1.3000e-003	0.0496	0.0161	2.3000e-004	7.4800e-003	3.2000e-004	7.8000e-003	2.1600e-003	3.1000e-004	2.4700e-003	0.0000	21.8344	21.8344	8.0000e-005	3.2300e-003	22.7978
Worker	0.0227	0.0157	0.1856	5.5000e-004	0.0625	3.4000e-004	0.0629	0.0166	3.1000e-004	0.0169	0.0000	51.0115	51.0115	1.5100e-003	1.4300e-003	51.4756
Total	**0.0240**	**0.0653**	**0.2017**	**7.8000e-004**	**0.0700**	**6.6000e-004**	**0.0707**	**0.0188**	**6.2000e-004**	**0.0194**	**0.0000**	**72.8459**	**72.8459**	**1.5900e-003**	**4.6600e-003**	**74.2734**

3.5 Paving - 2023

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					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

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3.5 Paving - 2023

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	4.4000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9861	0.9861	3.0000e-005	3.0000e-005	0.9950
Total	**4.4000e-004**	**3.0000e-004**	**3.5900e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9861**	**0.9861**	**3.0000e-005**	**3.0000e-005**	**0.9950**

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					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

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3.5 Paving - 2023

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	4.4000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9861	0.9861	3.0000e-005	3.0000e-005	0.9950
Total	**4.4000e-004**	**3.0000e-004**	**3.5900e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9861**	**0.9861**	**3.0000e-005**	**3.0000e-005**	**0.9950**

3.6 Architectural Coating - 2023

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					
Archit. Coating	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.2690**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.6 Architectural Coating - 2023

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	5.6000e-004	3.9000e-004	4.5400e-003	1.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.1000e-004	1.0000e-005	4.1000e-004	0.0000	1.2490	1.2490	4.0000e-005	4.0000e-005	1.2604
Total	**5.6000e-004**	**3.9000e-004**	**4.5400e-003**	**1.0000e-005**	**1.5300e-003**	**1.0000e-005**	**1.5400e-003**	**4.1000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.2490**	**1.2490**	**4.0000e-005**	**4.0000e-005**	**1.2604**

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					
Archit. Coating	1.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**1.2690**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

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	5.6000e-004	3.9000e-004	4.5400e-003	1.0000e-005	1.5300e-003	1.0000e-005	1.5400e-003	4.1000e-004	1.0000e-005	4.1000e-004	0.0000	1.2490	1.2490	4.0000e-005	4.0000e-005	1.2604
Total	**5.6000e-004**	**3.9000e-004**	**4.5400e-003**	**1.0000e-005**	**1.5300e-003**	**1.0000e-005**	**1.5400e-003**	**4.1000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.2490**	**1.2490**	**4.0000e-005**	**4.0000e-005**	**1.2604**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3077	0.5500	3.5686	9.3200e-003	0.9480	7.3600e-003	0.9554	0.2526	6.8600e-003	0.2594	0.0000	882.5357	882.5357	0.0755	0.0444	897.6624
Unmitigated	0.3155	0.6010	3.9167	0.0105	1.0749	8.2400e-003	1.0831	0.2864	7.6800e-003	0.2940	0.0000	996.4167	996.4167	0.0829	0.0489	1,013.0574

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	988.20	1,098.90	847.80	2,861,372	2,523,730
Total	988.20	1,098.90	847.80	2,861,372	2,523,730

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.8116	11.8116	1.9100e-003	2.3000e-004	11.9284
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	61.7744	61.7744	9.9900e-003	1.2100e-003	62.3853
NaturalGas Mitigated	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
NaturalGas Unmitigated	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.24461e+006	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
Total		**0.0121**	**0.1034**	**0.0440**	**6.6000e-004**		**8.3600e-003**	**8.3600e-003**		**8.3600e-003**	**8.3600e-003**	**0.0000**	**119.7812**	**119.7812**	**2.3000e-003**	**2.2000e-003**	**120.4930**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.24461e+006	0.0121	0.1034	0.0440	6.6000e-004		8.3600e-003	8.3600e-003		8.3600e-003	8.3600e-003	0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
Total		**0.0121**	**0.1034**	**0.0440**	**6.6000e-004**		**8.3600e-003**	**8.3600e-003**		**8.3600e-003**	**8.3600e-003**	**0.0000**	**119.7812**	**119.7812**	**2.3000e-003**	**2.2000e-003**	**120.4930**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	667660	61.7744	9.9900e-003	1.2100e-003	62.3853
Total		**61.7744**	**9.9900e-003**	**1.2100e-003**	**62.3853**

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	127660	11.8116	1.9100e-003	2.3000e-004	11.9284
Total		**11.8116**	**1.9100e-003**	**2.3000e-004**	**11.9284**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6837	0.0115	0.9954	5.0000e-005		5.5100e-003	5.5100e-003		5.5100e-003	5.5100e-003	0.0000	1.6226	1.6226	1.5500e-003	0.0000	1.6614
Unmitigated	1.1089	0.1241	4.8274	0.0128		0.6301	0.6301		0.6301	0.6301	83.0780	60.1204	143.1983	0.3911	1.0700e-003	153.2946

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1267					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4247	0.1125	3.8248	0.0127		0.6245	0.6245		0.6245	0.6245	83.0780	58.4830	141.5610	0.3895	1.0700e-003	151.6178
Landscaping	0.0302	0.0116	1.0026	5.0000e-005		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003	0.0000	1.6374	1.6374	1.5700e-003	0.0000	1.6768
Total	**1.1089**	**0.1241**	**4.8274**	**0.0128**		**0.6301**	**0.6301**		**0.6301**	**0.6301**	**83.0780**	**60.1204**	**143.1983**	**0.3911**	**1.0700e-003**	**153.2946**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1267					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0298	0.0115	0.9954	5.0000e-005		5.5100e-003	5.5100e-003		5.5100e-003	5.5100e-003	0.0000	1.6226	1.6226	1.5500e-003	0.0000	1.6614
Total	**0.6837**	**0.0115**	**0.9954**	**5.0000e-005**		**5.5100e-003**	**5.5100e-003**		**5.5100e-003**	**5.5100e-003**	**0.0000**	**1.6226**	**1.6226**	**1.5500e-003**	**0.0000**	**1.6614**

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9898	0.2876	6.8900e-003	18.2331
Unmitigated	8.9898	0.2876	6.8900e-003	18.2331

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	8.79579 / 5.54517	8.9898	0.2876	6.8900e-003	18.2331
Total		**8.9898**	**0.2876**	**6.8900e-003**	**18.2331**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	8.79579 / 5.54517	8.9898	0.2876	6.8900e-003	18.2331
Total		**8.9898**	**0.2876**	**6.8900e-003**	**18.2331**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.6057	0.7450	0.0000	31.2302
Unmitigated	12.6057	0.7450	0.0000	31.2302

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	62.1	12.6057	0.7450	0.0000	31.2302
Total		**12.6057**	**0.7450**	**0.0000**	**31.2302**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	62.1	12.6057	0.7450	0.0000	31.2302
Total		**12.6057**	**0.7450**	**0.0000**	**31.2302**

9.0 Operational Offroad

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

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	135.00	Dwelling Unit	20.55	135,000.00	386

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	32
Climate Zone	3			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Agreage given.

Construction Phase - Operational Run

Trips and VMT - Operational Run

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	370.00	0.00
tblConstructionPhase	PhaseEndDate	8/31/2005	3/31/2004
tblLandUse	LotAcreage	8.44	20.55
tblTripsAndVMT	VendorTripNumber	14.00	0.00
tblTripsAndVMT	WorkerTripNumber	97.00	0.00
tblWoodstoves	NumberCatalytic	20.55	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWoodstoves	NumberNoncatalytic	20.55	0.00

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					
2004											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2004											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	60.1204	60.1204	3.7400e-003	1.0700e-003	60.5335
Energy											0.0000	181.5556	181.5556	0.0123	3.4100e-003	182.8782
Mobile											0.0000	1,543.7794	1,543.7794	0.2067	0.1705	1,599.7409
Waste											12.6057	0.0000	12.6057	0.7450	0.0000	31.2302
Water											2.7905	6.1993	8.9898	0.2876	6.8900e-003	18.2331
Total											**15.3962**	**1,791.6547**	**1,807.0509**	**1.2553**	**0.1818**	**1,892.6158**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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											0.0000	60.1204	60.1204	3.7400e-003	1.0700e-003	60.5335
Energy											0.0000	181.5556	181.5556	0.0123	3.4100e-003	182.8782
Mobile											0.0000	1,543.7794	1,543.7794	0.2067	0.1705	1,599.7409
Waste											12.6057	0.0000	12.6057	0.7450	0.0000	31.2302
Water											2.7905	6.1993	8.9898	0.2876	6.8900e-003	18.2331
Total											**15.3962**	**1,791.6547**	**1,807.0509**	**1.2553**	**0.1818**	**1,892.6158**

	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	Building Construction	Building Construction	4/1/2004	3/31/2004	5	0	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

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
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Building Construction - 2004

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					
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated 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	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
Total	**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**

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3.2 Building Construction - 2004

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					
Off-Road	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
Total	**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**

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	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
Total	**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**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,543.7794	1,543.7794	0.2067	0.1705	1,599.7409
Unmitigated											0.0000	1,543.7794	1,543.7794	0.2067	0.1705	1,599.7409

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	988.20	1,098.90	847.80	2,861,372	2,861,372
Total	988.20	1,098.90	847.80	2,861,372	2,861,372

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.448732	0.076027	0.167351	0.170247	0.047084	0.008345	0.016720	0.029607	0.000676	0.000235	0.022181	0.001151	0.011643

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	61.7744	61.7744	9.9900e-003	1.2100e-003	62.3853
Electricity Unmitigated											0.0000	61.7744	61.7744	9.9900e-003	1.2100e-003	62.3853
NaturalGas Mitigated											0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
NaturalGas Unmitigated											0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.24461e+006											0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
Total												**0.0000**	**119.7812**	**119.7812**	**2.3000e-003**	**2.2000e-003**	**120.4930**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	2.24461e+006											0.0000	119.7812	119.7812	2.3000e-003	2.2000e-003	120.4930
Total												**0.0000**	**119.7812**	**119.7812**	**2.3000e-003**	**2.2000e-003**	**120.4930**

210505.0208 NW Panama-Old River SPAL - BAU - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	667660	61.7744	9.9900e-003	1.2100e-003	62.3853
Total		**61.7744**	**9.9900e-003**	**1.2100e-003**	**62.3853**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	667660	61.7744	9.9900e-003	1.2100e-003	62.3853
Total		**61.7744**	**9.9900e-003**	**1.2100e-003**	**62.3853**

6.0 Area Detail

6.1 Mitigation Measures Area

210505.0208 NW Panama-Old River SPAL - BAU - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	60.1204	60.1204	3.7400e-003	1.0700e-003	60.5335
Unmitigated											0.0000	60.1204	60.1204	3.7400e-003	1.0700e-003	60.5335

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	58.4830	58.4830	1.1200e-003	1.0700e-003	58.8305
Landscaping											0.0000	1.6374	1.6374	2.6200e-003	0.0000	1.7029
Total											**0.0000**	**60.1204**	**60.1204**	**3.7400e-003**	**1.0700e-003**	**60.5335**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	58.4830	58.4830	1.1200e-003	1.0700e-003	58.8305
Landscaping											0.0000	1.6374	1.6374	2.6200e-003	0.0000	1.7029
Total											**0.0000**	**60.1204**	**60.1204**	**3.7400e-003**	**1.0700e-003**	**60.5335**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.9898	0.2876	6.8900e-003	18.2331
Unmitigated	8.9898	0.2876	6.8900e-003	18.2331

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	8.79579 / 5.54517	8.9898	0.2876	6.8900e-003	18.2331
Total		**8.9898**	**0.2876**	**6.8900e-003**	**18.2331**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	8.79579 / 5.54517	8.9898	0.2876	6.8900e-003	18.2331
Total		**8.9898**	**0.2876**	**6.8900e-003**	**18.2331**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.6057	0.7450	0.0000	31.2302
Unmitigated	12.6057	0.7450	0.0000	31.2302

210505.0208 NW Panama-Old River SPAL - BAU - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	62.1	12.6057	0.7450	0.0000	31.2302
Total		**12.6057**	**0.7450**	**0.0000**	**31.2302**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	62.1	12.6057	0.7450	0.0000	31.2302
Total		**12.6057**	**0.7450**	**0.0000**	**31.2302**

9.0 Operational Offroad

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

210505.0208 NW Panama-Old River SPAL - BAU - Kern-San Joaquin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B. HEALTH RISK ASSESSMENT MODELING FILES

(Electronic Files)

McINTOSH & ASSOCIATES
NEW GEN ENGINEERING GROUP

Land Surveying

Civil Engineering

Photogrammetry

G P S

Planning

Environmental

Landscape Architecture

Petroleum Engineering

August 9, 2023

City of Bakersfield Public Works Department
Traffic Engineering
1501 Truxtun Avenue
Bakersfield, CA 93301

Re: Zone Change for approximately 20.56 gross acres located approximately 800 feet north of the northwest corner of Panama Lane and Old River Road, Assessor Parcel Number 544-040-01. Located in the Southeast Quarter of Section 19, T30S, R27E, M.D.M.

Please consider the following information provided, as justification for an exemption from the requirement to perform an independent traffic impact analysis for the subject Zone Change. The project proposes to revise the zoning on approximately 20.56 gross acres. The existing land use is designated as Low Density Residential (LR). The existing zoning is One-Family Dwelling (R-1). The project proposes to revise the zoning for the entire 20.56 acres, to Limited Multiple-Family Dwelling (R-2), with the construction of 134 dwelling units.

The attached Tables 1 and 2 indicate trip generation calculations using the "Institute of Transportation Engineers" *Trip Generation Manual 11th Edition* for the existing zoning and proposed zoning. As shown on the attached Table 1, the existing zoning results in a P.M. Peak Hour trip generation of 145 Trip Ends. Table 1 also indicates that the proposed zoning will result in a P.M. Peak Hour trip generation of 78 Trip Ends, for a net decrease of 67 P.M. Peak Hour Trip Ends. For the A.M. Peak Hour, Table 2 indicates the existing land use/zoning results in a trip generation of 107 Trip Ends. Table 2 also indicates that the proposed zoning will result in an A.M. Peak Hour trip generation of 64 Trip Ends, for a net decrease of 43 A.M. Peak Hour Trip Ends. Since this proposed revision to the zoning actually decreases the P.M. Peak Hour trip generation volume by 67 trips and the A.M. Peak Hour trip generation volume by 43 trips, the proposed zone change should be exempted from performing a detailed traffic impact analysis in accordance with the City's "Methodology for Independent Assessment of Regional Impact Fees". The project applicant would therefore like to request that the Regional Transportation Impact Fee (RTIF) fixed rate fee schedule be used for computation of required impact fees for the project.

In 2013 SB 743 was passed by legislation and signed into law by the Governor of California, with the intent to change the evaluation of traffic impacts related to CEQA from Level of Service (LOS) to Vehicle Miles Traveled (VMT). Guidelines for implementation of the law were approved in December 2018 and agencies are required to implement the requirements by July 1, 2020. As of December 2021, the City of Bakersfield has not adopted any policies or thresholds for VMT analysis. Under CEQA, agencies have the discretion to adopt policies and thresholds based on a wide range of options and evaluation criteria. Per the 2009 Regional Transportation Impact Fee

(RTIF) Nexus Report, Multifamily has an average trip length of 6.72 miles. Based on the high number of local-retail facilities, and transportation facilities located around and near the project site, we believe that there is sufficient justification that the estimated vehicle miles traveled would be significantly less than 6.72 miles, as well as below the Governor's Office of Planning and Research recommended threshold for a proposed project exceeding a level of 15 percent below existing VMT per capita which would be approximately 5.72 miles. For the purpose of this study, it was assumed City of Bakersfield will adopt this same recommendation for VMT per capita threshold, therefore the project has less than significant impacts.

Along with the above mentioned tables, attached is a copy of the Zone Change exhibit map with the project area shown. Please contact us should you have any questions regarding this request for exemption.

Sincerely,
McIntosh & Associates

Blaine Neptune
RCE 55102

MJT:mjt

cc: Whitney Jackson
Tom Dee

Project Traffic

The traffic volumes generated from the proposed project were estimated using the "Institute of Transportation Engineers" Trip Generation Manual, 11th ed. © 2023.

Project Traffic – PM Peak Hour

Table 1: Proposed Project Traffic - P.M. Peak Hour Trip Ends

Land Use	Acres	Density D.U.'s / AC	D.U.'s / *GLFA*	ITE Code	Rate	Peak Hour Trips-PM	Split In	Split Out
Single Family Residential (Existing)	20.56	7.26	149	210	Note 1	145	91	54
Multi-Family Residential (Proposed)	20.56	6.52	134	220	Note 2	78	49	29
TOTAL					**Increase (-Decrease)**	-67	-42	-25

Note 1: ***Used Fitted Curve Equation: Ln(T) = 0.94Ln(x) + 0.27 to determine trip generation.***
Note 2: ***Used Fitted Curve Equation: T = 0.43(x) + 20.55 to determine trip generation.***

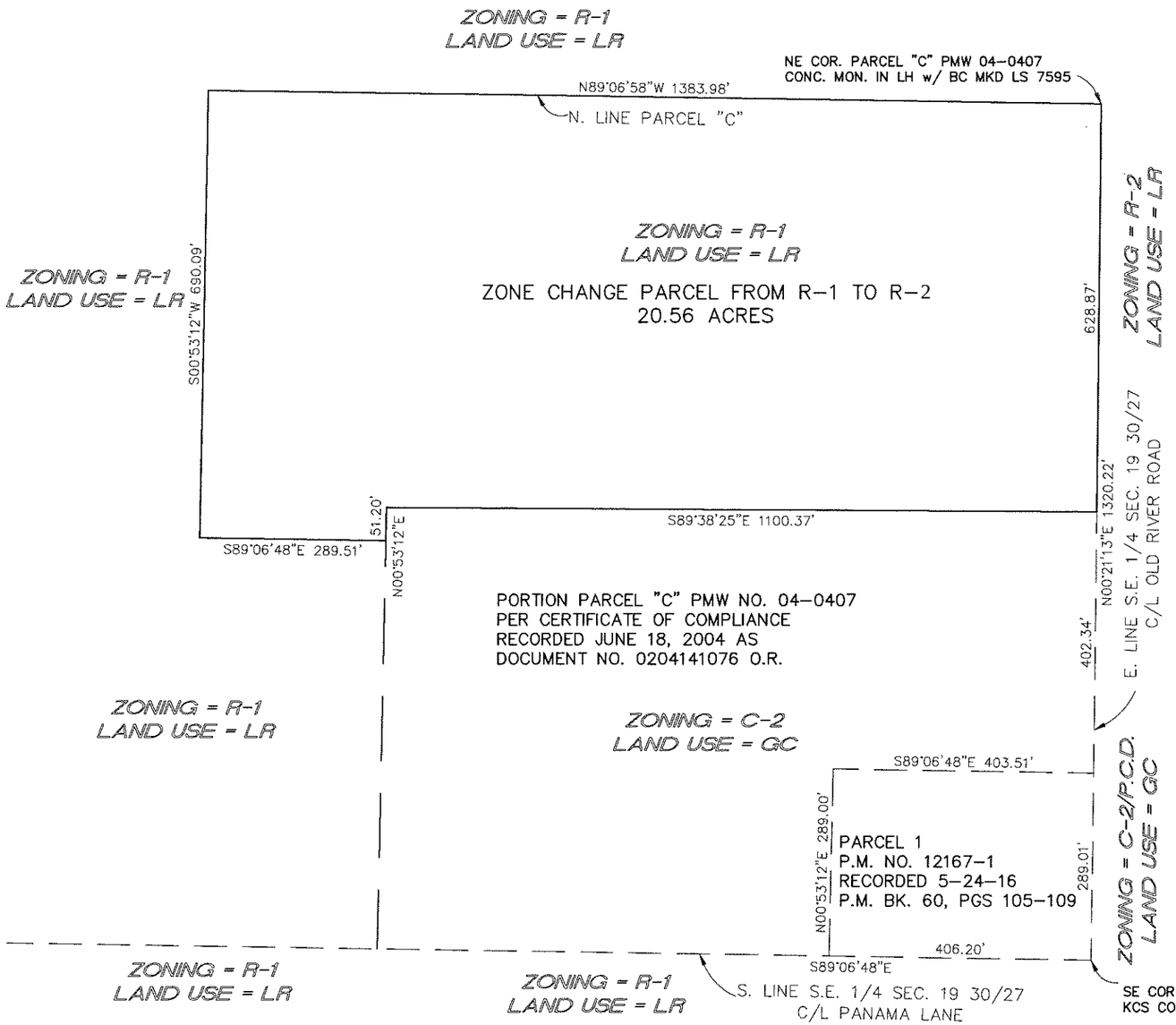
Project Traffic – AM Peak Hour

Table 2: Proposed Project Traffic - A.M. Peak Hour Trip Ends

Land Use	Acres	Density D.U.'s / AC	D.U.'s / *GLFA*	ITE Code	Rate	Peak Hour Trips-AM	Split In	Split Out
Single Family Residential (Existing)	20.56	7.26	149	210	Note 1	107	27	80
Multi-Family Residential (Proposed)	20.56	6.52	134	220	Note 1	64	16	48
TOTAL					**Increase (-Decrease)**	-43	-11	-32

Note 1: ***Used Fitted Curve Equation: Ln(T) = 0.91Ln(x) + 0.12 to determine trip generation.***
Note 2: ***Used Fitted Curve Equation: T = 0.31(X) + 22.85 to determine trip generation.***

EXHIBIT "B"



SAMUEL M. WALKER JR. LS 7558 — DATE 18 NOV 2022

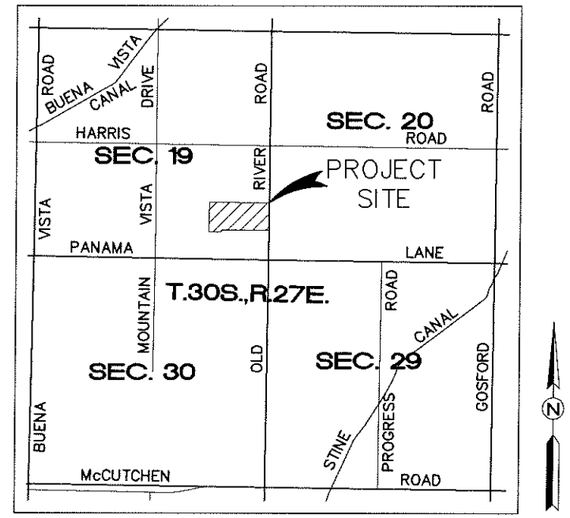
PROFESSIONAL LAND SURVEYOR
SAMUEL M. WALKER JR.
No. 7558
STATE OF CALIFORNIA

LEGEND

PROPOSED ZONE CHANGE

BASIS OF BEARINGS

ALL BEARINGS AND DISTANCES ARE RECORD OR CALCULATED FROM RECORD FROM PARCEL MAP NO. 12167 – PHASE 1 RECORDED IN PARCEL MAP BOOK 60 AT PAGES 105-109.



VICINITY MAP
NO SCALE

SCALE: 1" = 200'

JOB NO. 08-049.04
DATE: 09/07/22
FILE NO. RGF
DONE BY: JKD/mjt
SHEET 1 OF 1

RGF PROPERTIES, LLC

PORTION SE 1/4 SEC. 19, T.30S., R.27E., M.D.M.
ZONE CHANGE FROM R-1 TO R-3

PREPARED BY:
McINTOSH & ASSOCIATES
LAND SURVEYING • CIVIL ENGINEERING © 2021
2001 WHEELAN CT. BAKERSFIELD, CA 93309 (661) 834-4814

RESOLUTION NO. _____

RESOLUTION OF THE BAKERSFIELD PLANNING COMMISSION RECOMMENDING THAT THE CITY COUNCIL ADOPT A MITIGATED NEGATIVE DECLARATION FOR A ZONE CHANGE LOCATED NEAR THE NORTHWEST OF PANAMA LANE AND OLD RIVER ROAD. (ZC NO. 23-0287).

WHEREAS, McIntosh and Associates for Old River Properties, LLC, filed an application with the City of Bakersfield Development Services Department requesting an amendment to Title 17 of the Bakersfield Municipal Code to change the Zone District from R-1 (One-Family Dwelling) to R-2/PUD (Limited Multiple-Family Dwelling/Planned Unit Development) on 20.56 acres located near the northwest of Panama Lane and Old River Road, as shown on attached Exhibit "B", (the "Project"); and

WHEREAS, an initial study was conducted and it was determined that the Project would not have a significant effect on the environment; therefore, a Negative Declaration with mitigation measures was prepared in accordance with the California Environmental Quality Act (CEQA); and

WHEREAS, the Secretary of the Planning Commission set Thursday, April 4, 2024, at 5:30 p.m. in the Council Chambers of City Hall, 1501 Truxtun Avenue, Bakersfield, California, as the time and place for a public hearing before the Planning Commission to consider the proposed Mitigated Negative Declaration and Project, and notice of the public hearing was given in the manner provided in Title 17 of the Bakersfield Municipal Code; and

WHEREAS, the laws and regulations relating to the preparation and adoption of Negative Declarations as set forth in CEQA, the State CEQA Guidelines, and the City of Bakersfield CEQA Implementation Procedures have been duly followed by city staff and the Planning Commission; and

WHEREAS, the City of Bakersfield Development Services Department (1715 Chester Avenue, Bakersfield, California) is the custodian of all documents and other materials upon which the environmental determination is based; and

WHEREAS, the facts presented in the staff report, initial study, and special studies, and evidence received both in writing and by verbal testimony at the above referenced public hearing support the following findings:

1. All required public notices have been given. Hearing notices regarding the Project were mailed to property owners within 300 feet of the Project area and published in the *Bakersfield Californian*, a local newspaper of general circulation, at least 20 days prior to the hearing.

2. The provisions of CEQA, the State CEQA Guidelines, and the City of Bakersfield CEQA Implementation Procedures have been followed. Staff determined that the proposal is a project under CEQA and an initial study

was completed. A Mitigated Negative Declaration was prepared and properly noticed for public review (SCH No. 2024010882).

3. A Mitigated Negative Declaration for the Project is the appropriate environmental document to accompany its approval. In accordance with CEQA, staff prepared an initial study and indicated that because mitigation measures relating to those impacts identified in the initial study have been incorporated into the Project, the Project will not significantly impact the physical environment.

NOW, THEREFORE, BE IT RESOLVED by the Bakersfield Planning Commission as follows:

1. The above recitals, incorporated herein, are true and correct.

2. The Mitigated Negative Declaration is hereby recommended for adoption by the City Council.

3. The project is subject to mitigation measures found in Exhibit A for the Project located on the map as shown in Exhibit B, both of which are incorporated herein.

I HEREBY CERTIFY that the foregoing Resolution was passed and adopted by the Planning Commission of the City of Bakersfield at a regular meeting thereof held on Thursday, April 4, 2024, on a motion by Commissioner _____and seconded by Commissioner _____, by the following vote.

AYES:

NOES:

ABSENT:

APPROVED

_____
Zachary Bashirtash, CHAIR
City of Bakersfield Planning Commission

Exhibits (attached):

Exhibit A: Mitigation Measures
Exhibit B: Location Map

By: CC\S:\15_Zone Change\01_Active\2023\23-60000287_6201 Old River Rd\01_Hearing & Noticing Documents\Draft\PC RES ENV_6201 Old River.docx

EXHIBIT A
MITIGATION MEASURES
ZONE CHANGE NO. 23-0287

Biological Resources Impact Mitigation Measures:

1. Prior to of ground disturbance and/or construction activities, applicant/developer shall consult with and follow all California Department of Fish and Wildlife and United States Fish and Wildlife Service requirements related to listed plant and animal species protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA).

2. Applicant/developer shall have a qualified professional conduct and prepare a biological resource pre-activity survey no more than 30 days prior to the beginning of ground disturbance and/or construction activities; biological resource monitoring during each initial phase of ground disturbance; compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted for the detection of listed, or otherwise special-status species, likely to be impacted by any project related activity.
   - 2.1 If known or natal dens are detected during the survey, protective measures enumerated in the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011) shall be initiated. If the identified dens are unavoidable, pursuant to the guidelines, the CDFW and USFWS shall be contacted for additional guidance and take authorization.
   - 2.2 The project is within the historic range of Tipton kangaroo rat. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability. Trapping would be required to confirm small mammal species occupying the project.
   - 2.3 If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows: 1) ground or low-shrub nesting non-raptors – 300 feet (91 meters); 2) burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted. 3) other raptors – 500 feet (152 meters).

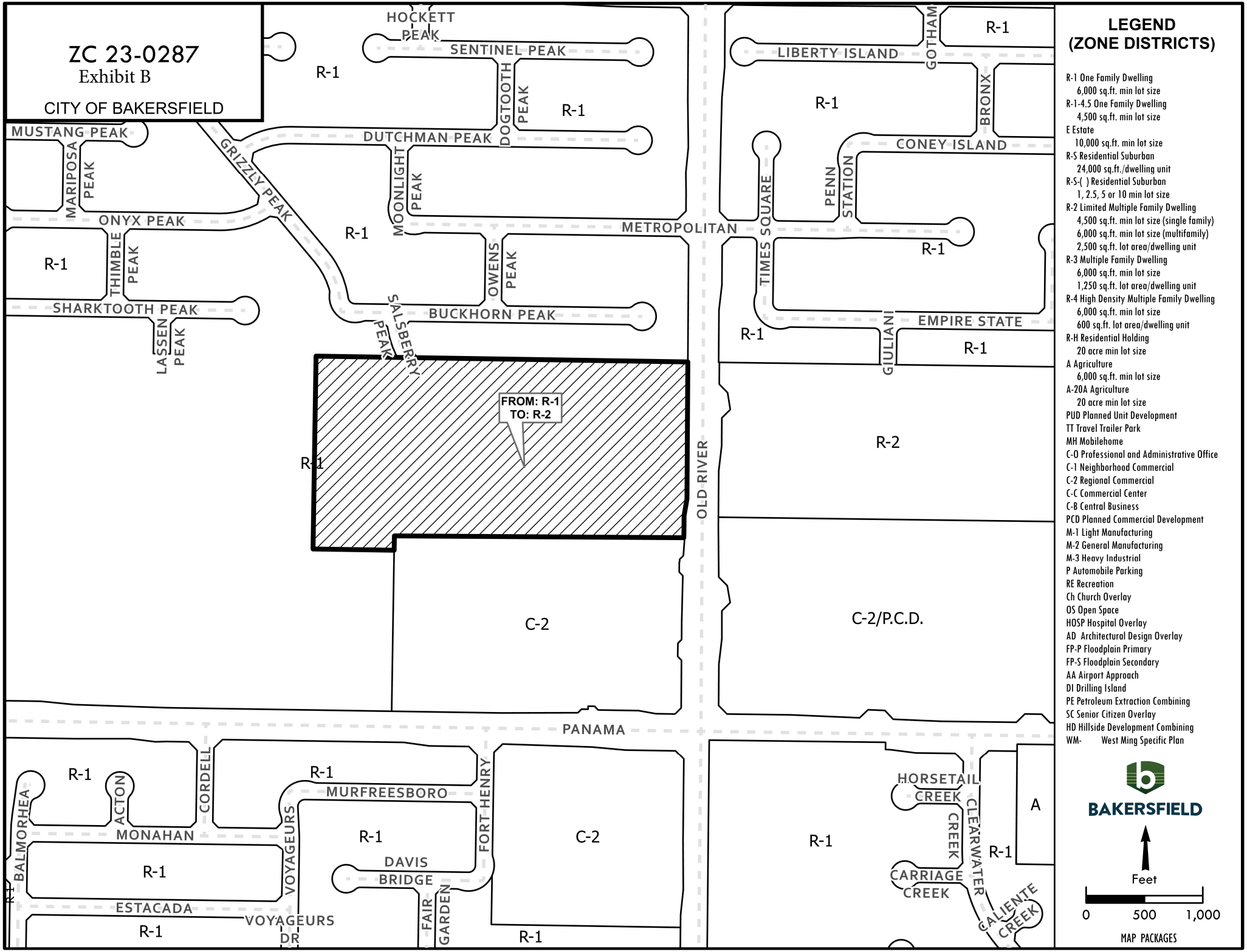
Tribal and Cultural Resources Impact Mitigation Measures:

3. During construction, if archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

4. During construction, if human remains are discovered, further ground disturbance shall be prohibited pursuant to California Health and Safety Code Section 7050.5. and Public Resources Code Sections 5097.94, 5097.98 and 5097.99.

Traffic/Circulation Impact Mitigation Measures

5. Prior to issuance of building permits, the applicant/developer shall pay the Regional Transportation Impact Fee Program.


ZC 23-0287
Exhibit B
CITY OF BAKERSFIELD
HOCKETT PEAK
SENTINEL PEAK
DOGTOOTH PEAK
DUTCHMAN PEAK
MUSTANG PEAK
MARIPOSA PEAK
GRIZZLY PEAK
MOONLIGHT PEAK
ONYX PEAK
THIMBLE PEAK
OWENS PEAK
SHARKTOOTH PEAK
LASSEN PEAK
SALSBERRY PEAK
BUCKHORN PEAK
METROPOLITAN
LIBERTY ISLAND
GOTHAM
BRONX
CONEY ISLAND
PENN STATION
TIMES SQUARE
GIULIANI
EMPIRE STATE
FROM: R-1
TO: R-2
OLD RIVER
PANAMA
R-1
R-2
C-2
C-2/P.C.D.
A
BALMORHEA
ACTON
CORDELL
MONAHAN
MURFREESBORO
VOYAGEURS
DAVIS
BRIDGE
FORT HENRY
FAIR GARDEN
ESTACADA
VOYAGEURS DR
HORSETAIL CREEK
CLEARWATER CREEK
CARRIAGE CREEK
CALIENTE CREEK
LEGEND
(ZONE DISTRICTS)
R-1 One Family Dwelling
6,000 sq.ft. min lot size
R-1-4.5 One Family Dwelling
4,500 sq.ft. min lot size
E Estate
10,000 sq.ft. min lot size
R-S Residential Suburban
24,000 sq.ft./dwelling unit
R-S-( ) Residential Suburban
1, 2.5, 5 or 10 min lot size
R-2 Limited Multiple Family Dwelling
4,500 sq.ft. min lot size (single family)
6,000 sq.ft. min lot size (multifamily)
2,500 sq.ft. lot area/dwelling unit
R-3 Multiple Family Dwelling
6,000 sq.ft. min lot size
1,250 sq.ft. lot area/dwelling unit
R-4 High Density Multiple Family Dwelling
6,000 sq.ft. min lot size
600 sq.ft. lot area/dwelling unit
R-H Residential Holding
20 acre min lot size
A Agriculture
6,000 sq.ft. min lot size
A-20A Agriculture
20 acre min lot size
PUD Planned Unit Development
TT Travel Trailer Park
MH Mobilehome
C-O Professional and Administrative Office
C-1 Neighborhood Commercial
C-2 Regional Commercial
C-C Commercial Center
C-B Central Business
PCD Planned Commercial Development
M-1 Light Manufacturing
M-2 General Manufacturing
M-3 Heavy Industrial
P Automobile Parking
RE Recreation
Ch Church Overlay
OS Open Space
HOSP Hospital Overlay
AD Architectural Design Overlay
FP-P Floodplain Primary
FP-S Floodplain Secondary
AA Airport Approach
DI Drilling Island
PE Petroleum Extraction Combining
SC Senior Citizen Overlay
HD Hillside Development Combining
WM- West Ming Specific Plan
BAKERSFIELD
Feet
0
500
1,000
MAP PACKAGES

RESOLUTION NO. _____

RESOLUTION OF THE BAKERSFIELD PLANNING COMMISSION RECOMMENDING THAT THE CITY COUNCIL APPROVE AN AMENDMENT TO TITLE 17 OF THE BAKERSFIELD MUNICIPAL CODE TO CHANGE THE ZONE DISTRICT LOCATED NEAR THE NORTHWEST OF PANAMA LANE AND OLD RIVER ROAD (ZC NO. 23-0287).

WHEREAS, McIntosh and Associates for Old River Properties, LLC, filed an application with the City of Bakersfield Development Services Department requesting to change the zone district from R-1 (One-Family Dwelling) to R-2/PUD (Limited Multiple-Family Dwelling/Planned Unit Development) on 20.56 acres located near the northwest of Panama Lane and Old River Road, as shown in attached Exhibit "A" (the "Project"); and

WHEREAS, the applicant and/or property owner has indicated the purpose of the Project is for increased density on the site; and

WHEREAS, the Planning Commission has recommended adoption of a Mitigated Negative Declaration with mitigation measures for the Project (SCH No. 2024010882); and

WHEREAS, the Secretary of the Planning Commission set Thursday, April 4, 2024 at 5:30 p.m. in the Council Chambers of City Hall, 1501 Truxtun Avenue, Bakersfield, California, as the time and place for a public hearing before the Planning Commission to consider the proposed Negative Declaration and change to the zone district, and notice of the public hearing was given in the manner provided in Title 17 of the Bakersfield Municipal Code; and

WHEREAS, at the public hearing testimony was received both in support and opposition of the Project; and

WHEREAS, the facts presented in the staff report, initial study, and special studies and evidence received both in writing and by verbal testimony at the above referenced public hearing support the following findings:

1. All required public notices have been given. Hearing notices regarding the Project were mailed to property owners within 300 feet of the Project area and published in the *Bakersfield Californian*, a local newspaper of general circulation, at least 20 days prior to the hearing.

2. The provisions of CEQA, the State CEQA Guidelines, and the City of Bakersfield CEQA Implementation Procedures have been followed. Staff determined that the proposal is a project under CEQA and an initial study was completed.

3. Public necessity, general welfare, and good planning practices justify the Project.

4. The Project is compatible with the zone districts and development of surrounding properties, and is consistent with the *Metropolitan Bakersfield General Plan.*

NOW, THEREFORE, BE IT RESOLVED by the Bakersfield Planning Commission as follows:

1. The above recitals, incorporated herein, are true and correct.

2. The Project is hereby recommended for approval by the City Council subject to the mitigation measures in the Mitigated Negative Declaration, conditions stated in Exhibit A and incorporating the change into the official zoning map as described in Bakersfield Municipal Code Section 17.06.020 located on the map as shown in Exhibit A and as specifically described in Exhibit B, all of which are incorporated herein.

3. The Project is subject to mitigation measures found in Exhibit A of Planning Commission Resolution No. ____ for the Mitigated Negative Declaration for the Project.

I HEREBY CERTIFY that the foregoing Resolution was passed and adopted by the Planning Commission of the City of Bakersfield at a regular meeting thereof held on Thursday, April 4, 2024, on a motion by Commissioner _____and seconded by Commissioner _____, by the following vote.

AYES:

NOES:

ABSENT:

APPROVED

_____
Zachary Bashirtash, CHAIR
City of Bakersfield Planning Commission

Exhibits (attached):

Exhibit A: Conditions
Exhibit B: Location Map
Exhibit C: Legal Description

By: CC\S:\15_Zone Change\01_Active\2023\23-60000287_6201 Old River Rd\01_Hearing & Noticing Document\Draft\PC RES ZC_6201 Old RIver

EXHIBIT A
CONDITIONS OF APPROVAL
ZONE CHANGE 23-0287

PUBLIC WORKS

1. Prior to the City's approval of any construction plans associated with any development project, subdivision, or minor land division within the GPA/ZC area, the developer must submit the following for review and approval by the City Engineer:

   a. **Fully executed dedication** for Old River Rd to arterial standards for the full frontage of the ZC area, unless otherwise approved by the City Engineer. Dedications must include sufficient widths for expanded intersections and additional areas for landscaping as directed by the City Engineer.

   b. **Comprehensive drainage study** of the ZC area is to be submitted for approval by the City of Bakersfield Public Works Department Subdivision section. The drainage including the frontage for the ZC area is to be retained onsite and shall be privately maintained. Flowage and drainage easements, as needed, are to be provided prior to the recording of any final map or issuance of any certificates of occupancy for development within the ZC area, whichever is earlier.

   c. **Sewer study**, which will assure that appropriate sewer service will be provided to the entirety of the GPA/ZC area. The developer will be responsible for the initial extension of the sewer line to serve the GPA/ZC area. This sewer line may be sized to serve a much larger area than the project area as directed by the City Engineer. The developer may also form a planned sewer area to provide a mechanism for the reimbursement of oversizing costs to the developer. Pay sewer capacity mitigation fees equal to $350 per dwelling unit above the number of units allowed per acres under the current land use.

2. Prior to the recording of any final map or issuance of any certificates of occupancy for development within the ZC area, whichever is earlier, the developer must (a) construct all infrastructure, both public and private, within the boundary of the ZC area, including, but not limited to, any and all boundary streets to the centerline of the street as required by the City Engineer and (b) construct, and acquire any necessary right-of-way to construct, any off-site infrastructure required to support development of the ZC as determined by the City Engineer. Phasing of the construction of the required infrastructure may be allowed by the City Engineer. Per City Council Resolution 035-13, any development within the ZC area must comply with the City's "complete streets" policy.

3. Prior to the City's approval of any construction plans associated with any development project, subdivision, or minor land division within the ZC area, the developer must take all actions necessary to add the ZC area to the Consolidated Maintenance District ("CMD") and pay all fees for inclusion in the CMD or, if the development is already within the

CMD, update the maintenance district documents as provided in Bakersfield Municipal Code section 13.04.021 or as otherwise required by the City Engineer.

4. Install traffic signal interconnect conduit and pull rope for the frontage in all arterials and collectors.

5. Prior to the City's approval of any construction plans associated with any development project, subdivision, or minor land division within the ZC area, the developer must construct, or pay its proportionate share of the estimated cost to construct, the median (currently $100 per lineal foot), as determined by the City Engineer, for the arterial frontage of the property within the ZC area.

6. Prior to the City's issuance of any building permits for construction within the ZC area, or an earlier time established through conditions of a subsequent City-approved subsequent development project, subdivision, or minor land division within the ZC area, the developer must pay all development fees for the ZC area including, but not limited to, the adopted regional traffic impact fee, local mitigation fees, any major bridge and thoroughfare district fees, and any planned sewer and drainage area fees.

CITY ATTORNEY

7. In consideration by the City of Bakersfield for land use entitlements, including but not limited to related environmental approvals related to or arising from this project, the applicant, and/or property owner and/or subdivider ("Applicant" herein) agrees to indemnify, defend, and hold harmless the City of Bakersfield, its officers, agents, employees, departments, commissioners and boards ("City" herein) against any and all liability, claims, actions, causes of action or demands whatsoever against them, or any of them, before administrative or judicial tribunals of any kind whatsoever, in any way arising from, the terms and provisions of this application, including without limitation any CEQA approval or any related development approvals or conditions whether imposed by the City, or not, except for CITY's sole active negligence or willful misconduct.

   This indemnification condition does not prevent the Applicant from challenging any decision by the City related to this project and the obligations of this condition apply regardless of whether any other permits or entitlements are issued.

   The City will promptly notify Applicant of any such claim, action or proceeding, falling under this condition within thirty (30) days of actually receiving such claim. The City, in its sole discretion, shall be allowed to choose the attorney or outside law firm to defend the City at the sole cost and expense of the Applicant and the City is not obligated to use any law firm or attorney chosen by another entity or party.

PLANNING

Biological Resources Impact Mitigation Measures:

8. Prior to of ground disturbance and/or construction activities, applicant/developer shall

consult with and follow all California Department of Fish and Wildlife and United States Fish and Wildlife Service requirements related to listed plant and animal species protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA).

9. Applicant/developer shall have a qualified professional conduct and prepare a biological resource pre-activity survey no more than 30 days prior to the beginning of ground disturbance and/or construction activities; biological resource monitoring during each initial phase of ground disturbance; compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted for the detection of listed, or otherwise special-status species, likely to be impacted by any project related activity.
   9.1 If known or natal dens are detected during the survey, protective measures enumerated in the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011) shall be initiated. If the identified dens are unavoidable, pursuant to the guidelines, the CDFW and USFWS shall be contacted for additional guidance and take authorization.
   9.2 The project is within the historic range of Tipton kangaroo rat. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability. Trapping would be required to confirm small mammal species occupying the project.
   9.3 If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows: 1) ground or low-shrub nesting non-raptors – 300 feet (91 meters); 2) burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted. 3) other raptors – 500 feet (152 meters).

Tribal and Cultural Resources Impact Mitigation Measures:

10. During construction, if archaeological resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

11. During construction, if human remains are discovered, further ground disturbance shall be prohibited pursuant to California Health and Safety Code Section 7050.5. and Public Resources Code Sections 5097.94, 5097.98 and 5097.99.

Traffic/Circulation Impact Mitigation Measures

12. Prior to issuance of building permits, the applicant/developer shall pay the Regional Transportation Impact Fee Program.

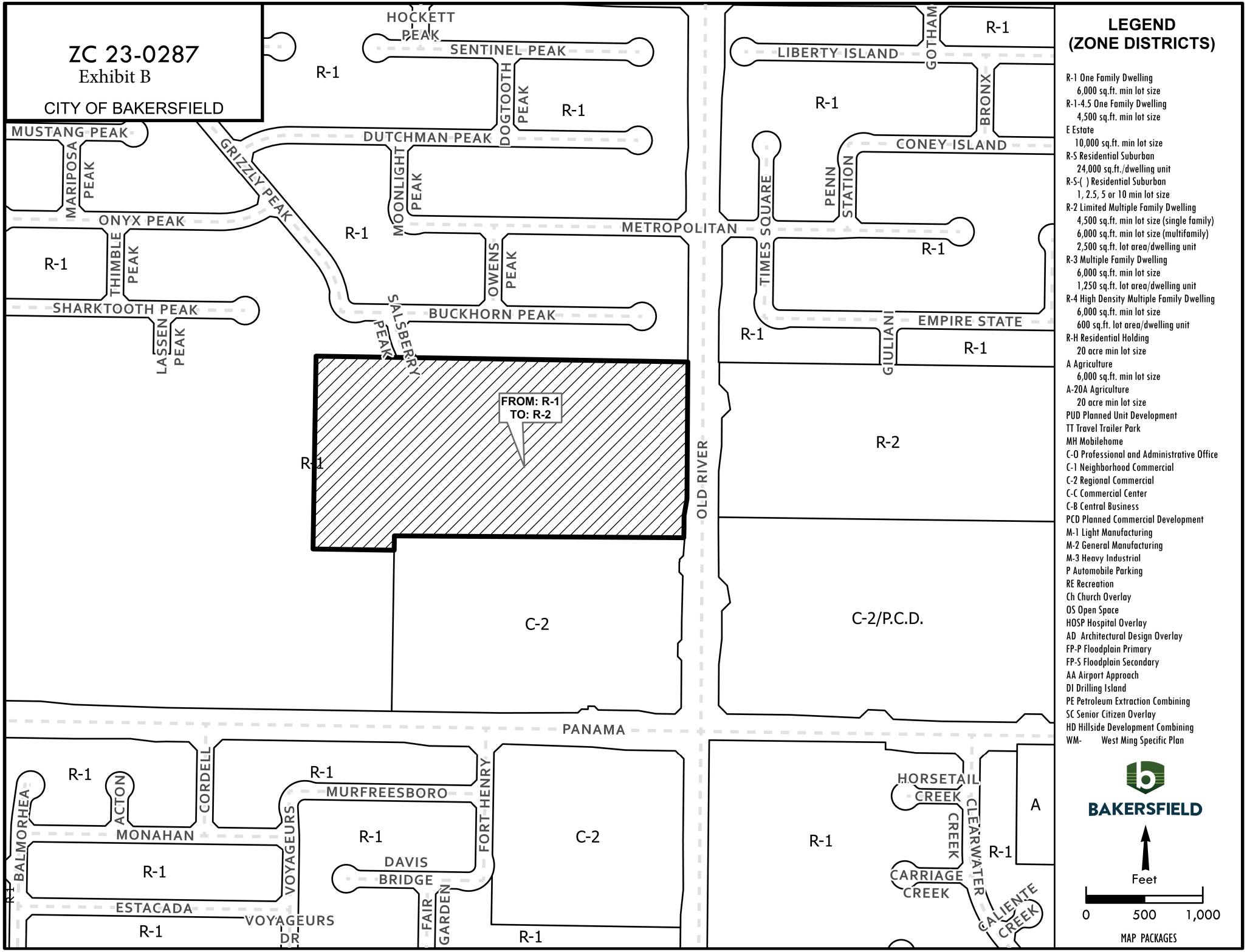

ZC 23-0287
Exhibit B
CITY OF BAKERSFIELD
HOCKETT PEAK
SENTINEL PEAK
DOGTOOTH PEAK
DUTCHMAN PEAK
MUSTANG PEAK
MARIPOSA PEAK
GRIZZLY PEAK
MOONLIGHT PEAK
ONYX PEAK
THIMBLE PEAK
OWENS PEAK
SHARKTOOTH PEAK
LASSEN PEAK
SALSBERRY PEAK
BUCKHORN PEAK
METROPOLITAN
LIBERTY ISLAND
GOTHAM
BRONX
CONEY ISLAND
PENN STATION
TIMES SQUARE
GIULIANI
EMPIRE STATE
FROM: R-1
TO: R-2
OLD RIVER
PANAMA
R-1
R-2
C-2
C-2/P.C.D.
A
BALMORHEA
ACTON
CORDELL
MONAHAN
MURFREESBORO
VOYAGEURS
DAVIS
BRIDGE
FORT HENRY
FAIR GARDEN
ESTACADA
VOYAGEURS DR
HORSETAIL CREEK
CLEARWATER CREEK
CARRIAGE CREEK
CALIENTE CREEK
LEGEND
(ZONE DISTRICTS)
R-1 One Family Dwelling
6,000 sq.ft. min lot size
R-1-4.5 One Family Dwelling
4,500 sq.ft. min lot size
E Estate
10,000 sq.ft. min lot size
R-S Residential Suburban
24,000 sq.ft./dwelling unit
R-S-( ) Residential Suburban
1, 2.5, 5 or 10 min lot size
R-2 Limited Multiple Family Dwelling
4,500 sq.ft. min lot size (single family)
6,000 sq.ft. min lot size (multifamily)
2,500 sq.ft. lot area/dwelling unit
R-3 Multiple Family Dwelling
6,000 sq.ft. min lot size
1,250 sq.ft. lot area/dwelling unit
R-4 High Density Multiple Family Dwelling
6,000 sq.ft. min lot size
600 sq.ft. lot area/dwelling unit
R-H Residential Holding
20 acre min lot size
A Agriculture
6,000 sq.ft. min lot size
A-20A Agriculture
20 acre min lot size
PUD Planned Unit Development
TT Travel Trailer Park
MH Mobilehome
C-O Professional and Administrative Office
C-1 Neighborhood Commercial
C-2 Regional Commercial
C-C Commercial Center
C-B Central Business
PCD Planned Commercial Development
M-1 Light Manufacturing
M-2 General Manufacturing
M-3 Heavy Industrial
P Automobile Parking
RE Recreation
Ch Church Overlay
OS Open Space
HOSP Hospital Overlay
AD Architectural Design Overlay
FP-P Floodplain Primary
FP-S Floodplain Secondary
AA Airport Approach
DI Drilling Island
PE Petroleum Extraction Combining
SC Senior Citizen Overlay
HD Hillside Development Combining
WM- West Ming Specific Plan
BAKERSFIELD
Feet
0
500
1,000
MAP PACKAGES

EXHIBIT "A"
ZONE CHANGE R-1 TO R-2
LEGAL DESCRIPTION

ALL THAT PORTION OF PARCEL "C" OF PARCEL MAP WAIVER NO. 04-0407 RECORDED JUNE 18, 2004 AS DOCUMENT NO. 0204141076 OF KERN COUNTY OFFICIAL RECORDS BEING A PORTION OF THE SOUTHEAST QUARTER OF SECTION 19, TOWNSHIP 30 SOUTH, RANGE 27 EAST, MOUNT DIABLO MERIDIAN IN THE CITY OF BAKERSFIELD, KERN COUNTY, CALIFORNIA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

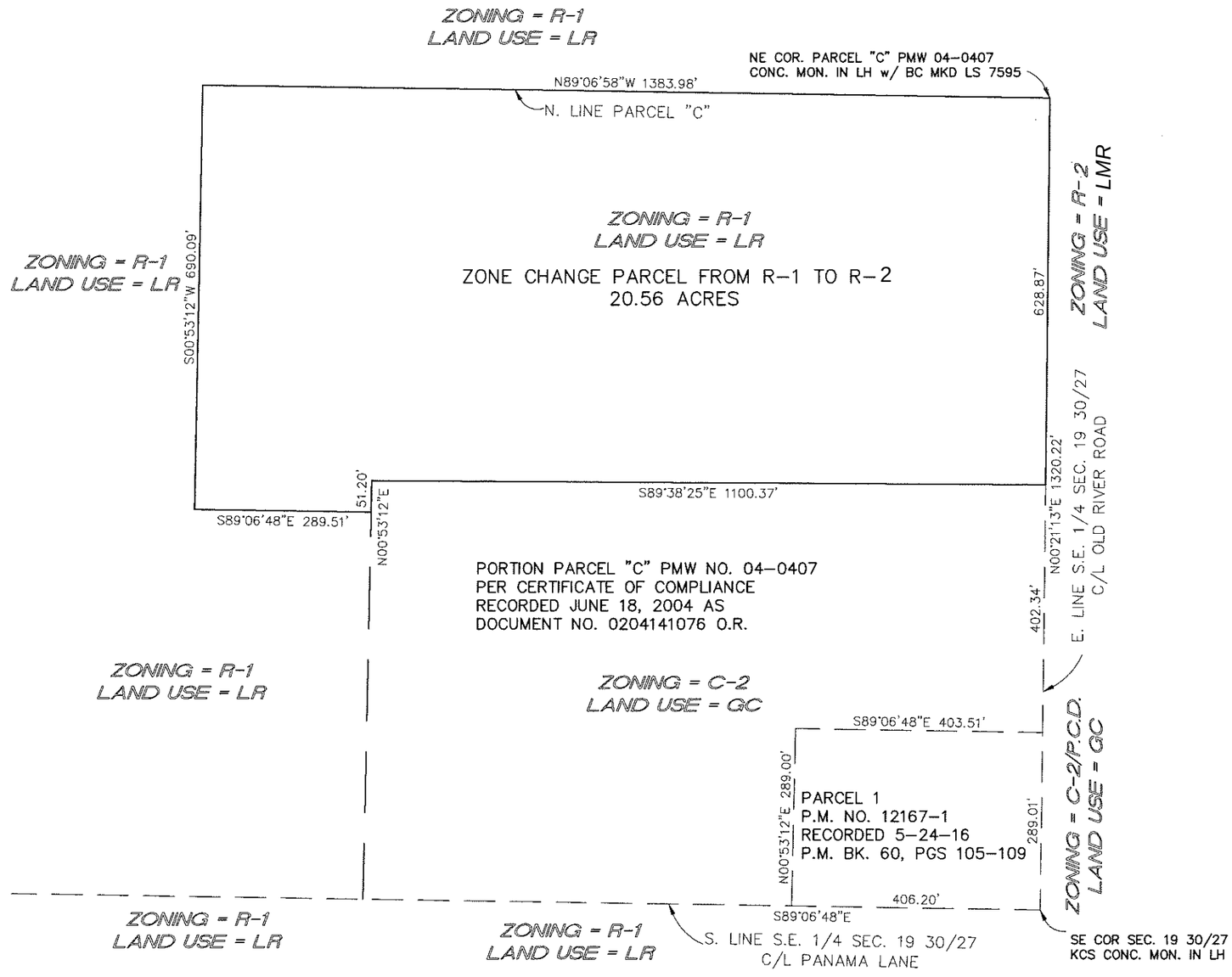
BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST QUARTER, FROM WHICH POINT THE SOUTHEAST CORNER THEREOF BEARS SOUTH 0°21'13" WEST, 691.35 FEET; THENCE NORTH 0°21'13" EAST ALONG SAID EAST LINE, 628.87 FEET TO THE NORTHEAST CORNER OF SAID PARCEL "C"; THENCE NORTH 89°06'58" WEST ALONG THE NORTH LINE OF SAID PARCEL, 1383.90 FEET; THENCE SOUTH 0°53'12" WEST, 690.09 FEET; THENCE SOUTH 89°06'48" EAST, 289.51 FEET; THENCE NORTH 0°53'12" EAST, 51.20 FEET; THENCE SOUTH 89°38"25" EAST, 1100.37 FEET TO THE POINT OF BEGINNING.

CONTAINING 20.56 ACRES, MORE OR LESS

McINTOSH & ASSOCIATES
661-834-4814 • 661-834-0972
2001 Wheelan Court • Bakersfield, CA 93309

13 NOV 2022

EXHIBIT "B"



18 NOV 2022
SAMUEL M. WALKER JR. LS 7558 DATE

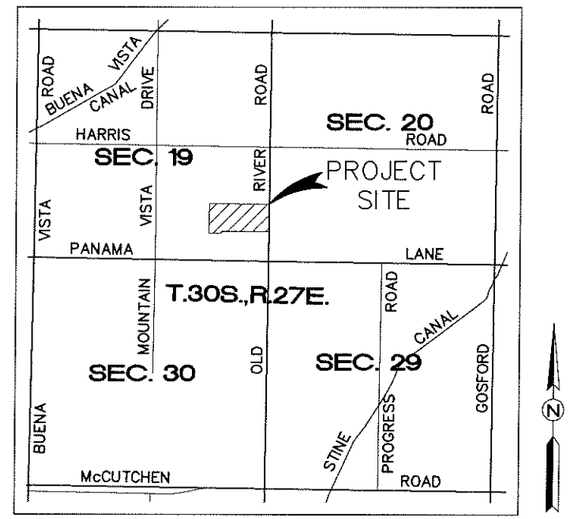
PROFESSIONAL LAND SURVEYOR
SAMUEL M. WALKER JR.
No. 7558
STATE OF CALIFORNIA

LEGEND

PROPOSED ZONE CHANGE

BASIS OF BEARINGS

ALL BEARINGS AND DISTANCES ARE RECORD OR CALCULATED FROM RECORD FROM PARCEL MAP NO. 12167 – PHASE 1 RECORDED IN PARCEL MAP BOOK 60 AT PAGES 105-109.



VICINITY MAP
NO SCALE

SCALE: 1" = 200'

JOB NO. 08-049.04
DATE: 09/07/22
FILE NO. RGF
DONE BY: JKD/mjt
SHEET 1 OF 1

RGF PROPERTIES, LLC

PORTION SE 1/4 SEC. 19, T.30S., R.27E., M.D.M.
ZONE CHANGE FROM R-1 TO R-2

PREPARED BY:
McINTOSH & ASSOCIATES
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2001 WHEELAN CT. BAKERSFIELD, CA. 93309 (661) 834-4814