

# DRAFT ENVIRONMENTAL IMPACT REPORT

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*State Clearinghouse Number 2016011006*

## **Volume I Chapters 1 through 10**

### **Golden Hills Wastewater Treatment System Improvement Project**

by Golden Hills Community Services District

**LEAD AGENCY:**



Golden Hills Community Services District  
21415 Reeves Street  
Tehachapi, CA 93561

**March 2016**



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Tehachapi, CA 93581

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www.ghcsd.com

March 31, 2016

ADDRESSEE LIST (See Distribution List)

**RE: Draft Environmental Impact Report for the Golden Hills Wastewater Treatment System Improvement Project by Golden Hills Community Services District**

Dear Interested Party:

The Golden Hills Community Services District has prepared a Draft Environmental Impact Report (EIR) for the above-noted project to address sewage treatment options for Golden Hills Sanitation Company customers. Two options have been identified for treatment of the sewage: Option A, rehabilitation of the Golden Hills Wastewater Treatment Plant (WWTP) and related infrastructure upgrades; and Option B, conveyance of wastewater to the City of Tehachapi WWTP and related infrastructure upgrades and decommissioning of the Golden Hills WWTP. The proposed project is located in the unincorporated Kern County community of Golden Hills, which is located to the northwest of the City of Tehachapi, California.

The Golden Hills Community Services District, as Lead Agency, has determined that preparation of an Environmental Impact Report would be appropriate for the referenced project. Enclosed is a copy of the Draft EIR. Additionally, a public workshop will be held by the Golden Hills Community Services District located at 21415 Reeves Street, Tehachapi, CA 93561 on **Saturday, April 16, 2016, at 10:00 a.m.**

If we have not received a reply from you by **May 16, 2016, at 5:00 P.M.**, we will assume that you have no comment regarding this Draft EIR. All comments can either be mailed to Golden Hills CSD, Attn: Bill Fisher, at 21415 Reeves Street, P.O. Box 637, Tehachapi, CA 93581 or emailed to [EIR@GHCSD.com](mailto:EIR@GHCSD.com).

**Should you have any questions regarding this project, please do not hesitate to contact me at (661) 822-3064 or via email at [EIR@GHCSD.com](mailto:EIR@GHCSD.com).**

Sincerely,

/s/

William Fisher, General Manager

Golden Hills Sanitation Company  
In Receivership  
Attn: Clifford Bressler  
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Clovis, CA 93616

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Tehachapi, CA 93561-1722

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Tim Fox, RLA - Comm Plans & Liaison  
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Edwards AFB, CA 93524

Federal Communications Comm  
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Cerritos, CA 90701

U. S. Fish & Wildlife Service  
Division of Ecological Services  
2800 Cottage Way #W-2605  
Sacramento, CA 95825-1846

U.S. Dept of Agriculture/NRCS  
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U.S. Army  
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721 - 19th Street, Room 427  
Denver, CO 80202

U.S. Navy  
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Regional Community Plans & Liaison  
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Southern California Gas Co  
Transportation Dept  
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Kern Valley Indian Council  
Historic Preservation Office  
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David Couch  
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5th District Supervisor  
Leticia Perez  
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County of Kern  
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Attention: Phillip Hall  
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Kathy Cassil  
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Ed Kennedy  
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Golden Hills CSD  
John Buckley  
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Golden Hills CSD  
Marilyn White  
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**DRAFT ENVIRONMENTAL IMPACT REPORT  
NOTICE OF AVAILABILITY FOR PUBLIC REVIEW**

This is to advise that the Golden Hills Community Services District (CSD) has prepared an Environmental Impact Report (EIR) for the project identified below. As mandated by State law, the minimum public review period for this document is 45-days. The document and documents referenced in the Draft EIR are available for review at the CSD facility, located at 21415 Reeves Street, Tehachapi, CA 93561, or on the District's website ([www.ghcsd.com](http://www.ghcsd.com)). Additionally, the Draft EIR can be located at the Kern County Planning and Community Development Department, 2700 "M" Street, Suite 100, Bakersfield, CA 93301, or on the Departmental website (<http://pcd.kerndsa.com/planning/environmental-documents>).

A public workshop will be held at the CSD's facility on **Saturday, April 16, 2016, at 10:00 a.m.** This workshop will be an opportunity for the public and other interested parties to comment and ask questions regarding the proposed project.

A public hearing has been scheduled with the Golden Hills CSD Board to receive comments on the document on **June 16, 2016 at 6:30 p.m.** or soon thereafter, located at 21415 Reeves Street, Tehachapi, CA 93561.

The comment period for this document closes on **May 16, 2016**. Testimony at future public hearings may be limited to those issues raised during the public review period either orally or submitted in writing by 5:00 p.m. the day the comment period closes. All public comments can either be mailed to Golden Hills CSD, Attn: Bill Fisher, at 21415 Reeves Street, P.O. Box 637, Tehachapi, CA 93581 or emailed to [EIR@GHCSD.com](mailto:EIR@GHCSD.com). Please be aware to receive a response to any comments provided, a mailing address must be included.

**Project Title:** Golden Hills Wastewater Treatment System Improvement Project by Golden Hills Community Services District

**Project Location:** The Project is located in the unincorporated Kern County community of Golden Hills, which is located to the northwest of the City of Tehachapi, California.

**Project Description:** The Project consists of the rehabilitation of the existing old sewage system collection components used by the privately managed Golden Hills Sanitation Company (GHSC) to provide service to 185 existing connections and areas mandated to have sewer service by the original design. The GHSC is currently in receivership, and two options have been identified for treatment of the sewage. The system rehabilitation common to both options includes replacing components that are not functioning properly, including 6-inch and 8-inch collection pipes, 6-inch, 8-inch, and 12-inch gravity main pipes, manholes, and removal of the existing lift station on Woodford Tehachapi Road. The two options are: Option A, rehabilitation of the Golden Hills Wastewater Treatment Plant (WWTP) and related infrastructure upgrades; and Option B, conveyance of wastewater to the City of Tehachapi WWTP and related infrastructure upgrades and decommissioning of the Golden Hills WWTP. The purpose of evaluating two options for the proposed Project is to inform decision-makers of the potential environmental impacts associated with both Option A and Option B for full disclosure and informed decision making.

In addition to the system upgrades common to both options, Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 million gallons per day of future sewage effluent loads according to the plant's rated capacity. Option B would include installation of a lift station and force main pipeline to the City of Tehachapi WWTP at Tucker Road and Red Apple Avenue for effluent treatment and disposal. The route for the

force main would be entirely within either Golden Hills CSD property or public right-of-way, and the Golden Hills WWTP would then be decommissioned.

**Anticipated Significant Impacts on Environment:** Aesthetics; Transportation and Traffic

**Document can be viewed online at:** [www.GHCSD.com](http://www.GHCSD.com) or  
<http://pcd.kerndsa.com/planning/environmental-documents>

For further information, please contact: [Bill Fisher at \(661\) 822-3064 or EIR@GHCSD.com](mailto:Bill.Fisher@GHCSD.com)

William Fisher, General Manager  
Golden Hills Community Services District

To be published once only on next available date and as soon as possible

**The Bakersfield Californian**  
**The Tehachapi News**

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TEHACHAPI, CA 93561

BITE STEVEN E & JULIE A  
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TEHACHAPI, CA 93561

BITE, STEVEN & JULIE  
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22801 YEAGER COURT  
TEHACHAPI, CA 93561

FARQUHARSON FAMILY LLC  
21630 BROOK DR  
TEHACHAPI, CA 93561

FARQUHARSON JOSH & LINDSEY  
20124 BALD MOUNTAIN  
TEHACHAPI, CA 93561

FERREIRA FRANCISCO R & MARY  
N  
3415 QUIMBY ST  
SAN DIEGO, CA 92106

FISCHER FREDRICK AARON  
20117 WESTON AV  
TEHACHAPI, CA 93561

FISHER JULIE K  
21276 WHITE PINE DR #33  
TEHACHAPI, CA 93561

FISHER, JULIE  
21276 - 033 WHITE PINE DR  
TEHACHAPI, CA 93561

FORD DAVID T & BEVERLY J  
93 DANDELION CT  
NEWBURY PARK, CA 91320

FORD, DAVID  
93 DANDELION CT  
NEWBURY PARK, CA 91320

FRANCIS, ED  
22616 PAM CT  
TEHACHAPI, CA 93561

FRANCOIS DANNY & DENISE  
21276 WHITE PINE DR #17  
TEHACHAPI, CA 93561

FRANCOIS, DANIEL  
21276 - 017 WHITE PINE DR.  
TEHACHAPI, CA 93561

FRAUSTO PROP LLC  
201 SONORA  
BAKERSFIELD, CA 93305

FREEMAN TOM K & JENNY L  
22908 STROOPE CT  
TEHACHAPI, CA 93561

FUJIWARA KAZUFUMI & INEKO  
1113 CYPRESS POINT DR  
PLACENTIA, CA 92670

GALLEGOS MARIA BLANCA  
3224 SHASTA CI  
LOS ANGELES, CA 90065

GARZA FELIX & BETTY JANE  
16100 HIGHWAY 101  
WILLITS, CA 95490

GH CSD  
P.O. BOX 637  
TEHACHAPI, CA 93581

GILBRETH ROBERT M  
2622 VALLEY GREEN WY  
MERIDIAN, ID 83646

GOLDEN HIGHLANDS HOA  
21276 - 009 WHITE PINE DR.  
TEHACHAPI, CA 93561

GOLDEN HILLS COMM SERV DIST  
P O BOX 637  
TEHACHAPI, CA 93581

GOLDEN HILLS MOTEL  
101 MANZANITA LANE  
TEHACHAPI, CA 93561

GOLDSWORTHY MICHAEL J &  
EHRENBORG RANDI G  
25101 BEAR VALLEY RD  
TEHACHAPI, CA 93561

GOLLIHUGH LORI L  
785 TUCKER RD  
TEHACHAPI, CA 93561

GOLLIHUGH, LORI  
21276 - 002 WHITE PINE DR.  
TEHACHAPI, CA 93561

GONZALEZ RAYES G  
10865 TAMARACK AV  
PACOIMA, CA 91331

GRANA ROMEO L & ESPERANZA  
TR  
8554 NORWICH AV  
SEPULVEDA, CA 91343

GRAY JOHN & PATRICIA  
30508 BUCKSKIN DR  
TEHACHAPI, CA 93561

GRENEK FAMILY TRUST  
20301 WESTON AV  
TEHACHAPI, CA 93561

GRENEK, JOHN  
20301 WESTON AVE.  
TEHACHAPI, CA 93561

GRIMALDI MICHAEL J & FLORINA  
L TR  
21276 WHITE PINE DR #7  
TEHACHAPI, CA 93561

GRIMALDI, FLORINA  
21276 - 007 WHITE PINE DR  
TEHACHAPI, CA 93561

GROSS DONALD J & PATRICIA K  
22808 MONROE LN  
TEHACHAPI, CA 93561

GROSSKLAUS SUZANNE  
328 D ST  
TEHACHAPI, CA 93561

GROSSKLAUS, SUE  
21276 - 115 WHITE PINE DR.  
TEHACHAPI, CA 93561

GUTHRIE JOHN R & MARILYN J  
FMLY TR  
22601 PADDOCK ST  
TEHACHAPI, CA 93561

GUTHRIE, JOHN  
22601 PADDOCK ST  
TEHACHAPI, CA 93581

HABITAT FOR HUMANITY  
GOLDEN EMPIRE INC  
1500 19TH ST  
BAKERSFIELD, CA 93305

HALBERG, JACQUELINE  
21276 - 099 WHITE PINE DR  
TEHACHAPI, CA 93561

HALE DONNA LYNN  
21276 WHITE PINE DR #43  
TEHACHAPI, CA 93561

HALE, DONNA  
21276 - 043 WHITE PINE DR.  
TEHACHAPI, CA 93561

HANNAH MELVIN W & BONIFACE  
21276 WHITE PINE DR #92  
TEHACHAPI, CA 93561

HANNAH, BONIFACE  
21276 - 092 WHITE PINE DR  
TEHACHAPI, CA 93561

HARRIS JEFFREY S & COLLEEN E  
20425 WESTON  
TEHACHAPI, CA 93561

HARRISON CAROL A REV TR  
2945 SUMMIT CI  
BAKERSFIELD, CA 93306

HART DENNIS & DIANA  
22731 FRAN DR  
TEHACHAPI, CA 93561

HART WALTER S & INA C TR  
3057 HIGUERA ST  
SAN LUIS OBISPO, CA 93401

HARTWIG WALTER C & BETTY TR  
21409 PEGGY JOYCE LN  
SAUGUS, CA 91350

HATFIELD RICHARD A & LOIS P  
9173 ASPEN AV  
CALIFORNIA CITY, CA 93505

HEMME JOHN W & MARY E  
2309 AVENUE L-4  
LANCASTER, CA 93536

HERMANSEN KURT & RITA A  
20116 BALD MOUNTAIN DR  
TEHACHAPI, CA 93561

HERNANDEZ JOSE  
20412 WESTON AV  
TEHACHAPI, CA 93561

HERNANDEZ, JOSE  
4056 ALLA RD  
LOS ANGELES, CA 90066

HIRATA TRUST  
1724 BALDWIN PL  
MONTEBELLO, CA 90640

HUERTA, BRENDA  
20023 BALD MOUNTAIN  
TEHACHAPI, CA 93561

HUGHES SHERYL LYNN TR  
21276 WHITE PINE DR #96  
TEHACHAPI, CA 93561

HUGHES, SHERYL LYNN  
21276 - 096 WHITE PINE DR.  
TEHACHAPI, CA 93561

HULSEY MARK A  
21276 WHITE PINE DR #5  
TEHACHAPI, CA 93561

HULSEY, MARK  
21276 - 005 WHITE PINE DR.  
TEHACHAPI, CA 93561

HUNT ALLEN NORMA &  
WILLIAMS ROBERT T  
3571 TACOMA AV  
LOS ANGELES, CA 90065

HYNES CYNTHIA MORGAN  
21276 WHITE PINE DR #50  
TEHACHAPI, CA 93561

HYNES, CYNTHIA MORGAN  
21276 - 050 WHITE PINE DR.  
TEHACHAPI, CA 93561

JACOBS DORINE TRUST  
21276 WHITE PINE DR #34  
TEHACHAPI, CA 93561

JACOBS, DORINE  
21276 - 034 WHITE PINE DR  
TEHACHAPI, CA 93561

JACOBSON SCOTT  
321 S VIA MONTANA  
BURBANK, CA 91501

JOHNSON JAMES R & KAREN S  
20113 BALD MOUNTAIN DR  
TEHACHAPI, CA 93561

JOHNSON TR  
PO BOX 1118  
TEHACHAPI, CA 93581

JOHNSTON WILLIAM V & EDWINA  
J LIV TR  
20317 WESTON AV  
TEHACHAPI, CA 93561

JOHNSTON, WILLIAM  
20317 WESTON AVE  
TEHACHAPI, CA 93561

JONES, RONALD  
21276 - 011 WHITE PINE DR.  
TEHACHAPI, CA 93561

JORGENSEN JENNIFER TRUST  
22617 PAM CT  
TEHACHAPI, CA 93561

KAMMERER TR  
2433 WILLOWBROOK RD  
MERRITT ISLAND, FL 32952

KAPADIA HITESH C & PURNIMA H  
22561 WOODFORD TEHACHAPI RD  
TEHACHAPI, CA 93561

KEEL LIVING TRUST  
4381 MOTOR AVE.  
CULVER CITY, CA 90232

KHATCHADOURIAN ARA B  
565 OLMSTED DR  
GLENDALE, CA 91202

KLEIN JANICE MARIE TR  
230 MAUNA LOA AV  
GLENDALE, CA 91740

KLINKER ALLAN J & KAY A  
25900 IRONWOOD CT  
TEHACHAPI, CA 93561

KMAK ANDREW S  
21276 WHITE PINE DR #87  
TEHACHAPI, CA 93561

KMAK ANDREW S  
21276 WHITE PINE DR #97  
TEHACHAPI, CA 93561

KMAK, ANDREW  
PO BOX 2718  
TEHACHAPI, CA 93581

KNICKERBOCKER, EDWARD  
21276 - 026 WHITE PINE DR.  
TEHACHAPI, CA 93561

KNIGHT JAMES LELAND &  
SHELIA DARLENE  
21276 WHITE PINE DR #88  
TEHACHAPI, CA 93561

KNIGHT, JAMES & SHEILA  
21276 - 088 WHITE PINE DR  
TEHACHAPI, CA 93561

KNOLL JOHN W  
2409 FOOTHILL RD  
SANTA BARBARA, CA 93105

KNOX, RICHARD  
21209 INDIAN WELLS  
TEHACHAPI, CA 93561

KOCH STEWART W  
20124 WESTON AV  
TEHACHAPI, CA 93561

KOSMO WALTER K  
21276 WHITE PINEDR #70  
TEHACHAPI, CA 93561

KOULAKIS JOHN & DIMITRIA  
P O BOX 7038  
NORTHRIDGE, CA 91327

KOUZOUIAN HARTYOUN D &  
DIANA ET AL  
18586 CASPIAN CT  
GRANADA HILLS, CA 91344

KRELLE, LELAND  
200 WEST VALLEY BLVD  
TEHACHAPI, CA 93561

KRIVANEK GUY T TRUST  
21276 WHITE PINE DR #14  
TEHACHAPI, CA 93561

KRIVANEK, GUY  
21276 - 014 WHITE PINE DR  
TEHACHAPI, CA 93561

LABA LYNORE REV LIVING  
TRUST  
4040 CHESTER AV  
BAKERSFIELD, CA 93301

LADAY WILLIAM  
5803 ORANGECREST AV  
AZUSA, CA 91702

LARSEN RICHARD  
845 20TH ST  
SANTA MONICA, CA 90403

LATSHAW DONALD J &  
GINUEFFA I  
21276 WHITE PINE DR #42  
TEHACHAPI, CA 93561

LAWSON BRIAN LEE IRA LA1BM  
7658 NEWPORT DR  
GOLETA, CA 93117

LAZARUS REVOCABLE TRUST  
21276 WHITE PINE DR #66  
TEHACHAPI, CA 93561

LAZARUS, DON  
21276 - 066 WHITE PINE DR  
TEHACHAPI, CA 93561

LEON CHRISTOPHER & JESSICA  
21276 WHITE PINE DR #69  
TEHACHAPI, CA 93561

LEON, CHRISTOPHER  
21276 - 069 WHITE PINE DR  
TEHACHAPI, CA 93561

LIAU, SHU C.  
5 PALOMA DR  
MISSION VEIJO, CA 92692

LITTON, CHRISTINA  
513 MULBERRY ST.  
TEHACHAPI, CA 93561

LITTRELL JAMES W TRUST  
20220 WESTON AV  
TEHACHAPI, CA 93561

LLAMAS VICTOR R & MARIA C  
20309 WESTON AV  
TEHACHAPI, CA 93561

LLAMAS, VICTOR  
20309 WESTON AVE  
TEHACHAPI, CA 93561

LORENGER JAMES W & MARGIE K  
21276 WHITE PINE DR #98  
TEHACHAPI, CA 93561

LORENGER, JAMES  
21276 - 098 WHITE PINE DR  
TEHACHAPI, CA 93561

LOUIE SHIRLEY S  
1430 ROCKHAVEN ST  
MONTEREY PARK, CA 91754

LUNDQUIST, LAQUITA  
45465 25th ST. E #247  
LANCASTER, CA 93535

LUNDQUIST, SHAUN  
21276 - 064 WHITE PINE DR.  
TEHACHAPI, CA 93561

LYKINS, CALE  
22908 WOODFORD TEHACHAPI RD  
TEHACHAPI, CA 93561

MABRY EDWARD A  
3405 SWEETWATER DR  
CUMMING, GA 30041

MABRY STEVEN C & NIELSEN  
MARTA M  
250 HILLTOP DR  
PASO ROBLES, CA 93446

MABRY, STEVEN  
250 HILLTOP ROAD  
PASO ROBLES, CA 93447

MADRIGAL GUILLERMO & RENEE  
21276 WHITE PINE DR #62  
TEHACHAPI, CA 93561

MADRIGAL, GUILLERMO &  
RENEE  
21276 - 062 WHITE PINE DR  
TEHACHAPI, CA 93561

MAFFEI ANDREW & ERICA  
22808 WOODFORD TEHACHAPI RD  
TEHACHAPI, CA 93561

MANDEL FAMILY TRUST  
21276 WHITE PINE DR #108  
TEHACHAPI, CA 93561

MANDEL, JERRY  
21276 - 108 WHITE PINE DR  
TEHACHAPI, CA 93561

MARTIN LYLE T SR & DIANA J  
P O BOX 276  
SITKA, AK 99835

MARTIN PATRICIA ANN  
21276 WHITE PINE DR #3  
TEHACHAPI, CA 93561

MARTIN SHANE MICHAEL  
21325 QUAIL SPRINGS RD  
TEHACHAPI, CA 93561

MARTIN, PATRICIA  
21276 - 003 WHITE PINE DR  
TEHACHAPI, CA 93561

MC BURNEY KIMBERLY &  
STEGALL DAVID  
20313 SEARS DR  
TEHACHAPI, CA 93561

MC CABE NEIL W & BRENDA  
ANNE TRUST  
20100 TAMARAC DR  
TEHACHAPI, CA 93561

MC COOL LIV TR  
21276 WHITE PINE DR #74  
TEHACHAPI, CA 93561

MC COOL MICHAEL T  
21276 WHITE PINE DR  
TEHACHAPI, CA 93561

MC DONALD EARLEEN  
21276 WHITE PINE DR #10  
TEHACHAPI, CA 93561

MC KINNON SHEILAH KITT  
15301 VENTURA BL  
SHERMAN OAKS, CA 91403

MCCOOL, MICHAEL  
21276 - 081 WHITE PINE DR  
TEHACHAPI, CA 93561

MCCOOL, RITA  
21276 - 074 WHITE PINE DR  
TEHACHAPI, CA 93561

MCCULLOUGH, DARRYL  
20773 WHITE PINE DR  
TEHACHAPI, CA 93561

MCDONALD, EARLENE  
21276 - 010 WHITE PINE DR  
TEHACHAPI, CA 93561

MEAD RONALD C & CECILE L  
20212 BALD MOUNTAIN DR  
TEHACHAPI, CA 93561

MEEHAN SHERRY D  
21276 WHITE PINE DR #19  
TEHACHAPI, CA 93561

MEEHAN, SHERRY  
21276 - 019 WHITE PINE DR  
TEHACHAPI, CA 93561

MERVAU FMLY TR  
11403 MARAZION HILL CT  
BAKERSFIELD, CA 93311

MICHAELS JOHN E & HELEN M  
TRUST  
2400 AMELGADO DR  
HACIENDA HEIGHT, CA 91745

MIDDLETON MILES T & PAMELA  
A  
706 TORREY PINES  
CIBOLO, TX 78108

MIDDLETON, MILES  
21276 - 006 WHITE PINE DR.  
TEHACHAPI, CA 93561

MILLER RUBY JUNE  
21276 WHITE PINE DR #99  
TEHACHAPI, CA 93561

MILLER, BARBARA  
PO BOX 1118  
TEHACHAPI, CA 93581

MILLER, STEVE  
PO BOX 1118  
TEHACHAPI, CA 93581

MITSCH WILLIAM R  
526 SYDLING CT  
SACRAMENTO, CA 95864

MONKS PATRICK A  
21276 WHITE PINE DR #110  
TEHACHAPI, CA 93561

MONKS, PATRICK  
21276 - 110 WHITE PINE DR  
TEHACHAPI, CA 93561

MORANO HEATHER J TR  
21276 WHITE PINE DR #47  
TEHACHAPI, CA 93561

MORANO, HEATHER  
21276 - 047 WHITE PINE DR  
TEHACHAPI, CA 93561

MORTENSEN FAMILY TRUST  
21276 WHITE PINE DR #29  
TEHACHAPI, CA 93561

MULLINS, GERALD  
20030 BALD MOUNTAIN  
TEHACHAPI, CA 93561

NEARHOFF JEANNE F  
21276 WHITE PINE DR #48  
TEHACHAPI, CA 93561

NEARHOFF, JEANNE  
21276 - 048 WHITE PINE DR  
TEHACHAPI, CA 93561

NELSON RICHARD A & MARTHA  
21276 WHITE PINE DR #52  
TEHACHAPI, CA 93561

NELSON, RICHARD & MARTHA  
21276 - 052 WHITE PINE DR  
TEHACHAPI, CA 93561

NISPEROS ALAN V  
855 WOOSTER ST  
LOS ANGELES, CA 90035

NOBLE, ROBERT AND CAROL  
21276 - 042 WHITE PINE DR  
TEHACHAPI, CA 93561

O LEARY PIERCE J & JOAN  
22920 CLOVER SPRING PL  
TEHACHAPI, CA 93561

OLIVER DONNA KAY TRUST  
21276 WHITE PINE DR #102  
TEHACHAPI, CA 93561

OLIVER, DONNA  
21276 - 102 WHITE PINE DR  
TEHACHAPI, CA 93561

OLIVIER EMILE L & ERNESTINE  
21276 WHITE PINE DR #113  
TEHACHAPI, CA 93561

OLIVIER, EMILE  
21276 - 113 WHITE PINE DR  
TEHACHAPI, CA 93561

PALMER KERRY  
21276 WHITE PINE DR #89  
TEHACHAPI, CA 93561

PALMER, KERRY  
36 TIMBERWOOD DR.  
CABOT, AR 92023

PARRISH LIVING TR  
1438 COMET CT  
EL CAJON, CA 92019

PAUL MICHAEL CHARLES  
25092 MODOC DR  
LAGUNA HILLS, CA 92653

PEREZ FRED  
21276 WHITE PINE DR #16  
TEHACHAPI, CA 93561



PEREZ PIO B & VELARIA R  
30317 VIA CAMBRON  
RANCHO PLS VERD, CA 90275

PEREZ, FRED  
21276 - 016 WHITE PINE DR  
TEHACHAPI, CA 93561

PERKINS, HEATHER  
20031 BALD MOUNTAIN  
TEHACHAPI, CA 93561

PERRIN WILLIAM R & BETTY J  
FAMILY TRUST  
21276 WHITE PINE DR #8  
TEHACHAPI, CA 93561

PERRIN, BILL  
21276 - 008 WHITE PINE DR  
TEHACHAPI, CA 93561

PERRY EDWARD J & DESERIE  
22620 PAM CT  
TEHACHAPI, CA 93561

PERRY, DESERIE  
22620 PAM CT  
TEHACHAPI, CA 93561

PETERSON, SARAH M.  
20017 BALD MOUNTAIN  
TEHACHAPI, CA 93561

PHELPS GLEN V & PATRICIA A  
21276 WHITE PINE DR #63  
TEHACHAPI, CA 93561

PHELPS, GLEN  
21276 - 063 WHITE PINE DR  
TEHACHAPI, CA 93561

PHILLIPS MARY G  
1700 HOLLY AV  
OXNARD, CA 93036

PHILLIPS, MARY  
1700 HOLLY AVENUE  
OXNARD, CA 93036

PINEDA RICK JOHN  
84516 VERMOUTH DR  
COACHELLA, CA 92236

PLANT FAMILY TR  
27080 OLSON RD  
GASTON, OR 97119

PORTER & ASSCS INC 401 K  
PROFIT SHARING PLAN  
1200 21ST ST  
BAKERSFIELD, CA 93301

PROVINES VALERIE  
17980 ALPS DR  
TEHACHAPI, CA 93561

PROVINES, VALERIE  
17980 ALPS DR  
TEHACHAPI, CA 93561

PUFFER, JAIMIE  
20116 WESTON AVE  
TEHACHAPI, CA 93561

RADEBAUGH ROBERT &  
VIRGINIA  
21276 WHITE PINE DR #60  
TEHACHAPI, CA 93561

RADEBAUGH, ROBERT  
21276 - 060 WHITE PINE DR  
TEHACHAPI, CA 93561

RAMIRO RUDY S & MELISSA J  
20416 WESTON AV  
TEHACHAPI, CA 93561

RAMIRO, RUDY  
20416 WESTON AVE  
TEHACHAPI, CA 93561

RANDOLPH KENNETH S TRUST  
SPECIAL NEEDS TRUST  
PO BOX 3259  
WINNETKA, CA 91396

RANDOLPH, KENNY  
P.O. BOX 3259  
WINNETKA, CA 91396-3259

RAWLINGS, TIMOTHY &  
DEBORAH  
19 FLEET RD, FARNBOROUGH  
HAMPSHIRE, GU14 9RB

RECINOS, JORGE  
20009 BALD MOUNTAIN  
TEHACHAPI, CA 93561

REED MARLENE TRUST  
21276 WHITE PINE DR #114  
TEHACHAPI, CA 93561

REED ROBERT & LYNNE REV  
TRUST  
785 TUCKER RD  
TEHACHAPI, CA 93561

REED, MARLENE  
21276 - 114 WHITE PINE DR  
TEHACHAPI, CA 93561

REED, ROBERT  
785 TUCKER RD, STE. G, PMB 438  
TEHACHAPI, CA 93561

REVO JACK C & EVELYN D FMLY  
EXEMPT TR  
7101 DRAKE DR  
ANAHEIM, CA 92807

RICH JAMES E III & LESLIE A  
22611 PAM CT  
TEHACHAPI, CA 93561

RICHARDS, HAROLD  
21128 WHITE PINE DR.  
TEHACHAPI, CA 93561

RIEDINGER FAM TR  
41548 HUTCHINSON CT  
MURRIETA, CA 92562

RIEDINGER FAMILY TRUST  
2409 FOOTHILL RD  
SANTA BARBARA, CA 93105

RIOS, CARLOS AND ASHLEE  
10600 LONON AVENUE  
BAKERSFIELD, CA 93312

RIVERWOOD TRUST  
P O BOX 1118  
TEHACHAPI, CA 93581

ROBLES FAMILY TR  
13426 APPLEWOOD RD  
APPLE VALLEY, CA 92308

ROCISSONO JOHN J & RAMSAY B  
4045 VIA PESCADOR  
CAMARILLO, CA 93012

ROCISSONO JOHN J & RAMSAY B  
20104 WESTON AV  
TEHACHAPI, CA 93561

ROCISSONO, JOHN  
20104 WESTON AVE  
TEHACHAPI, CA 93561

RODERICK DAVID CHARLES  
9527 DIAMOND BRIDGE AV  
LAS VEGAS, CA 89166

ROMAN, DOUGLAS & DEBORAH  
21020 WHITE PINE DR.,  
TEHACHAPI, CA 93561

RONCAL ELISEO B & NORMA J  
FMLY LIV TR  
7752 BOEING AV  
LOS ANGELES, CA 90045

ROOT MURIEL W  
2 TENNEY HILL RD  
KITTEERY POINT, ME 39055

ROY VINOD K & KIRAN  
16300 SIERRA HW  
MOJAVE, CA 93501

SALVIG PATRICIA JEAN  
PO BOX 366  
TEHACHAPI, CA 93581

SATTERFIELD TATE & DONNA  
LYN  
22924 CLOVER SPRINGS PL  
TEHACHAPI, CA 93561

SATTERFIELD, TATE  
22924 CLOVER SPRINGS  
TEHACHAPI, CA 93561

SCHLAIS LES  
2275 25TH  
SAN PEDRO, CA 90732

SCHMIDT RONALD J  
21276 WHITE PINE DR #39  
TEHACHAPI, CA 93561

SCHMIDT, RONALD  
21276 - 039 WHITE PINE DR  
TEHACHAPI, CA 93561

SCHULZ, MORGAN  
20117 WESTON  
TEHACHAPI, CA 93561

SCHULZE ALLAN R & JULIANNE  
M  
2451 EASTMAN AV  
OXNARD, CA 93030

SCHULZE ALLAN R & JULIANNE  
M  
6007 BRIDGEVIEW DR  
VENTURA, CA 93003

SCHULZE, ALLAN  
6007 BRIDGE VIEW DR  
VENTURA, CA 93003

SCOTT LAURENCE K  
1682 PREMIER CT  
SANTA MARIA, CA 93454

SCOTT LAURENCE K & ELLEN F H  
1682 PREMIER CT  
SANTA MARIA, CA 93454

SCOTT, ELLEN  
1682 E. PREMIER CT  
SANTA MARIA, CA 93454

SCOTT, LAURENCE  
1682 E. PREMIER CT  
SANTA MARIA, CA 93454

SEMONIAN CHARLES B &  
FRANCES D  
20014 BALD MOUNTAIN DR  
TEHACHAPI, CA 93561

SEMONIAN, CHARLES  
20014 BALD MOUNTAIN  
TEHACHAPI, CA 93561

SHECKELLS SARAH  
20104 BALD MOUNTAIN DR  
TEHACHAPI, CA 93561

SHECKELLS, SARAH  
P.O. BOX 26  
TEHACHAPI, CA 93581

SHERMAN DENNIS L  
2203 FENNIGAN CT  
LEAGUE CITY, TX 77573

SHIPMAN, EARL LEE  
21276 - 029 WHITE PINE DR  
TEHACHAPI, CA 93561

SHIRVANIAN HASSAN  
20300 SEARS DR  
TEHACHAPI, CA 93561

SHMAEFF MARILYN R  
21276 WHITE PINE DR #57  
TEHACHAPI, CA 63561

SHMAEFF, MARILYN  
31990 CASTAIC RD #722  
CASTAIC, CA 91384

SHOBE FAMILY TRUST  
25101 BEAR VALLEY RD  
TEHACHAPI, CA 93561

SILITONGA ROBERT & MARICE  
22709 WOODFORD RD  
TEHACHAPI, CA 93561

SILVERA AURA  
8334 THOROUGHbred ST  
ALTA LOMA, CA 91701

SINGH SIMRAN  
21276 WHITE PINE DR #53  
TEHACHAPI, CA 93561

SINGH, KANWAL  
21276 - 053 WHITE PINE DR  
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# Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613  
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

<b>SCH #</b> 2016011006
-------------------------

**Project Title:** Golden Hills Wastewater Treatment System Improvement Project  
**Lead Agency:** Golden Hills Community Services District **Contact Person:** William Fisher, Gen. Manager  
**Mailing Address:** P.O. Box 637 **Phone:** (661) 822-3064  
**City:** Tehachapi **Zip:** 93581 **County:** Kern

**Project Location:** County: Kern City/Nearest Community: Tehachapi / Golden Hills  
**Cross Streets:** Woodford Tehachapi Road/Westwood Boulevard **Zip Code:** 93561  
**Lat. / Long.:** 118° 28' 57.682" W / 35° 9' 16.158" N **Total Acres:** 0.14 acres  
**Assessor's Parcel No.:** 223-020-35 **Section:** 7 **Twps.:** 32 S **Range:** 33 E **Base:** MDB&M  
**Within 2 Miles:** State Hwy #: 58 **Waterways:** Brite Creek, Tom Sawyer Lake  
**Airports:** Tehachapi Municipal Airport **Railways:** BNSF **Schools:** Multiple

### Document Type:

**CEQA:**  NOP  Draft EIR  Supplement/Subsequent EIR (Prior SCH No.)  Other \_\_\_\_\_  
 Early Cons  Neg Dec  Mit Neg Dec

**NEPA:**  NOI  EA  Draft EIS  FONSI

**Other:**  Joint Document  Final Document  Other \_\_\_\_\_

### Local Action Type:

General Plan Update  Specific Plan  Rezone  Annexation  
 General Plan Amendment  Master Plan  Prezone  Redevelopment  
 General Plan Element  Planned Unit Development  Use Permit  Coastal Permit  
 Community Plan  Site Plan  Land Division (Subdivision, etc.)  Other Construction

Project \_\_\_\_\_

### Development Type:

Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_  Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_  
 Office: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Transportation: Type \_\_\_\_\_  
 Commercial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Mining: \_\_\_\_\_  
 Industrial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Power: Type \_\_\_\_\_  
 Educational \_\_\_\_\_  Waste Treatment: Type 0.03 mgd \_\_\_\_\_  
 Recreational \_\_\_\_\_  Hazardous Waste: Type \_\_\_\_\_  
 Other: \_\_\_\_\_

### Project Issues Discussed in Document:

<input checked="" type="checkbox"/> Aesthetic/Visual	<input checked="" type="checkbox"/> Fiscal	<input checked="" type="checkbox"/> Recreation/Parks	<input checked="" type="checkbox"/> Vegetation
<input checked="" type="checkbox"/> Agricultural Land	<input checked="" type="checkbox"/> Flood Plain/Flooding	<input checked="" type="checkbox"/> Schools/Universities	<input checked="" type="checkbox"/> Water Quality
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Forest Land/Fire Hazard	<input checked="" type="checkbox"/> Septic Systems	<input checked="" type="checkbox"/> Water Supply/Groundwater
<input checked="" type="checkbox"/> Archeological/Historical	<input checked="" type="checkbox"/> Geologic/Seismic	<input checked="" type="checkbox"/> Sewer Capacity	<input checked="" type="checkbox"/> Wetland/Riparian
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Minerals	<input checked="" type="checkbox"/> Soil Erosion/Compaction/Grading	<input checked="" type="checkbox"/> Wildlife
<input checked="" type="checkbox"/> Coastal Zone	<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Solid Waste	<input checked="" type="checkbox"/> Growth Inducing
<input checked="" type="checkbox"/> Drainage/Absorption	<input checked="" type="checkbox"/> Population/Housing Balance	<input checked="" type="checkbox"/> Toxic/Hazardous	<input checked="" type="checkbox"/> Land Use
<input checked="" type="checkbox"/> Economic/Jobs	<input checked="" type="checkbox"/> Public Services/Facilities	<input checked="" type="checkbox"/> Traffic/Circulation	<input checked="" type="checkbox"/> Cumulative Effects
<input checked="" type="checkbox"/> Other <u>NEPA issues per SWRCB CEQA-Plus requirements.</u>			

### Present Land Use/Zoning/General Plan Designation:

Present Land Use: Various  
Present Zoning: Various  
Present General Plan Designation: Various  
Specific Plan: Various

**Project Description:** The Project consists of the rehabilitation of the existing old sewage system collection components used by the privately managed Golden Hills Sanitation Company (GHSC) to provide service to 185 existing connections and areas planned to have sewer service by the original design. The GHSC is currently in receivership and two options have been identified for treatment of the sewage. The system rehabilitation common to both options includes replacing components that are not functioning properly, including 6-inch and 8-inch collection pipes, 6-inch, 8-inch, and 12-inch gravity main pipes, manholes, and removal of the existing lift station on Woodford Tehachapi Road. The two options are: Option A, rehabilitation of the Golden Hills Wastewater Treatment Plant (WWTP) and related infrastructure upgrades; and Option B, conveyance of wastewater to the City of Tehachapi WWTP and related infrastructure upgrades and decommissioning of the Golden Hills WWTP. The purpose of evaluating two options for the proposed Project is to inform decision-makers of the potential environmental impacts associated with both Option A and Option B for full disclosure and informed decision making.

In addition to the system upgrades common to both options, Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 million gallons per day (mgd) of future sewage effluent loads according to the plant’s rated capacity. Option B would include installation of a lift station and 4-inch diameter force main pipeline to the City of Tehachapi WWTP for effluent treatment and disposal. The route for the force main would be entirely within either GHCSO property or public right-of-way and the Golden Hills WWTP would then be decommissioned.

Currently, the Golden Hills WWTP treats 0.03 mgd of sewage. During 2013, the Tehachapi WWTP received a total of approximately 0.94 mgd of influent while the total rated influent capacity of the plant is 1.25 mgd. Under Option A, the Golden Hills WWTP would be rehabilitated to handle the current treatment loads, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads according to the plant’s rated capacity.

**Reviewing Agencies Checklist:** Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X". If you have already sent your document to the agency please denote that with an "S".

- |  |  |
|--|--|
| <u>  </u> S    Air Resources Board                         | <u>      </u> Office of Emergency Services                           |
| <u>      </u> Boating & Waterways, Department of           | <u>      </u> Office of Historic Preservation                        |
| <u>      </u> California Highway Patrol                    | <u>      </u> Office of Public School Construction                   |
| <u>      </u> CalFire                                      | <u>  </u> S    Parks & Recreation                                    |
| <u>  </u> S    Caltrans District Caltrans District # 6 & 9 | <u>      </u> Pesticide Regulation, Department of                    |
| <u>      </u> Caltrans Division of Aeronautics             | <u>      </u> Public Utilities Commission                            |
| <u>      </u> Caltrans Planning (Headquarters)             | <u>  </u> S    Regional WQCB # <u>CENTRAL</u>                        |
| <u>      </u> Central Valley Flood Protection Board        | <u>      </u> Resources Agency                                       |
| <u>      </u> Coachella Valley Mountains Conservancy       | <u>      </u> S.F. Bay Conservation & Development Commission         |
| <u>      </u> Coastal Commission                           | <u>      </u> San Gabriel & Lower L.A. Rivers and Mtns Conservancy   |
| <u>      </u> Colorado River Board                         | <u>      </u> San Joaquin River Conservancy                          |
| <u>  </u> S    Conservation, Department of                 | <u>      </u> Santa Monica Mountains Conservancy                     |
| <u>      </u> Corrections, Department of                   | <u>      </u> State Lands Commission                                 |
| <u>      </u> Delta Protection Commission                  | <u>      </u> SWRCB: Clean Water Grants                              |
| <u>      </u> Education, Department of                     | <u>      </u> SWRCB: Water Quality                                   |
| <u>      </u> Energy Commission                            | <u>      </u> SWRCB: Water Rights                                    |
| <u>  </u> S    Fish & Wildlife Region # <u>Fresno</u>      | <u>      </u> Tahoe Regional Planning Agency                         |
| <u>      </u> Food & Agriculture, Department of            | <u>      </u> Toxic Substances Control, Department of                |
| <u>      </u> General Services, Department of              | <u>  </u> S    Water Resources, Department of                        |
| <u>      </u> Health Services, Department of               | <u>  </u> S    Other: <u>SWRCB: Division of Financial Assistance</u> |
| <u>      </u> Housing & Community Development              | <u>      </u> Other: _____   |
| <u>      </u> Integrated Waste Management Board            |  |
| <u>  </u> S    Native American Heritage Commission         |  |
-

**Local Public Review Period (to be filled in by lead agency)**

Starting Date March 31, 2016 Ending Date May 16, 2016

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**Lead Agency (Complete if applicable):**

Consulting Firm: AECOM Applicant: Golden Hills Community Services District  
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---

**Signature of Lead Agency Representative:** /S/ **Date:** 3/31/16  
**William Fisher, General Manager**

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.



# DRAFT ENVIRONMENTAL IMPACT REPORT

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*State Clearinghouse Number 2016011006*

## **Volume I Chapters 1 through 10**

### **Golden Hills Wastewater Treatment System Improvement Project** by Golden Hills Community Services District

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March 2016

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# Chapter 1

## Executive Summary

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### 1.1 Introduction

The Golden Hills Wastewater Treatment System Improvement Project (proposed Project, or Project) includes the rehabilitation of the existing sewage system collection components used by the privately managed Golden Hills Sanitation Company (GHSC) to provide wastewater service in the community of Golden Hills, which is located in an unincorporated area of Kern County, located approximately 1.5 miles northwest of the City of Tehachapi (Figure 1-1). By the original design, the Golden Hills Wastewater Treatment System was planned to serve approximately 325 connections.

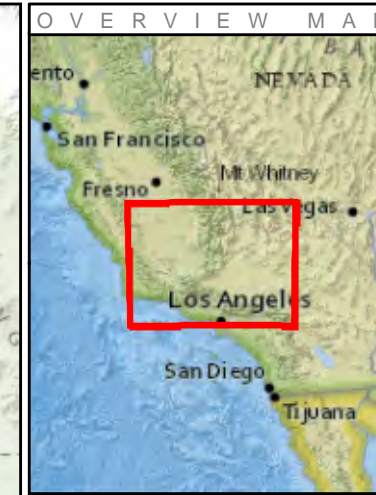
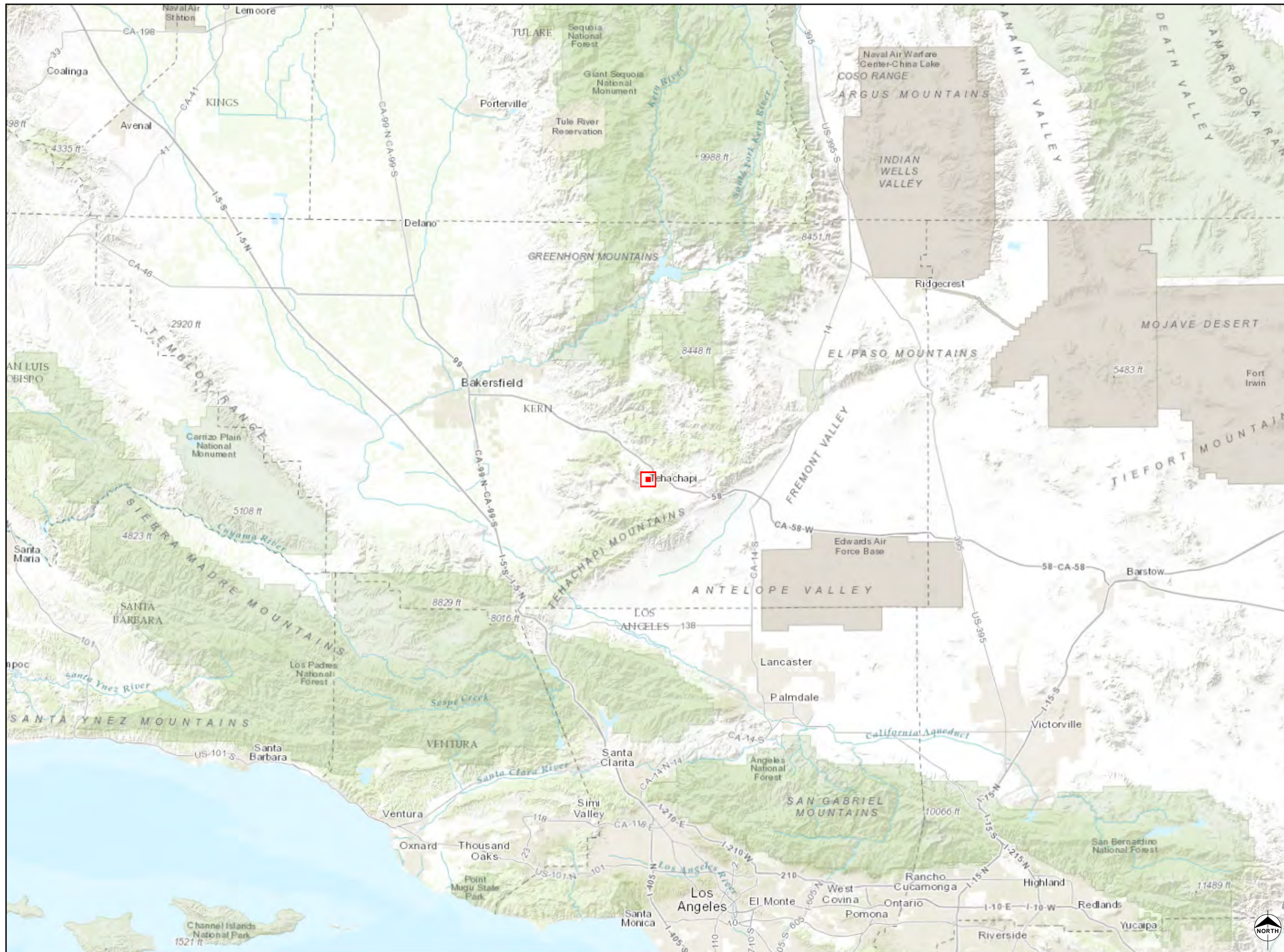
This Environmental Impact Report (EIR) has been prepared by the Golden Hills Community Services District (GHCS D) as the Lead Agency under the California Environmental Quality Act (CEQA). The EIR provides information about the environmental setting and impacts of the proposed Project, as well as mitigation measures that are available to avoid or minimize the identified impacts and alternatives to the Project. This EIR also provides information to meet the needs of local, State, and Federal permitting agencies that are required to consider the Project. The EIR will primarily be used by the GHCS D to evaluate the environmental impacts of their action to implement either Option A, rehabilitation of the Golden Hills wastewater treatment plant (WWTP), or Option B, conveyance of wastewater to the City of Tehachapi WWTP and decommissioning of the Golden Hills WWTP. In addition, the State Water Resources Control Board (SWRCB) will use the EIR to determine whether to issue a grant to fund the system improvements.

This chapter conveys the requirements of the CEQA Statute and Guidelines, provides background information and an overview of the proposed Project, summarizes the Project alternatives, identifies the purpose of the EIR, summarizes the potential impacts of the Project and the recommended mitigation measures, and discloses areas of controversy and issues to be resolved.

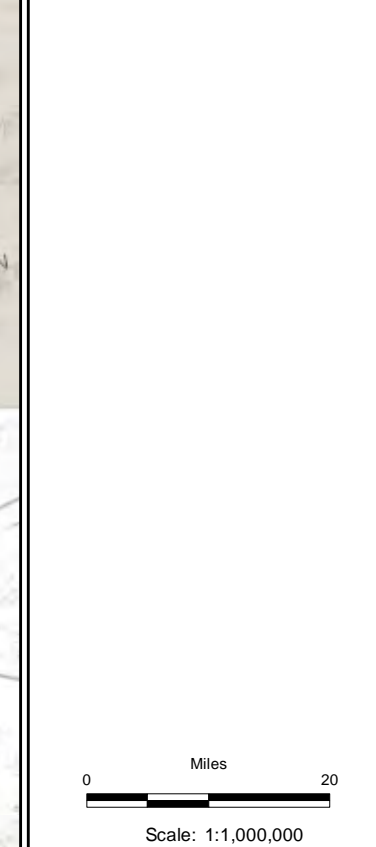
### 1.2 Project Background

The privately constructed and managed GHSC system was constructed over a period of years in the early 1980s to provide wastewater collection and treatment services to approximately 279 residential lots and some commercially designated parcels located in the unincorporated community of Golden Hills in the County of Kern, California. The formation of the GHSC was necessary to provide these services to a small portion of the Golden Hills community that was unable to support the use of septic systems due to the lot sizes. According to the Golden Hills

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**Legend**  
 Project Location



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**Golden Hills  
 Community Services District**

**Golden Hills  
 Proposed Project  
 Regional Location**

Sources: Esri (2014)  
 Date: 3/22/2016 | Project: 60317952

**AECOM** Figure 1-1

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Wastewater System Preliminary Engineering Report (PER)/Feasibility Study (FS) (AECOM 2014), the GHSC entered into an agreement (District Agreement) with the GHCS D in 1980 to build a WWTP on land owned by the GHCS D. An Agreement to construct the Golden Hills WWTP was executed by GHCS D, GHSC, adjoining landowners, Golden Hills Country Club, County Club Estates, Golden Hills Land Company, and Golden Highlands Manufactured Home Estates on March 22, 1983. The GHSC filed a Report of Waste Discharge with the California Regional Water Quality Control Board (RWQCB) in conjunction with the GHCS D for treatment and disposal of a peak flow rate and permitted capacity of 200,000 gallons per day (gpd), or 0.2 million gallons per day (mgd). The Golden Hills WWTP construction was completed in 1984, and it has remained in service without significant modifications, since then.

The GHSC operated the Golden Hills WWTP and collection facilities from 1989 until March 2012 (AECOM 2014). Until 2001, the District Agreement anticipated that GHCS D would acquire the wastewater facility. However, in 2001, the GHCS D quitclaimed the real property and sewer system to GHSC. Since 2001, the GHSC has been the sole provider of sewer service in the Golden Hills Community. At the request of the California Public Utilities Commission (CPUC) in 2012, a Receiver was appointed by the Kern County Superior Court. The system is currently in receivership.

There are 185 existing connections that are serviced by the facility on lots varying from approximately 4,000 square feet to 3.8 acres. The average flow at the Golden Hills WWTP is currently 25,000 to 30,000 gpd, or 0.03 mgd. The WWTP has a maximum 30-day average dry weather flow limit of 0.20 mgd, in accordance with Waste Discharge Requirements 81-22.

The GHSC requires improvements and/or changes to their wastewater system in order to comply with existing regulations. For example, current effluent discharge into Tom Sawyer Lake from the existing WWTP is not permitted as a terminal holding pond. Some of these existing regulations are contained within the existing Waste Discharge Requirements (Order Number 81-122); while others have been adopted after the original wastewater system was placed into service, in part, when the Golden Hills WWTP was originally commissioned in 1989.

### **1.3 Purpose and Use of the Draft EIR**

In accordance with the California Public Resources Code (PRC) Section 21002.1(a), the purposes of this EIR are to analyze the potential significant effects associated with implementation of the Golden Hills Wastewater Treatment System Improvement Project, as well as feasible alternatives or mitigation measures that may be available to minimize or eliminate such adverse effects. Primarily, EIRs are informational documents for a lead agency to use when considering approval of a project. In the case of the proposed Project, this EIR will mainly be used by the GHCS D to evaluate the environmental impacts of their action to implement either Option A, Rehabilitation of the Golden Hills WWTP, or Option B, Conveyance of Wastewater to the City of Tehachapi WWTP and Decommissioning of the Golden Hills WWTP. In addition, the SWRCB will use the EIR to determine whether the project complies with the requirements of CEQA-Plus

before approval of a funding agreement. The EIR will also be used by trustee resource and responsible agencies charged with issuing permits or otherwise managing environmental resources (such as water resources, air quality, or wildlife) that may be affected by project implementation. The CEQA process is also a disclosure process, and through a scoping meeting, Initial Study review, and EIR review, the general public and agencies are afforded opportunities to participate in the review and evaluation of the Project and its potential effects. Details of the Project's decision-making process and availability of the EIR for review are provided in Chapter 2, Introduction.

## 1.4 Project Overview

This section describes the local and regional setting of the Project, surrounding land uses, Project objectives, and key Project characteristics. The Project is described in detail in Chapter 3.0, Project Description.

### Regional and Local Setting

The proposed Project is located in the unincorporated Kern County community of Golden Hills, California, which is located in the Tehachapi Mountains between the San Joaquin Valley and the Mojave Desert immediately west of the City of Tehachapi (Figure 1-1). As described in the Greater Tehachapi Area Specific and Community Plan (GTASCP), the Greater Tehachapi region historically included scattered farms and ranches; however, beginning in the 1960s, rural planned communities, such as Golden Hills, were developed in the area with the intent of becoming second home destination resorts. Golden Hills was originally subdivided as a recreational community with an 18-hole championship golf course, stables, horse trail easements, and green belts. However, today, the main land use in the community is large-lot residential development with commercial uses near State Route (SR) 202 and Golden Hills Boulevard (Kern County 2010a). The golf course was abandoned and is now referred to as the Woodford Tehachapi Property, which is owned by the GHCS.

### On-Site and Surrounding Land Uses

Land surrounding the Project area is developed with a mix of residential and commercial land uses, as well as recreation reserve land. Specific land uses located along the pipeline alignments and WWTP areas include single-family, apartment, and other residential uses, as well as a motel. In addition, the Woodford Tehachapi Property surrounds components of the proposed pipelines and pipeline improvements, as do Tom Sawyer Lake and Brite Creek.

The WWTP site is designated 8.2/2.5/2.7 (Resource Reserve – min. 20- or 80- acre parcel size/ Flood Hazard/Liquefaction Risk) by the GTASCP, with the immediate surrounding land being comprised of additional 8.2 designations and the designations of 5.4 (Max. 4 Units/Net Acres), 5.5 (Max. 1 Unit/Net Acre), 5.6 (Max. 2.5 Gross Acres/Unit), and 3.1 (Public or Private Recreation Areas) to the south, east, and west. The WWTP site and the immediate surrounding area is

classified as RF (Recreational Forestry) by the Kern County Zoning Ordinance, with E (Estate) of varying lot sizes (1/4, 1/2, and 1) to the south, east, and west.

There are 185 existing connections that are serviced by the WWTP on lots varying from approximately 4,000 square feet to 3.8 acres. The lots are in the GTASCP area and are zoned either E 1/4 (Estate - Min. 1/4 acre lot size), E 2.5 (Estate – Min. 2.5 acre lot size), R-1 (Low Density Residential), R-3 PD (High Density Residential – Precise Development Combining), C-2 PD (General Commercial – Precise Development Combining), or MS (Mobilehome Subdivision).

## Project Objectives

The GHCS D has defined the following two objectives for the Project:

- Assure sewer service to the residences and businesses served by the GHSC development continues and that it is of adequate capacity, safe, and sanitary in its operation.
- Have a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## Project Characteristics

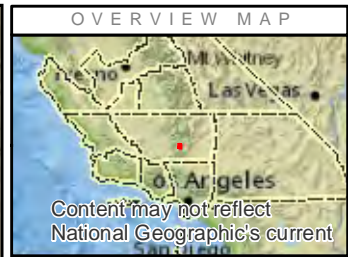
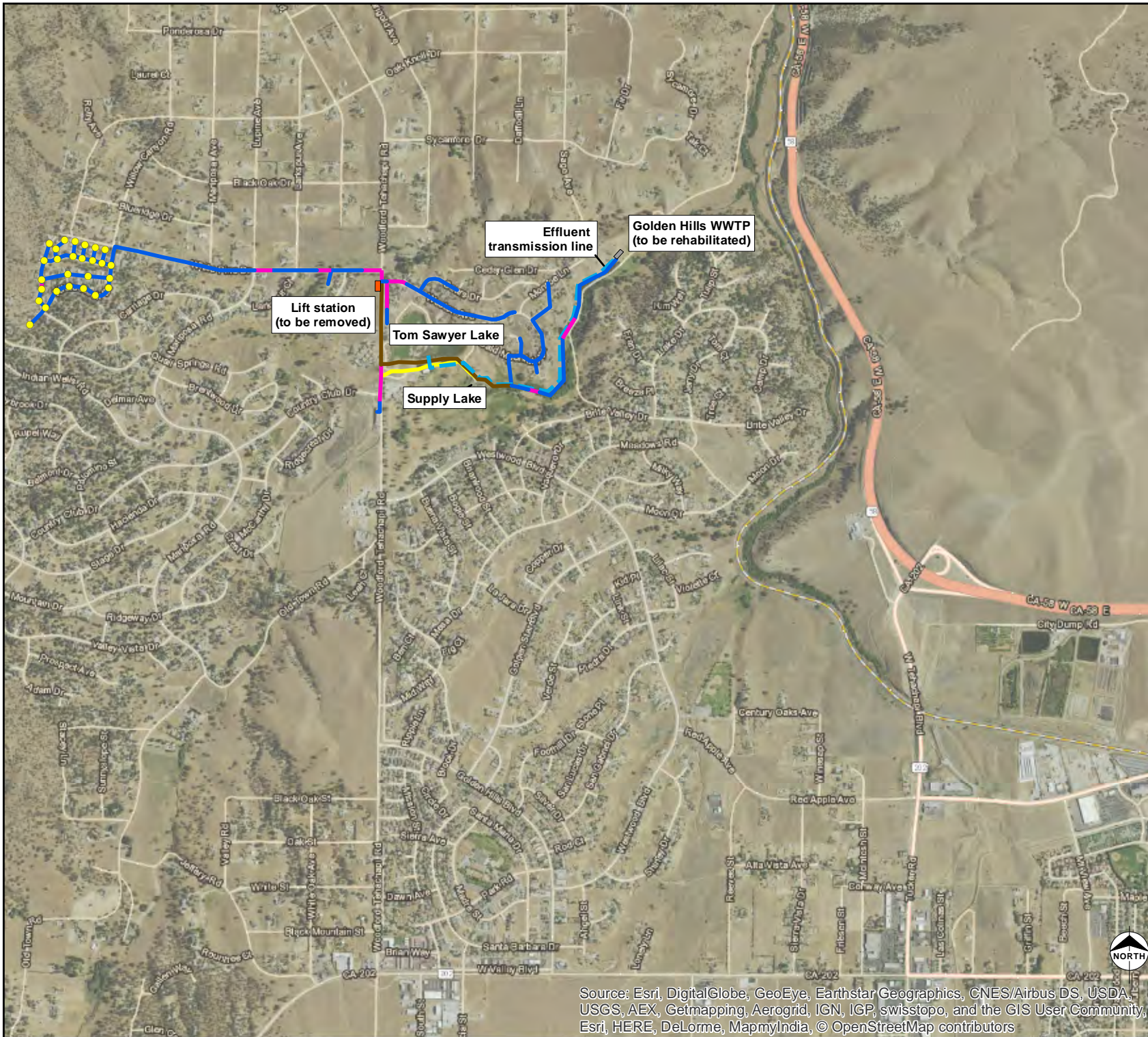
The proposed Project consists of the rehabilitation of the existing sewage system collection components used by the privately managed GHSC to provide service to 185 existing connections and areas planned to have sewer service by the original design, and implementation of one of either Option A, Rehabilitation of the Golden Hills WWTP, or Option B (B-1 or B-2), Conveyance of Wastewater to the City of Tehachapi WWTP and Decommissioning of the Golden Hills WWTP. The system rehabilitation common to both options includes replacing components that are not functioning properly, including 6-inch and 8-inch collection pipes, 6-inch, 8-inch, and 12-inch gravity main pipes, manholes, and removal of the existing lift station on Woodford Tehachapi Road.

The three options are: Option A, rehabilitation of the Golden Hills WWTP and related infrastructure upgrades; Option B-1, conveyance of wastewater to the City of Tehachapi WWTP via a lift station on the Woodford Tehachapi Property, related infrastructure upgrades, and decommissioning of the Golden Hills WWTP; and Option B-2, conveyance of wastewater to the City of Tehachapi WWTP via a lift station on the Golden Hills WWTP site, related infrastructure upgrades, and decommissioning of the Golden Hills WWTP (Figures 1-2, 1-3, and 1-4).

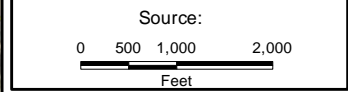
Option A provides for the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 mgd of sewage effluent loads, according to the WWTP's rated capacity. Option B-1 would include installation of a lift station and 4-inch diameter force main pipeline to the City of Tehachapi WWTP at Tucker Road and Red Apple Avenue for effluent treatment and disposal. The route for the force main would be entirely within either GHCS D property or public right-of-way, and the Golden Hills WWTP would then be decommissioned. With Option B-2, the lift station would be located on the former Golden Hills WWTP site. From the new lift station, a new 4-inch force main would be routed

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- Legend**
- Proposed new manhole
  - Effluent transmission system
  - Gravity sewer piping
  - Sewer pipe to be replaced
  - To be abandoned
  - New gravity pipe

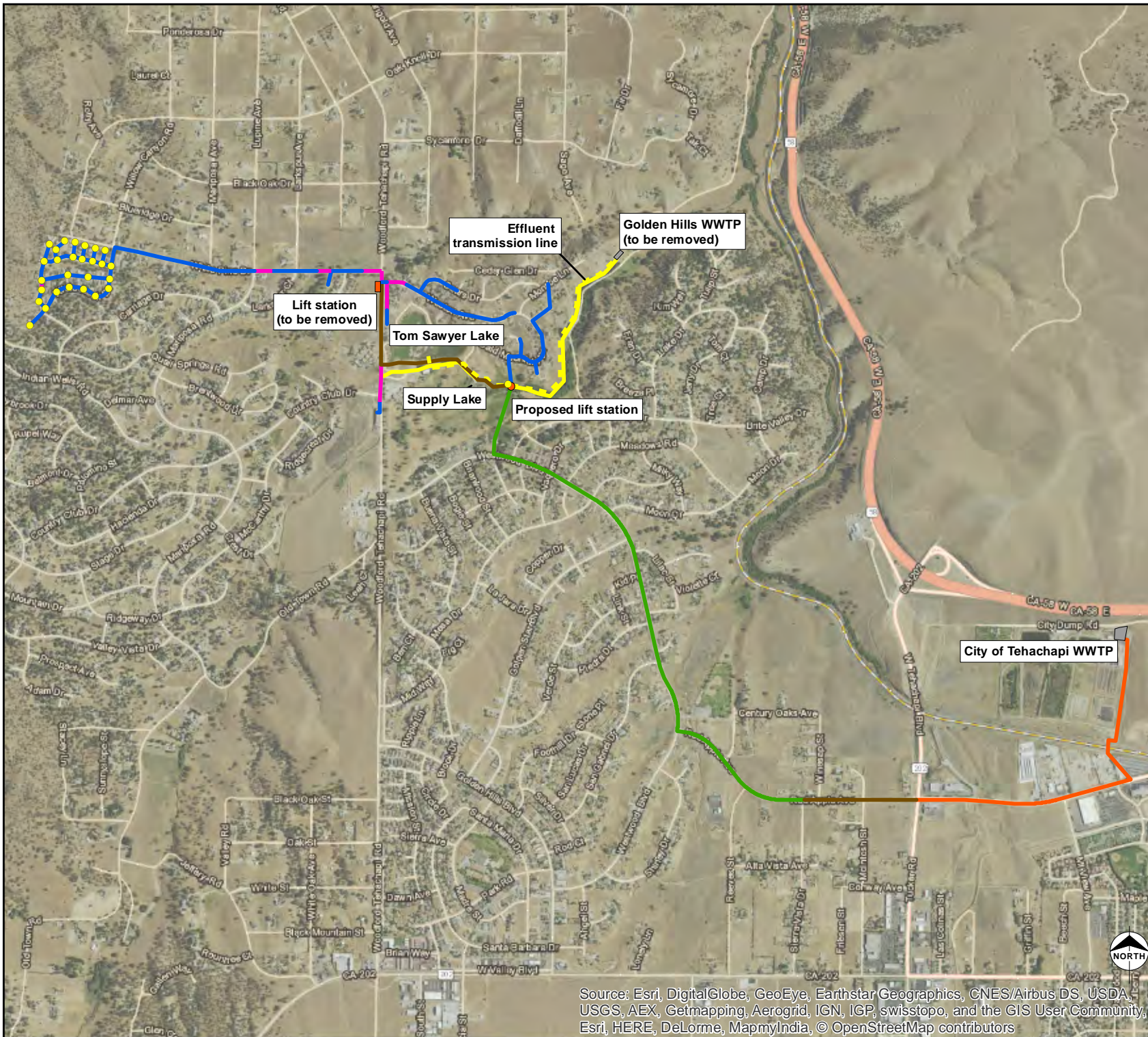


**Golden Hills  
Community Services District**

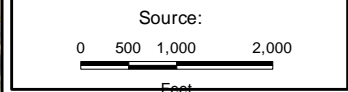
**Golden Hills WWTP  
Project Components  
Option A**

Date: 3/22/2016 Project: 60317952

**AECOM** Figure 1-2



- Legend**
- Proposed new manhole
  - - - Effluent transmission system
  - Gravity sewer piping
  - Current sewer pipe to be replaced with gravity pipe
  - To be abandoned
  - Existing sewer (City of Tehachapi)
  - New sewer force main
  - New gravity pipe



**Golden Hills  
Community Services District**

**Golden Hills WWTP  
Project Components  
Option B-1**

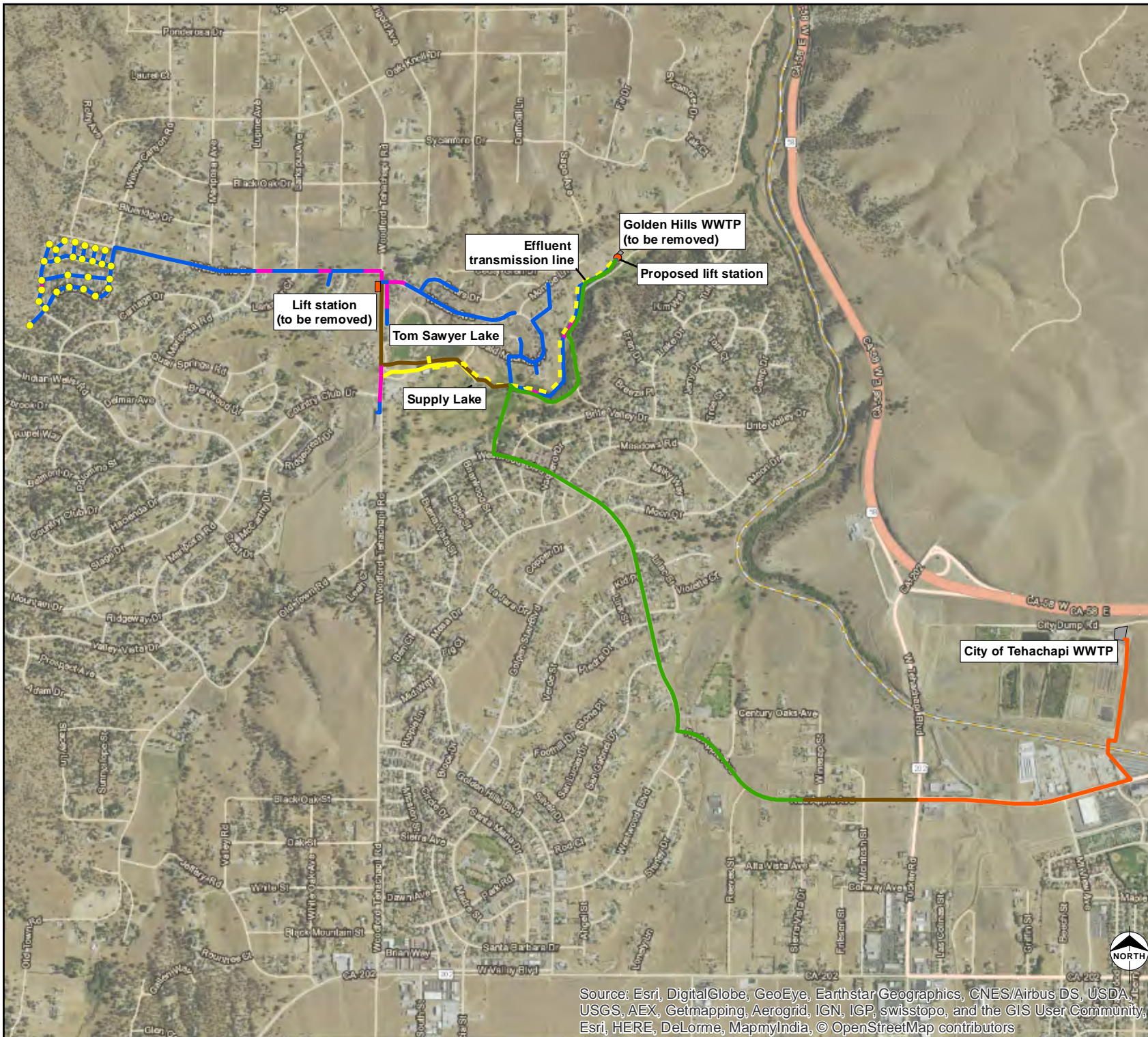
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**AECOM**    **Figure 1-3**

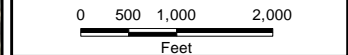
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

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- Legend**
- Proposed new manhole
  - Effluent transmission system
  - Gravity sewer piping
  - Current sewer pipe to be replaced with gravity pipe
  - To be abandoned
  - Existing sewer (City of Tehachapi)
  - New sewer force main
  - New gravity pipe



**Golden Hills  
Community Services District**

**Golden Hills WWTP  
Project Components  
Option B-2**

Date: 3/22/2016    Project: 60317952

**AECOM**    **Figure 1-4**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

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south along an existing dirt road adjacent to Brite Creek, requiring approximately 3,300 linear feet more of force main than Option B-1; however, effluent would still be conveyed to the City of Tehachapi for treatment and disposal.

A detailed description of the Project is provided in Chapter 3 of this EIR.

## 1.5 Environmental Impacts

### Impacts Not Further Considered in this EIR

As discussed in detail in the Initial Study/Notice of Preparation (IS/NOP) prepared for the Project, which is included in Appendix A, it was determined that the proposed Project would not result in significant impacts with regard to the following environmental resources and associated thresholds and CEQA-Plus requirements, where applicable. Therefore, these issues are not analyzed further in this EIR.

#### Aesthetics

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### Agriculture and Forest Resources

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use or a Williamson Act contract.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- 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.
- Result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section 15206(b)(3) PRC).
- CEQA-Plus Evaluation of the Farmland Protection Policy Act.

## Air Quality

- San Joaquin Valley Unified Air Pollution Control District, Stationary Sources as Determined by District rules:
  - Severe Nonattainment – 25 tons per year (tpy).
  - Extreme Nonattainment – 10 tpy.

## Biological Resources

- CEQA-Plus Evaluation of the Coastal Barriers Resources Act.
- CEQA-Plus Evaluation of the Coastal Zone Management Act.
- CEQA-Plus Evaluation of the Magnuson-Stevens Fishery Conservation and Management Act.

## Geology and Soils

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- 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.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- 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.

## Hazards and Hazardous Materials

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.



- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
- Would implementation of the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste.
- Specifically, would the project exceed the following qualitative threshold:
  - The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of the vectors:
    - Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and
    - Are associated with design, layout, and management of project operations; and
    - Disseminate widely from the property; and
    - Cause detrimental effects on the public health or wellbeing of the majority of the surrounding population.

## Hydrology and Water Quality

- 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 that would result in substantial erosion or siltation on site or off site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site.
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- 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.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

- Contribute to inundation by seiche, tsunami, or mudflow.
- CEQA-Plus Evaluation for Flood Plain Management.
- CEQA-Plus Evaluation of the Wild and Scenic Rivers Act.
- CEQA-Plus Evaluation of the Safe Drinking Water Act.
- CEQA-Plus Evaluation of Sole Source Aquifers.

## **Land Use and Planning**

- Physically divide an established community.

## **Mineral Resources**

- 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.
- 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.

## **Noise**

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within the Kern County Airport Land Use Compatibility Plan, would the project expose people residing or working in the project area to excessive noise levels.
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

## **Population and Housing**

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.
- CEQA-Plus Socioeconomics and Environmental Justice evaluation to determine whether the project would induce a substantial decrease in area employment, either directly or indirectly.
- CEQA-Plus Socioeconomics and Environmental Justice evaluation to determine whether the project would result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

## Public Services

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - Fire protection.
  - Police protection.
  - Schools.
  - Parks.
  - Other public facilities.

## Recreation

- 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.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

## Transportation and Traffic

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
  - Metropolitan Bakersfield General Plan Level of Service (LOS) “C”.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

## Utilities and Service Systems

- Exceed wastewater treatment requirements of the applicable RWQCB.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
- Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.
- Comply with Federal, State, and local statutes and regulations related to solid waste.

## Impacts of the Proposed Project

The Project's impacts that are evaluated in this EIR are summarized below and are grouped by those impacts that have no potential to occur, less than significant impacts, impacts that would be less than significant following the implementation of mitigation measures, and significant and unavoidable impacts. Impacts to Utilities are not specifically listed below, as they are the same as those listed for the remaining resource areas, as described in more detail in Section 4.10 of the EIR.

### No Potential Impacts to Occur

#### Air Quality

- Impact 4.2-5: Option A would have no impact or a beneficial impact related to the creation of objectionable odors that would affect a substantial amount of the people.

#### Biological Resources

- Impact 4.3-3: Option A would have no impact related to special-status aquatic species and moisture-dependent wildlife species.
- Impact 4.3-12: Options A, B-1, and B-2 would have no impact related to conflicts with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or related plan.

#### Land Use and Planning

- Impact 4.7-2: Options A, B-1, and B-2 would have a less than significant impact related to conflict with any applicable HCP or NCCP.

### Less than Significant Impacts

#### Aesthetics

- Impact 4.1-1: Option A would have a less than significant impact related to an adverse effect on a scenic vista.

#### Air Quality

- Impact 4.2-1: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with or obstruction of implementation of the applicable air quality plan.
- Impact 4.2-2: Options A, B-1, and B-2 would have a less than significant impact related to violating air quality standards or contributing substantially to an existing or projected air quality violation.

- Impact 4.2-3: Options A, B-1, and B-2 would have a less than significant impact related to a cumulatively considerable net increase of any criteria pollutant for which the Project region is classified as nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Impact 4.2-4: Options A, B-1, and B-2 would have a less than significant impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

## **Biological Resources**

- Impact 4.3-1: Options A, B-1, and B-2 would have a less than significant impact related to common plants and wildlife.
- Impact 4.3-6: Options A, B-1, and B-2 would have a less than significant impact related to special-status bats.
- Impact 4.3-9: Option A would have no impact related to discontinuing effluent inputs to Tom Sawyer Lake.
- Impact 4.3-10: Options A, B-1, and B-2 would have a less than significant impact related to the disruption of wildlife movement corridors.
- Impact 4.3-11: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

## **Cultural Resources**

- Impact 4.4-1: Options A, B-1, and B-2 would have a less than significant impact related to a substantial adverse change in the significance of a historical resource.

## **Greenhouse Gas Emissions**

- Impact 4.5-1: Options A, B-1, and B-2 would have a less than significant impact related to generating greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact 4.5-2: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

## **Hydrology and Water Quality**

- Impact 4.6-2: Option A would have a less than significant impact related to substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- Impact 4.6-3: The Project would not otherwise substantially degrade water quality; impacts are addressed with Impact 4.6-1.

- Impact 4.6-4: Options A, B-1, and B-2 would have a less than significant impact related to placing structures that would impede or redirect flood flows within a 100-year flood hazard area.

## Land Use and Planning

- Impact 4.7-1: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

## Noise

- Impact 4.8-1: Options A, B-1, and B-2 would have a less than significant impact related to the exposure of persons to, or generation of, noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.
- Impact 4.8-2: Options A, B-1, and B-2 would have a less than significant impact related to the exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.
- Impact 4.8-3: Options A, B-1, and B-2 would have a less than significant impact related to a substantial temporary increase in ambient noise levels in the Project vicinity above levels existing without the Project.

## Traffic and Transportation

- Impact 4.9-1: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways (pedestrian and bicycle paths and mass transit are addressed with Impact 4.9-5).
- Impact 4.9-2: Options A, B-1, and B-2 would have a less than significant impact related to conflicts with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency or adopted county threshold for designated roads or highways.

## Less than Significant Impacts with Implementation of Mitigation Measures

### Aesthetics

- Impact 4.1-1: Option B-2 would have a less than significant impact related to an adverse effect on a scenic vista, with the implementation of Mitigation Measure 4.3-8a (augmentation of surface water to Tom Sawyer Lake).

### Air Quality

- Impact 4.2-5: Options B-1 and B-2 would have a less than significant impact related to the creation of objectionable odors that would affect a substantial amount of the people, with the implementation of Mitigation Measure 4.2-1 (lift station odor abatement and control technology).

### Biological Resources

- Impact 4.3-2: Options A, B-1, and B-2 would have a less than significant impact related to sensitive plants, following implementation of Mitigation Measure 4.3-1 (pre-construction are plant surveys and avoidance or compensation).
- Impact 4.3-3: Options B-1 and B-2 would have a less than significant impact related to special-status aquatic species and moisture-dependent wildlife species, following implementation of Mitigation Measures 4.3-2 (Worker Environmental Awareness Program [WEAP]), 4.3-3 (biological monitor), and 4.3-4 (pre-construction burrowing owl surveys).
- Impact 4.3-4: Options A, B-1, and B-2 would have a less than significant impact related to special-status birds, following implementation of Mitigation Measures 4.3-2, 4.3-3, and 4.3-5 (pre-construction nesting bird surveys and avoidance).
- Impact 4.3-5: Options A, B-1, and B-2 would have a less than significant impact related to special-status terrestrial mammals, following implementation of Mitigation Measures 4.3-2, 4.3-3, and 4.3-4.
- Impact 4.3-7: Options A, B-1, and B-2 would have a less than significant impact related to sensitive vegetation communities, following implementation of Mitigation Measure 4.3-6 (habitat restoration plan).
- Impact 4.3-8: Options A, B-1, and B-2 would have a less than significant impact related to streams and wetlands during construction, following implementation of Mitigation Measure 4.3-7 (regulatory authorizations for aquatic resource impacts).
- Impact 4.3-9: Options B-1 and B-2 would a less than significant impact related to discontinuing effluent inputs to Tom Sawyer Lake, following implementation of Mitigation Measure 4.3-8a (augmentation of surface water to Tom Sawyer Lake) or 4.3-8b (compensatory mitigation for loss of aquatic resources).

## Cultural Resources

- Impact 4.4-2: Options A, B-1, and B-2 would have a less than significant impact related to a substantial adverse change in the significance of an archaeological resource, following implementation of Mitigation Measure 4.4-1 (archaeological monitoring).
- Impact 4.4-3: Options A, B-1, and B-2 would have a less than significant impact related to destruction of a unique paleontological resource or site or unique geologic feature, following implementation of Mitigation Measure 4.4-2 (paleontological monitoring).
- Impact 4.4-4: Options A, B-1, and B-2 would have a less than significant impact related to the disturbance of human remains, following implementation of Mitigation Measure 4.4-3 (archaeological monitoring).

## Hydrology and Water Quality

- Impact 4.6-1: Options A, B-1, and B-2 would have a less than significant impact related to violations of water quality standards or waste discharge requirements and/or otherwise substantially degrade water quality, following implementation of Mitigation Measure 4.6-1 (report of waste discharge).
- Impact 4.6-2: Options B-1 and B-2 would have a less than significant impact related to substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, following implementation of Mitigation Measure 4.3-8a.

## Traffic and Transportation

- Impact 4.9-3: Options A, B-1, and B-2 would have a less than significant impact related to road hazards resulting from design features or incompatible uses, following implementation of Mitigation Measures 4.9-1 (encroachment permit) and 4.9-2 (traffic control plan).
- Impact 4.9-4: Options A, B-1, and B-2 would have a less than significant impact related to inadequate emergency access, following implementation of Mitigation Measures 4.9-1 (encroachment permit) and 4.9-2 (traffic control plan).
- Impact 4.9-5: Options A, B-1, and B-2 would have a less than significant impact related to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, following implementation of Mitigation Measures 4.9-2.



## Significant and Unavoidable Impacts

### Aesthetics

- Impact 4.1-1: Option B-1 would have a significant and unavoidable impact related to an adverse effect on a scenic vista, regardless of implementation of Mitigation Measures 4.1-1 (lift station design), 4.1-2 (vegetative screening), and 4.3-8a (augmentation of surface water to Tom Sawyer Lake).

## Significant Cumulative Impacts

The cumulative impacts are the effects on the environment caused by the incremental impact of the proposed Project in combination with closely related past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355). This EIR includes the consideration of cumulative impacts of the proposed Project in Chapter 4. In summary, the Project would result in a cumulatively considerable Traffic and Transportation impact; however, this would be mitigated to a less than significant level with implementation of Mitigation Measure 4.9-2 (traffic control plan).

## Growth Inducement

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR discuss the growth-inducing impacts of a project. A project is considered to be growth-inducing if it could directly or indirectly foster economic or population growth, or the construction of additional housing, in the surrounding environment. Growth-inducing projects also include those that would remove obstacles to population growth.

As described in Chapter 3, Project Description, the Golden Hills Wastewater Treatment System was projected to service approximately 325 connections, but it currently has 185 active connections and the capacity for an additional 145 connections. As development of the Golden Hills community was not completed as expected, the anticipated flow to the Golden Hills WWTP was never realized. Limited development resulted in extremely low wastewater flow into the Golden Hills WWTP, which as a consequence, often did not operate as expected. The plant has a rated capacity of 100,000 gpd (or 0.10 mgd) when all components are operational. However, currently approximately 30,000 gpd (0.03 mgd) of tertiary-treated effluent is processed at the plant and is discharged into Tom Sawyer Lake.

The proposed Project presents three options as potential solutions to operating and maintaining the wastewater system for the existing residences and owners of vacant lots who expect to be able to build. Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads according to the plant's rated capacity. Options B-1 and B-2 would include installation of a lift station and force main pipeline to the City of Tehachapi WWTP for effluent treatment and disposal.

The treated effluent amount would increase from 0.03 mgd to 0.10 mgd with the proposed Project, which was the system's original rated capacity. As a result, the proposed Project would expand wastewater service beyond the existing conditions.

However, the proposed Project would be providing wastewater service to existing customers and standby customers, rather than to new, or unplanned, customers. Furthermore, ultimately, growth in the Project area must occur in accordance with the GTASCP. According to the EIR prepared for the GTASP (Kern County 2010a), "CEQA associates development of new utilities and other infrastructure and public services with growth inducement. To minimize this impact, the GTASP focuses development on existing communities and surrounding areas, while limiting residential or urban development on the majority of the Greater Tehachapi Area's (GTA's) land." The GTASCP supersedes (and consolidates) several prior planning documents, including the Golden Hills Specific Plan. The GTASCP lowered the new development cap in the GTA from 44,300 units under previous land use designations, to 4,780 units. As such, the GTASCP has already limited induced growth in the Project area by setting forth land use designations, policies, and implementation measures that reduce overall growth in the region, while also accommodating adequate housing, jobs, and public services. As described in Section 4.7, Land Use and Planning, of this EIR, the proposed Project would be consistent with the GTASCP.

Therefore, for the reasons specified above, the growth inducing impact of the proposed Project is less than significant.

## **Irreversible Impacts**

Section 15126.2(c) of the CEQA Guidelines requires that an EIR discuss the significant irreversible environmental changes that would occur with implementation of a project and that cannot be avoided. An irreversible impact is an impact that uses nonrenewable resources during the initial and continued phases of a project. Irreversible impacts may also result from damage caused by environmental accidents associated with a project. Irretrievable commitments of resources are also required to be evaluated, in order to ensure that such consumption is justified.

The proposed Project would result in the irreversible and irretrievable commitment of nonrenewable resources, as it would consume oil, gas, and other nonrenewable resources. However, assuming these commitments occur in accordance with the adopted goals, policies, and implementation measures of the GTASP and Kern County General Plan, as a matter of public policy, such commitments are determined to be acceptable. The GTASP and Kern County General Plan ensure that the irreversible and irretrievable environmental changes associated with these commitments will be minimized.

## 1.6 Alternatives to the Proposed Project

Section 15126.6(a) of the CEQA Guidelines requires an evaluation of “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” This chapter summarizes the alternatives that were considered but rejected from further consideration and describes the alternatives selected for analysis and compares their environmental impacts to each other and to the proposed Project, based on the Project’s significant and unavoidable impact to aesthetics (obstruction of scenic vistas related to option B-1).

### Alternatives Considered But Rejected

#### Septic Systems Alternative

In September 2013, the Kern County Engineering, Surveying, and Permit Services Department and Waste Management Department prepared the Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers (Kern County Engineering, Surveying, and Permit Services Department et al. 2013) to identify and recommend cost effective sewer service options for the customers of the Golden Hills WWTP. Septic system use was considered among the options of the 2013 study. Specifically, the analysis investigated eliminating use of the Golden Hills WWTP and replacing it with the following septic system alternatives:

- A community septic system to serve the Golden Highlands gated common interest home development;
- Individual parcel conventional septic systems for the single-family homes located mostly east of Woodford Tehachapi Road;
- Shared community septic system for a group of lots;
- Individual residential wastewater modular treatment systems for the single-family homes located mostly east of Woodford Tehachapi Road; and/or
- A larger community septic system with gravity tertiary filters to serve all WWTP customers.

This group of septic system alternatives was eliminated from consideration in the 2013 study, because such systems would either not serve all of the WWTP customers, would be expensive to purchase and/or to maintain, would not have vendors available in the area to service and maintain it, and/or would not be likely to receive RWQCB approval or grant funding. Therefore, septic systems would not meet the Project objectives and they are rejected from further analysis in this EIR.

## Packaged Treatment Plant Alternative

The Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers (Kern County Engineering, Surveying, and Permit Services Department et al. 2013) also investigated the possibility of replacing the Golden Hills WWTP with a smaller, conventional packaged treatment plant. A new, smaller sized conventional packaged treatment plant was considered due to the fact that County staff anticipated short term development in the Golden Hills area was improbable. The new, smaller-sized conventional package plant would be more efficient to handle the lower average daily flow rate (25,000 to 30,000 gpd) and would have a reduced rated capacity of 50,000 gpd (as compared to the Golden Hills WWTP rated capacity of 100,000 gpd). The existing WWTP would be demolished to erect a new smaller sized packaged plant within the existing footprint. One of the existing emergency retention basins would be retained for the new plant.

However, replacement of the existing WWTP with a new, smaller conventional packaged treatment plant would substantially escalate the capital expenditures and would not result in enough reduction in operational expense to justify the initial capital cost investment for WWTP replacement. Therefore, this alternative is rejected from further analysis in this EIR, as it would not meet the Project objectives.

## Alternatives Analyzed in this EIR

The following four alternatives have been selected for detailed analysis per CEQA Guidelines, Section 15126.6. The No Project Alternative specifically responds to Section 15126.6(e) of the CEQA Guidelines, while Alternatives A, B, and C respond to the CEQA Guidelines mandate to consider alternatives that would avoid or substantially lessen the significant effects of the Project and that would feasibly attain most of the basic Project objectives (Section 15126.6[a]). Table 1-1 compares the significant and unavoidable impact of the proposed Project with the alternatives. The following alternatives are considered in this analysis:

- No Project Alternative
- Alternative A – Energy Independent Continued Operation of the Golden Hills WWTP
- Alternative B – Energy Independent Force Main to the City of Tehachapi WWTP
- Alternative C – Underground Lift Station for the Force Main to the City of Tehachapi WWTP

## No Project Alternative

Under the No Project Alternative, neither Options A, B-1, or B-2 would be implemented, and existing conditions at the Golden Hills WWTP would continue in the immediate future. Wastewater generated in the service area would continue to be conveyed to the Golden Hills WWTP for treatment, and treated effluent would be discharged to Tom Sawyer Lake. Such operations would continue under a privately owned and operated collection, treatment, and

disposal system, and services associated with collection (the existing lift station, sewer mains, WWTP, and effluent line) would also continue under the GHSC Receiver.

The significant and unavoidable impact identified for Option B-1 of the proposed Project would be avoided under the No Project Alternative, as no new development would occur within the Woodford Tehachapi Property that would obstruct the views of residents or recreational users. However, according to the Golden Hills Wastewater System PER/FS, the RWQCB has relaxed its efforts of enforcement actions due to positive actions taken with the Golden Hills WWTP and system by the Receiver and Kern County. However, under the No Project Alternative, failure to meet waste discharge requirements under the existing permit is possible, if financial support from Kern County is discontinued or outstanding debts become due and payable. For example, there is money owed for taxes to the Receiver, SWRCB, and others, and as of the date of the PER/FS (November 21, 2014), the reserve fund was inadequate to cover emergencies.

According to the PER/FS, under the No Project Alternative, the system deficiencies coupled with an inadequate income or reserve fund would eventually result in increased debt accumulation and deferred maintenance that would ultimately result in higher rates to the customers. Therefore, it would not meet the basic Project objectives, as it would not provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Alternative A – Energy Independent Continued Operation of the Golden Hills WWTP**

Option A of the proposed Project entails repairs to the Golden Hills Wastewater Treatment System and rehabilitation and upgrades to the WWTP. Alternative A would provide the same repairs and upgrades as Option A; however, it would also include the installation of a photovoltaic solar power generating system that would support the electrical demand of the WWTP and make it an energy independent system. The solar panels would be placed atop the building structure portion of the WWTP and/or the property immediately surrounding the WWTP.

Option A would not result in significant and unavoidable impacts, including to aesthetics, as the aboveground portions of Option A are located at the existing WWTP site, which is already developed and removed topographically from residents and recreational users of the Woodford Tehachapi Property. Alternative A would also reduce the energy demand of the proposed Project, which would be consistent with Kern County goals for energy use and the utilization of renewable resources. However, Alternative A would require water for panel washing and would also require additional vehicle trips for workers to provide maintenance services on the solar power system. While these would not be anticipated to be significant, they do represent impacts not associated with Option A of the proposed Project.

However, it is as yet to be determined how much roof space and/or land would be required to provide the necessary amount of solar panels to meet the WWTP's power demand. In addition,

the cost to develop the solar power system is not known at this time, as is how much of that cost would be distributed among the customers in their monthly rates. Therefore, it would be speculative to assume that Alternative A would meet the basic Project objectives, as it is unknown whether it would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Alternative B – Energy Independent Force Main to the City of Tehachapi WWTP**

Option B-1 of the proposed Project entails repairs to the Golden Hills Wastewater Treatment System and conveyance of the effluent to the City of Tehachapi WWTP via force main for treatment and disposal. Option B-1 would result in the decommissioning of the Golden Hills WWTP and the placement of a lift station in the Woodford Tehachapi Property, east of Supply Lake and north of Brite Creek. Option B-2 would include similar components; however, it would locate the lift station at the former Golden Hills WWTP site following its decommissioning and would include additional new force main pipeline installation in the Brite Creek vicinity. Alternative B would entail the same changes to the wastewater system as Options B-1 or B-2; however, it would also include the installation of a photovoltaic solar power generating system that would support the electrical demand of the lift station and make it an energy independent system. The solar panels would be placed on land immediately adjacent to the lift station, either in the Woodford Tehachapi Property or the former Golden Hills WWTP site.

Option B-1 would result in a significant and unavoidable impact to aesthetics, specifically related to obstructing the views of nearby residents and recreational users within the scenic vista of the Woodford Tehachapi Property. The inclusion of solar panels in this area would increase the severity of this significant and unavoidable aesthetics impact when compared to Option B-1 alone. Option B-2 would not result in a significant and unavoidable aesthetics impact, as the WWTP is already developed and removed topographically from residents and recreational users of the Woodford Tehachapi Property. Similarly, the inclusion of solar panels in this area for Alternative B would be incremental when compared to the existing development and would not result in a significant aesthetics impact.

Alternative B would also reduce the energy demand of the proposed Project, which would be consistent with Kern County goals for energy use and the utilization of renewable resources. However, during operations, Alternative B would require water for panel washing and would also require additional vehicle trips for workers to provide maintenance services on the solar power system. While these would not be anticipated to be significant, they do represent impacts not associated with Option B-1 of the proposed Project.

It is as yet to be determined how much land would be required to provide the necessary amount of solar panels to meet the lift station's power demand. In addition, the cost of the solar power system to develop and that would be distributed among the customers in their monthly rates is unknown. Therefore, it would be speculative to assume that Alternative B would meet the basic

Project objectives, as it is unknown whether it would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

### **Alternative C – Underground Lift Station for the Force Main to the City of Tehachapi WWTP**

In addition to locating the pumps associated with the lift station for Option B-1 underground, Alternative C would be developed underground. To achieve this, the lift station pumps, generator, and controls would be constructed below ground in the Woodford Tehachapi property, just east of Supply Lake and North of Brite Creek. The underground lift station of Alternative C would need to be located further north than the Option B-1 lift station to assure it is not located within the floodplain. If this is not feasible, the existing ground surface would first need to be raised, and then the enclosure for the underground lift station would be constructed. This would result in the appearance of a mound that has a higher elevation than the existing surface. At grade manholes would be installed for access to the underground lift station enclosure. Sump pumps may also be required to be installed to remove leakage and discharge overflow above the high water level.

The significant and unavoidable impact identified for Option B-1 of the proposed Project would be substantially reduced with Alternative C. As compared to Option B-1, Alternative C would locate all components of the lift station underground, with the exception of manhole covers. Following construction, the surface of the raised mound would be revegetated with similar plant species as currently occur in the Woodford Tehachapi Property. The existing Woodford Tehachapi property consists of slightly varied rolling topography; therefore, the mound that surrounds the underground lift station is considered to be consistent with the visual character of the landscape, especially following revegetation.

It is as yet to be determined whether Alternative C could be sited in an area outside the floodplain and absent of other hydrologic constraints, such as high groundwater levels, that would interfere with the operation and maintenance of a completely underground lift station and its mechanical and electrical components. As such, it would be speculative to assume that Alternative C would meet the basic Project objectives, as it is unknown whether it would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Comparison of Alternatives**

Table 1-1 provides a comparison of the significant and unavoidable impact of the proposed Project with that of the alternatives discussed above.

**Table 1-1 Comparison of Alternatives**

<b>Environmental Resource</b>	<b>Proposed Project</b>	<b>No Project Alternative</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>
Aesthetics: Degradation of views within a scenic vista	Significant and Unavoidable (Option B-1)	Less Severe/No Impact	Less Severe/Less than Significant Impact	More Severe/Significant and Unavoidable	Less Severe/Less than Significant Impact

## Environmentally Superior Alternative

Per CEQA Guidelines 15126.6(e)(2), the EIR is required to identify the Environmentally Superior Alternative, and in the event that the No Project Alternative is the Environmentally Superior Alternative, the Draft EIR must instead identify the environmentally superior alternative from among the remaining alternatives. As shown in Table 1-1 and described above, the Environmentally Superior Alternative is Alternative A, an energy independent version of Option A.

## 1.7 Areas of Controversy

Section 15123(b)(2) of the CEQA Guidelines requires that an EIR identify the areas of controversy raised by the public or agencies and known to the Lead Agency. Areas of controversy were identified through verbal and written comments received during the IS/NOP review period and at the scoping meeting and are provided in Appendix A. The areas of controversy are summarized below and are addressed in Chapters 3 and 4 of the EIR:

- Project Description
  - Status of upgrades to the Golden Hills WWTP
- Aesthetics
  - Scenic and associated recreational value of the Woodford Tehachapi Property (Impact 4.1-1)
- Air Quality
  - Odor concerns (Impact 4.2-5)
  - Pollutant emissions (Impacts 4.2-2, 4.2-3, and 4.2-4)
- Biological Resources
  - Loss of water to Tom Sawyer Lake (Impact 4.3-9)
  - Loss of habitat (Impacts 4.3-7 and 4.3-10)
- Hydrology and Water Quality
  - Water quality concerns (Impacts 4.6-1 and 4.6-3)
  - Permitting concerns (Impact 4.9-1)



- Floodplain development (Impact 4.9-3)
- Traffic and Transportation
  - Traffic control plan (Impact 4.9-3)
  - Road repairs (Impact 4.9-3)
  - Encroachment permit (Impact 4.9-3)
- Utilities
  - Rates (Impact 4.10-1)

## 1.8 Issues to Be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify the issues to be resolved, including the choices among alternatives and whether or how to mitigate the significant impacts of a project. The key issues to be resolved by the Lead Agency regarding the proposed Project include:

- A determination of whether the EIR sufficiently describes the impacts of the proposed Project and provides mitigation measures, where feasible, to reduce or avoid such impacts;
- Selection of Option A, B-1, or B-2 of the proposed Project or one of the Project Alternatives;
- A determination of whether the mitigation measures for the selected Project Option or Project Alternative should be modified or adopted as presented in the EIR; and
- Whether additional conditions or mitigation measures not specified in the EIR should be applied to further reduce or avoid the impacts of the selected Project Option or Project Alternative.

## 1.9 Summary of Environmental Impacts and Mitigation

Table 1-2 provides a summary of the Project's impacts with their respective levels of significance, available mitigations measures (MM), and the significance of impacts following the implementation of mitigation measures. Additional details and complete impact analyses are provided in Chapter 4.

**Table 1-2 Summary of Project Impacts and Mitigation Measures**

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>Aesthetics</b>			
<b>Impact 4.1-1 (Option A):</b> Adverse effect on a scenic vista	Less than Significant	None Required	Less than Significant
<b>Impact 4.1-1 (Option B-1):</b> Adverse effect on a scenic vista	Significant	<p><b>MM 4.1-1 Lift Station Design.</b> The proposed Option B-1 lift station shall be designed to fit with the rural character of the Tehachapi Valley. The structure design shall complement the architectural character of buildings in the vicinity and consider building mass and form and building proportions, as well as the texture, color and quality of building materials used locally. Colors will be selected to blend in with the existing visual conditions and provide subtle variations and contrast.</p> <p><b>MM 4.1-2 Vegetative Screening.</b> Vegetative screening of the Option B-1 lift station using plants native to the Tehachapi Valley shall be used to soften the appearance of the lift station from nearby views. Vegetation shall be planted in a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape. In addition, Mitigation Measure 4.3-8a: Augmentation of Surface Water to Tom Sawyer Lake, shall be implemented to mitigate the loss of the Golden Hills WWTP treated effluent water source to Tom Sawyer Lake that would</p>	Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		result from Option B-1. Under this mitigation measure, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth. Implement <b>4.3-8a</b> (see Biological Resources, below)	
<b>Impact 4.1-1 (Option B-2):</b> Adverse effect on a scenic vista	Significant	Implement <b>4.3-8a</b> (see Biological Resources, below)	Less than Significant
<b>Air Quality</b>			
<b>Impact 4.2-1 (Options A, B-1, and B-2):</b> Conflicts with or obstruction of implementation of the applicable air quality plan	Less than Significant	None Required	Less than Significant
<b>Impact 4.2-2 (Options A, B-1, and B-2):</b> Violating air quality standards or contributing substantially to an existing or projected air quality violation	Less than Significant	None Required	Less than Significant
<b>Impact 4.2-3 (Options A, B-1, and B-2):</b> Cumulatively considerable net increase of any criteria pollutant for which the Project region is classified as nonattainment	Less than Significant	None Required	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)			
<b>Impact 4.2-4 (Options A, B-1, and B-2):</b> Exposure of sensitive receptors to substantial pollutant concentrations	Less than Significant	None Required	Less than Significant
<b>Impact 4.2-5 (Option A):</b> Creation of objectionable odors that would affect a substantial amount of the people.	No Impact/Beneficial Impact	None Required	No Impact/Beneficial Impact
<b>Impact 4.2-5 (Options B-1 and B-2):</b> Creation of objectionable odors that would affect a substantial amount of the people.	Significant	<p><b>MM 4.2-1 Implement Applicable Odor Mitigation Measures for Option B.</b> The proposed Project shall install odor abatement and control technology on the proposed lift station. Measures could include, but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• Operational control methods</li> <li>• Chemical additions (e.g., iron salts, hydrogen peroxide, ozone)</li> <li>• Containment</li> <li>• Vapor-phase control technologies (e.g., activated</li> </ul>	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		carbon adsorption, biofiltration, chemical we scrubbers)	
<b>Biological Resources</b>			
<b>Impact 4.3-1 (Options A, B-1, and B-2):</b> Common plants and wildlife	Less than Significant	None Required	Less than Significant
<b>Impact 4.3-2 (Options A, B-1, and B-):</b> Sensitive Plants	Significant	<b>MM 4.3--1 Pre-Construction Rare Plant Surveys and Avoidance or Compensation.</b> During the spring season prior to removal of vegetation, the implementing agency shall retain a County-approved biologist to perform pre-construction surveys within the areas to be impacted. Surveys shall be conducted within the blooming period of the target species, and any special-status plants detected shall be documented. Numbers of individuals present within the proposed impact area shall be quantified by counting or estimating, as practical. Survey results shall be memorialized in a brief report, which shall be provided to the County prior to construction. If special-status plants are detected, the implementing agency shall either adjust construction plans to avoid impacting the individuals or shall compensate for the impact by including the impacted species in the Habitat Restoration Plan for the area (refer to Mitigation Measure 4.3-6). If compensation is selected, the restoration shall not be considered successful unless the number or extent of the special-status plant individuals within the	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>restoration site exceeds the number or extent impacted after five years.</p> <p>If pre-construction rare plant surveys identify the presence of any plant listed as endangered, threatened, or rare by the USFWS and/or CDFW, construction in the area shall not proceed until the implementing agency has consulted with these agencies to either obtain take authorization or to develop an avoidance strategy.</p>	
<p><b>Impact 4.3-3 (Option A):</b> Special-status aquatic species and moisture-dependent wildlife species</p>	<p>No Impact</p>	<p>None Required</p>	<p>No Impact</p>
<p><b>Impact 4.3-3 (Options B-1 and B-2):</b> Special-status aquatic species and moisture-dependent wildlife species</p>	<p>Significant</p>	<p><b>4.3-2 Worker Environmental Awareness Program.</b> A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a CDFW-approved biologist(s) provided by the implementing agency. Training materials and briefings shall include but not be limited to: review of sensitive species likely to occur within the construction area, the Federal and State Endangered Species Acts and Migratory Bird Treaty Act and consequences of non-compliance with these laws, a contact person in the event of the discovery of dead or injured wildlife, and a review of mitigation requirements. The training sessions shall be conducted by a qualified biologist or</p>	<p>Less than Significant</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>other individual approved by the biologist. As part of the environmental training, construction personnel shall be provided with photographs or illustrations of potentially-occurring special-status species so they will be able to identify them, and avoid harming them during construction.</p> <p><b>4.3-3 Biological Monitor.</b> Prior to grading, a CDFW-approved biologist shall be retained by the implementing agency as the biological monitor for the Project. The biological monitor shall ensure that impacts to biological resources are avoided or minimized to the fullest extent possible. During earth moving activities, the biological monitor shall be present to relocate wildlife species that may come into harm's way to undisturbed areas of suitable habitat using appropriate methods that would not injure the wildlife. The biological monitor shall have the authority to stop specific grading or construction activities if violations of mitigation measures or any local, State, or Federal laws are suspected.</p> <p><b>4.3-4 Pre-Construction Burrowing Wildlife Surveys and Relocation.</b> Within five days prior to ground disturbance or removal of vegetation, a CDFW-approved biologist retained by the implementing agency shall inspect the ground surface proposed for disturbance in an effort to detect burrowing special-status species. The biologist shall be familiar with potentially-occurring species and their sign, including</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>the American badger, burrowing owl, Tehachapi pocket mouse, western pond turtle, foothill yellow-legged frog, and Tehachapi slender salamander. If these or other special-status species are observed, they shall be relocated to areas of suitable habitat outside the construction zone using appropriate methods. For more mobile species, such as the American badger and burrowing owl, passive relocation techniques shall be used. Burrowing owls shall be relocated only in accordance with the recommendations set forth in the CDFW's (2012) <i>Staff Report on Burrowing Owl Mitigation</i>, and shall not be relocated during the breeding season (February 1 through August 31). If the Tehachapi slender salamander is observed, construction in the area shall not proceed until the implementing agency has consulted with the CDFW to either obtain take authorization or to develop an avoidance strategy.</p>	
<p><b>Impact 4.3-4 (Options A, B-1, and B-2):</b> Special-status birds</p>	<p>Significant</p>	<p>Implement <b>MM 4.3-2</b> and <b>MM 4.3-3</b>, in addition to <b>MM 4.3-5</b>  <b>MM 4.3-5 Pre-Construction Nesting Bird Surveys and Avoidance.</b> The implementing agency shall make an effort to avoid vegetation removal within the Project alignment between February 1<sup>st</sup> and August 31<sup>st</sup>, the recognized breeding, nesting and fledging season for most bird species. If vegetation has to be removed within this period, a CDFW-approved biologist shall</p>	<p>Less than Significant</p>



Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		conduct bird surveys for nesting birds prior to construction. If breeding activities and/or an active bird nest is located, the implementing agency shall implement 300 foot minimum avoidance buffers for all passerine birds and 500 foot minimum avoidance buffer for all raptor species around the active nest. The breeding habitat/nest site shall be fenced and/or flagged in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project. These buffer distances may be modified in consultation with the biological monitor if a lesser distance would be adequate to prevent impacts to nesting birds, based on observations in the field. Any reduction in the buffer shall be submitted to CDFW for approval.	
<b>Impact 4.3-5 (Options A, B-1, and B-2):</b> Special-status terrestrial mammals	Significant	Implement <b>MM 4.3-2, MM 4.3-3, and MM 4.3-4</b>	Less than Significant
<b>Impact 4.3-6 (Options A, B-1, and B-2):</b> Special-status bats	Less than Significant	None Required	Less than Significant
<b>Impact 4.3-7 (Options A, B-1, and B-2):</b> Sensitive vegetation communities	Significant	<b>MM 4.3-6 Habitat Restoration Plan.</b> Within mapped areas of sensitive or riparian vegetation, including black willow thickets, blue oak woodland, cottonwood forest, hydrophytic perennial grassland, rush marsh, cattail/bulrush marsh, sandbar willow thickets, and	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>valley oak woodland, all areas impacted by the Project shall be revegetated with appropriate native species following completion of construction in the area. The implementing agency shall retain a CDFW-approved biologist to prepare a Habitat Restoration Plan including lists of species to be planted in each location, and setting forth procedures for monitoring, maintenance, and reporting. The Habitat Restoration Plan shall be submitted to the implementing agency for review, and shall be approved prior to vegetation removal in areas of mapped sensitive or riparian vegetation. Monitoring of the revegetated areas shall be conducted no less than annually for a five-year period, with maintenance conducted as necessary to achieve success criteria. To be considered successful, the planted areas shall have a minimum of 50% native vegetation cover after three years and 75% cover after five years. Prior to the mitigation sites being determined successful, they shall be entirely without supplemental irrigation for a minimum of two years; no woody invasive species shall be present, and herbaceous invasive species, excluding naturalized species, shall not exceed 5% cover. Specific permit conditions from the USACE, CDFW, and/or Central Valley RWQCB, all of which agencies have expertise and statutory mandates to maintain, restore, and enhance riparian habitats, may supersede or augment these requirements.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		If special-status plant species are included in the Habitat Restoration Plan as required by Mitigation Measure 4.3-1, the number or extent of the special-status species at the end of the five-year monitoring period shall equal or exceed the number or extent removed.	
<p><b>Impact 4.3-8 (Options A, B-1, and B-2):</b> Stream and wetland impacts during construction</p>	Significant	<p><b>MM 4.3-7 Regulatory Authorizations for Aquatic Resource Impacts.</b> Prior to any ground disturbing activities occurring in areas where regulated aquatic resources may be present, as determined based on review of the Biological Resources Technical Report prepared for the Project (Appendix D), the National Wetlands Inventory (USFWS 2015), the National Hydrography Dataset (USGS 2015), or other available mapping, the implementing agency shall retain a qualified wetlands biologist to delineate the proposed work zones and confirm whether waters of the United States (including wetlands), CDFW-jurisdictional streambeds, or waters of the State are present. If such regulated features are present, biologist shall delineate the jurisdictional limits of the features. The implementing agency shall not conduct any vegetation removal or ground disturbing activity within the limits of any regulated aquatic resource without first either:</p> <ol style="list-style-type: none"> <li>1) Obtaining Federal and/or State permits authorizing the proposed work, including a Clean Water Act Section 404 Permit, Clean</li> </ol>	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Water Act Section 401 Water Quality Certification, Lake/Streambed Alteration Agreement, and/or Waste Discharge Requirements; or,</p> <p>2) Obtaining a statement from the issuing agencies indicating that such permits are not required.</p> <p>If permits are obtained, the implementing agency shall comply with all permit conditions when implementing the proposed activities, including any seasonal timing restrictions, impact avoidance measures, limitations on construction means and methods, site restoration, compensatory mitigation, and reporting requirements.</p>	
<p><b>Impact 4.3-9 (Option A):</b> Discontinuing effluent inputs to Tom Sawyer Lake</p>	<p>No Impact</p>	<p>None Required</p>	<p>No Impact</p>
<p><b>Impact 4.3-9 (Options B-1 and B-2):</b> Discontinuing effluent inputs to Tom Sawyer Lake</p>	<p>Significant</p>	<p>Implement either <b>MM 4.3-8a</b> or <b>MM 4.3-8b</b></p> <p><b>MM 4.3-8a Augmentation of Surface Water to Tom Sawyer Lake.</b> Prior to deactivating the Golden Hills WWTP outfall into Tom Sawyer Lake, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth, and shall construct any necessary conveyance and/or outfall infrastructure to deliver the water. The amount of water delivered shall be 28 acre-feet per</p>	<p>Less than Significant</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>year (the estimated flow rate of the Golden Hills WWTP outfall), unless a qualified hydrologist determines that a lesser rate would suffice to maintain the extent and depth of the lake. Input to the lake shall be continuous, except that flow augmentation may be suspended during periods when natural precipitation and conditions are adequate to maintain the lake at approximately maximum levels.</p> <p>Implementation of this measure could result in temporary or permanent impacts to existing vegetation to accommodate construction of necessary water pipes or outfall structure. These impacts would be limited to the minimum area feasible, and sensitive biological resources would be avoided.</p> <p><b>MM 4.3-8b Compensatory Mitigation for Loss of Aquatic Resources.</b> If alternative water cannot be found to maintain Tom Sawyer Lake even on a seasonal basis, mitigation for the loss of the land as wetlands shall be paid either through the use of an existing Wetlands Bank or through contribution of funds to a restoration effort equal to 3:1 of loss of acreage.</p>	
<p><b>Impact 4.3-10 (Options A, B-1, and B-2):</b> Disruption of wildlife movement corridors</p>	<p>None Required</p>	<p>Less than Significant</p>	<p>None Required</p>
<p><b>Impact 4.3-11 (Options A, B-1, and B-2):</b> Conflicts with any</p>	<p>None Required</p>	<p>Less than Significant</p>	<p>None Required</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance			
<b>Impact 4.3-12 (Options A, B-1, and B-2):</b> Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or related plan	No Impact	None Required	No Impact
<b>Cultural Resources</b>			
<b>Impact 4.4-1 (Options A, B-1, and B-2):</b> Substantial adverse change in the significance of a historical resource	Less than Significant	None Required	Less than Significant
<b>Impact 4.4-2 (Options A, B-1, and B-2):</b> Substantial adverse change in the significance of an archaeological resource	Significant	<b>MM 4.4-1</b> A qualified archaeological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that cultural resources are discovered during Project-related construction activities, all ground disturbances within a minimum of 100-feet of the find shall be halted until the designated monitor examines the find and evaluates its significance. The monitor shall examine	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>the resources, assess their significance, and recommend appropriate procedures to either further investigate or mitigate adverse impacts (e.g., adverse effect on a significant historical resource). If the find is determined to be a significant archaeological resource and cannot be avoided, then applicable mitigation measures for significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC 21083.2[i]). During evaluation of the significance of the identified resource, ground disturbance and construction work shall be permitted to continue on other parts of the Project alignment outside the designated buffer area determined by the monitor. A Cultural Resource Monitoring and Mitigation Plan shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if a cultural resource is inadvertently encountered. Further, the plan shall list the key contacts that must be notified if an inadvertent discovery occurs.</p>	
<p><b>Impact 4.4-3 (Options A, B-1, and B-2):</b> Destruction of a unique paleontological resource or site or unique geologic feature</p>	<p>Significant</p>	<p><b>MM 4.4-2</b> A qualified paleontological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that fossils or other paleontological resources are encountered during construction, all work shall be halted within a 100-foot</p>	<p>Less than Significant</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>until the designated monitor examines the find and evaluates its significance. If the find is deemed to have a significant scientific value, the monitor shall formulate a plan to either avoid impacts or to continue construction without disturbing the integrity of the find (e.g., by carefully excavating the material containing the resources under the direction of paleontologist followed by routine conservation, laboratory preparation, and curation). During evaluation of the significance of the identified resource, ground disturbance and construction work shall be permitted to continue on other parts of the Project alignment outside the designated buffer area determined by the monitor. A Paleontological Resource Monitoring and Mitigation Plan (PRMMP) shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if a paleontological resource is inadvertently encountered. Further, the plan shall list the key contacts that shall be notified if an inadvertent discovery occurs.</p>	
<p><b>Impact 4.4-4 (Options A, B-1, and B-2):</b> Disturbance of human remains</p>	<p>Significant</p>	<p><b>MM 4.4-3</b> A qualified archaeological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that human remains are discovered during the Project ground-disturbing activities, all work within a minimum of 100-feet of the</p>	<p>Less than Significant</p>



Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>discovery shall halt immediately. The monitor shall notify the County Coroner, as stipulated in Section 7050.5 of the California Health and Safety Code. The Coroner shall determine whether the remains are Native American and, if so, he/she shall contact the Native American Heritage Commission by telephone within 24 hours. The Commission shall follow the stipulations in Section 5097.98 of the California Public Resources Code, including the determination of a most-likely descendent. If the Commission is unable to identify a descendant, the descendant is unable to make a recommendation, or the landowner rejects the recommendation, the Commission shall mediate any dispute between the parties. Where such mediation fails to provide measures acceptable to the landowner, the landowner shall reinter the human remains and associated funerary items with appropriate dignity on the property, in a location not subject to further subsurface disturbance. A Cultural Resource Monitoring and Mitigation Plan shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if human remains are identified during construction activities. Further, the plan shall list the key contacts that must be notified if an inadvertent discovery occurs.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>Greenhouse Gas Emissions</b>			
<b>Impact 4.5-1 (Options A, B-1, and B-2):</b> Generating GHG emissions, either directly or indirectly, that may have a significant impact on the environment	Less than Significant	None Required	Less than Significant
<b>Impact 4.5-2 (Options A, B-1, and B-2):</b> Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs	Less than Significant	None Required	Less than Significant
<b>Hydrology and Water Quality</b>			
<b>Impact 4.6-1 (Options A, B-1, and B-2):</b> Violations of water quality standards or waste discharge requirements and/or otherwise substantially degrade water quality	Significant	<b>MM 4.6-1</b> The implementing agency shall execute a plan to address the water quality violations issued by the CRWQCB, and a ROWD shall be submitted to obtain a new WDR order. The implementing agency shall apply measures that ensure long-term compliance with the new WDR and the Cleanup and Abatement Order (R5-01-717) issued on July 3, 2001.	Less than Significant
<b>Impact 4.6-2 (Option A):</b> Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such	Less than Significant	None Required	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level			
<b>Impact 4.6-2 (Options B-1 and B-2):</b> Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level	Significant	Implement <b>MM 4.3-8a</b>	Less than Significant
<b>Impact 4.6-3 (Options A, B-1, and B-2):</b> Otherwise substantially degrade water quality	Significant/Refer to Impact 4.6-1	Implement <b>MM 4.6-1</b>	Less than Significant/Refer to Impact 4.6-1
<b>Impact 4.6-4 (Options A, B-1, and B-2):</b> Impede or redirect flood flows within a 100-year flood hazard area	Less than Significant	None Required	Less than Significant
<b>Land Use and Planning</b>			
<b>Impact 4.7-2 (Options A, B-1, and B-2):</b> Conflicts with any applicable land use plan,	Less than Significant	None Required	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect			
<b>Impact 4.7-2 (Options A, B-1, and B-2):</b> Conflict with any applicable habitat conservation plan or natural community conservation plan	Less than Significant	None Required	Less than Significant
<b>Noise</b>			
<b>Impact 4.8-1 (Options A, B-1, and B-2):</b> Exposure of persons to, or generation of, noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies	Less than Significant	None Required	Less than Significant
<b>Impact 4.8-2 (Options A, B-1, and B-2):</b> Exposure of	Less than Significant	None Required	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
persons to, or generation of, excessive groundborne vibration or groundborne noise levels			
<b>Impact 4.8-3 (Options A, B-1, and B-2):</b> Substantial temporary increase in ambient noise levels in the Project vicinity above levels existing without the Project	Less than Significant	None Required	Less than Significant
<b>Traffic and Transportation</b>			
<b>Impact 4.9-1 (Options A, B-1, and B-2):</b> Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways (pedestrian and bicycle paths and mass transit are addressed with Impact 4.9-5)	Less than Significant	None Required	Less than Significant
<b>Impact 4.9-2 (Options A, B-1, and B-2):</b> Conflicts with an	Less than Significant	None Required	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency or adopted county threshold for designated roads or highways			
<b>Impact 4.9-3 (Options A, B-1, and B-2):</b> Road hazards resulting from design features or incompatible uses	Significant	<b>MM 4.9-1</b> Prior to the issuance of building permits, the implementing agency shall obtain all applicable permits from the California Department of Transportation, County of Kern Public Works Department, Building and Development Division, and other applicable agencies pertaining to vehicle sizes, weights, roadway encroachment, and travel routes needed for construction activities. At a minimum, the implementing agency shall obtain an encroachment permit from the County of Kern Public Works Department, Building and Development Division for Option A and Option B, as applicable, for construction activities occurring in roads under their jurisdiction, as well as obtain an encroachment permit from the California Department of Transportation for Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, for construction activities occurring in SR-202. The implementing agency shall adhere to all	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>conditions of said permits throughout implementation of the Project.</p> <p><b>MM 4.9-2</b> Prior to the issuance of building permits, the implementing agency shall prepare and submit a Construction Traffic Control Plan to the County of Kern Public Works Department, Building and Development Division and to the California Department of Transportation for review and approval. The Construction Traffic Control Plan must be prepared in accordance with both the 2014 California Department of Transportation Manual on Uniform Traffic Control Devices and the 2014 Work Area Traffic Control Handbook. The Plan shall include, at a minimum, methods to address the following:</p> <ul style="list-style-type: none"> <li>• Designation of a traffic control coordinator, who shall be responsible for responding to local complaints about Project construction effects to traffic. The traffic control coordinator shall be required to implement measures to resolve the complaint, as feasible. Signs shall be posted along the Project’s construction and operations access routes and shall list the telephone number for the traffic control coordinator. The traffic control coordinator shall also be responsible for coordinating with the Kern County Fire Department, Tehachapi City Fire Department, Kern County Sherriff’s Department, California Highway Patrol, and City of Tehachapi</li> </ul>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Police Department during construction such that these agencies are aware of the location and duration of roadway construction activities and to provide an opportunity for agencies to pre-plan alternate routes in case of an emergency. Similarly, the traffic control coordinator shall be responsible for coordination with the Tehachapi Unified School District bus operators to assure alternate pick-up/drop-off locations are pre-planned for students residing in the Project area, as feasible, and/or to provide sufficient notice to students and parents to make alternate arrangements, if necessary.</p> <ul style="list-style-type: none"> <li>• Timing of construction activities and deliveries of equipment and building materials, as well as determining the need for construction work hours and arrival/departure times outside peak traffic periods;</li> <li>• Temporary closure of travel lanes or disruptions to street segments and intersections during materials delivery and construction activities;</li> <li>• Distribution of construction traffic flow across alternative routes to access the Project work areas;</li> <li>• Directing construction traffic with a flag person;</li> <li>• Placing temporary signage, lighting, and/or</li> </ul>	



Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		traffic control devices (i.e., cones) near work areas and along access routes to indicate the presence of construction activities, equipment, and workers; <ul style="list-style-type: none"> <li>• Ensuring regular and emergency access for vehicles in the Project work areas to adjacent residences and businesses; and</li> <li>• Identification of vehicle safety procedures for entering and exiting site access roads.</li> </ul>	
<b>Impact 4.9-4 (Options A, B-1, and B-2):</b> Inadequate emergency access	Significant	Implement <b>MM 4.9-1</b> and <b>MM 4.9-2</b>	Less than Significant
<b>Impact 4.9-5 (Options A, B-1, and B-2):</b> Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Significant	Implement <b>MM 4.9-2</b>	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>Utilities and Service Systems</b>			
<b>Impact 4.10-1 (Options A, B-1, and B-2):</b> Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	Refer to preceding sections of Table 1-2	Refer to Preceding Sections of Table 1-2/No Additional MM Required	Refer to preceding sections of Table 1-2

## 2.1 Purpose of the California Environmental Quality Act and California Environmental Quality Act-Plus Program

Approval and implementation of the Golden Hills Wastewater Treatment System Improvement Project (Project) requires that the designated Lead Agency evaluate the Project's potential environmental impacts, pursuant to CEQA. In accordance with CEQA Guidelines Section 15367, the GHCSO is the Lead Agency under CEQA for the Project and has the principal responsibility for carrying out or approving the Project and conducting the environmental review. The GHCSO determined through the IS/NOP process that a Project EIR must be prepared for the proposed Project. As such, this EIR is prepared to fulfill the requirements of CEQA (PRC Sections 21000-21189) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Sections 15000-15387). This EIR is an objective informational document that will be used by decision-makers during the Project environmental review and approval process; it makes no recommendations for or against approval of the Project.

In addition, the GHSC and/or GHCSO are seeking funding to support this Project from the SWRCB's State Revolving Fund (SRF) Loan Program. The SRF loan process must meet the requirements of both CEQA and the National Environmental Policy Act (NEPA). NEPA is triggered, because the SRF Program is partially funded by the United States Environmental Protection Agency (EPA). In addition, the GHCSO may secure Federal funds for construction from the United States Department of Agriculture (USDA), United States Department of Housing and Urban Development (HUD), or other agencies. The SWRCB refers to the combined NEPA and CEQA process as "CEQA-Plus." As its name implies, CEQA-Plus uses CEQA as its compliance base; however, as there is also a Federal nexus for such projects (due to USEPA funding), CEQA-Plus environmental compliance documents also address a compendium of Federal regulations (SWRCB 2005).

There are two levels of CEQA-Plus documentation, Tier I and Tier II. Tier I is used where potentially significant impacts may occur. The Tier I process includes analysis of a list of Federal regulations, and Federal agencies review the documentation. Tier II is used where potentially significant impacts are not anticipated, and detailed review of the list of Federal regulations is not necessary. With Tier II projects, the SWRCB may review the CEQA-Plus documentation on behalf of Federal agency(ies). As the GHCSO anticipated that the Project may have the potential to result in significant environmental impacts, it followed a Tier I CEQA-Plus review process and prepared a Project EIR. The EIR focuses on those issues that may have the potential to result in

significant impacts; other issue areas were reviewed in the IS and were not carried forward in the EIR (refer to Appendix A).

In addition to preparing a CEQA-Plus document, the SWRCB's CEQA-Plus process requires compliance with the following Federal regulations and/or topics:

- Clean Air Act (CAA);
- Coastal Barriers Resources Act;
- Coastal Zone Manager Act;
- Endangered Species Act (ESA);
- Environmental Justice;
- Farmland Protection Policy Act;
- Flood Plain Management;
- National Historic Preservation Act (NHPA);
- Magnuson-Stevens Fishery Conservation and Management Act;
- Migratory Bird Treaty Act (MBTA);
- Protection of Wetlands;
- Safe Drinking Water Act, Sole Source Aquifer Protection; and
- Wild and Scenic Rivers Act.

These Federal regulations are identified in the SWRCB's Environmental Package that is a component of their Financial Assistance Application to the Clean Water SRF (SWRCB 2014). As discussed in the IS/NOP (refer to Appendix A), the following Federal regulations and/or topics from the list above do not apply to the Project and are not evaluated in this EIR:

- Farmland Protection Policy Act;
- Coastal Barriers Resources Act;
- Coastal Zone Manager Act;
- Magnuson-Stevens Fishery Conservation and Management Act;
- Safe Drinking Water Act, Sole Source Aquifer Protection;
- Wild and Scenic Rivers Act; and
- Environmental Justice.

Though initially scoped out of the analysis by the IS/NOP, the Flood Plain Management Act is addressed in this EIR, in response to public comments submitted on the IS/NOP. Please refer to the CEQA-Plus Evaluations provided in this document for information and analysis of the remaining Federal regulations and their applicability to the Project.

## 2.2 Terminology

To assist reviewers in understanding this EIR, the following terms are defined:

- *Project* means the whole of an action that has the potential for resulting in a physical change in the environment, directly or ultimately.
- *Environment* means the physical conditions that exist in the area and that would be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved is where significant direct or indirect impacts would occur as a result of the project. The environment includes both natural and artificial conditions.
- *Impacts* analyzed under CEQA must be related to a physical change. Impacts are:
  - direct or primary impacts that would be caused by the proposed project and would occur at the same time and place; or
  - indirect or secondary impacts that would be caused by the proposed project and would be later in time or farther removed in distance but would still be reasonably foreseeable. Indirect or secondary impacts may include growth-inducing impacts and other effects related to induced changes in the pattern of land use; population density or growth rate; and related effects on air and water and other natural systems, including ecosystems.
- *Significant impact on the environment* means a substantial, or potentially substantial, adverse change in any of the physical conditions in the area affected by the proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. An economic or social change by itself is not considered a significant impact on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.
- *Mitigation* consists of measures that avoid or substantially reduce the proposed project's significant environmental impacts by:
  - avoiding the impact altogether by not taking a certain action or parts of an action;
  - minimizing impacts by limiting the degree or magnitude of the action and its implementation;
  - rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
  - reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
  - compensating for the impact by replacing or providing substitute resources or environments.
- *Cumulative impacts* are two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts. The following statements also apply when considering cumulative impacts:
  - The individual impacts may be changes resulting from a single project or separate projects.
  - The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

This EIR uses a variety of terms to describe the level of significance of adverse impacts. These terms are defined as follows:

- *Less than significant.* An impact that is adverse but that does not exceed the defined thresholds of significance. Less-than-significant impacts do not require mitigation.
- *Significant.* An impact that exceeds the defined thresholds of significance and would or could cause a substantial adverse change in the environment. Mitigation measures are recommended to eliminate the impact or reduce it to a less-than-significant level.
- *Significant and unavoidable.* An impact that exceeds the defined thresholds of significance and cannot be eliminated or reduced to a less-than-significant level through the implementation of mitigation measures.

## 2.3 Decision-Making Process

The Lead Agency is required by CEQA to fully disclose the anticipated environmental consequences of the proposed Project, as well as to provide the public with an opportunity to comment on the Project. Public participation throughout the decision-making process of this Project involved the following steps:

- *Initial Study/Notice of Preparation.* The GHCS D prepared and circulated an IS/NOP for 30 days to responsible, trustee, and local agencies and additional individuals for review and comment on January 6, 2016. The IS/NOP and responses to the NOP are included in Appendix A of this EIR. In addition to the IS/NOP, the GHCS D held a scoping meeting on January 23, 2016 to solicit public comments on the scope of the EIR.
- *Draft EIR Preparation.* A Draft EIR is circulated for review and comment to appropriate agencies and additional individuals and interest groups who have requested to be notified of EIR projects. Per Section 15105 of the CEQA Guidelines, the Lead Agency provides for a 45-day public review period on the Draft EIR. The GHCS D will subsequently respond to each comment on the Draft EIR received in writing through a Response to Comments chapter in the Final EIR, which will be provided at a minimum of ten days prior to the final hearing.
- *Preparation and Certification of Final EIR.* The GHCS D Board will consider the Final EIR and the Project, taking into account all public comments. At the hearing, the Board will consider the Final EIR, take public testimony, and then approve or deny the Project, as well as decided to certify the Final EIR or not.

## **Initial Study/Notice of Preparation (IS/NOP)**

In compliance with Section 15063 of the CEQA Guidelines, the GHCS D prepared an IS to determine whether the Project may have a significant effect on the environment. The GHCS D prepared the accompanying NOP in accordance with Section 15082 of the CEQA Guidelines to inform the public of the forthcoming EIR to be prepared by the GHCS D. The IS/NOP was circulated to the State Clearinghouse; responsible, trustee, and local agencies; and additional individuals for public review from January 6, 2016 through February 5, 2016. The IS/NOP and associated comment letters are provided in Appendix A to this EIR.

## **Scoping Meeting**

In accordance with Sections 15082 and 15206 of the CEQA Guidelines, the Lead Agency is required to conduct at least one scoping meeting for projects of Statewide, regional, or area-wide significance. To solicit additional comments on the IS/NOP and scope of the EIR from the public, the GHCS D hosted a scoping meeting on Saturday, January 23, 2016 at 10:00 am at the GHCS D located at 21415 Reeves Street, Tehachapi, CA 93561.

## **IS/NOP and Scoping Meeting Results**

The GHCS D received 27 verbal questions or comments from the public at the January 23, 2016 scoping meeting from various interested parties regarding concerns over the proposed Project. The IS/NOP and all comments received, both verbally and in writing, are included, in Appendix A, along with the Summary of Proceedings from the Scoping Meeting.

## **IS/NOP Written Comments**

Table 2-1 summarizes the written comments that the GHCS D received in response to the IS/NOP.

**Table 2-1 Summary of IS/NOP Written Comments**

Commenter	Summary of Comments
Adrian Maaskant	States that Option B is not viable, because the City of Tehachapi has declined to engage in discussions regarding this option and receiving the wastewater.
Arturo Manuel, Jr., CA Environmental Technologies, Inc.	Includes a letter of intent to undertake the rehabilitation and/or expansion of the wastewater system, as well as the operations and maintenance of the WWTP, should the County express interest. Requests an expanded discussion of the former Brite Creek dam. States that Project manhole work should include those in Woodford-Tehachapi Road. Requests that governance of Option B be addressed and responsibilities of the GHCS and City of Tehachapi are defined. States that the City of Tehachapi WWTP only produces secondary-treated effluent and is in need of upgrades. States that individuals with an agenda are those that suggest only Option B will not result in the red tagging of homes and that the EIR should rely on disinterested experts to evaluate the ability of the current facility to provide service.
Scott Hatton, Central Valley Regional Water Quality Control Board	States the Central Valley RWQCB is a responsible agency under CEQA for the Project. States enough information must be provided for the Central Valley RWQCB to determine Project compliance with State Water Board Resolution 68-16, and that characterizations of waste and wastewater streams, receiving water quality, and discharges must be provided. States that Waste Discharge Requirements (WDR) Order 81-122 that regulates the WWTP and its discharge of tertiary treated wastewater is no longer representative of the discharge and is due for revision and that a Report of Waste Discharge (ROWD) would be required. Option B would require the new owner of the sanitary sewer system to submit a notice of intent for coverage under the SWRCB Order 2006-003-DWQ to change the privately owned system to one that is publically owned. States that option B is the best alternative for meeting the intent of the Tulare Lake Basin Plan policies. States that the Project may require a National Pollutant Discharge Elimination System (NPDES) General Permit and associated Storm Water Pollution Prevention Plan (SWPPP), as well as CWA Sections 401 and 404 permitting from the Central Valley RWQCB and U.S. Army Corps of Engineers (USACE), respectively.
Dave Warner	States that fresh water and irrigation should be added to the Project Description and shown on figures. States that the Option B lift station would require RWQCB approval, and that lights or odors associated with the lift station should be considered. State the economic impacts and utility rates be considered in the EIR. States the loss of water to Tom Sawyer Lake as a recreational use should be considered in the EIR.
David Stegall	The commenter has been the license operator at the GHSC facility since 2012, employed by the Receiver. States that little money and rehabilitation are necessary to allow the facility to continue operating in compliance with health, safety, and environmental requirements. The commenter states the accomplishments that have occurred at the lift station, treatment plant, and collection system in the 4 years since the facility entered receivership. States that many of the deficiencies inherited from previous management and those listed by AECOM have been addressed. Inquiries after several aspects of Option B, including capacity of



Commenter	Summary of Comments
	the force main, excess capacity, which customers and stand-by customers the force main would serve, and whether properties within 200 feet of existing sewer lines that empty into the force main would be required to connect to those sewer lines. Requests evaluation of a return line from the City of Tehachapi to Tom Sawyer Lake under Option B to mitigate the loss of water supply to the Lake.
Gayle Rosander, CA Department of Transportation, Region 9, Local Development – Intergovernmental Review	States that crossing SR 202 for Option B requires an encroachment permit and construction traffic control. Requests that this permit be added to the Project Description section lists of required Project approvals. Provides contact information and website addresses for further assistance regarding utility permitting. States that on IS/NOP figures, the base maps incorrectly label SR 202 as W. Tehachapi Boulevard north of Red Apple Avenue and that W. Tehachapi Boulevard is the road segment on the east side of Tucker Road.
Georgette Theotig	States that wildlife utilize Tom Sawyer Lake and that either Project Option may adversely affect the Lake. Requests that either Option include water quality improvements for the Lake. Requests that the Golden Hills property adjacent to Tom Sawyer Lake be protected for its open space value to passive recreationists. Requests that water quality and the aesthetics value of the Golden Hills property be considered in the EIR. Inquiries as to whether Option B would enable the City of Tehachapi Wastewater Treatment Plan to become a regional plan and position the City for growth. Inquires as to whether the GHCSO or County is liable if the GHCSO faces legal action regarding the wastewater treatment improvements in the future.
Glenn Baumann	States that there is an ongoing odor issue with the City of Tehachapi WWTP, that Option B would add to the problem, and that this should be addressed in the EIR. States that negative impacts to biological resources would remain as a result of Option A and maintaining the existing 12-inch collection system line in the Brite Creek area. States that groundwater quantity and quality should be evaluated for both Options A and B, with specific requests for groundwater monitoring well and consideration of lining Tom Sawyer Lake. States that if Option B is selected, there is no agreement in place to control the number of initial sewer hookups and possible future connections that would be available to residents, and that when Assembly Bill (AB) 885 is enforced, residents may be displaced. Therefore, the commenter states that Population and Housing should be evaluated in the EIR. States that the EIR should evaluate cumulative impacts as well as include an evaluation of economic impacts and all engineering studies as appendices. Requests clarification of how non-sewer customers would not end up subsidizing the small number of customers currently connected to the system.
Jeannine Giuffre	States use of the Woodford Tehachapi Property for recreation and objection to Option B. States that Option B would negatively affect the aesthetics of the area, that the Lake provides habitat to birds, and that removing the supply of water to the Lake removes a valuable resource in the community.
Ken and Betty Finch	States concern over keeping the area open to equestrian use and associated access to a staging area large enough to park more than one

Commenter	Summary of Comments
	truck and a horse trailer.
Warren D. Maxwell, Kern County Public Works Department, Building and Development Division	States that Project construction must be coordinated with neighboring projects to avoid traffic conflicts, the implementing agency must enter into a secured agreement with Public Works to ensure that roads damages by Project construction are repaired or reconstructed, that a Traffic Control Plan (TCP) is provided, that Encroachment Permits are obtained, that Transportation Permits for heavy loads are obtained if necessary, and that the California Department of Transportation (Caltrans) is contacted regarding the Project.
Aaron Leicht by Jason Scheer, Kern County Public Works Department, Floodplain Management Section	No comments regarding the Project based on the information supplied.
Greg Fenton, Kern County Public Works Department, Building and Development Division	States that one of the potential solutions is for the Kern County Board of Supervisors to become responsible for ownership of the system and create a County Service Area to obtain funds for ongoing operations and maintenance of the plant and collection system, which would be a discretionary action by the Board of Supervisors. The Board of Supervisors has not held hearings on the matter or made commitments or provided direction to staff to ask for ownership.
Rebecca Moore, Kern County Local Agency Formation Commission	States that Option B entails the City of Tehachapi providing services outside its boundary, and that the ownership of the treatment plant or lift station, depending on the selected alternative, should be addressed. States that the Option B lift station would be owned by the City of Tehachapi and the City of Tehachapi may choose to annex the property on which the lift station is located.
Lorretta Turner	States concern over Option B and that Tom Sawyer Lake is a wetland. States that if Tom Sawyer Lake only receives rain water, it would be dry on many a year. States that due to improvements around Tom Sawyer Lake and the sewer water going to it, the Lake looks great again.
Anonymous	Asks whether the roads that are dug up for pipeline installation will be properly fixed.
Arnaud Marjollet and Sharla Yang, San Joaquin Valley Air Pollution Control District	Recommends that the emissions analysis include a discussion of criteria pollutants, nuisance odors, and health impacts, as well as discuss methodology, model assumptions, inputs, and results used to characterize air quality impacts. Recommends that the model outputs be appended to the EIR, and that the EIR discuss emissions projections of the Project components, include mitigation measures, and evaluate the effective of the measures, and that cumulative impacts be addressed. Requests that the EIR include a discussion of the Districts' rules and regulations.
Scott Morgan, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	Provides the NOP and a courtesy notice reminding reviewing agencies to comment in a timely manner.
Sahil Pathak, State Water Resources Control Board	Acknowledges that the GHCSO is pursuing SRF financing for the Project and that the SWRCB administers the SRF Program to implement the CWA and various State laws. Provides website addresses where SRF loan information, applications, and forms are located. States that the SRF

Commenter	Summary of Comments
	Program is partially financed by the EPA and requires additional CEQA-Plus environmental documentation and review, including SWRCB consultation with agencies and reviews to assure compliance with Federal regulations (such as the ESA and NHPA). Provides the website address where the SRF Program Environmental Package is located, which lists the requirements pertinent to the Project. Requests a copy of the draft CEQA document to review.
Steve Miller	Asserts several corrections to information in the IS/NOP related to recent upgrades of the wastewater system and updates related to various stakeholder roles. States that RWQCB orders for water reclamation are the responsibility of the GHCSO not the GHSC and that securing a source of fresh water for Tom Sawyer Lake for Option B, as well as creating a flow through system to irrigate the Woodford Tehachapi Property, should be part of the EIR. States that the Option B lift station would represent visual blight and also be located in a flood plain with a high water table. States that the wilderness area is a recreational asset to the community and that GHCSO acquisition of the Woodford Tehachapi Property and its impact to recreation should be fully addressed in the EIR. States that Geology and Soils should be analyzed in the EIR.
Tim Ludwick, United States Fish and Wildlife Service, San Joaquin Valley Division	No comment on the NOP.

## 2.4 Availability of the Draft EIR

This Draft EIR is being distributed directly to agencies, organizations, and interested groups and persons for comment during a 45-day review period. This Draft EIR and the full administrative record for the Project, including all studies, is available for review during normal business hours Monday through Friday at the GHCSO and the Kern County Planning and Community Development Department, located at:

Golden Hills Community Services District  
21415 Reeves Street  
Tehachapi, CA 93561

Kern County Planning and Community Development Department  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301-2370  
Phone: (661) 862-8600

The Draft EIR can also be viewed online at: <http://ghcsd.com/> and <http://pcd.kerndsa.com/planning/environmental-documents>.

## 2.5 Format and Content

This Draft EIR addresses the potential environmental effects of the proposed Project and was prepared following input from the public and the responsible and affected agencies through the EIR scoping process as discussed previously. The contents of this Draft EIR were established based on the findings in the IS/NOP and public and agency input. Based on the findings of the IS/NOP, a determination was made that an EIR was required to address potentially significant environmental effects on the following resources:

- Aesthetics (Scenic Vistas)
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems

### Required EIR Content and Organization

This Draft EIR includes sections required by Article 9 of the CEQA Guidelines. Table 2-2 contains a list of these sections with a corresponding reference to the chapter in which they can be found in this document.

**Table 2-2 Required EIR Contents**

<b>Required CEQA Section per CEQA Guidelines</b>	<b>Location in EIR</b>
Table of Contents (Section 15122)	Table of Contents
Summary (Section 15123)	Chapter 1
Introduction	Chapter 2
Project Description (Section 15124)	Chapter 3
Environmental Setting (Section 15125)	Chapter 4
Environmental Impacts (Section 15126)	Chapter 4
Significant Environmental Impacts (Section 15126.2)	Chapter 4
Cumulative Impacts (Section 15130)	Chapters 1, 3, and 5
Growth-inducing Impacts (Section 15126.2)	Chapters 1 and 5
Effects Found Not to be Significant (Section 15128)	Chapters 1 and 5, Appendix A
Significant Irreversible Changes (Section 15126.2)	Chapters 1 and 5
Unavoidable Significant Environmental Impacts (Section 15126.2)	Chapters 1, 4, and 5
Mitigation Measures (Section 15126.4)	Chapters 1 and 4
Alternatives to the Proposed Project (Section 15126.6)	Chapters 1 and 6
Responses to Comments	Chapter 7
Organizations and Persons Contacted	Chapter 8
List of Preparers (Section 15129)	Chapter 9
Bibliography (Section 15129)	Chapter 10
Acronyms and Abbreviations	Chapter 11

The content and organization of the sections of this Draft EIR are further detailed below.

- Chapter 1, “Executive Summary,” provides a Project overview and a summary of the environmental impacts and mitigation measures, where applicable.
- Chapter 2, “Introduction,” provides CEQA compliance information, an overview of the decision-making process, organization of the EIR, and a responsible and trustee agency list.
- Chapter 3, “Project Description,” provides a detailed description of the location, components, and objectives of the Project.
- Chapter 4, “Environmental Setting, Impacts, and Mitigation Measures,” contains a detailed environmental analysis of the existing conditions, regulatory setting, thresholds of significance, Project impacts, mitigation measures, and unavoidable adverse impacts.
- Chapter 5, “Consequences of Project Implementation,” presents an analysis of the Project’s cumulative and growth-inducing impacts and other CEQA requirements, including significant and unavoidable impacts and irreversible commitment of resources.

- Chapter 6, “Alternatives,” describes a reasonable range of alternatives to the Project that could reduce the significant environmental effects of the Project.
- Chapter 7, “Responses to Comments” includes the comments received on the Draft EIR and provides responses to those comments.
- Chapter 8, “Organizations and Persons Consulted,” lists the organizations and persons contacted during preparation of this Draft EIR.
- Chapter 9, “Preparers,” identifies persons involved in the preparation of the Draft EIR.
- Chapter 10, “Bibliography,” identifies reference sources for the Draft EIR.
- Chapter 11, “Acronyms and Abbreviations” explains those acronyms and abbreviations used throughout the EIR.
- Appendices provide information and technical studies that support the environmental analysis contained within the Draft EIR.

The analysis of each environmental category in Chapter 4 is organized as follows:

- “Introduction” provides a brief overview on the purpose of the section being analyzed with regards to the proposed Project.
- “Environmental Setting” describes the physical conditions that exist at this time and that may influence or affect the topic being analyzed.
- “Regulatory Setting” provides State and Federal laws and the Kern County General Plan goals, policies, and implementation measures that apply to the topic being analyzed.
- “Impacts and Mitigation Measures” discusses the impacts of the Project in each category, the applicable thresholds of significance, the determination of the level of significance, and a discussion of feasible mitigation measures to reduce any impacts.

## 2.6 Responsible and Trustee Agencies

The actions of the GHCSO, as Lead Agency, taken in support of the Project would require the review, approval, or permitting actions by other public agencies prior to implementation. These responsible or trustee agencies are defined by Sections 15381 and 15383 of the CEQA Guidelines as follows:

Responsible agencies are public agencies that propose to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. Under CEQA, a responsible agency is a public agency, other than the Lead Agency, that has discretionary approval power over a project.

Trustee agencies are State agencies that have jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. Specifically, these agencies include the California Department of Fish and Wildlife (CDFW), State Lands Commission, State Department of Parks and Recreation, and the University of California.

The agencies and jurisdictions with an interest in the proposed Project and/or discretionary power over the proposed Project include those listed below.

## Federal Agencies

- EPA
- U.S. Fish and Wildlife Service (USFWS)
- USDA
- HUD
- National Park Service – National Register of Historic Places (NRHP)

## State Agencies

- SWRCB
- California Air Resources Board (ARB)
- California Highway Patrol
- Caltrans, District 9
- Department of Conservation
- CDFW
- Department of Water Resources (DWR)
- Governor’s Office of Planning and Research
- Native American Heritage Commission (NAHC)
- California State Parks - Office of Historic Preservation

## Regional/Local Agencies

- RWQCB – Central Valley Region
- GHCSO
- Eastern Kern Air Pollution Control District (EKAPCD)
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- City of Tehachapi
- Kern County Public Works Department
- Kern County Planning and Community Development Department

## 2.7 Sources

The Draft EIR is dependent upon information from many sources. Some sources are studies or reports that have been prepared specifically for this document and that are included in the EIR appendices. Other sources provide background information related to one or more issue areas that are discussed in this document. The sources and references used in the preparation of this

Draft EIR are listed in Chapter 9, Bibliography, are part of the administrative record of this Project, and are available for review during normal business hours at the:

Golden Hills Community Services District  
21415 Reeves Street  
Tehachapi, California 93561

Kern County Planning and Community Development Department  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301-2370  
Phone: (661) 862-8600



# Chapter 3

## Project Description

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### 3.1 Project Overview

The privately constructed and managed GHSC was constructed over a period of years in the early 1980s to provide sewer service to approximately 325 connections for residential lots and some commercially designated parcels. The system is currently in receivership. There are 185 existing connections that are serviced by the facility on lots varying from approximately 4,000 square feet to 3.8 acres with capacity for another 145 connections. The lots are in the unincorporated area of Kern County and land use is managed by the GTASCP area and are zoned either E 1/4 (Estate - Min. ¼ acre lot size), E 2.5 (Estate – Min. 2.5 acre lot size), R-1 (Low Density Residential), R-3 PD (High Density Residential – Precise Development Combining), C-2 PD (General Commercial – Precise Development Combining), or MS (Mobilehome Subdivision). The GHSC requires improvements and/or changes to their wastewater system in order to comply with existing regulations. Some of these existing regulations are contained within the existing Waste Discharge Requirements (Order Number 81-122), while others have been adopted after the original wastewater system was placed into service, in part, when the Golden Hills WWTP was originally commissioned in 1984.

The GHSC was formed as a private California corporation to provide wastewater collection and treatment services to a small portion of the Golden Hills community that was unable to support the use of septic systems due to the lot sizes. The GHSC filed a Report of Waste Discharge with the California RWQCB in conjunction with GHCS D for treatment and disposal of a peak flow rate and permitted capacity of 200,000 gpd, or 0.2 mgd. An Agreement to construct the Golden Hills WWTP was executed by GHCS D, GHSC, adjoining landowners, Golden Hills Country Club, County Club Estates, Golden Hills Land Company, and Golden Highlands Manufactured Home Estates on March 22, 1983. The Golden Hills WWTP construction was completed in 1984 and has remained in service without significant modifications, since then.

According to the Golden Hills Wastewater System Preliminary Engineering Report/Feasibility Study, the GHSC entered into an agreement (District Agreement) with the GHCS D in 1980 to build a wastewater treatment plant on land owned by the GHCS D. The GHSC operated the Golden Hills WWTP and collection facilities from 1989 until March 2012 (AECOM 2014). Until 2001, the District Agreement anticipated that GHCS D would acquire the wastewater facility. However, in 2001, the GHCS D quitclaimed the real property and sewer system to GHSC. Since 2001, the GHSC has been the sole provider of sewer service in the Golden Hills Community. At the request of the California Public Utilities Commission (CPUC) in 2012, a Receiver was appointed by the Kern County Superior Court and Receiver Reports have been issued for public review (Appendix B).

The average flow at the treatment plant is currently 25,000 to 30,000 gpd, or 0.03 mgd. The WWTP has a maximum 30-day average dry weather flow limit of 0.20 mgd, in accordance with Waste Discharge Requirements 81-22.

This Chapter provides a description of the existing Golden Hills Wastewater Collection and Treatment System, as well as details of the two proposed Project options.

Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads according to the plant's rated capacity. Option B would include installation of a lift station and 4-inch diameter force main pipeline to the City of Tehachapi WWTP at Tucker Road and Red Apple Avenue for effluent treatment and disposal. The route for the force main would be entirely within either GHCSO property or public right-of-way, and the Golden Hills WWTP would be decommissioned.

The purpose of evaluating two options for the proposed Project in this Environmental Impact Report is to inform decision makers of the potential environmental impacts associated with both Option A and Option B as early in the CEQA-Plus process as possible.

## 3.2 Project Location and Setting

The Project is located in the unincorporated Kern County community of Golden Hills, which is located in the Tehachapi Mountains between the San Joaquin Valley and the Mojave Desert immediately west of the City of Tehachapi (refer to Figure 1-1). The community of approximately 8,600 residents (as of the 2010 U.S. Census) encompasses approximately 12 square miles at an approximate elevation of 3,900 feet above mean sea level. The Golden Hills WWTP is located at Monroe Lane-Utility Extension, Old Camp Road in a portion of Section 7, T32S, and R33E (referenced from the Mount Diablo Base and Meridian, or MDB&M), on approximately 0.5 acres, approximately 5 miles west of the City of Tehachapi. The community served by the GHSC plant has 185 existing connections. The City of Tehachapi was incorporated in 1909 and has a property boundary of 6,400 acres and a population of 13,258, as of 2013 census update.

## 3.3 Existing Golden Hills Wastewater Collection and Treatment System

Currently, the Golden Hills Wastewater Treatment System consists of the sewage collection system and the WWTP. Tertiary-treated effluent is conveyed to and discharged into Tom Sawyer Lake. The Golden Hills Waste Water Treatment System currently has 185 active connections, or customers, with a potential for an additional pre-paid 145 standby connections. Project development in the community was not completed as expected and resulted in extremely low

wastewater flow rates. In turn, the Golden Hills WWTP often did not operate as expected. In addition, a wash-out of Brite Creek dam during a heavy storm year stopped the anticipated flow of freshwater into Tom Sawyer Lake. Since nearly all of the water supply to Tom Sawyer Lake is now treated effluent and the previously anticipated freshwater inflow is no longer present, total dissolved solids concentrations (salts) in the lake and surrounding sediments exceed planned levels and continues to increase over time.

The Golden Hills WWTP is continuing to operate within the revenue provided by the rates last set by the CPUC in early 2012. Due to the efforts of the Golden Hills WWTP operators, customers continue to receive critical sewer services. The current Golden Hills Wastewater Treatment System consists of the collection system, treatment system (Golden Hills WWTP), conveyance system, and disposal system (Tom Sawyer Lake).

## Collection System

The collection system contains approximately 5,330 linear feet of 12-inch diameter gravity sewer line; 11,045 feet of 8-inch diameter gravity sewer line; and 9,685 feet of 6-inch gravity line; totaling 26,060 linear feet of piping. The collection system is served by a lift station located on Woodford Tehachapi Road just south of White Pine Drive (shown on Figure 1-2 and 1-3 in Chapter 1, Executive Summary). The station pumps sewage through 535 feet of 6-inch force main in Woodford Tehachapi Road southerly to the 8-inch gravity main also in Woodford Tehachapi Road. The 8-inch gravity main conveys flow to the 12-inch gravity main that flows from Woodford Tehachapi Road across the GHCSO-owned Woodford Tehachapi Property (previously known and used as the Golden Hills Golf Course) to the Golden Hills WWTP. Most of the collection system is served by the lift station. There are two gravity connections to the 12-inch main after the lift station; the first is an 8-inch main from the south serving the motel and future development behind the motel and the second is an 8-inch connection just downstream of Tom Sawyer Lake. The system has a history of sanitary sewer overflows related to the lift station. Even with recently installed new equipment and a substantial electrical upgrade, the existing lift station could present problems for either Option A or Option B.

## Treatment Plant

The Golden Hills WWTP, shown in Figure 3-1, is permitted as a Class III wastewater treatment facility and is located on a 0.53-acre site. The Golden Hills WWTP is located east of the northeast terminus of Monroe Lane in the unincorporated community of Golden Hills and is immediately surrounded by natural areas and Brite Creek. Residential lots are located west, south, and east of the WWTP at higher elevations than the WWTP. The WWTP site is designated 8.2/2.5/2.7 (Resource Reserve – min. 20- or 80- acre parcel size/ Flood Hazard/Liquefaction Risk) by the GTASCP, with the immediate surrounding land being comprised of additional 8.2 designations and the designations of 5.4 (Max. 4 Units/Net Acres), 5.5 (Max. 1 Unit/Net Acre), 5.6 (Max. 2.5 Gross Acres/Unit), and 3.1 (Public or Private Recreation

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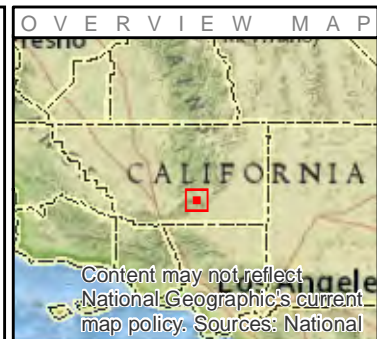
**EQUIPMENT LIST**

- |   |  |
|---|--|
| ① GRIT CHAMBER/FLOWMETER VAULT              | ⑧ STORAGE / SHOP                                 |
| ② SLUDGE TRAILER                            | ⑨ STANDBY GENERATOR (NOTE 3)                     |
| ③ FLOW EQUALIZATION TANKS                   | ⑩ EMERGENCY OVERFLOW BASIN (NOT PERMITTED)       |
| ③.5 AEROBIC DIGESTER                        | ⑪ SMALL EMERGENCY OVERFLOW BASIN (NOT PERMITTED) |
| ④ AERATION TANKS (ACTIVATED SLUDGE PROCESS) | ⑫ WET WELL / VALVE BOX                           |
| ⑤ CLARIFIER CHAMBERS                        |  |
| ⑥ SLUDGE HOLDING TANK                       |  |
| ⑦ OFFICE / LAB BUILDING                     |  |



**NOTES:**

1. IN THE PAST, PARTIALLY TREATED EFFLUENT OVERFLOWED INTO ⑩ AND RETURNED BACK TO ③ USING A PORTABLE PUMP. ③ TO UNDERGO FULL TREATMENT PRIOR TO REUSE.
2. SLUDGE (SOLIDS) ARE WASTED FROM ⑤ AND SUBSEQUENTLY TREATED IN ③.5. AFTER DIGESTION, BIOSOLIDS ARE STORED IN ⑤ OR ② POLYMER IS ADDED TO THE BIOSOLIDS PRIOR TO STORING IN ②.
3. EXISTING GENERATOR IS LOCATED INSIDE BUILDING. WE RECOMMEND RELOCATING IT OUTSIDE.



Scale: 1:1,175

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**Golden Hills  
Community Services District**

**Golden Hills  
Wastewater  
Treatment Plant**

Sources:  
Kern County (2014), Esri (2014)

Date: 1/20/2016 | Project: 60317952

**AECOM** Figure 3-1

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Areas) to the south, east, and west. The WWTP site and the immediate surrounding area is classified as RF (Recreational Forestry) by the Kern County Zoning Ordinance, with E (Estate) of varying lot sizes (1/4, 1/2, and 1) to the south, east, and west.

The treatment facilities include the following process:

- a bar screen,
- two flow equalization basins;
- twelve extended aeration activated sludge components;
- two sedimentation basins;
- a wet well;
- a filter pump station;
- a vertical pressure automatic backwashing sand filter (which has been recently returned to service);
- a chlorination disinfection system; and
- an aerobic digester.

The existing treatment system is 30 years old and has suffered in the past from lack of consistent maintenance. The typical useful life of wastewater treatment equipment and facilities is about 10 to 20 years for mechanical (moving) equipment and 30 to 50 years for structures (depending on material, environment, and how the structure has been maintained), before significant repairs and or replacement are required.

The flow equalization, extended aeration activated sludge, and sedimentation tanks are configured into two treatment trains but only one train is operating due to low flows. Parts from one train have been used to keep the other train in service.

The plant has a rated capacity of 100,000 gpd (0.10 mgd) when all components are operational. However, currently approximately 30,000 gpd (0.03 mgd) of tertiary-treated effluent is processed at the plant and is discharged into Tom Sawyer Lake on a daily basis. The plant was designed and built to provide tertiary-level treatment. However, throughout the years, there have been times when the effluent was only treated to a secondary level with chlorination. The filter was rehabilitated in November 2014, and the plant is currently providing tertiary-treated effluent from the plant to Tom Sawyer Lake, as originally intended.

## 3.4 Proposed Project

The GHSC is reviewing solutions on how the maintenance of the wastewater system can be maintained for the existing residences and owners of vacant lots who expect to be able to build. The Golden Hills Wastewater System PER/FS analyzed two options and identified the most cost effective sewer service solutions for the existing GHSC customers (AECOM 2014). The purpose of evaluating two options for the proposed Project in this EIR is to provide a comprehensive

analysis and inform decision makers of the potential environmental impacts associated with both Option A and Option B.

Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads according to the plant's rated capacity. Option B would include installation of a lift station either on the site of the decommissioned WWTP or another location and 4-inch diameter force main pipeline to the City of Tehachapi WWTP at Tucker Road and Red Apple Avenue for effluent treatment and disposal. The route for the force main would be entirely within either GHCSO property or public right-of-way, and the Golden Hills WWTP would be decommissioned. Below, the components of the Project that are common to Option A and Option B are discussed, followed by a description of the details specific to Option A and Option B.

## **System Improvements Required with Either Option A and Option B**

Prior to implementing either Option A or B, repairs and renovation of specific existing segments and structures are required of the existing collection system. These necessary upgrades are described below.

Preliminary inspections of the collection system identified sewer line segments and structures that were insufficient or non-functioning and need to be repaired or replaced to assure the level of service required. Within the residential areas of the GHSC, approximately 1,830 linear feet of 8-inch pipe, 585 linear feet of 6-inch pipe, and 27 manholes would require significant repair and replacement. Trenching for this work would be at an average depth of 6 feet and the construction work corridor would be approximately 30 feet wide. The work would be in existing roads and road shoulders.

A second component of collection system rehabilitation is removal of the existing lift station and replacement of the force main on Woodford Tehachapi Road to reduce operation and maintenance costs, as the system has a history of sanitary sewer overflows related to the lift station. Even with recently installed new equipment and a substantial electrical upgrade, the existing lift station could present future problems. The work would consist of removing the wet well, valve vault, and control building structures located on the west side of Woodward Tehachapi Road just south of the intersection with Weston Avenue. An area of approximately 2,500 square feet of previously disturbed developed land would be affected during the removal work and all equipment and structures that are removed would be disposed of at an approved solid waste facility.

In addition to this work, approximately 900 linear feet of existing 8-inch gravity main and 535 linear feet of 6-inch force main currently running south along Woodford Tehachapi Road from the former lift station would be replaced with 1,426 linear feet of 8-inch gravity main. The 1,426 linear feet of gravity main is a more direct link to the manhole than the existing combination of gravity main and force main.



This excavation would be at an average depth of 15 feet and the construction work corridor would be approximately 30 feet wide and include the use of the existing road and shoulder.

From the southern terminus of this work segment, a new 1,983 linear foot segment of 12-inch gravity sewer would be constructed due east across Woodford Tehachapi Road the GHCSO Woodford Tehachapi Property south of Tom Sawyer Lake. The excavation for this portion would be at an average depth of 10 feet with a construction work corridor approximately 50 feet wide through the GHCSO-owned Woodford Tehachapi Property.

## **Option A: Continued Operations of the Golden Hills Wastewater Treatment Plant and System**

Option A entails upgrades to the existing wastewater treatment collection system and replacement of the Woodford Tehachapi Road lift station with a gravity pipeline. Additional components of Option A for the rehabilitation of the Golden Hills WWTP (shown in Figure 1-2 of Chapter 1, Executive Summary) include collection system improvements, improvements to the actual plant including headworks and general concrete restoration, activated sludge equipment rehabilitation, building repairs and emergency generator upgrades, aboveground piping replacement and related modifications to the overflow basins for flooding issues, and a treated effluent conveyance system for discharge to Tom Sawyer Lake.

### **Collection System Improvements**

A new collection system would be constructed that consists of a 1,983-linear foot segment of 12-inch gravity sewer due east across Woodford Tehachapi Road and through the GHCSO-owned Woodford Tehachapi Property south of Tom Sawyer Lake. It would then connect to the existing gravity pipeline (that begins just north of Supply Lake). No new lift station would be required. Approximately 610 linear feet of existing 12-inch gravity pipeline between Supply Lake and the Golden Hills WWTP would also be repaired or replaced in two segments. The existing gravity pipeline would continue to convey wastewater to the Golden Hills WWTP for treatment.

### **Improvements to the Golden Hills Wastewater Treatment Plant**

As discussed in the PER, several upgrades and modifications to the Golden Hills WWTP are necessary in order to assure continuous and uninterrupted service to customers.

#### **Headworks and General Concrete Restoration**

The headworks portion of a WWTP generally filters out debris from influent wastewater. However, the existing headworks system of the Golden Hills WWTP does not have an automatic bar screen or a redundant manual unit to remove screenings and other large materials, such as rocks, that could damage downstream processes. The headworks would be upgraded to include a structure that houses one automatic bar screen (¼- to ½-inch openings), one manual (bypass) screen, and a flow measuring device, such as a Parshall flume or influent sewer magnetic flow

meter. Routine maintenance of these units would include daily wash-down and cleaning of the entire structure and screens, as well as continuing annual calibration of the influent flow measuring device. In addition, the grit chamber would be rehabilitated by relining the concrete and providing a new cover.

In addition to relining the concrete of the grit chamber, Option A includes concrete restoration throughout the WWTP, particularly in the eastern portion of the first treatment train. Approximately 17,500 square feet of concrete walls and surfaces would be restored under Option A.

### **Activated Sludge Equipment Rehabilitation**

The WWTP treatment facilities include two flow equalization basins, twelve extended aeration activated sludge components, two sedimentation basins, and an aerobic digester. The flow equalization, extended aeration activated sludge, and sedimentation tanks are configured into two treatment trains. However, only one treatment train is currently operable due to low flows and the use of parts from the second train to keep it operational. Currently, only one treatment train is needed for the operation due to the influent flow being below the train's rated capacity. Existing plumbing and equipment associated with the activated sludge, sedimentation, and digester process would be replaced under Option A.

### **Building Repairs and Emergency Generator Upgrade**

The Golden Hills WWTP building modifications would include general building and roof repairs, painting, instrumentation and control improvements, utility improvements, aluminum cover replacements, and Supervisory Control and Data Acquisition software replacement. Other building features would include security and lighting improvements. The space would be expanded, and ventilation, two metering pumps (one duty, one standby), and a larger sodium hypochlorite tank with secondary containment would be added.

The current 75-kilowatt emergency generator that occupies plant office space would be relocated outside in order to make space inside the building for the additional equipment, such as a second tertiary filter and associated piping and a redundant effluent pump. The generator would also be replaced, as it does not have a large enough fuel tank to support a three-day emergency event. As the new generator would be outside, it would be located within a weather-resistant enclosure on a concrete pad, as well as include new controls, an automatic transfer switch, and new electrical work to accommodate the reconfiguration.

### **Aboveground Piping Replacement**

In emergency situations, aboveground piping conveys wastewater from the wet well/valve box to one or two emergency overflow basins, which are located east and downstream of the WWTP. The valves, instrumentation and other equipment used to convey the raw wastewater to the overflow ponds would be replaced under Option A.

## **Overflow Basins and Flooding Concerns**

The two emergency overflow basins of the WWTP are not currently permitted, according to the Golden Hills Wastewater System PER/FS. In addition, while Kern County Flood Plain Management determined that the Golden Hills WWTP building is out of the Flood Insurance Rate Map 100-year floodplain, which is shown in Figure 3-2, a portion of the larger emergency overflow basin is located within the 100-year floodplain. As such, Option A modifications to the larger overflow basin include relocating it away from the floodplain and lining it, as well as incorporating potential earthen improvements, which may be necessary between the basins and flood zone for protection. Use of the emergency overflow basins would be subject to RWQCB approval.

## **Treated Effluent Conveyance System – Discharge to Tom Sawyer Lake**

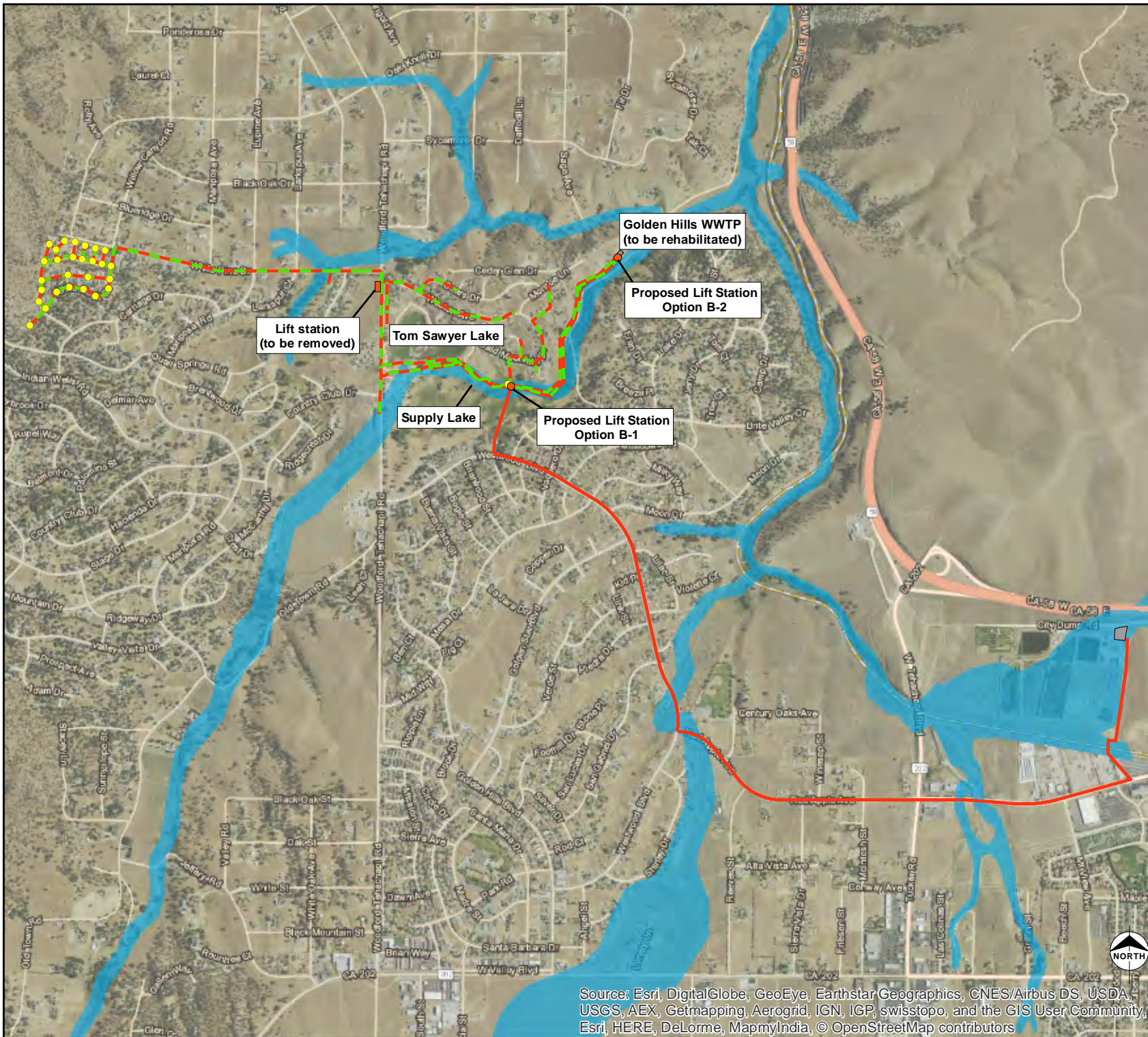
Following treatment, the system pumps treated effluent to Tom Sawyer Lake using one 7.5-horsepower pump (with a second pump online to provide redundancy) through approximately 5,000 feet of 6-inch main. The transmission pipeline follows the 12-inch gravity line alignment. According to the PER/FS, Tom Sawyer Lake is not permitted as a terminal holding pond by the RWQCB (AECOM 2014); therefore, the effluent discharge into Tom Sawyer Lake from the Golden Hills WWTP is not permitted.

With Option A, discharge to Tom Sawyer Lake would be managed under a Waste Discharge Permit approval from the RWQCB. Securing other sources of fresh water for Tom Sawyer Lake, creating a flow through system that discharges to and irrigates the GHCSO-owned Woodford Tehachapi Property, and wetland species bio-remediation are not a part of the proposed Project for Option A or Option B.

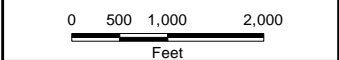
## **Option B – Conveyance Wastewater to the City of Tehachapi for Treatment**

Option B entails the general upgrades to the Golden Hills Wastewater Treatment Collection System, described above, as well as installation of a lift station (with two different locations in consideration), force main, and gravity pipeline to the City of Tehachapi WWTP, decommissioning of the Golden Hills WWTP, and abandonment of the sewer collection line to the Golden Hills WWTP and effluent line to Tom Sawyer Lake. The remaining components of Option B of the proposed Project are shown in Figures 1-3 and 1-4 of Chapter 1, Executive Summary.

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- Legend**
- Proposed new manhole
  - Option A
  - Option B-1, B-2
  - 100 Year Flood Zones



**Golden Hills  
Community Services District**

**Golden Hills WWTP  
Project Components  
and FEMA Flood Zones  
Options A, B-1, and B-2**

Date: 3/22/2016    Project: 60317952

**AECOM**    **Figure 3-2**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

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## Effluent Transmission System Construction

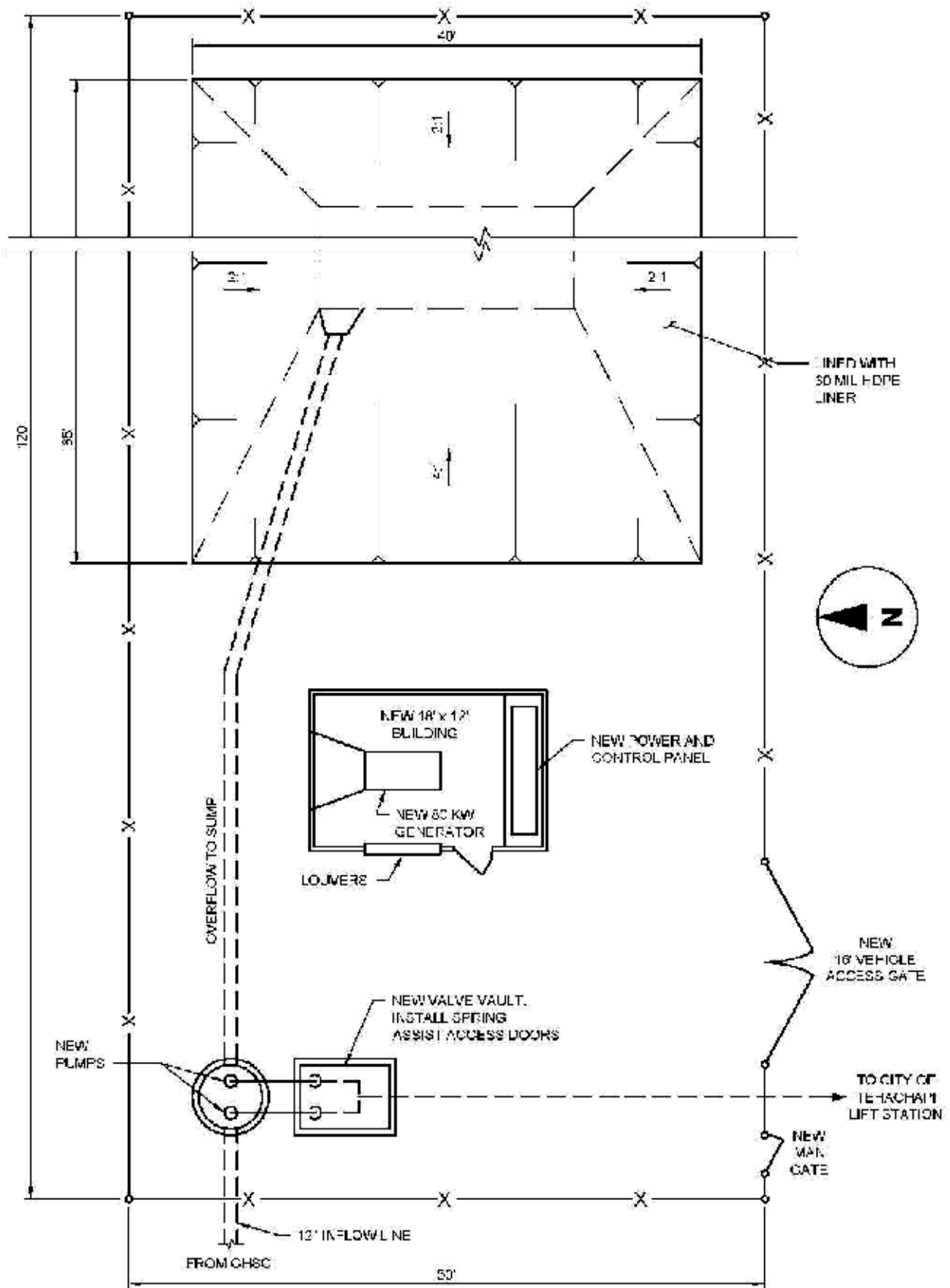
This component of the work includes a new lift station, force main, and gravity main connection to the City of Tehachapi. One location for the lift station (Option B-1) would be constructed just south and east of Tom Sawyer Lake and east of Supply Lake to collect all gravity services upstream of the existing Golden Hills WWTP. This flow would come from the new 12-inch gravity sewer segment from Woodford Tehachapi Road east through the GHCS D Woodford Tehachapi Property, as previously described, and from the last gravity connection to the 12-inch gravity line from the existing manhole south of Debbie Place and Bald Mountain Drive. The lift station would include a duplex pumping system, a standby generator, a power/control panel housed in a permanent structure, lighting, fencing, an emergency overflow basin (to capture overflows in the event of an interruption in service), and a gravel access road. The new lift station would encompass an area of approximately 120 feet by 50 feet (refer to Figure 3-3). The lift station site work would require excavation and grading for the wet well and building construction as well as for the overflow basin. The existing sewer collection line to the Golden Hills WWTP would be abandoned in place from the point where the new lift station is constructed north to the WWTP.

From the new lift station in the GHCS D-owned Woodford Tehachapi Property adjacent to Brite Creek, the pipeline would be routed south across GHCS D property to Fontana Street, then to Westwood Boulevard proceeding east and south, and then to Red Apple Avenue proceeding south then east (refer to Figure 1-3 in Chapter 1, Executive Summary). This would be approximately 8,843 linear feet of 4-inch force main. The excavation would be approximately 4 feet deep and 3 feet wide with an associated 30-foot-wide work corridor along the named roads. The corridor would encompass the available road shoulder and the remainder would be taken from traffic lanes. Approximately 1,740 feet west of Tucker Road (SR 202), the force main would become a new gravity main and continue to flow easterly to the proposed point of connection with the City of Tehachapi gravity main at Tucker Road and Red Apple/Tehachapi Boulevard. The excavation for this portion of the Project would be approximately 8 feet deep and 5 feet wide, with the work corridor being approximately 30 feet wide. Since the interconnect with the City of Tehachapi is located on the east side of Tucker Road, the Project proposes to make the final connection via boring under Tucker Road to conform to anticipated permit requirements by the Kern County Public Works Department.

Effluent treatment and disposal would be conducted by the City of Tehachapi. Currently, the GHSC treats 0.03 mgd of sewage. During 2013, the total City of Tehachapi effluent was approximately 0.94 mgd. The total rated capacity of the Tehachapi WWTP is 1.25 mgd. As the combined treated amount of sewage at the Tehachapi WWTP would be 0.97 mgd with the Project, the permitted treatment and disposal capacity for the Tehachapi WWTP would not be exceeded.

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Golden Hills  
Community Services District

## Proposed Option B-1 Lift Station

Date: 3/22/2016 | Project: 60317952

**AECOM** Figure 3-3

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Another location of the lift station (Option B-2) would be to construct it at the site of the existing wastewater treatment plant after it was decommissioned. The lift station would be placed after the current location of the flow meter and ahead of the equalization basin of the plant. The overflow basin would be where the existing one for the plant is currently, with modifications to remove it from the floodplain. The Option B-2 location would require the following:

- Approximately 3,000 feet of additional force main;
- Approximately 600 feet of existing 12-inch gravity main would be replaced and the remaining 2,400 feet of line would be cleaned;
- Two gravity manholes would be replaced; and
- The proposed lift station pumps and motors would be upsized to compensate for the additional static lift and friction loss in the pipeline.

This location for the lift station would add approximately \$250,000 to the construction cost and operations and maintenance costs would increase due to the additional power consumption and additional gravity and force main maintenance.

## **Golden Hills Wastewater Treatment Plant Decommissioning**

The existing Golden Hills WWTP would be decommissioned. The following existing structures would be demolished and removed from the site:

- grit chamber/flow meter vault,
- sludge trailer,
- flow equalization tanks,
- aerobic digester,
- aeration tanks (activated sludge process),
- clarifier chambers,
- sludge holding tank,
- office/lab building,
- storage/shop,
- standby generator,
- emergency overflow basin,
- small emergency overflow basin,
- wet well/valve box, and
- chain link fencing and gates.

All structures would be demolished and removed to approximately 2 feet below ground surface (bgs). Materials would be consolidated and sent to a permitted recycling facility as applicable. The remaining materials would be treated as solid waste and transported to an appropriate solid waste facility for ultimate disposal. The remaining half-acre site would be graded to mirror surrounding topography and the soils would be stabilized to mitigate sediment runoff.

With the decommissioning of the Golden Hills WWTP, current water discharges from the plant to Tom Sawyer Lake would cease; therefore, the associated effluent line would be abandoned in place.

## 3.5 Project Objectives

The GHCS D has defined the following two objectives for the Project:

- Assure sewer service to the residences and businesses served by the GHSC development continues and that it is of adequate capacity, safe, and sanitary in its operation.
- Have a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## 3.6 Environmental Setting

### Regional and Local Setting

The proposed Project is located in the unincorporated Kern County community of Golden Hills, California, which is located in the Tehachapi Mountains between the San Joaquin Valley and the Mojave Desert immediately west of the City of Tehachapi (refer to Figure 1-1 of Chapter 1, Executive Summary). The community encompasses approximately 12 square miles at an approximate elevation of 3,900 feet above mean sea level. The City of Tehachapi has a property area of 6,400 acres at an elevation of approximately 4,000 feet above mean sea level.

The Golden Hills WWTP is located at Monroe Lane-Utility Extension, Old Camp Road, in a portion of Section 7, T32S, and R33E (referenced from the Mount Diablo Base and Meridian, or MDB&M), on approximately 0.5 acres, approximately 5 miles west of the City of Tehachapi. The City of Tehachapi WWTP is located at 750 Enterprise Way in the City of Tehachapi, immediately south of the Kern County Korean War Veterans Memorial Highway and approximately 0.50 miles northeast of the intersection of Red Apple Avenue/West Tehachapi Boulevard and Tucker Road.

### Existing General Plan and Specific Plan Designations

The proposed Project is located within the GTASP area within Kern County. The GTASCP's goals, policies, and implementation measures are consistent and compatible with those outlined in the Kern County General Plan, but are tailored to the particular needs of the GTA. The Kern County General Plan land Use designations under Option A, continued operations of the Golden Hills WWTP and Wastewater Treatment System, are comprised generally of Residential, Resource Reserve, Commercial, and Recreation. Specifically, the Project site under Option A includes the following land use designations: Residential (maximum 4 units/net acre), Residential (maximum

10 units/net acre), Residential (maximum 16 units/net acre), General Commercial, Resource Reserve (minimum 20 acre parcel size), and Public or Private Recreation Areas.

In addition to the land use designations listed for Option A, Option B, conveyance of wastewater to the City of Tehachapi for treatment, would also encounter the Residential (maximum 1 unit/net acre), Residential (maximum 2 units/net acre), and Residential (2.5 gross acres/unit) land use designations of the GTASP and Kern County General Plan.

## Existing Zoning Classifications

Zoning designations of Option A, continued operations of the Golden Hills WWTP and Wastewater Treatment System, include: E 1/4 (Estate - Min. 0.25 acre lot size), E 2 1/2 (Estate – Min. 2.5 acre lot size), R-1 (Low Density Residential), R-3 PD (High Density Residential – Precise Development Combining), C-2 PD (General Commercial – Precise Development Combining), MS (Mobilehome Subdivision), C-1 (Neighborhood Commercial), and RF (Recreation Forestry). In addition to being located on land with a zoning designation of 8.2 (Resource Reserve – minimum 20 acre parcel), the existing Golden Hills WWTP area includes GTASCP Overlay Map Codes 2.5 (Flood Hazard) and 2.7 (Liquefaction Risk) designations.

In addition to the land use designations listed for Option A, Option B, conveyance of wastewater to the City of Tehachapi for treatment, would also include the following zoning classifications: E5 (Estate – Min. 5.0 acre lot size), E10 (Estate – Min. 10.0 acre lot size), and A-1 (Limited Agricultural).

## Existing On-Site Land Uses

The primary construction components for Option A, continued operations of the Golden Hills WWTP and Wastewater Treatment System, include upgrades to the existing wastewater treatment collection system and WWTP, replacement of the Woodford Tehachapi Road lift station with a gravity pipeline, and installation of new gravity pipeline east of Woodford Tehachapi Road, between Tom Sawyer Lake and Supply Lake. Land uses under Option A of the Project include roadways (such as Woodford Tehachapi Road, White Pine Drive, and Weston Avenue), the Golden Hills WWTP, and the Woodford Tehachapi Property. Land uses of the Project under Option B, conveyance of wastewater to the City of Tehachapi for treatment, include roadways (such as Woodford Tehachapi Road, White Pine Drive, and Weston Avenue, as well as Westwood Boulevard, Red Apple Avenue, and Tucker Road), the Golden Hills WWTP, and the Woodford Tehachapi Property.

## Existing Surrounding Land Uses

Lands surrounding the Project site under Option A, continued operations of the Golden Hills WWTP and System, consist of single-family, apartment, and mobile home residential uses; and commercial land uses including a motel. In addition, the Woodford Tehachapi Property surrounds components of the proposed pipelines and pipeline improvements, as do Tom Sawyer

Lake and Brite Creek. With Option B, conveyance of wastewater to the City of Tehachapi for treatment, surrounding land uses are the same as those listed for Option A, but include a greater degree of residential and commercial land uses, due to the extension of a pipeline in Westwood Boulevard and Red Apple Avenue from the Woodford Tehachapi Property to the connection point at the intersection of Red Apple Avenue and Tucker Road.

## Site Access

Regional access to the Project area is provided by Highway 202 (West Valley Boulevard Highway 202) and Highway 58 (Kern County Korean War Veterans Memorial Highway). Primary access to the community of Golden Hills is provided by Woodford Tehachapi Road, Westwood Boulevard, and Red Apple Avenue. The streets and roads within Golden Hills are primarily 2-lane, rural undivided highways. The Golden Hills WWTP is accessible from the Monroe Lane utility extension. Components of the Project located in the GHCSO-owned Woodford Tehachapi Property are accessible from Woodford Tehachapi Road. Directly, Cache Peak Road, Pampa Peak Road, Emerald Mountain Drive and White Pine Drive provide access to the mobile home portion of the Project where new manholes will be installed. Weston Avenue, Woodford Tehachapi Road, Westwood Boulevard, Red Apple Avenue, and the intersection of Tucker Road and Red Apple Road/West Tehachapi Boulevard are the main access roadways where pipeline work would occur with the Project.

## 3.7 Project Approvals

- Determination at a noticed public hearing of the implementing entity by the specific elected Board or City Council and option selected. These are discretionary actions under CEQA. Potential Implementing Entities include
  - Golden Hills CSD Board – Option A
  - Kern County Board of Supervisors – Option A with a County Service Area
  - City of Tehachapi City Council – Option B-1 and B-2 to accept the effluent and new connections
- Installation of a new pipeline in public access easements or County Roads in the unincorporated areas requires the approval of a Franchise Agreement from the Kern County Board of Supervisors.
- Any grant for construction from the SWRCB to support this phase of the Project is considered as a discretionary action under CEQA and NEPA.
- For Option A, APCD approval is required for the new replacement generator, and for Options B-1 and B-2, APCD approval is required for new (80 and 100 horsepower, respectively) lift station generators.
- RWQCB approval is required for the emergency overflow basins, the proposed plant improvements, and maintenance of Tom Sawyer Lake with treated effluent.
- Building permits are considered a ministerial action under CEQA.

Funding for the Project may be sought from various State and Federal sources including the:

- SRFs Loan and Grant(s), which is received from the EPA;
- State Proposition 1 Loan and Grants;
- Federal USDA/Rural Development Loan and Grant funds; and
- HUD/Community Development Block Grant administered by the County of Kern.

## 3.8 Construction Activities

This section describes the construction related improvements required for Options A and B.

### System Improvements Required with Either Option A or Option B

System improvements required for either Option A or B include pipeline construction, pipeline repair, new manhole installation, and the removal of the existing lift station. The general procedures for pipeline construction include the following procedures:

- Rights-of-Way (ROW) preparation;
- Pavement Removal;
- Clearing;
- Trenching;
- Pipe preparation (bending, welding, X-ray, weld coating, coating repair) and lowering in;
- Backfilling and grade restoration; and
- Clean-up and restoration.

#### Rights-of-Way Preparation

Rights-of-Way (ROW) preparation includes construction surveys and the identification of existing utilities. Land survey crews will mark the centerline of the proposed pipeline with stakes or other appropriate methods. Utility owners will be consulted to identify existing utilities that cross the construction limits. Conflicts not previously identified will be coordinated with the utility owners.

To the extent possible, access to the construction corridor normally will be obtained via public roads that intersect the ROW; however, use of existing private roads and construction of new access roads may also be required. Permission will be obtained from landowners for the use of access roads across their property to the construction corridor.

#### Pavement Removal

Where work is required to be performed in existing roadways, asphalt and concrete pavements are removed in advance of trenching and excavation. The limits of pavement removal are

required to be cut with a saw to provide a clean, vertical surface. Depth of the cut is typically 2-inches, regardless of the pavement thickness. Sawcuts are typically required on both sides of a trench, except where one side is located along a curb or unpaved shoulder. Sawcutting is typically done prior to pavement breaking, but can be done after. Existing pavement must be broken into smaller components in order to be loaded into a vehicle for disposal. Breaking typically consists of one or two methods. The first method is to use a backhoe with a bucket attachment to lift or pry the exposed edge of pavement. As the backhoe lifts, a section of the pavement will break off. The second method is to use a backhoe with a pneumatic attachment to break the pavement. Handheld pneumatic equipment is also used, but typically in smaller or unique situations. After the existing pavement is broken, it can be removed from its original location and deposited into a vehicle for disposal. When a backhoe with the bucket attachment is used, the backhoe fills the truck as breaking occurs. When a backhoe with a pneumatic attachment is used a second backhoe with a bucket attachment or similar equipment would be required.

## **Clearing**

As necessary, in areas of existing vegetation, the construction ROW will be cleared to remove vegetation, brush, trees, roots, and other obstructions, including large rocks and stumps. Immediately following clearing, temporary soil erosion and sediment control measures will be installed along the proposed construction ROW, temporary workspace areas, access roads, and other work areas, as necessary. The contractor will follow Best Management Practices (BMPs) during and after construction to minimize potential impacts to the surrounding environment. The BMPs will be used to minimize erosion of disturbed soils and prevent the transportation of sediment outside of the construction ROW. Cleaning and maintenance of existing public roads used during the construction of the Project will be accomplished by installing 50-foot access pads adjacent to existing paved roads to remove mud and dirt from vehicles and equipment, after leaving the ROW and prior to accessing the paved road. Non-paved public roads will be maintained, as needed, to repair rutting, control dust and return the work area to pre-construction conditions.

## **Trenching, Pipe Installation, and Backfill**

Trenching, pipe installation, and backfilling are conducted as a continuous process from one end of the pipe alignment to the other. After each section of trench is excavated, pipe will be installed, followed by backfill in an effort to minimize the amount of open excavation on a given day. Open excavation is required to be covered by a steel plate or completely fenced when the contractor is not present (nights, weekends, holidays, etc.) to protect the public. The following is a description of each process individually.

### **Trenching**

Trenching for the pipelines will be conducted using excavators, backhoes, or similar equipment. The trench width will be approximately 3 to 5 feet, but may be larger depending upon soil



conditions in accordance with State and Federal regulations. Trenching for most pipeline replacement work would be at an average depth of 6 feet, although excavation for the 8-inch gravity main would be at an average depth of 15 feet. The construction work corridor would be approximately 30 feet wide, and would be in existing roads and road shoulders. Machinery will operate on one side of the trench (working side) with excavated materials stockpiled on the other (non-working spoil side). Temporary fences and gates will be installed, as needed, to protect the public from open excavations when the contractor is not present.

### **Pipe Installation**

Pipe will be staged at the top of the trench and lowered individually to the bottom of the trench. Each spool will then be installed individually in a continuous direction. Inspection of pipe installation is done after the pipe is installed and prior to backfill. Dewatering of the trench, due to groundwater exfiltration or surface flows, is required to install the pipe and to conduct the inspection.

### **Backfill**

After the pipe is installed, the trench is backfilled using screened native or imported fill and then compacted per the design specifications. Excess excavated materials or materials unsuitable for backfill will be disposed of in accordance with applicable regulations. Backfilling will occur to approximate grade. However, a soil crown may be placed above the trench to accommodate future soil settlement.

### **Clean-up and Restoration**

After the completion of backfilling, disturbed areas will be graded, and remaining trash and debris will be properly disposed of in compliance with applicable regulations. The construction corridor will be protected by the implementation of erosion control measures, including site specific contouring, permanent slope breakers, mulching, and reseeding to establish soil-holding vegetation. Contouring will be accomplished using acceptable excess soils from construction. If sufficient soils are not available, additional soil will be imported in accordance with applicable requirements.

The pipeline contractor will restore construction workspaces in native areas using applicable seed mix recommendations from the Natural Resource Conservation Service (NRCS) and consultation with Kern County. Areas of roadway disturbed by the pipeline installation will be returned to grade and repaved to Caltrans and/or County standards.

## **Schedule and Work Force**

Removal of the current lift station, replacement of the lift station with a gravity main, and construction and repair of the pipelines and the installation of new manholes will require up to 19 weeks and a maximum of 4 workers per day. Equipment expected to be used for this activity include several backhoes, dump trucks, jackhammers, a large compressor, generators, welding

machines, pipe handling machines, and a variety of other specialty equipment as dictated by the pipeline construction contractor. Specific types of equipment have been identified in Section 4.1, Air Quality, of the EIR, and their numbers and operating durations are conservatively estimated for purposes of the EIR analysis.

### **Option A: Continued Operations of the Golden Hills Wastewater Treatment Plant and System**

For continued operation of the Golden Hills WWTP, the wastewater system components identified above will be removed, refurbished, replaced, and/or otherwise rehabilitated. The rehabilitation is expected to require 40 weeks and a maximum of 10 workers per day. Equipment is expected to include a backhoe, a dump truck, a welding machine, a generator, jackhammers, and other smaller equipment. As above, specific types of equipment have been identified in Section 4.1, Air Quality, and their numbers and operating durations are conservatively estimated.

### **Option B – Conveyance of Wastewater to the City of Tehachapi Wastewater Treatment Plant for Treatment**

Activities associated with Option B-1 (lift station at the Woodford Tehachapi Property) or Option B-2 (lift station at the former Golden Hills WWTP site) alone are primarily the installation of the pipeline; however, Option B-2 would require an additional approximately 3,000 feet of 4-inch force main over Option B-1. The methodologies to be used for this activity are described above. Again, specific types of equipment have been identified in Section 4.1, Air Quality, and the numbers and operating durations are conservatively estimated.

## **3.9 Operations and Maintenance Activities**

There will be essentially no change in operations for those components of the Project that are common to both Options A and B. Under Option A, operation and maintenance of the system and Golden Hills WWTP will occur as it does now, although with updated and refurbished equipment, it's reasonable to assume that the operations will be streamlined. As previously discussed, discharge to Tom Sawyer Lake with Option A would be managed under a Waste Discharge Permit, which requires approval from the RWQCB. This approval may require routine quarterly inspection of the pipeline and treated effluent pump operation (e.g., recording discharge pressure and horsepower draw) to assure proper operation. Under Option B, operation and maintenance activities of the system by the Tehachapi WWTP is anticipated to occur as it currently does with no substantial changes.

## 3.10 Cumulative Projects

As required by the CEQA Guidelines, this EIR includes an evaluation of the proposed Project's cumulative impacts (Section 15130). A cumulative impact is an impact that results from combining a project's impacts with the impacts of other closely related past, present, and reasonably foreseeable probable future projects (Section 15355). Cumulative impacts refer to two or more individual effects, which, when considered together, are considerable and compound or increase other environmental impacts. They can result from individually minor but collectively significant projects taking place over a period of time. As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion is not required to be as detailed as the discussion of the project's direct environmental impacts.

According to the CEQA Guidelines, Section 15130(b), the following elements are necessary in an adequate discussion of significant cumulative impacts:

"(1) Either:

"(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted local, regional or Statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

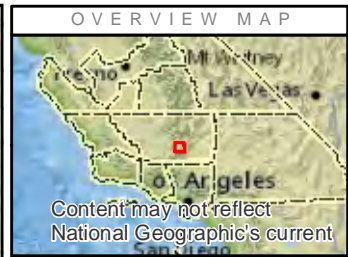
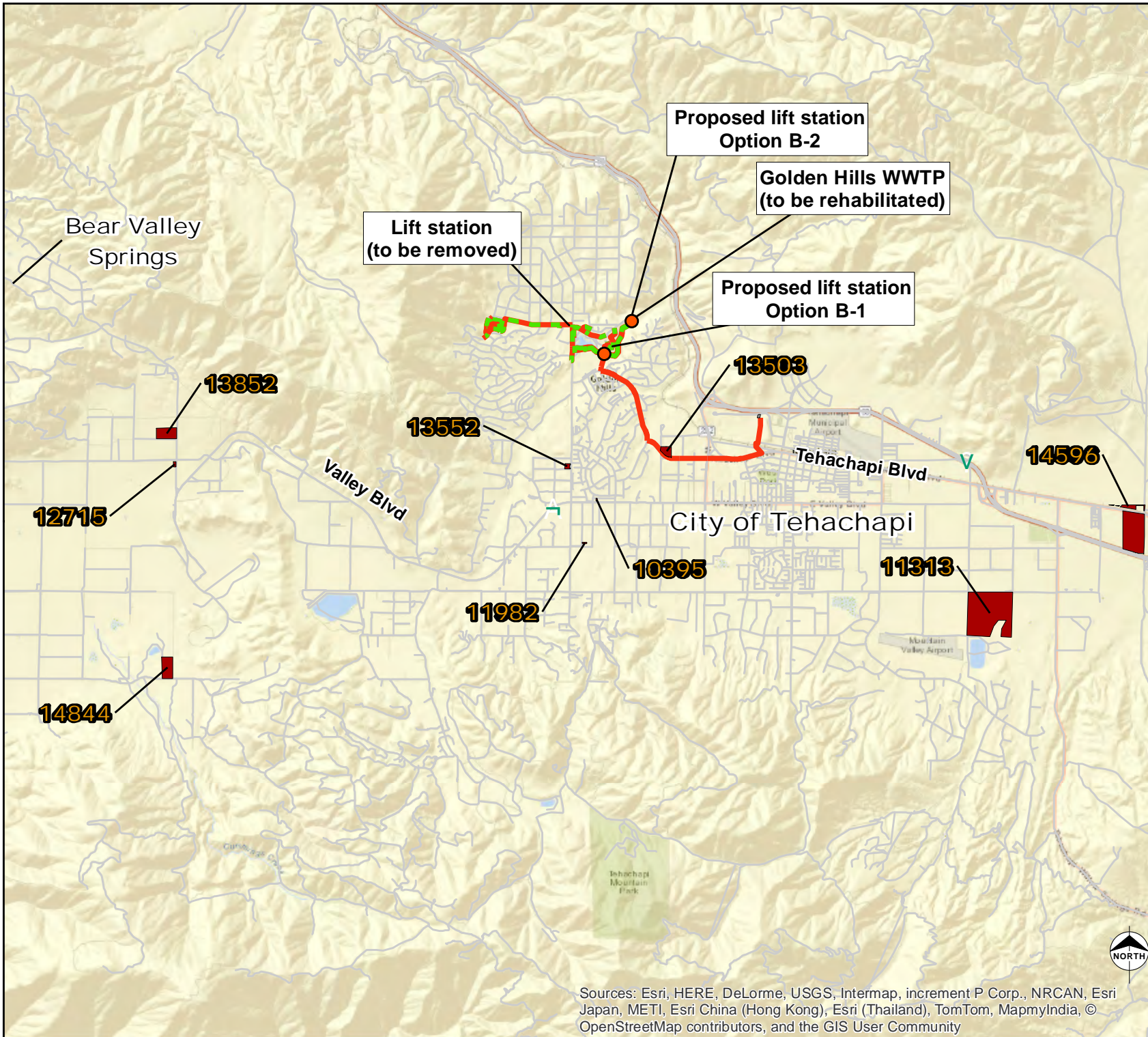
"(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type."

This EIR utilizes a combination of the methods described above. The most relevant related projects to the cumulative impact analysis for the proposed Project are those located within 6 miles of the proposed Project and those for which construction activities may occur at the same time as the proposed Project. These projects are listed in Table 3-1, and their locations are shown on Figure 3-4. Further, this EIR incorporates the Draft EIR prepared for the GTASCP (Kern County 2010), within which the proposed Project is located, for cumulative impact information.

**Table 3-1 Proposed Projects in the Vicinity of Golden Hills**

<b>Project or Applicant Name</b>	<b>Kern County Planning and Community Development Department Case Identification</b>	<b>Location</b>	<b>Case Type</b>	<b>Acreage</b>
Birch Pender	10395	20221 Valley Boulevard, Tehachapi	Zone Change (furniture store)	Not Available
Stockdale Investment Group/Quad Knopf	11313	Highline Drive and Willow Springs Road	Zone Boundary Shift	652.00
Tehachapi Valley Ready Mix	11982	South Street, Tehachapi	Conditional Use Permit (portable batch plant)	0.00
Solveig Thompson	12715	23698 Cummings Valley Road	Zone Change	1.15
B.J. Mitchell	13503	Red Apple Avenue and Reeves Street	Conditional Use Permit (Tehachapi Performing Arts Center with solar and wind turbines)	7.25
Rodney Dees	13552	20535 Oak Street	Conditional Use Permit (additional density units)	2.36
Shepherd in the Hills Church	13852	West Bear Valley, North of Cummings Valley	Conditional Use Permit (12,000 square foot church)	20.00
Roshawn Helmandi	14596	Jameson Road and Jameson Street	Conditional Use Permit (solar)	75.69
Robert Cummings	14844	25001 Banducci Road	Conditional Use Permit (event facility)	19.55

Cumulative impact discussions for each environmental topic area are provided at the end of each section included within Chapter 4 of this EIR.



**Legend**

- Related Project Locations
- Option A
- Option B-1, B-2

**14596** Case ID Number

0 0.75 1.5  
Miles

**Golden Hills  
Community Services District**

**Related  
Projects in the  
Golden Hills Area**

Date: 3/22/2016 Project: 60317952

**AECOM** **Figure 3-4**

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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# Chapter 4

## Environmental Setting, Impacts, and Mitigation Measures

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# Section 4.1

## Aesthetics

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### 4.1.1 Introduction

This section discusses the existing and proposed visual conditions within the Project area (Figures 1-2, 1-3, and 1-4), and evaluates potential impacts of the Project to these conditions. The Project area discussed in this section focuses on potential changes to the existing visual character within 0.25-mile radius of the three Project Options (Figures 1-2, 1-3, and 1-4), including temporary and long term impacts to visual character and views considered “scenic” within the Project area. The impact assessment evaluates the potential impacts of construction and operation of the proposed lift station in two potential locations, pipeline replacement/upgrades, and demolition of the existing Golden Hills WWTP. Details regarding specific components associated with each Project Option are defined in Chapter 3 of this EIR.

Potential impacts/effects to existing visual character and quality within the Project area are evaluated relative to important visual features (e.g., scenic highways or scenic features) and the existing visual landscape and its users. The sub-sections below provide an overview of the affected environment; an evaluation of the environmental consequences of the proposed Project to visual resources; a cumulative impact analysis; and identification of mitigation measures that seek to avoid and/or reduce Project impacts to less-than-significant levels, where feasible.

The Lead Agency determined in the IS/NOP that the proposed Project would result in no impacts to three of the environmental issues related to Aesthetics associated with the Project. To focus this EIR, those topics are not considered further; only the issue of a potential significant adverse effect on a scenic vista is considered in this EIR. Appendix A of this EIR contains a copy of the IS/NOP for additional information regarding the excluded items.

### 4.1.2 Environmental Setting

#### Regional Setting

The Project area is located within the Tehachapi Mountain Area subregion of the Sierra Nevada geographical region (Sawyer *et al.* 2009). The Project is located within Tehachapi Valley, at the base of the Tehachapi Mountain Range, between the community of Golden Hills and the City of Tehachapi. The immediate Project area is defined by rolling terrain. The region receives most of its rainfall from November to March, with local precipitation averaging approximately 12 inches annually. Average temperatures in the area during the winter range from 29 to 59 degrees Fahrenheit (°F), while summer temperatures range from 51 to 87°F (Western Regional Climate Center 2015).

## Local Setting

The Project area is located primarily in the community of Golden Hills in unincorporated Kern County, California, which adjoins the City of Tehachapi, California, to the east. State Route 58 (SR-58) is west of the Project area. The elevation within the Project area ranges from approximately 3,680 feet to approximately 4,020 feet. The highest elevations generally occur at the eastern and western ends of the Project area, while the lowest elevations generally occur near the middle portion.

Views within the Project area are distantly enclosed by the Sierra Nevada mountains, while fore to mid-ground views are typically partially screened by the low profile of intersecting ridgelines of the sparsely vegetated, rolling terrain. Due to the warm, dry nature of the local climate, local vegetation outside of riparian areas is dominated by scrubby drought tolerant species. Views of vegetated open space create a stippled to clumpy appearance in the mid to distant areas of typical views. Due to the sparse nature of local vegetation, various shades of browns and grey tend to dominate individual views, with pale greens intermixed. Riparian areas are more densely vegetated and are comparatively lush against the dominantly brown and sparsely vegetated uplands. The presence of riparian corridors within particular views creates scenic value, and offers relief from the otherwise monotonous appearance of upland areas and the distant mountainsides.

The Project area includes the Golden Hills WWTP, which is located east of the northeast terminus of Monroe Lane in the unincorporated community of Golden Hills. The Golden Hills WWTP is immediately surrounded by undeveloped land and Brite Creek. Rural residential lots are located west, south, and east of the WWTP. The Golden Highlands mobile home community is located in the northwestern portion of the Project area, at the terminus of White Pine Drive and Emerald Mountain Drive. The Project area also includes a hotel and apartment complex along Woodford Tehachapi Road near the intersection of Country Club Drive, as well as the Woodford Tehachapi property with Tom Sawyer Lake, which lies east of Woodford Tehachapi Road and north of Westwood Boulevard.

Two water features are located within the Project area and on the Woodford Tehachapi Property; these include Tom Sawyer Lake located east of Woodford-Tehachapi Road and south of Weston Avenue, and Supply Lake, which is situated southeast of Tom Sawyer Lake. Tom Sawyer Lake is the receiving water body for effluent discharged from the existing Golden Hills WWTP, and Supply Lake receives water from Tom Sawyer through a water inlet. Tom Sawyer Lake is surrounded by California bulrush. Although the Woodford Tehachapi Property is private property owned by the GHCS, the area and water features are open to the public for unofficial recreational purposes. The landscape surrounding Tom Sawyer Lake and Supply Lake is more densely vegetated compared to the majority of the adjacent landscape within the Project area. The Golden Hills WWTP is located in the northwest extent of the Project area, in close proximity to Brite Creek. The WWTP is situated within a ravine associated with Brite Creek, and is at a much lower elevation than the surrounding rural residences that are located northeast and southwest of the WWTP.

## Community Character

The Project area is within the Tehachapi Valley and is located in close proximity to the suburban community of Tehachapi. Aside from the community of Tehachapi, the Tehachapi Valley is comprised of rural agricultural uses and open space areas that offer an array of recreational opportunities. Within developed areas where most residents live, access to distant views of the Sierra Nevada mountains are found along streets or corridors that connect developed areas with open space. Figure 4.1-1 provides an aerial view of the Project area and 0.25-mile buffer from the proposed lift station associated with Option B-1. This figure identifies surrounding land uses and the Key Observation Points (KOPs) that were used to create simulations for the impact assessment below.

### 4.1.3 Regulatory Setting

The following section describes the local regulations that pertain to the proposed Project and aesthetic resources. There are no Federal aesthetic resource regulations relevant to the proposed Project. Further, it should be noted that there are no State aesthetic resource regulations relevant to the proposed Project. No highways in the Project area are designated or are listed as eligible for designation in the Caltrans Scenic Highway Program. Furthermore, the GTASCP (Kern County 2010) does not identify local scenic roads in the vicinity of the Project area.

#### Local

Kern County has established guiding policies and regulations to ensure the preservation of scenic resources and views of local importance within its planning area. Specifically, the following planning, policy, and regulatory documents were reviewed as part of this impact analysis:

- Kern County General Plan; and
- GTASCP.

#### Kern County General Plan

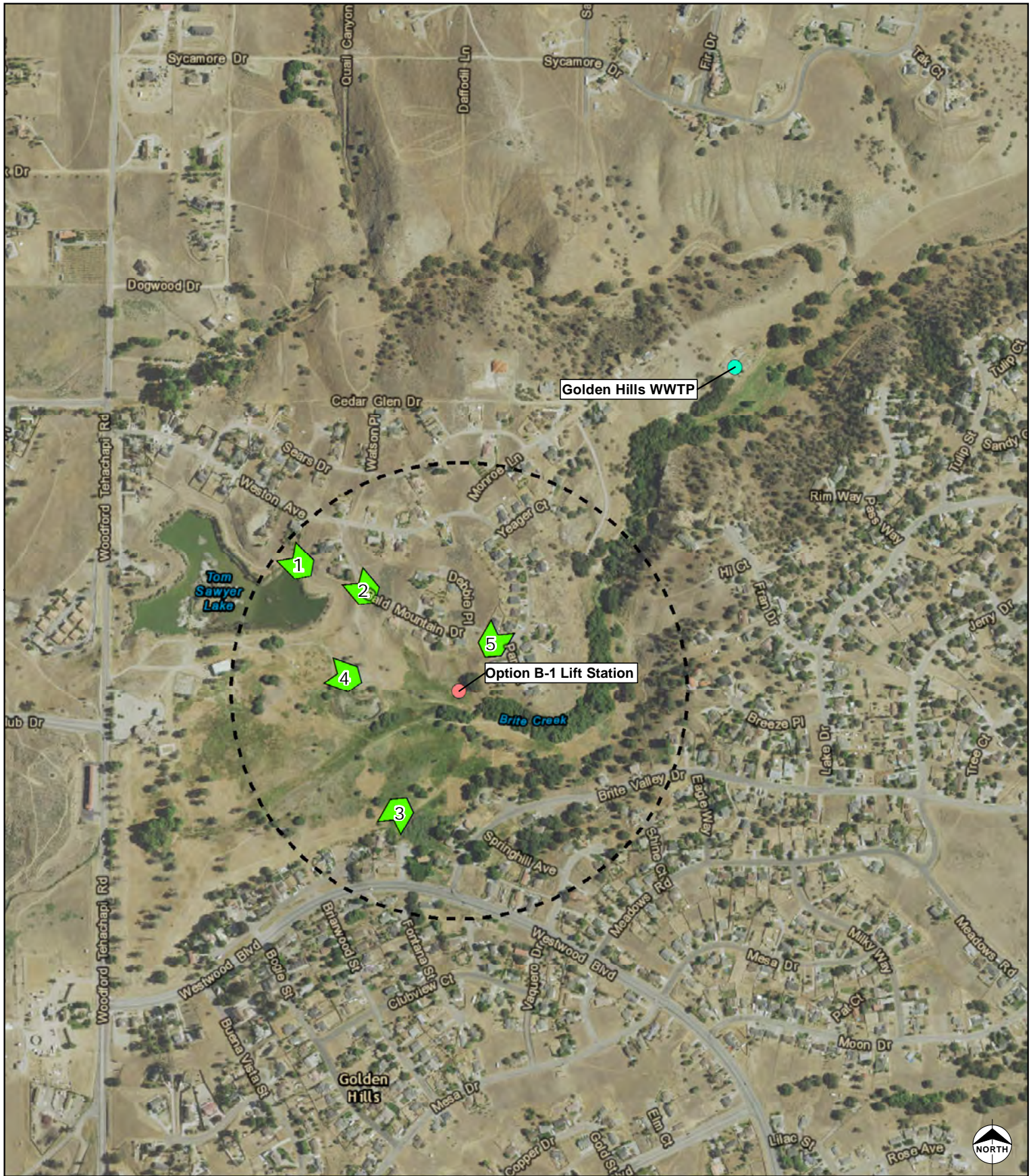
The Kern County General Plan includes policies related to aesthetics and light and glare in Chapter 1, which is the “Land Use, Open Space, and Conservation Element” (Kern County, 2004a). The policies and implementation measures in the General Plan applicable to the proposed Project are outlined below.

#### Public Facilities and Services (Section 1.4 of the Kern County General Plan)





##### *Policy*

2. The efficient and cost-effective delivery of public services and facilities will be promoted by designing areas for urban development which occur within or adjacent to areas with adequate public service and facility capacity.

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**Legend**

-  KOP Location/Number/Direction
-  Golden Hills WWTP
-  Option B-1 Lift Station
-  0.25-Mile Buffer

0 400  
 Feet

Source: Aerial imagery provided by ESRI, 2016

Golden Hills  
 Community Services District

**Golden Hills WWTP  
 KOP Map**

Date: 2/19/2016 Project: 60317952

**AECOM** Figure 4.1-1

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*Implementation*

Continue to establish coordinated efforts between government entities and private enterprise to identify and preserve unique scenic qualities of existing natural resources and to enhance the image of the County as a whole.

General Provisions (Section 1.10 of Kern County General Plan)*Issue*

Oak woodlands and larger individual oaks have aesthetic and historical value, provide for wildlife and game and enhance scenic values for all Kern County residents and visitors. Development represents an opportunity, through site planning, to preserve this important resource while allowing for economic growth.

*Policy*

FF. Work with Caltrans in implementation of the Scenic Highway Corridor designation for various highways as described in the Circulation Element and protect viewsheds with the use of the SC (Scenic Corridor Combining) District.

66. Promote the conservation of oak tree woodlands for their environmental value and scenic beauty.

Light and Glare (Section 1.10.7 of the Kern County General Plan)*Policy*

47. Ensure that light and glare from discretionary new development projects are minimized in rural as well as urban areas.

48. Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.

*Implementation*

AA. The County shall utilize CEQA Guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.

**Greater Tehachapi Area Specific and Community Plan**

The GTASCP is organized into eight elements containing issues and assumptions, goals, policies, and implementation measures to guide subsequent land use and development actions within the GTA. The Open Space and Conservation Element of this document includes specific goals, policies, and implementation strategies to identify and protect community designated scenic resources and values.

Conservation and Open Space (Chapter 3 of the Kern County General Plan), Section 3.2.2 Scenic and Natural Resources*Issue*

The current dominant development pattern within the GTA consists of larger residential lots whose layout is characteristic of rural sprawl. Continued development following this existing

pattern may adversely impact the GTA's numerous scenic and natural resources and may also contribute to the loss of agricultural lands.

#### *Goals*

COS.3: Preserve and protect scenic and natural resources and open space within the GTA

#### *Policies*

Policy COS.19 Coordinate with Federal, State, and other appropriate public agencies, private organizations, and landowners to conserve, protect, and enhance natural resources.

Policy COS.23 Comply with dark sky lighting guidelines as established by the Kern County Zoning Ordinance to preserve night-time views, prevent light pollution, and minimize impacts on wildlife.

#### *Implementation Measures*

Measure 20 All discretionary development proposals that are within identified environmental hazards areas shall submit the appropriate technical studies, as determined by the Kern County Planning and Community Development Department, to identify the most suitable area for development within the property (Policies COS.19, 20).

Measure 22 All discretionary development proposals and ministerial projects shall be subject to the Dark Skies development principles, as specified by the Kern County Zoning Ordinance. These provisions include requirements that outdoor light fixtures be oriented downward and are fully shielded (Policy COS.23).

## **4.1.4 Impacts and Mitigation Measures**

This section describes the impact analysis relating to aesthetic resources for the proposed Project. It describes the methods used to determine the impacts of the Project and lists the threshold used to conclude whether the impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where such measures are feasible.

### **Methodology**

Direct and indirect impacts of the proposed Project Options to existing aesthetic resources within the Project area were evaluated based on a qualitative assessment of the existing visual features and dominant visual character of the Project area. Each Project Option and associated improvements are evaluated for their potential to significantly impact (both direct and indirect) existing aesthetic conditions within the Project area.

Input from the public on the IS/NOP indicate that, although there are no designated scenic highways or roads in the Project area; and that although Woodford Tehachapi Property is



private property (rather than a designated public park), the Property is utilized as an unofficial recreational amenity within the community. As such, and for purposes of this analysis, it is considered a scenic vista. More specifically, this analysis considers the following views/attributes within the Project area “scenic vistas”:

- The GHCSO-owned Woodford Tehachapi Property (views within the Property);
- Residential areas surrounding the Woodford Tehachapi Property, including those with views of Tom Sawyer Lake; and
- Residential areas located along Fontana Street

The greatest visibility within the Project area of the Woodford Tehachapi Property exists from locations situated immediately adjacent to each Project Option, where views toward the Project are not blocked, or are only marginally screened by intervening structures, vegetation, or topography. According to the Bureau of Land Management (BLM) Manual 8431 – Visual Resource Contrast Rating, the scale of an object relative to the visible expanse of the landscape that forms its setting determines its degree of scale dominance. Scale dominance is “the relationship between two or more objects being compared in terms of apparent size.” Spatial Dominance is described as the dominance of a project in the setting or landscape situation backdrop (BLM 1986). For purposes of this analysis, a potentially significant impact is anticipated to occur where the scale of the Project features would contrast with its surrounding environment, thereby dominating views spatially.

## Thresholds of Significance

The Appendix G Environmental Checklist Form of the CEQA Guidelines was utilized to determine whether the Project could potentially have a significant adverse impact on aesthetics for those issues not eliminated in the IS/NOP. The Project would result in a significant adverse impact on aesthetics if it would:

- Have a substantial adverse effect on a scenic vista.

Due to public concern related to the scenic quality of the Woodford Tehachapi Property and Tom Sawyer Lake within the Project area, these features are considered a scenic resource for purposes of this analysis.

## Project Impacts

### Impact 4.1-1: Have a Substantial Adverse Effect on a Scenic Vista.

Although no Federal, State, or local land management plans identify designated scenic vistas within the Project area, this assessment considered the following typical views within the Project area as scenic vistas:

- The GHCSO-owned Woodford Tehachapi Property;

- Residential areas surrounding the Woodford Tehachapi Property, including those with views of Tom Sawyer Lake; and
- Residential areas located along Fontana Street.

These areas are considered in this assessment, because of the potential for views experienced from these locations to be altered by the proposed Project Options.

#### Construction Period Impacts

Under Options A, B-1, and B-2, scenic vistas experienced by recreational users within the Woodford Tehachapi Property and residents located at the perimeter of the Property and along Woodford Tehachapi Road may be temporarily impacted by the renovation of specific existing pipeline segments and rehabilitation of existing structures at the WWTP during construction. Repairs and upgrades to existing pipelines and removal of a lift station would occur along existing roads and road shoulders within the residential areas of Golden Hills, including along Woodford Tehachapi Road which is adjacent to the west of the Woodford Tehachapi Property and Tom Sawyer Lake. All Project Options also include the installation of new pipeline in the Woodford Tehachapi Property, south of Tom Sawyer Lake.

#### *Option A, Continued Operations of the Golden Hills Wastewater Treatment Plant and System*

Option A would also require pipeline repair work in segments of the wastewater collection system that are located along Brite Creek, east of the Woodford Tehachapi Property and south/southwest of the Golden Hills WWTP (Figure 1-2).

#### *Option B-1, Conveyance of Wastewater to the City of Tehachapi for Treatment via a New Lift Station on the Woodford Tehachapi Property*

Option B-1 would include a new sewer force main that would be constructed within the GHCSO-owned Woodford-Tehachapi Property east of Supply Lake and extend south to Fontana Street, then proceed along the road shoulder and traffic lands of Fontana Street, Westwood Boulevard, and Red Apple Avenue (Figure 1-3). The Golden Hills WWTP, including all facilities and structures, would be removed, and the site would be graded to mirror surrounding topography and soils. Option B-1 would also include construction of a lift station in the Woodford Tehachapi Property, east of Supply Lake and north of Brite Creek.

#### *Option B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment via a New Lift Station at the Former Golden Hills WWTP Site*

Option B-2 would include a new sewer force main that would be constructed within the GHCSO-owned Woodford-Tehachapi Property, extending from the Golden Hills WWTP site, south along Brite Creek to Fontana Street, and then proceeding along the road shoulder and traffic lands of Fontana Street, Westwood Boulevard, and Red Apple Avenue. Following removal of the Golden Hills WWTP, Option B-2 would include construction of a lift station at the former WWTP site.

Temporary impacts to scenic vistas experienced by recreational users within the GHCSO-owned Woodford Tehachapi Property, and residential areas surrounding the Woodford Tehachapi Property and along Fontana Street, may potentially result from these construction activities due to the presence of construction and maintenance vehicles, increased personnel and activity,

stockpiling of soils, and increased traffic. Although visual change associated with construction activities would introduce movement and equipment not currently occurring in the area, these impacts would be temporary in nature as construction is anticipated to occur over approximately one year, for all Project Options evaluated in this EIR. Therefore, construction period impacts will be less than significant and no mitigation is required.

#### Operational Period Impacts

The majority of the Project components would be located underground and would not be visible to recreationists or residents in the Project area following construction. The discussion below focuses on those components of the Project that would remain visible during operations.

##### *Option A, Continued operations of the Golden Hills Wastewater Treatment Plant and System*

Option A would include the rehabilitation and continued operation of the Golden Hills WWTP. It would also result in demolition of an existing lift station along Woodford Tehachapi Road, installation of new manholes in the Golden Highlands Community, and maintenance of existing infrastructure. Tom Sawyer Lake would be managed under a Waste Discharge Permit approval from RWQCB requiring quarterly inspection of the pipeline and treated effluent pump operation to assure continued operation. There would be no change to the character of Tom Sawyer Lake and surrounding open space owned by the GHCD, as no new aboveground structures would be sited at the Woodford Tehachapi Property, and the Golden Hills WWTP would continue to deliver treated effluent water to Tom Sawyer Lake. As such, impacts to scenic vistas resulting from Option A would be less than significant, and no mitigation is required.

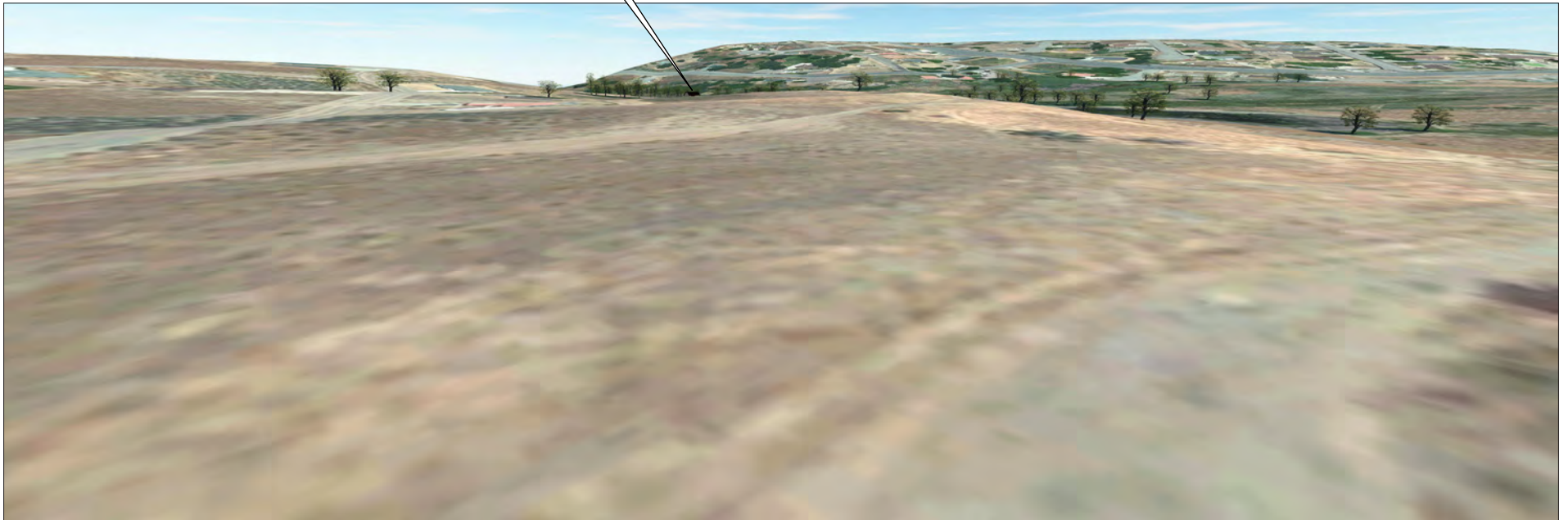
##### *Option B-1, Conveyance of Wastewater to the City of Tehachapi for treatment via a New Lift Station on the Woodford Tehachapi Property*

Option B-1 would include installation of a lift station and a sewer force main to the City of Tehachapi WWTP via pipeline connection at Tucker Road and Red Apple Avenue. A new lift station would be constructed south and east of Tom Sawyer Lake and east of Supply Lake, and gravel would be added to the surface of an existing dirt road that extends from Woodford Tehachapi Road, south of Tom Sawyer Lake, and east to Supply Lake. Fencing would surround the lift station, overflow basin, and associated equipment, which would obstruct scenic views from nearby homes and unofficial recreational uses (such as Tom Sawyer Lake and dirt paths within the Woodford Tehachapi Property). The scale of the lift station would be relatively small and would fit within the context of surrounding rural residential uses; however, it would obstruct scenic views from unofficial recreational uses and residences in the community (Figures 4.1-2 through 4.1-7). This change in visual character would result in a significant impact to the existing scenic vistas within the Project area.

In addition to the lift station, Option B-1 would also eliminate the only consistent source of water to Tom Sawyer Lake, as it entails decommissioning of the Golden Hills WWTP and conveyance of the effluent to the City of Tehachapi WWTP. As a result, inundation of Tom Sawyer Lake would depend on seasonal precipitation, which would be less reliable. With no regular water input to Tom Sawyer Lake, the extent of the Lake and surrounding wetland and riparian areas would be

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Option B-1 Lift Station



KOP 1: Facing southeast towards proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community  
Services District

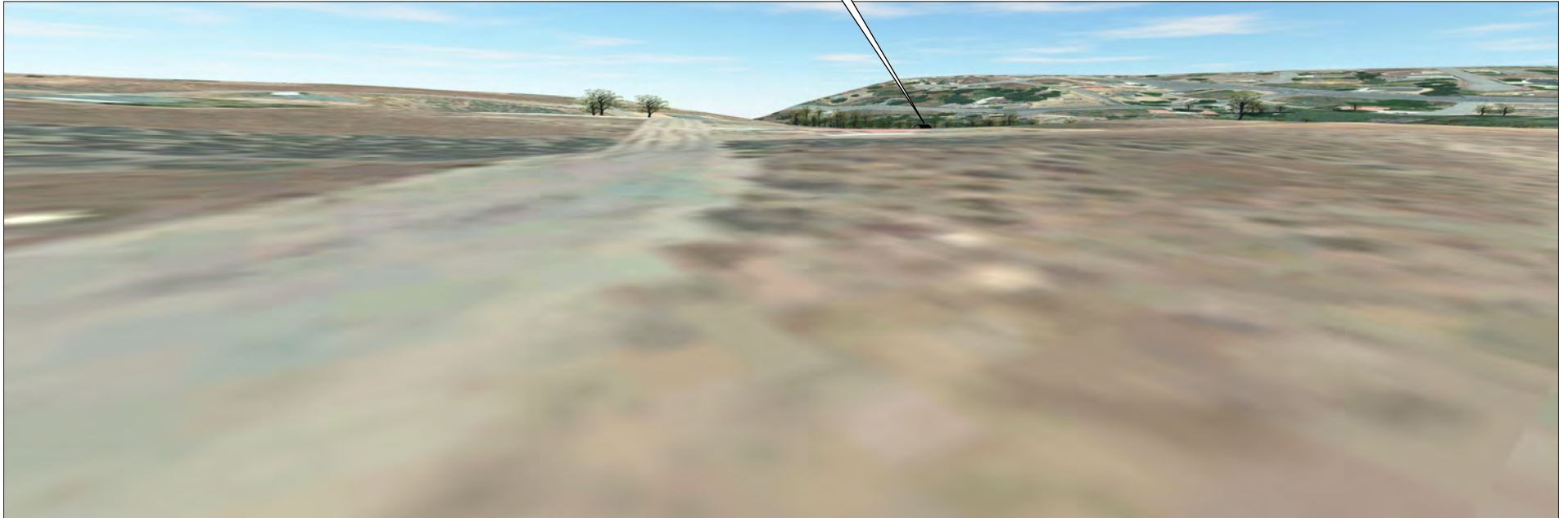
Option B-1 Lift Station  
View from KOP 1

Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-2

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Option B-1 Lift Station



KOP 2: Facing southeast towards proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community  
Services District

Option B-1 Lift Station  
View from KOP 2

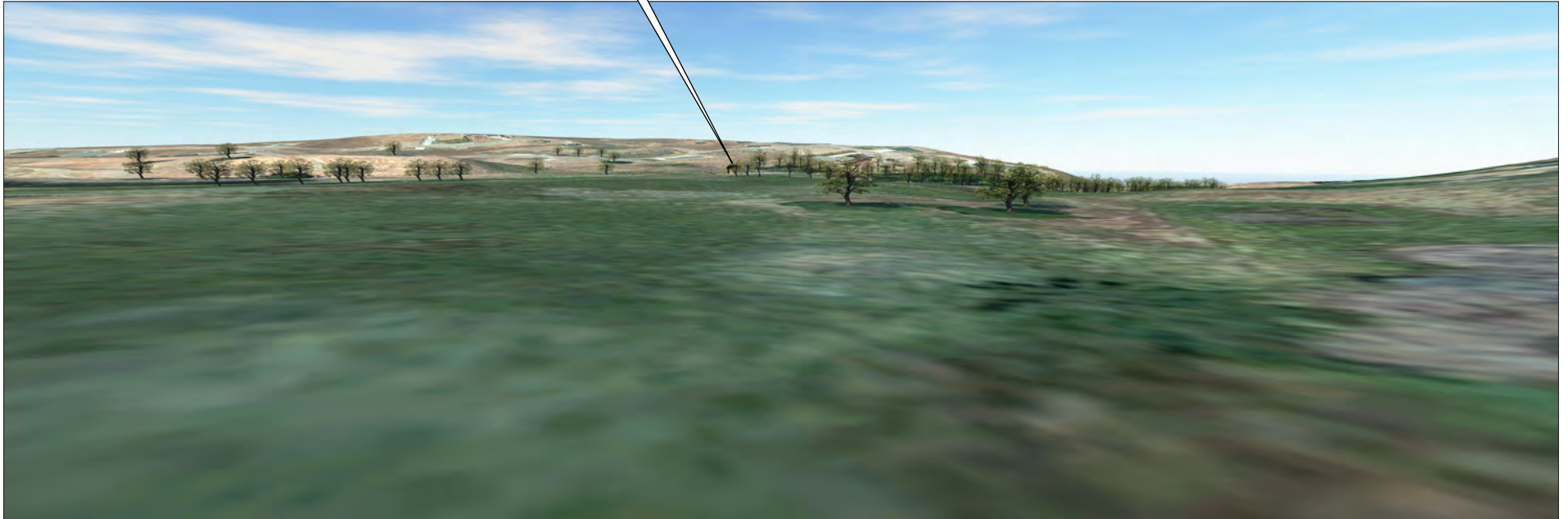
Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-3

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Option B-1 Lift Station



KOP 3: Facing north towards proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community  
Services District

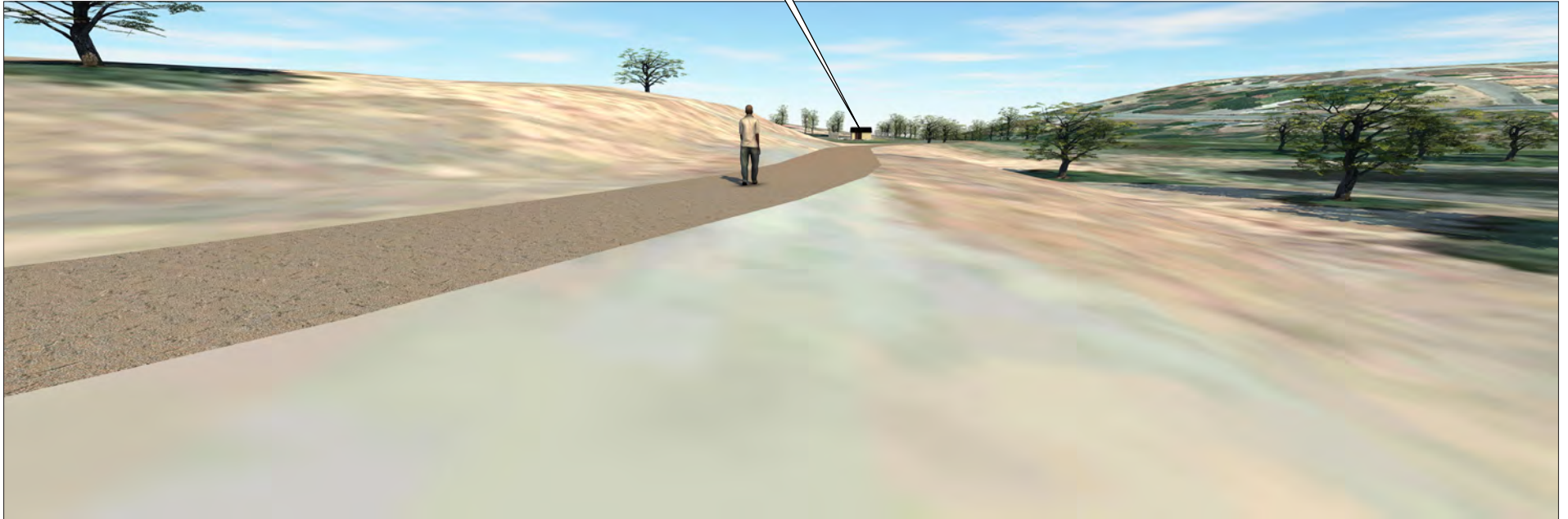
Option B-1 Lift Station  
View from KOP 3

Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-4

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Option B-1 Lift Station



KOP 4: Facing southeast towards proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community Services District

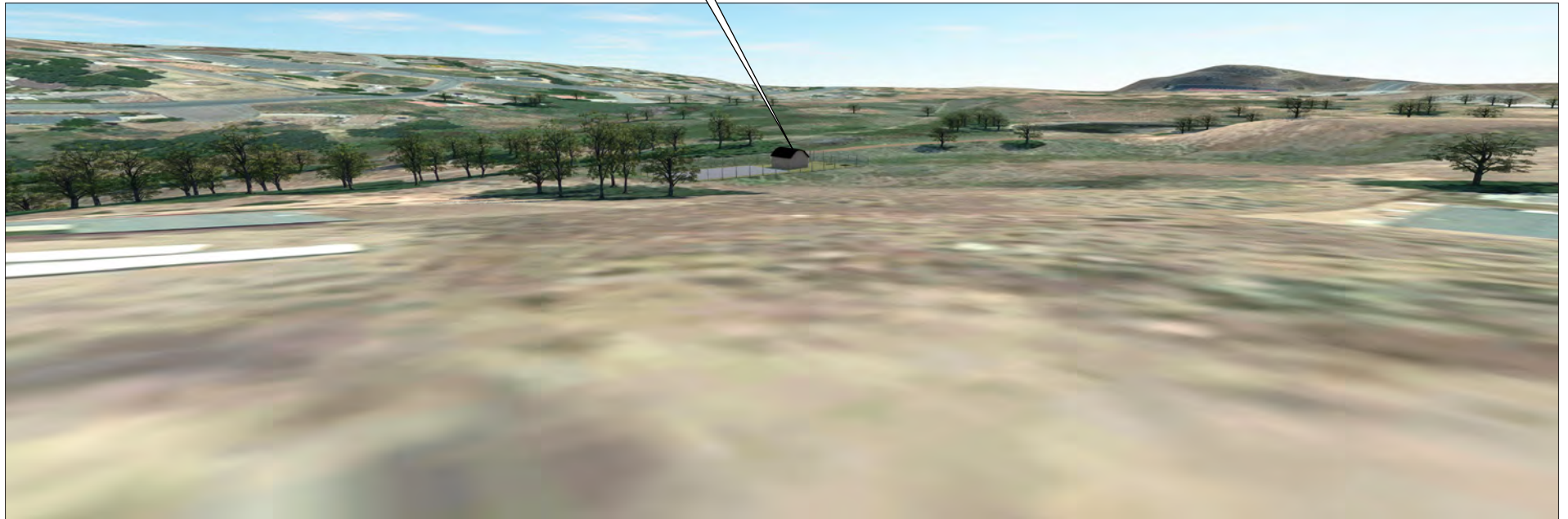
Option B-1 Lift Station  
View from KOP 4

Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-5

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Option B-1 Lift Station



KOP 5: Facing southwest towards proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community  
Services District

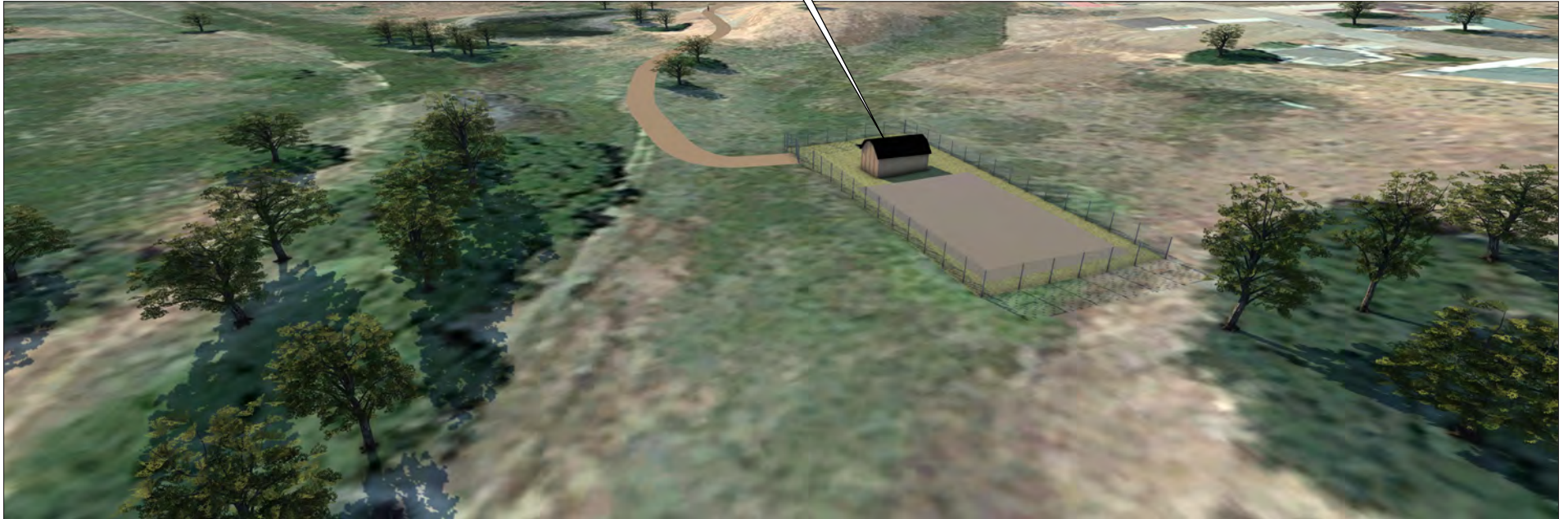
Option B-1 Lift Station  
View from KOP 5

Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-6

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Option B-1 Lift Station



Oblique angle view of proposed lift station associated with Option B-1

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Source: Google Earth Pro., 2016.

Golden Hills Community  
Services District

### Oblique Angle View of Option B-1 Lift Station

Date: 2/19/2016 | Project : 60317952

**AECOM** Figure 4.1-7

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reduced. The loss of water in the Lake as a scenic amenity and focal feature in the landscape would further impact scenic vistas from surrounding unofficial recreational uses and residences.

The Golden Hills WWTP, including all facilities and structures, would be removed as part of Option B-1, which would have incremental benefits to existing scenic vistas in the Project Study Area. Once demolished, the site would be graded to mirror surrounding topography and soils and increasing the naturalness of this area. This benefit to scenic quality would not compensate for the loss of visual quality associated with existing scenic views toward Tom Sawyer Lake and the proposed lift station, as the WWTP is located northeast of the Woodford Tehachapi Property and is topographically removed from the Woodford Tehachapi Property vista.

Therefore, the net impact to existing aesthetics resources from surrounding scenic vistas associated with Option B-1 would be significant due to both the location of the lift station and the loss of water to Tom Sawyer Lake. The following mitigation measures are recommended.

### **Mitigation Measures**

**MM 4.1-1 Lift Station Design.** The proposed Option B-1 lift station shall be designed to fit with the rural character of the Tehachapi Valley. The structure design shall complement the architectural character of buildings in the vicinity and consider building mass and form and building proportions, as well as the texture, color and quality of building materials used locally. Colors will be selected to blend in with the existing visual conditions and provide subtle variations and contrast.

**MM 4.1-2 Vegetative Screening.** Vegetative screening of the Option B-1 lift station using plants native to the Tehachapi Valley shall be used to soften the appearance of the lift station from nearby views. Vegetation shall be planted in a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape. In addition, Mitigation Measure 4.3-8a: Augmentation of Surface Water to Tom Sawyer Lake, shall be implemented to mitigate the loss of the Golden Hills WWTP treated effluent water source to Tom Sawyer Lake that would result from Option B-1. Under this mitigation measure, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth.

### **Level of Significance after Mitigation**

Following implementation of the proposed mitigation measures above, the existing views toward the proposed lift station and within the Woodford Tehachapi Property would be substantially improved. However, the overall scenic vista impacts associated with operation of the Option B-1 lift station remains significant and unavoidable.

*Option B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment via a New Lift Station at the Former Golden Hills WWTP Site*

Under Option B-2, the Golden Hills WWTP would be demolished, and the proposed lift station described under Option B-1 would be constructed at the Golden Hills WWTP property instead. Option B-2 would also require rehabilitation of segments of the existing influent transmission pipelines to the Golden Hills WWTP, as well as construct a new sewer force main within the GHCSO-owned Woodford-Tehachapi Property, extending from the Golden Hills WWTP site, south along Brite Creek to Fontana Street, and then proceeding along the road shoulder and traffic lands of Fontana Street, Westwood Boulevard, and Red Apple Avenue.

The removal of the Golden Hills WWTP facilities and structures would have incremental benefits to existing views of the WWTP site, as the lift station that would replace the WWTP would be smaller in scale. Additionally, siting the proposed lift station at the WWTP would allow views toward Tom Sawyer Lake and Supply Lake in the Woodford Tehachapi Property to remain unobstructed.

However, similar to Option B-1, Option B-2 would also result in removal of the Golden Hills WWTP treated effluent water source to Tom Sawyer Lake. Under Option B-2, inundation of Tom Sawyer Lake would depend on seasonal precipitation and would be less reliable. The loss of this water feature would alter the character of existing views and significantly impact nearby unofficial recreational and residential uses.

### **Mitigation Measures**

MM 4.3-8a: Augmentation of Surface Water to Tom Sawyer Lake, shall be implemented to mitigate the loss of the Golden Hills WWTP treated effluent water source to Tom Sawyer Lake that would result from Option B-2 (refer to Section 4.3). Under this mitigation measure, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth.

### **Level of Significance after Mitigation**

Following implementation of Mitigation Measure 4.3-8a, the scenic vista impact associated with Option B-2 would be less than significant.

### **Cumulative Setting Impacts and Mitigation Measures**

The geographic scope for the consideration of cumulative aesthetic resource impacts, and scenic vistas specifically, includes the areas immediately surrounding the Project area. Generally, scenic vista impacts are limited to the area directly surrounding the subject aesthetic resource; in this case, the Woodford Tehachapi Property and its water features. As shown in Figure 3-4, the related projects located within 6 miles of the Project area are not in sufficient proximity to provide views of the Woodford Tehachapi Property, nor would the related projects be visible from the Woodford Tehachapi Property. Therefore, the related projects in Kern County located in the Project region are too distant from each other to overlap with one another and the

Project. Therefore, the proposed project would not create a cumulative aesthetic resource/scenic vista impact individually or when combined with the current related projects. For this reason, the Project would result in a less than significant cumulatively considerable contribution to aesthetic resources impacts.

**Mitigation Measures**

No mitigation measures are required.

**Level of Significance after Mitigation**

The cumulative aesthetic resources impact is less than significant.

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## Section 4.2

### Air Quality

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#### 4.2.1 Introduction

This section presents existing conditions and potential impacts related to air quality associated with implementation of the proposed Project.

The Lead Agency determined in the IS/NOP that the proposed Project would result in no impacts to stationary sources associated with the Project. To focus this EIR, this topic is not considered further. Appendix A of this EIR contains a copy of the IS/NOP for additional information regarding these systems.

#### 4.2.2 Environmental Setting

The proposed Project is located in the central portion of Kern County, which is part of the Mojave Desert Air Basin (MDAB). The MDAB includes the eastern desert portion of Kern County, northeast, desert portions of Los Angeles and San Bernardino Counties, and the northeast portion of Riverside County. In addition, it is anticipated that Project-related construction trips (e.g., worker commutes) would originate from Bakersfield, which is part of the San Joaquin Valley Air Basin (SJVAB). However, because the Project site is located in the MDAB and construction trips are a minimal component of the proposed Project, this environmental setting focuses on MDAB.

##### Topography and Meteorology

The MDAB is predominately flat desert bound by the Tehachapi Mountains to the north and west, and the San Gabriel Mountains to the south. The Tehachapi and San Gabriel Mountains separate the MDAB from the more populated San Joaquin Valley and South Coast Air Basins. Although these mountains form a physical barrier to these populated areas, prevailing winds and the Tehachapi Pass provide means to transport sufficient pollutant emissions into the MDAB.

The desert climate type of the MDAB is characterized by hot, dry summers and cold, dry winters. The inland position of the MDAB lacks the cooling effects of the Pacific Ocean, while the presence of the mountains that separate the MDAB from the ocean remove much of the moisture before reaching the MDAB. Therefore, the region is relatively dry with little precipitation in the summer or winter. Daily summer high temperatures can reach 100°F and averages in the mid-90s (Western Regional Climate Center 2008). Near the Project site, daily summer high temperatures average approximately 96°F with extreme highs reaching 113°F (Western Regional Climate Center 2008). Over the last 10 years, the area has averaged approximately 66 days per year with temperatures below 32°F (Western Regional Climate Center 2008). A majority of the precipitation in the MDAB occurs as rainfall during the winter.

The Project area receives an average of approximately 6.59 inches of rain per year (Western Regional Climate Center 2008). Approximately 65% of the annual rainfall occurs in the winter months from December to February (Western Regional Climate Center 2008).

Winds in the MDAB are primarily from the west, west-southwest, and southwest. Inversion layers are less problematic in the MDAB than other areas, such as the SJVAB. Subsidence inversions in the MDAB typically occur around 6,000 to 8,000 feet above ground, which allows for greater vertical mixing. Thus, MDAB is less conducive to buildout of pollutant concentrations near the surface where receptors are present.

### Existing Air Quality – Criteria Air Pollutants

Concentrations of criteria air pollutant emissions are used as indicators of ambient air quality conditions. The Air Quality Technical Report (Appendix C) includes a brief description of each criteria air pollutant (source types, health effects, and future trends). The following text presents the most current attainment area designations and monitoring data applicable to the proposed Project site.

Sources of criteria air pollutant emissions in Kern County include stationary, area, and mobile sources. According to Kern County's emissions inventory, mobile sources are the largest contributor to the estimated annual average air pollutant levels of oxides of nitrogen (NO<sub>x</sub>), accounting for approximately 73 percent of the total emissions (ARB 2015b). Mobile sources also account for approximately 25 percent of the total reactive organic gas (ROG) emissions for the County. Area wide sources account for approximately 73 percent and 40 percent of the County's total particulate matter less than or equal to 10 microns (PM<sub>10</sub>) and particulate matter less than or equal to 2.5 microns (PM<sub>2.5</sub>) emissions, respectively. Table 4.2-1 summarizes the estimated emissions inventory for Kern County in 2012.

**Table 4.2-1 Summary of 2012 Estimated Emissions Inventory for Kern County**

Source Type/Category	Estimated Annual Average Emissions (Tons per Day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Stationary Sources</b>				
Fuel Combustion	2.04	11.73	3.86	3.76
Waste Disposal	11.07	0.09	0.02	0.01
Cleaning and Surface Coating	3.22	-	0.01	0.01
Petroleum Production and Marketing	26.57	0.23	0.15	0.14
Industrial Processes	2.30	15.49	4.96	1.99
<b>Subtotal (Stationary)</b>	<b>45.19</b>	<b>27.54</b>	<b>9.00</b>	<b>5.91</b>

**Table 4.2-1 Summary of 2012 Estimated Emissions Inventory for Kern County**

Source Type/Category	Estimated Annual Average Emissions (Tons per Day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Sources)</b>				
<b>Area wide Sources</b>				
Solvent Evaporation	10.77	-	-	-
Miscellaneous Processes	12.54	1.74	43.23	7.94
<b>Subtotal (Area wide Sources)</b>	<b>23.31</b>	<b>1.74</b>	<b>43.23</b>	<b>7.94</b>
<b>Mobile Sources</b>				
On-Road Motor Vehicles	11.77	58.29	3.25	2.17
Other Mobile Sources	10.60	20.42	3.78	3.67
<b>Subtotal (Mobile Sources)</b>	<b>22.37</b>	<b>78.72</b>	<b>7.04</b>	<b>5.85</b>
<b>Grand Total for Kern County</b>	<b>90.87</b>	<b>108.00</b>	<b>59.27</b>	<b>19.70</b>

Notes: "-" = less than 0.1 ton per day.

Totals may not appear to add exactly due to rounding

Source: ARB 2013a

## Monitoring Station Data and Attainment Area Designations

Ambient air pollutant concentrations in the MDAB are measured at air quality monitoring stations operated by ARB and the EKAPCD. Concentrations of criteria air pollutants are measured at eight monitoring stations in Kern County. The closest and most representative air quality monitoring station to the Project site is the Mojave-923 Poole Street monitoring station. Table 4.2-2 summarizes the air quality data from the most recent 3 years.

**Table 4.2-2 Summary of Annual Ambient Air Quality Data (2012–2014)**

	2012	2013	2014
<b>Ozone</b>			
Maximum concentration (1-hour/8-hour average, ppm)	0.096/0.087	0.094/0.086	0.104/0.096
Number of days State standard exceeded (1-hour)	1	0	9
Number of days 8-hour standard exceeded (National/California)	29/55	9/29	57/95

**Table 4.2-2 Summary of Annual Ambient Air Quality Data (2012–2014)**

	2012	2013	2014
<b>Carbon Monoxide<sup>1</sup></b>			
Maximum concentration (8-hour, ppm)	1.00	*	*
Number of days State standard exceeded	0	*	*
Number of days national standard exceeded	0	*	*
<b>Nitrogen Dioxide<sup>1</sup></b>			
Maximum concentration (1-hour, ppm)	49.0	47.7	51.9
Number of days State standard exceeded	0	0	0
Annual average (ppm)	9	8	8
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
Maximum concentration (µg/m <sup>3</sup> ) (National/California)	67.7/49.5	76.2/76.2	36.5/36.5
Number of days national standard exceeded (estimated/measured)	2.1/2	*/6	1.0/1
Annual average (µg/m <sup>3</sup> ) (National/California)	6.5/6.6	*/*	5.9/6.1
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>			
Maximum concentration (µg/m <sup>3</sup> ) (National/California)	*/96.6	120.2/131.5	184.2/171.0
Number of days State standard exceeded (estimated/measured)	19.1/18	*/26	12.5/12
Number of days national standard exceeded (estimated/measures)	*/*	*/0	1.1/1
Annual average (µg/m <sup>3</sup> ) (California)	27.5	*	22.7

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; ppm = parts per million

\* Insufficient data available to determine the value.

<sup>1</sup> Data was obtained from the 43301 Division Street monitoring station in Lancaster, which approximately 38 miles southeast of the Project and is the closest monitoring station in MDAB that monitors for this pollutant.

Sources: ARB 2015a

## Sensitive Receptors

Sensitive land uses or sensitive receptors are people or facilities that generally house people (e.g., schools, hospitals, residences) that may experience adverse effects from unhealthy



concentrations of air pollutants. As discussed above, the proposed Project is located in an existing single-family residential area. The closest resident is located across Woodford-Tehachapi Road approximately 100 feet east of the Project site, although residences occur within as little as 25 feet along some sections of the pipeline route where pipes will be replaced.

### 4.2.3 Regulatory Setting

Air quality is regulated at the Federal level by EPA, at the State level by ARB, and at the local level by the EKAPCD. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both State and local regulations may be more stringent.

#### National Ambient Air Quality Standards

At the Federal level, the EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the Federal CAA, which was enacted in 1970. The most recent major amendments to the CAA were made by Congress in 1990. The CAA required EPA to establish National Ambient Air Quality Standards. These standards were established to protect the public with a margin of safety from adverse health impacts due to exposure to air pollution. Health-based air quality standards have been established for criteria pollutants by EPA at the national level and by ARB at the State level. Table 4.2-3 presents the National Ambient Air Quality Standards and the California Ambient Air Quality Standards.

**Table 4.2-3 Ambient Air Quality Standards and Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Kern County (MDAB) Attainment Status <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Kern County (MDAB) Attainment Status <sup>7</sup>
Ozone	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	N	–	–	–
	8-hour	0.07 ppm (137 µg/m <sup>3</sup> )	N	0.070 ppm (137 µg/m <sup>3</sup> )	Same as Primary Standard	N
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	U	35 ppm (40 mg/m <sup>3</sup> )	–	U/A
	8-hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )		

**Table 4.2-3 Ambient Air Quality Standards and Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Kern County (MDAB) Attainment Status <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Kern County (MDAB) Attainment Status <sup>7</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	–	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	U/A
	1-hour	0.18 ppm (339 µg/m <sup>3</sup> )	A	0.100 ppm (188 µg/m <sup>3</sup> )	–	–
Sulfur Dioxide (SO <sub>2</sub> )	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )	A	0.14 ppm	–	U
	3-hour	–	–	–	0.5 ppm (1300 µg/m <sup>3</sup> )	U
	1-hour	0.25 ppm (655 µg/m <sup>3</sup> )	A	.075 ppm (196 µg/m <sup>3</sup> )	–	U
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	N	–	Same as Primary Standard	N
	24-hour	50 µg/m <sup>3</sup>		150 µg/m <sup>3</sup>		
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	U	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	U/A
	24-hour	–	–	35 µg/m <sup>3</sup>	Same as Primary Standard	
Lead	30-day Average	1.5 µg/m <sup>3</sup>	A	–	–	–
	Calendar Quarter	–	–	1.5 µg/m <sup>3</sup>	Same as Primary Standard	U/A
	Rolling 3-Month	–	–	0.15 µg/m <sup>3</sup>	Same as Primary Standard	U/A

**Table 4.2-3 Ambient Air Quality Standards and Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Kern County (MDAB) Attainment Status <sup>4</sup>	Primary <sup>3, 5</sup>	Secondary <sup>3, 6</sup>	Kern County (MDAB) Attainment Status <sup>7</sup>
	Average					
Sulfates	24-hour	25 µg/m <sup>3</sup>	A	No National Standards		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m <sup>3</sup> )	U			
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m <sup>3</sup> )	A			
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) because of particles when the relative humidity is less than 70%.	U			

Notes: MDAB = Mojave Desert Air Basin; µg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million.

<sup>1</sup> National standards (other than ozone, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard.

The PM<sub>10</sub> 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The PM<sub>2.5</sub> 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current Federal policies.

<sup>2</sup> California standards for ozone, CO (except Lake Tahoe), SO<sub>2</sub> (1- and 24-hour), NO<sub>2</sub>, PM, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the CCR.

<sup>3</sup> Concentration expressed first in units in which it was issued (i.e., ppm or µg/m<sup>3</sup>). Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>4</sup> Unclassified (U): A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Attainment (A): A pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.

**Table 4.2-3 Ambient Air Quality Standards and Designations**

Pollutant	Averaging Time	California		National Standards <sup>1</sup>		
		Standards <sup>2,3</sup>	Kern County (MDAB) Attainment Status <sup>4</sup>	Primary <sup>3, 5</sup>	Secondary <sup>3, 6</sup>	Kern County (MDAB) Attainment Status <sup>7</sup>

Nonattainment (N): A pollutant is designated nonattainment if there was a least one violation of a State standard for that pollutant in the area.

Nonattainment/Transitional (NT): A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

<sup>5</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>6</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>7</sup> Nonattainment (N): Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Attainment (A): Any area that meets the national primary or secondary ambient air quality standard for the pollutant.

Unclassifiable (U): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Source: ARB 2015a

The EPA, under the provisions of the CAA, requires each State with regions that have not attained the National Ambient Air Quality Standards to prepare a State Implementation Plan (SIP), detailing how these standards are to be met in each local area. The SIP is a legal agreement between each state and the Federal government to commit resources to improving air quality. The SIP is not a single document, but a compilation of new and previously submitted attainment plans, emissions reduction programs, district rules, State regulations, and Federal controls.

This table also shows the MDAB attainment status for each standard. The MDAB designated as nonattainment for the State and Federal ozone and PM<sub>10</sub> standards. The Project region is currently designated as attainment or unclassified for the State and Federal CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub> standards. With respect to the California-specific ambient air quality standards (i.e., visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride), the Project region is designated as attainment or unclassified. Table 4.2-3 shows the attainment status for each pollutant and standard.

General conformity requirements were adopted by Congress as part of the CAA Amendments of 1990 (CAAA) and were implemented by EPA regulations in the November 30, 1993, Federal

Register (40 CFR Sections 6, 51, and 93: “Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule”).

General conformity requires that all Federal actions conform to the SIP as approved or promulgated by EPA. The proposed Project would be required to evaluate its construction and operational emissions against the applicable General Conformity Rule thresholds of significance, which are called *de minimis* thresholds. If the emissions would exceed the *de minimis* levels, a formal air quality conformity determination is required.

The *de minimis* levels are based on the attainment/maintenance and nonattainment designations and classifications for the Project area. The proposed Project is located in the Kern County portion of the MDAB, whose attainment status with respect to Federal standards is shown in Table 4.2-3. Accordingly, the *de minimis* thresholds for the proposed Project are presented below in Table 4.2-4.

**Table 4.2-4 General Conformity *de Minimis* Thresholds for Projects in the Mojave Desert Air Basin**

Pollutant	Emission Threshold (tpy)
CO	100 <sup>1</sup>
NO <sub>x</sub>	100 <sup>2</sup>
VOC/ROG	100 <sup>2</sup>
PM <sub>10</sub>	70
PM <sub>2.5</sub>	100 <sup>3</sup>

**Notes:**

CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>2.5</sub> = fine particulate matter; PM<sub>10</sub> = respirable particulate matter;

ROG = reactive organic gases; VOC = volatile organic compound; tpy = tons per year

<sup>1</sup> Unclassified/attainment area for CO.

<sup>2</sup> Marginal nonattainment area for 8-hour ozone precursors: NO<sub>x</sub> and VOC.

<sup>3</sup> MDAB is unclassified/attainment for PM<sub>2.5</sub>; however, for the purposes of a conservative analysis, the nonattainment *de minimis* threshold for PM<sub>2.5</sub> was used to evaluate the Project’s construction emissions.

Sources: 40 CFR 93 Section 153

EPA has programs for identifying and regulating hazardous air pollutants (HAPs), also known as toxic air contaminants (TACs). Title III of the CAAA directed EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. Major sources are defined as stationary sources with potential to emit more than 10 tpy of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. The emissions standards were promulgated in two phases. In the first

phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring maximum available control technology (MACT). For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA is required to promulgate health risk–based emissions standards, where deemed necessary, to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene.

### **State Ambient Air Quality Standards**

ARB is responsible for coordination and oversight of State and local air pollution control programs in California and for implementation of the California Clean Air Act (CCAA). Among ARB's other responsibilities are overseeing compliance by local air districts with California and Federal laws; approving local air quality plans, submitting SIPs to EPA; monitoring air quality; determining and updating area designations and maps; and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. California's adopted 2007 State Strategy for California's SIP for Federal PM<sub>2.5</sub> and 8-Hour Ozone Standards (2007 SIP) was submitted to EPA as a revision to the SIP in November 2007 (ARB 2008). In July 2011, ARB approved revisions to the 2007 SIP that updated the ARB rulemaking calendar, made adjustments to transportation conformity budgets, revised reasonable further progress tables and associated reductions for contingency purposes and updated actions to identify advanced emission control technologies (ARB 2011).

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health. The State Air Toxics Program was established in 1983 by AB 1807. A total of 243 substances have been designated TACs under California law; they include the 189 (Federal) HAPs adopted in accordance with AB 2728, which required the State to identify the Federal HAPs as TACs to make use of the time and costs the EPA had already invested in evaluating and identifying hazardous/toxic substances. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities must perform a health risk assessment and, if specific thresholds are violated, must communicate the results to the public in the form of notices and public meetings. The regulation of TACs is generally through statutes and rules that require the use of the MACT or BACT to limit TAC emissions.

According to the California Almanac of Emissions and Air Quality (ARB 2009), most of the estimated health risk from TACs is attributed to relatively few compounds, the most dominant being particulate matter exhaust from diesel-fueled engines (diesel PM). Diesel PM differs from

other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and the presence or absence of an emission control system.

In 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 85 percent decrease in Statewide diesel health risk in 2020 relative to the year 2000 diesel risk (ARB 2000). Additional regulations apply to new trucks and diesel fuel. Subsequent ARB regulations on diesel emissions include the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-road Diesel Vehicle Regulation, and the New Off-road Compression Ignition Diesel Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment.

## **Local**

### **Eastern Kern Air Pollution Control District**

The EKAPCD seeks to improve air quality conditions in the Kern County portion of the MDAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the EKAPCD includes the preparation of plans and programs for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. The EKAPCD also inspects stationary sources; responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements other programs and regulations required by the CAA, CAAA, and the CCAA.

The EKAPCD prepares and submits Air Quality Attainment Plans in compliance with the requirements set forth in the CAA and the CCAA. The air quality attainment plans and reports present comprehensive strategies to reduce criteria pollutant emissions from stationary, area, mobile, and indirect sources. On January 9, 2003, EKAPCD adopted the East Kern Ozone Attainment Demonstration, Maintenance Plan and Redesignation Request for the East Kern County nonattainment area. On December 9, 2003, ARB adopted and submitted the amended plan to EPA.

#### Rules and Regulations

All projects are subject to EKAPCD rules and regulations in effect at the time of construction. Specific rules that may be applicable to the Project include:

- Rule 401 Visible Emissions
- Rule 402 Fugitive Dust
- Rule 419 Nuisance

### **Kern County General Plan**

Kern County's General Plan includes policies that address air quality in their Land Use, Open Space, and Conservation Element (Kern County 2009):

- Policy 18: The air quality implications of new discretionary land use proposals shall be considered in approval of major developments. Special emphasis will be placed on minimizing air quality degradation in the desert to enable effective military operations and in the valley region to meet attainment goals.
- Policy 19: In considering discretionary projects for which an EIR must be prepared pursuant to the CEQA, the appropriate decision making body, as part of its deliberations, will ensure that:
  - All feasible mitigation to reduce significant adverse air quality impacts have been adopted; and
  - The benefits of the proposed project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation. This finding shall be made in a statement of overriding considerations and shall be supported by factual evidence to the extent that such a statement is required pursuant to CEQA.
- Policy 20: The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the SJVAPCD and EKAPCD on ministerial permits.
- Policy 21: The County shall support air districts' efforts to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions.
- Policy 22: Kern County shall continue to work with the SJVAPCD and EKAPCD toward air quality attainment with Federal, State, and local standards.
- Policy 23: The County shall continue to implement the local government control measures in coordination with the Kern Council of Governments (COG) and SJVAPCD.
- Policy 24: Kern County shall consult with transit providers to determine project effects and ensure that impacts are mitigated.

### **Greater Tehachapi Area Specific and Community Plan**

In December 2010, Kern County Planning and Community Development Department prepared the GTASCP, which includes the Project site. Several policies and goals in the Open Space and Conservation Element of the Specific Plan address air quality emissions (Kern County 2010b).

- Goal COS.9: Protect and improve air quality in the GTA.
- Goal COS.10: Reduce air pollution and GHG emissions by promoting greater energy efficiency and conservation, and through the use of renewable resources.
- Policy COS.34: Cooperate with the EKAPCD to implement Air Quality Attainment Plans and to meet Federal and State standards.
- Policy COS.35: Include fugitive dust control measures, as required by EKAPCD, as conditions of approval for discretionary projects and subdivision maps.



- Policy COS.37: The County shall support the efforts of the EKAPCD to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions.
- Policy COS.38: Enforce the Kern County Grading Ordinance through the Engineering, Surveying and Permit Service Department, along with dust control and other EKAPCD regulations to mitigate air quality effects during construction and rehabilitation of new and existing structures.
- Policy COS.40: Promote energy-efficient design features and green building measures, including appropriate site orientation, use of lighted color roofing and building materials, and use of deciduous shade trees and windbreak materials to reduce fuel consumption for heating and cooling.

### **City of Tehachapi General Plan**

In January 2012, the City of Tehachapi developed a General Plan that serves as a blueprint and guidance for future growth. Various policies and goals in the Natural Resources Element of the Tehachapi General Plan would address air quality emissions (City of Tehachapi 2012):

- Objective 1: Improve Air Quality
- Policies NR1: Require planting of trees along all right-of-way and within open space per the following.
- Policy NR2: Take affirmative steps toward reduction of motor vehicle-related air pollution including, but not limited, the following:
  - Require land use and transportation strategies that promote use of alternatives to the automobile for transportation, including walking, bicycling, bus transit and carpool;
  - Encourage the development of alternative fuel stations;
  - Require percentage of parking spaces in large parking lots/garages to provide electrical vehicle charging facilities;
  - Promote ride-sharing car-sharing programs;
  - Discourage activities that result in unnecessary idling of vehicles;
  - Evaluate alternative traffic control devices such as roundabouts that slow automobiles rather than devices such as traffic signals and stop signs which make automobiles start and stop.
- Policy NR3. Reduce emissions for stationary point sources of air pollution and stationary area sources which cumulatively, represent large quantities of emissions.
  - Work with the Air Quality Management District to achieve emission-reductions for non-attainment pollutants including CO, ozone, and PM10.
  - Apply the CEQA to evaluate and mitigate the local and cumulative effects of new development on air quality.
- Policy NR4. Reduce emissions from residential and commercial uses:
  - Require that contractors include, in construction contracts, the following requirements, consistent with the EKAPCD's Regulation.

- Locate new stationary sources of air pollutants, such as industrial facilities, at sufficient distances away from residential areas and facilities that serve sensitive receptors.

## 4.2.4 Impacts and Mitigation Measures

### Methodology

Construction-related emissions for the proposed Project were estimated using emission factors from ARB's OFFROAD and EMFAC 2014 inventory models. Construction emissions from the operation of diesel-fueled off-road equipment were estimated by multiplying daily usage (i.e., hours per day) and total days of construction by OFFROAD equipment-specific emission factors. Emissions from on-road motor vehicles were estimated using vehicle trips, vehicle miles traveled, and EMFAC2014 mobile source emission factors. The emission factors represent the fleet-wide average emission factors within Kern County. All criteria pollutant emissions associated with construction equipment at the Project site would occur within the MDAB, which is under the jurisdiction of the EKAPCD. Based on the assumption that trips may originate in Bakersfield, the analysis assumes that 50 percent of the round trip distance for construction worker commutes would occur in the SJVAB, which is under the jurisdiction of the SJVAPCD.

The proposed Project is not anticipated to generate new vehicle trips and would not generate additional activities related to maintenance or operations that would exceed existing levels. Therefore, operational emissions were not estimated for the proposed Project.

### Thresholds of Significance

An air quality impact is considered significant if the proposed Project would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable National Ambient Air Quality Standards or California Ambient Air Quality Standards (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- Expose sensitive receptors to substantial pollutant concentrations, or
- Create objectionable odors affecting a substantial number of people.

In 2006, Kern County released its Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports that provides updated methods and guidance to evaluate air quality impacts within its jurisdiction (Kern County 2006). This analysis uses the thresholds of significance and methods from the 2006 Guidelines to evaluate the proposed Project's air quality impacts. Table 4.2-5 presents the thresholds of significance for criteria pollutants

**Table 4.2-5 Thresholds of Significance for Criteria Pollutants**

Pollutant/Precursor	Applicable Air District Thresholds (tpy) <sup>1</sup>		General Conformity De Minimis Thresholds (tpy)
	Construction Emissions (tpy)	Operational Emissions (tpy)	Construction Emissions (tpy)
CO	N/A	N/A	100
NO <sub>x</sub>	25	25	100
ROG	25	25	100
SO <sub>x</sub>	N/A	N/A	-
PM <sub>10</sub>	15	15	70
PM <sub>2.5</sub>	15 <sup>2</sup>	15 <sup>2</sup>	100

Notes: tpy = tons per year; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; ROG = reactive organic gases; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with aerodynamic diameter less than 10 microns; PM<sub>2.5</sub> = particulate matter with aerodynamic diameter less than 2.5 microns.

<sup>1</sup> Thresholds are obtained from the Kern County's Guidelines for Preparing an Air Quality Assessment for Use In Environmental Impact Reports.

<sup>2</sup> Thresholds are obtained from SJVAPCD's 2015 Guide for Assessing and Mitigating Air Quality Impacts.

Source: Kern County 2006, SJVAPCD 2015.

## Project Impacts

The Air Quality Technical Report (Appendix C) contains appendices that present the calculated emission estimates and the calculated cancer risk and SCREEN3 model outputs.

### Impact 4.2-1: Conflict with or obstruct implementation of the applicable air quality plan.

Air quality plans describe air pollution control strategies to be implemented by a city, county, or regional air district. The primary purpose of an air quality plan is to bring an area that does not attain Federal and State air quality standards into compliance with those standards pursuant to the requirements of the CAA and CCAA.

Air quality planning efforts are based on analysis and forecasts of air pollutant emissions throughout the entire region. EKAPCD regulates regional air quality by enforcing rules and regulations, issuing air quality permits, and developing air quality plans. Air quality plans are developed with input from Kern COG and are designed to attain and maintain ambient air quality standards. The existing emissions profile and projected growth of a region (based on

local general plans) are evaluated along with proposed mitigation measures to determine if the region would attain ambient air quality standards.

The proposed Project is primarily a construction project and would not develop any land uses that would result in a net increase in long-term operational emissions. The use of construction equipment in the SIP is estimated for the region on an annual basis, and construction-related emissions are estimated as an aggregate. The Project would not increase the assumptions for off-road equipment use in the SIP.

Because the proposed Project would comply with all construction-related EKAPCD rules and regulations and would not construct a land use that would result in a net increase in long-term operational emissions, the Project would not conflict with or obstruct implementation of the applicable air quality plan. This impact would be less than significant.

### **Mitigation Measures**

No mitigation measures are required.

### **Level of Significance after Mitigation**

The impact is less than significant.

### **Impact 4.2-2: Violate any air quality standards or contribute substantially to an existing or projected air quality violation.**

#### Construction Emissions

Construction-related emissions are described as short term or temporary in duration and have the potential to represent a significant impact with respect to air quality. Construction-related activities would result in emissions of criteria air pollutants (e.g., PM<sub>10</sub>, PM<sub>2.5</sub>, CO, ) and precursors (e.g., ROG and NO<sub>x</sub>) from ground disturbance activities (e.g., excavation, grading, and clearing); off-road equipment, material delivery vehicle, and worker commute vehicle exhaust; vehicle travel on paved and unpaved roads; and other miscellaneous activities (e.g., building construction, asphalt paving, application of architectural coatings).

Exhaust- and fugitive dust-related emissions would be generated at varying levels depending on the type of construction activities for a particular day. These emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. Cut and fill operations and general site grading and ground disturbance activities are the primary sources of fugitive PM dust emissions from construction activities. Construction fugitive PM dust emissions can vary greatly, depending on the level of activity, the specific operations taking place, the number and types of equipment operated, vehicle speeds, local soil conditions, weather conditions, and the amount of earth disturbance (e.g., site grading, excavation, cut-and-fill).

Option A would involve general site grading activities for rehabilitation and related infrastructure improvements. Options B-1 and B-2 would involve additional trenching and

earthmoving associated with construction of conveyance infrastructure (e.g., collection pipes, gravity pipes), as well as a new lift station. Fugitive dust emissions associated with these activities and general construction activities are included in the emissions estimates in Table 4.2-6. While Option B-2 would entail the installation of approximately 3,000 feet more of force main as compared to Option B-1, it would re-use a portion of the overflow basin already located at the former Golden Hills WWTP site, whereas the Option B-1 lift station at the Woodford Tehachapi property would require development of a new overflow basin. Therefore, construction-related emissions generated by Options B-1 and B-2 are anticipated to be similar.

**Table 4.2-6 Unmitigated MDAB Construction-Related Emissions**

Construction Phase	Emissions (tons) <sup>1</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Mojave Desert Air Basin (EKAPCD)						
Option A	0.58	4.63	3.62	0.01	1.28	0.45
Option B-1 or B-2	0.41	4.50	3.50	0.01	3.96	1.00
CEQA Thresholds (tpy) <sup>2</sup>	25	25	N/A	N/A	15	15
Exceeds CEQA Thresholds?	No	No	No	N/A	No	No
<i>De Minimis</i> Thresholds (tpy)	100	100	100	N/A	70	100
Exceeds <i>De Minimis</i> Thresholds	No	No	No	N/A	No	No

Notes: ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter; ROG = reactive organic gases; CEQA = California Environmental Quality Act; tpy = tons per year

<sup>1</sup> All emissions are shown in units of tons unless noted otherwise.

<sup>2</sup> CEQA thresholds are those established by local air district. See Table 5 for detailed descriptions of thresholds used.

Source: Appendix C.

Table 4.2-7 presents the Project related construction emissions.

**Table 4.2-7. Unmitigated SJVAB Construction-Related Emissions**

Construction Phase	Emissions (tons) <sup>1</sup>					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Option A	0.01	0.03	0.30	0.00	0.03	0.01
Option B-1 or B-2	0.01	0.03	0.34	0.00	0.03	0.01
CEQA Thresholds (tpy) <sup>2</sup>	10	10	N/A	N/A	15	15

Exceeds CEQA Thresholds?	No	No	No	N/A	No	No
<i>De Minimis</i> Thresholds (tpy)	100	100	100	N/A	70	100
Exceeds <i>De Minimis</i> Thresholds	No	No	No	N/A	No	No

Notes: ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particular matter less than or equal 2.5 microns in diameter; ROG = reactive organic gases; CEQA = California Environmental Quality Act; tpy = tons per year

<sup>1</sup> All emissions are shown in units of tons unless noted otherwise.

<sup>2</sup> CEQA thresholds are those established by local air district. See Table 5 for detailed descriptions of thresholds used.

Source: Appendix C.

As shown in Tables 4.2-6 and 4.2-7, the proposed Project's unmitigated maximum annual construction emissions would not exceed the applicable CEQA or *de minimis* thresholds of significance in both the MDAB and the SJVAB. The proposed Project includes fugitive dust control requirements consistent with EKAPCD rules and regulations, and are not considered mitigation for the purposes of this analysis. Therefore, this impact would be less than significant. In addition, with respect to CEQA Plus requirements, the proposed Project would fulfill the requirements to comply and be under the CAA General Conformity *de minimis* thresholds. No substantial adverse direct or indirect effects would occur under NEPA.

### Mitigation Measures

No mitigation measures are required.

### Level of Significance after Mitigation

The impact is less than significant.

**Impact 4.2-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is classified as nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Air quality is inherently a cumulative impact as current emission levels and attainment status are a result of past and present projects. The MDAB is designated as nonattainment for the State ozone and PM<sub>10</sub> standards. Therefore, each additional project within the MDAB has the potential to cause a net increase in emissions that would contribute to this cumulative air quality impact. Although most projects would result in a net increase in air quality emissions, this impact evaluates whether that net increase in air quality emissions would be considered a cumulatively considerable contribution. Kern County evaluates three criteria for cumulative impacts: 1) localized impacts, 2) consistency with existing air quality plans, and 3) ARB air basin emission. As discussed above, construction-related emissions of ozone precursors and criteria

air pollutants would not exceed any applicable thresholds of significance. Considering this information and that the Project would not conflict with the applicable attainment plan, the proposed Project's construction-related emissions contribution to this significant cumulative impact would be less than cumulatively considerable. This impact would be cumulatively less than significant.

### **Mitigation Measures**

No mitigation measures are required.

### **Level of Significance after Mitigation**

The impact is less than significant.

### **Impact 4.2-4: Expose sensitive receptors to substantial pollutant concentrations.**

The closest sensitive receptors to the Project site would be residential units approximately 100 feet away across Woodford Tehachapi Road. The residential properties represent the nearest sensitive receptors with the potential to be impacted as a result of construction and operation of the proposed Project.

### Construction-Related Emissions

Construction-related activities would result in short-term emissions of diesel PM from the off-road heavy-duty diesel equipment exhaust. With respect to the health impacts, the dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time.

According to the California Office of Environmental Health Hazard Assessment, health risk assessments (HRA), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period and duration of activities associated with the subject Project. In the case of the proposed Project, construction activities are anticipated to occur over an approximate 30-year construction period, which would be the equivalent of the exposure period required to complete an HRA. The proposed Project's construction-related activities would occur over approximately one year, which would be 3 percent of the required exposure period for an HRA.

In addition, depending on the option selected for the Project, construction activities would be dispersed among the proposed linear pipeline. Therefore, any potential sensitive receptor would only be exposed to a fraction of the total Project's construction emissions as construction activities continue to move away from initial receptors. Furthermore, construction activities would occur intermittently throughout the day. In other words, diesel PM emissions associated

with construction activities would not be generated as a constant plume from the Project site, rather in incremental amounts associated with heavy-duty construction use; thereby increasing the potential for dispersion and dilution of emissions.

Consider the information above regarding the continued reduction in diesel PM emissions from construction equipment, relatively low exposure period, intermittent construction emissions, and the highly dispersive nature of diesel PM emissions, it is not anticipated that the proposed Project would expose sensitive receptors to substantial construction-related TAC concentrations. This impact would be considered less than significant.

#### Operational Emissions

##### *Proposed Project Operational TACs*

As discussed above, operational activities are not anticipated to increase following construction of the proposed Project. The nominal and infrequent maintenance and inspection activities would not expose sensitive receptors to substantial TAC concentrations.

##### *Option A*

The space would be expanded, and ventilation, two metering pumps (one duty, one standby), and a larger sodium hypochlorite tank with secondary containment would be added. The current 75-kilowatt emergency generator that occupies plant office space would be relocated outside in order to make space inside the building for the additional equipment, such as a second tertiary filter and associated piping and a redundant effluent pump. The generator would also be replaced, as it does not have a large enough fuel tank to support a three-day emergency event. As the new generator would be outside, it would be located within a weather-resistant enclosure on a concrete pad, as well as include new controls, an automatic transfer switch, and new electrical work to accommodate the reconfiguration.

##### *Option B*

The lift station would include a duplex pumping system, a standby generator, a power/control panel housed in a permanent structure, lighting, fencing, an emergency overflow basin (to capture overflows in the event of an interruption in service), and a gravel access road. The new lift station would encompass an area of approximately 120 feet by 50 feet and would be located either on the Woodford-Tehachapi Property (Option B-1) or the former Golden Hills WWTP site (Option B-2).

Operation and maintenance of the proposed Project is not anticipated to result in a substantial net increase in emissions compared to existing conditions with the exception of any new equipment, such as diesel-powered backup generators installed at either the Golden Hills WWTP (Option A) or stationary source equipment associated with the new force main for treatment (Option B). This equipment would require EKAPCD permits and would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.



### **Mitigation Measures**

No mitigation measures are required.

### **Level of Significance after Mitigation**

The impact is less than significant.

### **Impact 4.2-5: Create objectionable odors that would affect a substantial amount of people.**

#### Construction

Sources that may emit odors during construction activities include exhaust from diesel construction equipment and heavy-duty trucks, which could be considered offensive to some individuals. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site. The proposed Project would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Because of the amount and types of equipment, the temporary nature of these emissions, and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with Project construction. Furthermore, as described above, all construction activities would be required to comply with EKAPCD's Rule 419 (Nuisance) that prohibits projects from generating substantial odor emissions during construction. As a result, the proposed Project would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

#### Operation

Wastewater treatment plants are a potential source of odor emissions. Option A would upgrade and rehabilitate sewage collection systems, which would ensure safe and reliable transport of sewage to and from the wastewater treatment plant. Rehabilitation and upgrading of infrastructure would reduce the potential risk of system failure or disturbance of service that could cause odor emissions. Therefore, odors during operation of Option A would be similar to or better than existing conditions.

Option B of the proposed Project would include the installation of a lift station that could be a potential source of odor emissions. Lift stations that meet current design standards would not be anticipated to generate substantial odor emissions. However, because the exact specifications for the lift station are not yet known at the time of this analysis, it is possible that the proposed lift station could create objectionable odors affecting a substantial number or people could expose receptors to objectionable odors. Therefore, for the purposes of a conservative analysis and the unknown nature of operational activities, this impact is considered significant.

### **Mitigation Measures**

**MM 4.2-1 Implement Applicable Odor Mitigation Measures for Option B.** The proposed Project shall install odor abatement and control technology on the proposed lift station. Measures could include, but are not limited to the following:

- Operational control methods
- Chemical additions (e.g., iron salts, hydrogen peroxide, ozone)
- Containment
- Vapor-phase control technologies (e.g., activated carbon adsorption, biofiltration, chemical we scrubbers)

Implementation of Mitigation Measure 4.2-1 (for Option B) and compliance with all EKAPCD rules and regulations would ensure that nearby receptors are not exposed to substantial objectionable odors. Therefore, operational odor emissions would be less than significant.

### **Cumulative Setting, Impacts and Mitigation Measures**

As discussed above, by its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the air basin, and this regional impact is cumulative rather than being attributable to any one source. A Project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The thresholds of significance are relevant to whether a project's individual emissions would result in a cumulatively considerable incremental contribution to the existing cumulative air quality conditions. As discussed above, the proposed Project would not exceed the project-level air quality significance thresholds for criteria pollutant emissions. Therefore, the proposed Project's construction emissions would not have a cumulatively considerable contribution to the region's air quality.

## Section 4.3

# Biological Resources

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### 4.3.1 Introduction

This section describes the affected environment and regulatory setting for biological resources, identifies and analyzes environmental impacts of the proposed options for the Project, and identifies measures to reduce or avoid significant impacts anticipated from Project construction and operation.

The information and analysis that is presented in this section has been derived from published literature, Federal and State databases, and site-specific investigations within the Project Area and adjacent locations. The sources of information used in this analysis are listed in the references section below.

### 4.3.2 Environmental Setting

Existing biological conditions at the Project site and along the alignment of the associated pipeline routes are described below.

#### **Regional**

The Project is located within Tehachapi Valley, at the base of the Tehachapi Mountain Range, between the town of Golden Hills and the City of Tehachapi. Approximately half of the Study Area crosses rural residential areas that support ornamental vegetation and lack intact native vegetation, or developed areas that are typically paved. The Study Area crosses limited naturalized areas, a majority of which are non-native annual grasslands along West Tehachapi Boulevard and lands that are being recolonized by naturalized and native vegetation along the GHCSO-owned Woodford Tehachapi Property (previously known and used as the Golden Hills Golf Course). The Study Area crosses several intact native vegetation communities, primarily along Brite Creek and its tributaries, although disturbance from adjacent roads affects these drainages. The elevation within the Study Area ranges from approximately 3,680 feet to approximately 4,020 feet. The highest elevations generally occur at the eastern and western ends of the Study Area, while the lowest elevations generally occur near the middle portion of the Study Area.

According to the National Hydrography Dataset (NHD), the Study Area is located within the Middle Kern-Upper Tehachapi-Grapevine Subbasin in the Tehachapi Creek Watershed. The Study Area is split into two subwatersheds, the Brite Creek Subwatershed in the northwestern half of the Study Area, and the Upper Tehachapi Creek Subwatershed in the southeastern half of the Study Area (USGS 2015).

The region receives most of its rainfall from November to March, with local precipitation averaging approximately 12 inches annually, with an average snowfall between 1981 and 2010 of 23 inches. Average temperatures in the area during the winter range from 29 to 59°F, while summer temperatures range from 51 to 87°F (Western Regional Climate Center 2015).

## Local

The following describes those existing vegetation communities and sensitive biological resources that exist within the GTASCP:

### Vegetation Communities

The Project alignment is located within the Tehachapi Mountain Area subregion of the Sierra Nevada geographical region (Sawyer et al. 2009). The proposed and existing pipeline alignments are primarily co-located with existing roadways, and approximately half of the alignment is occupied by developed and rural residential uses. In the areas that support vegetation, abundant vegetation communities include non-native annual grassland, native rubber rabbitbrush scrub, and hydrophytic perennial grasslands that are a mixture of native and non-native species. Four sensitive natural communities occur within the Study Area, including black willow thickets, Fremont cottonwood forest, blue oak woodland, and valley oak woodland. These resources are described below. Two of these communities, blue oak woodland and valley oak woodland, and the associated individual trees with diameter at breast height of at least 12 inches are County-protected.

#### Black Willow Thickets

Black willow thickets (*Salix gooddingii* Woodland Alliance) are classified by the CDFW (2010) as a sensitive natural community. Black willow thickets are characterized by dominant or co-dominant black willow (*Salix gooddingii*) in the tree canopy. This community is found along terraces along large rivers and canyons, as well as along rocky floodplains of small, intermittent streams, seeps, and springs (Sawyer et al. 2009). Within the Project alignment, black willow thickets occur along a significant portion of the Brite Creek riparian corridor. During a field survey conducted for the Project (see Appendix D), standing and flowing water was observed in some areas containing black willow thickets. On-site black willow thickets are dominated by black willow in the tree canopy, and beardless wildrye (*Elymus triticoides*) and an unidentified bunch grass in the herbaceous layer.

#### Fremont Cottonwood Forest

Fremont cottonwood forest (*Populus fremontii* Forest Alliance) is a native vegetation community classified by the CDFW (2010) as sensitive natural community. Fremont cottonwood forests are characterized by dominant or co-dominant Fremont cottonwood (*Populus fremontii*) in the tree canopy. This community is found on floodplains, along low-gradient rivers, along perennial or seasonally intermittent streams and springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year (Sawyer et al. 2009). Within the Project alignment, Fremont cottonwood forests occur in two patches along White Pine Drive, where drainage channels traverse the alignment. The

Fremont cottonwood forests within the Project alignment are dominated by Fremont cottonwood in the tree canopy, rubber rabbitbrush (*Ericameria nauseosa*), and beardless wildrye and tansy mustard (*Descurainia* spp.) in the herbaceous layer.

#### Blue Oak Woodland

Blue oak woodland (*Quercus douglasii* Woodland Alliance) is not classified by the CDFW (2010) as sensitive natural community. However, oak woodlands in general (defined as having canopy cover of at least 10 percent, or containing individual oak trees with trunks at least 12 inches in diameter at breast height), are protected by Kern County (2009) policies. Blue oak woodland is characterized by dominant or co-dominant blue oaks (*Quercus douglasii*) in the tree canopy. This community is found in valley bottoms, foothills, and rocky outcrops (Sawyer et al. 2009). Pockets of blue oak woodlands occur within residential areas at the western end of the alignment, directly adjacent to the sewer pipeline buffer zones. Within the Project alignment, blue oak woodlands are dominated by blue oaks in the tree canopy, and non-native annual grasses in the herbaceous layer.

#### Valley Oak Woodland

Valley oak woodland (*Quercus lobata* Woodland Alliance) is classified by the CDFW (2010) as sensitive natural community. Additionally, oak woodlands in general (defined as having canopy cover of at least 10 percent, or containing individual oak trees with trunks at least 12 inches in diameter at breast height), are protected by Kern County (2009). Valley oak woodland is characterized by dominant or co-dominant valley oaks (*Quercus lobata*) in the tree canopy. This community is found in valley bottoms, seasonally saturated soils that may intermittently flood lower slopes, and summit valleys (Sawyer et al. 2009). Within the Project alignment, valley oak woodlands occur in small patches along the Brite Creek riparian corridor, near the Golden Hills WWTP. These areas are dominated by valley oaks in the tree canopy, rubber rabbitbrush in the shrub layer, and non-native annual grasses in the herbaceous layer.

A complete summary of vegetation communities and land cover types occurring within the alignment, as well as descriptions and photographs, is presented in Appendix D.

#### **Special-Status Plant Species**

No plant species identified as sensitive or special-status by Federal, State, or local agencies were observed during the reconnaissance-level biological survey conducted for the Project. Several special-status plants have potential to occur along the Project alignment, however, although their potential to occur is low due to a lack of suitable habitat, soils, and occurrence history. These species and their potential to occur in the Study Area are summarized in Appendix D. A map of documented occurrences of special-status species in the region, based on California Natural Diversity Database data, is presented on Figure 4 of Appendix D.

### **Special-Status Wildlife Species**

No wildlife species identified as sensitive or special-status by Federal, State, or local agencies were observed during a reconnaissance-level field survey conducted for the Project. A review of available literature identified several special-status wildlife species in the vicinity that have moderate potential to occur within the alignment, however. These species included: southern western pond turtle, burrowing owl, Nuttall's woodpecker, loggerhead shrike, oak titmouse, and Tehachapi pocket mouse. The literature review identified several other special-status wildlife species that have low potential to occur along the Project alignment, due to a lack of suitable habitat and occurrence history. These species and their potential to occur along the alignment are summarized in Appendix D.

### **Soils**

The Soil Survey Geographic Database for Kern County, California (USDA-NRCS 2015) indicates that 12 soil types occur within the Study Area (Appendix D, Figure 3). Generally, the soils are sandy loams in areas having a moderate slope. Tehachapi sandy loam with a 2 to 15 percent slope is the predominant soil type, underlying most of the Project alignment. In one area along Brite Creek, soils with a 0 to 2 percent slope were mapped; field observations suggest that this area may retain ponded water, although the mapped soils are not classified as hydric. No hydric soils have been mapped along the alignment.

### **Jurisdictional Waters and Streambeds**

Although a formal delineation was not conducted, field surveys performed for the Project indicated the presence of several potentially jurisdictional waters and streambeds along the Project alignment, including Brite Creek (and adjacent Woodford Tehachapi Property and Supply Lake), Tehachapi Creek, and Tom Sawyer Lake. A significant portion of the Woodford Tehachapi Property along the Project alignment is mapped as a freshwater emergent wetland in the National Wetlands Inventory (NWI), and was dominated by wetland plant species when investigated in the field (see Appendix D). Several unnamed tributary drainages also traverse the alignment, mostly via culverts passing beneath portions of the alignment that are sited within existing developed roadways. These features are described and illustrated in Appendix D, which also displays riparian and wetland data from the NWI (USFWS 2015).

Although it is not directly traversed by the Project alignment, the most significant aquatic resource in the Project vicinity is Tom Sawyer Lake. Tom Sawyer Lake is a small pond, surrounded by California bulrush (*Schoenoplectus californicus*), that is open to the public. The NWI classifies Tom Sawyer Lake as an excavated freshwater pond with an emergent wetland, where the palustrine system is semi-permanently flooded and surface water persists throughout the growing season in most years (USFWS 2015). Total acreage of this feature is mapped in the NWI at 9.88 acres, consisting of 8.96 acres of freshwater pond and 0.92 acre of freshwater emergent wetlands situated on a central island. Tom Sawyer Lake is the receiving water body for effluent discharged from the existing Golden Hills WWTP, and this perennial input appears to be largely responsible for sustaining the lake. Other hydrologic inputs are seasonal, and are limited

to precipitation and direct runoff from the immediate drainage basin as well as possibly overflow from Brite Creek under high flow conditions. (The latter scenario is suggested by mapping in the NHD, but is not evident from field conditions or review of aerial photographs). A smaller lake, referred to as “Supply Lake” is situated to the southwest of Tom Sawyer Lake and connected by an underground conduit. This lake is also mapped as a freshwater pond in the NWI, with acreage of 0.90 acre. Supply Lake is adjacent to the channel of Brite Creek, and it appears that surface water from Tom Sawyer Lake enters Supply Lake prior to ultimately passing into Brite Creek. Flows in Brite Creek travel northeastward past the site of the Golden Hills WWTP and enter Tehachapi Creek, which joins Caliente Creek and ultimately dissipates on the floor of the San Joaquin Valley.

### **Wildlife Movement and Habitat Connectivity**

Wildlife movement/migration routes link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization tends to create isolated “islands” of wildlife habitat. Wildlife movement activities usually fall into one of three movement categories: dispersal (e.g., juvenile animals from natal areas or individuals extending range distribution), seasonal migration, and movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover). The Project alignment is located within Tehachapi Valley at the base of Tehachapi mountain range, and encompasses both urban and rural areas. Publicly available mapping resources were reviewed to determine the likely levels of wildlife movement within and around the Project alignment.

The California Essential Habitat Connectivity (Spencer et al. 2010) was consulted to determine the presence of established or documented wildlife corridors within the region of the Project alignment. This State-funded Project is intended to inform Statewide transportation planning efforts with regard to locations that are expected to exhibit high levels of wildlife use. These areas are typically somewhat constricted connections between larger habitat areas, and are termed “Areas of Essential Connectivity” (AEC) in the study. The city of Tehachapi and the Golden Hills area are not mapped as AECs by the California Essential Habitat Connectivity Project. The closest such area to the Project alignment is the Tehachapi Mountains AEC which extends in the northeast orientation on either side of the Project area and then up north toward the Sierra Nevada mountain range.

Another available information source, a study conducted as part of the South Coast Missing Linkages Project, provides information on the presence and range of wildlife species in the Tehachapi area, and determines the least cost (most energy-efficient, and therefore preferred) movement corridor through the area. The South Coast Missing Linkages Project is a collaborative effort among government and non-government organizations to identify and conserve landscape-level habitat linkages to protect essential biological and ecological processes in the South Coast Ecoregion. *The South Coast Missing Linkages Project: A Linkage Design for the Tehachapi Connection* analyzes and discusses the role of the Tehachapi mountain range (Tehachapi Connection) as a linkage and wildland connection between two major mountain

systems, the Sierra Nevada and the Sierra Madre (Penrod et al. 2003). The City of Tehachapi and the Golden Hills area are not within the least cost movement corridor for any wildlife species identified in the study. Rather than going through the Tehachapi Valley, which exhibits substantial development and human presence, the study suggests that wildlife would take alternative travel routes through natural areas to either the west or southeast (Figure 8 in Penrod et al. 2003).

Although the Project alignment is not with a mapped regional wildlife corridor or linkage, it is nevertheless possible that the alignment is traversed by wildlife during localized movements such as searching for food, shelter, and mates. Because the alignment is narrow and linearly configured, it is likely that animals traversing it enter and leave fairly rapidly, and do not spend substantial time or derive significant value from the resources therein. This is particularly true of the portions of the alignment that are overlain by paved roadways; these areas do not provide cover and are undesirable for wildlife due to risk of vehicle collisions. Less-developed portions of the alignment, such as the Woodford Tehachapi Property and the riparian corridor of Brite Creek, do support resources such as vegetative shelter and perennial surface water, which could be valuable to wildlife moving through the area.

Suitability for wildlife movement along the Project alignment is summarized generally below:

- **Northwestern End of Alignment** (Figure 2A in Appendix D) – This area is characterized by a mix of developed and rural settings. The majority of the Project alignment is along existing roads, although it is in proximity to undeveloped lands in several locations. Some of the drainages traversing the alignment may be conducive to use as wildlife movement routes.
- **Woodford Tehachapi Property and Brite Creek Corridor** (Figure 2B in Appendix D) – These areas represent the longest segments of the Project alignment the traverse undeveloped lands. The presence of mature riparian vegetation, perennial drinking water, and relatively little human presence render this area suitable for localized wildlife movements. Larger-scale movement along Brite Creek is also possible, as the creek connects relatively intact habitats to the southwest and northeast.
- **Westwood Boulevard** (Figure 2C in Appendix D) – The Project alignment along Westwood Blvd. occurs entirely within a paved and heavily traveled roadway, and is not conducive to use by wildlife. One small drainage crosses this portion of the alignment; however, this feature is fairly insubstantial and does not appear connected to larger habitat areas.
- **Red Apple Avenue/West Tehachapi Boulevard** (Figure 2D in Appendix D)– The Project alignment along Red Apple Ave. and West Tehachapi Blvd. occurs entirely within major, paved roadways, and is not conducive to use by wildlife. Some of the drainages traversing the alignment, particularly Tehachapi Creek, connect larger blocks of open space and may be used as wildlife travel routes.



## 4.3.3 Regulatory Setting

### Federal

#### Endangered Species Act

The Endangered Species Act (ESA; 16 United States Code [U.S.C.] § 1531 et seq.) and implementing regulations (Title 50 CFR § 17.1 et seq.) include provisions for the protection and management of Federally listed threatened or endangered plants and animals and their designated critical habitats. Generally, the USFWS regulates upland and freshwater species and the National Marine Fisheries Service (NMFS) oversees protection of anadromous and marine species. Section 4 of the ESA requires USFWS and NMFS to make determinations on whether any species should be listed as an endangered or threatened species and to designate critical habitat for endangered and threatened species. Critical habitat includes:

- (i) The specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (1) essential to the conservation of the species and (2) which may require special management considerations or protection; and
- (ii) Specific areas outside the geographic area occupied by the species at the time it is listed, if the Secretary of the Interior determines that such areas are essential for the conservation of the species.

Section 7 of the ESA requires Federal agencies to consult with USFWS and/or NMFS and obtain a Biological Opinion (BO) prior to carrying out any Federal program or agency action that may adversely affect threatened or endangered species or designated critical habitat. The Section 7 consultation process includes an evaluation of whether a project is likely to jeopardize the continued existence of any endangered or threatened species or result in the “destruction or adverse modification” of critical habitat, and requires the inclusion of reasonable and prudent measures in the implementation of a project or agency action in order to minimize impacts.

#### Clean Water Act (CWA) Section 404

The CWA (33 U.S.C. 1251–1387) was enacted to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. Pursuant to Section 404 of the CWA, the USACE regulates the discharge of dredge and/or fill material into waters of the United States (U.S.). Waters of the U.S. generally include navigable waters, non-navigable but relatively permanent tributaries to navigable waters, and wetlands directly abutting navigable waters or their relatively permanent tributaries. Waters of the U.S. also include other waters and wetlands on a case-by-case basis where a fact-specific analysis indicates that these features possess a significant nexus to navigable waters. Section 404 requires that any person proposing an activity that would discharge dredge or fill material into waters of the U.S. must obtain a permit from the USACE authorizing the discharge. For discharges proposed in Central Kern County, Section 404 Permits are issued by the USACE’s Sacramento District. The CWA stipulates that the USACE

may not issue a Section 404 Permit if the proposed activity would be contrary to the public interest or would cause substantial degradation of the nation's waters, or if a less environmentally damaging practicable alternative exists.

### **Clean Water Act Section 401**

Under Section 401 of the CWA, every applicant for a Federal permit or license to discharge dredge or fill material to waters of the U.S. must obtain a State-issued Water Quality Certification that the proposed activity will comply with State water quality standards (i.e., beneficial uses, water quality objectives, and anti-degradation policy). In California, the SWRCB has delegated the responsibility for issuing Section 401 Certifications to nine RWQCBs throughout the State. The Central Valley RWQCB issues Section 401 Certifications for projects in central Kern County. A CWA Section 404 Permit is a Federal permit subject to the terms of Section 401 as described above, and the USACE cannot issue a Section 404 permit in the Project region until the permit applicant also receives a Section 401 Certification or waiver from the Central Valley RWQCB.

### **Migratory Bird Treaty Act**

The MBTA (16 U.S.C. 703-712), as amended, codifies the provisions of conventions and treaties between the U.S. and Canada, Mexico, Japan, and Russia for the protection of migratory birds. The MBTA makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds or eggs during the breeding season. Section 3500 of the California Fish and Game Code also prohibits the destruction of any nest, egg, or nestling.

### **Executive Order 11990 – Protection of Wetlands**

Presidential Executive Order 11990 established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. On Federally funded projects, impacts on wetlands must be identified and alternatives that avoid wetlands must be considered. If impacts to wetlands cannot be avoided, then all practicable measures to minimize harm must be included.

## **State**

### **California Endangered Species Act**

The California Endangered Species Act (CESA; California Fish and Game Code Sections 2050-2098) is intended to conserve, protect, restore, and enhance species designated as endangered or threatened, and their habitat. The CESA is administered by the CDFW, although the responsibility to list species as threatened or endangered under the statute rests exclusively with the California Fish and Game Commission. Animal species designated as endangered or threatened under CESA are listed in regulations at 14 CCR 670.5. Plant species designated as endangered or threatened under CESA, or designated "rare" under the California Native Plant Protection Act (see below) are listed at 14 CCR 670.2. In general, CESA prohibits the import,

export, take, possession, purchase, or sale of listed species without authorization. "Take" is defined specifically in the Fish and Game Code to mean "hunt, pursue, catch, capture, or kill," or an attempt any such act. The CESA allows that CDFW may authorize, by permit, the incidental take of threatened or endangered species subject to certain conditions. The impacts of the incidental take must be minimized and fully mitigated, adequate funding for mitigation must be provided, and issuance of the permit may not jeopardize the continued existence of a State listed species.

#### **Native Plant Protection Act of 1977**

The Native Plant Protection Act of 1977 (NPPA; Sections 1900 *et seq.* of the California Fish and Game Code) authorizes the California Fish and Game Commission to designate "rare and endangered native plants," and provides specific protection measures for these listed species. The NPPA pre-dates the CESA, and at the time of CESA's passage, all plants classified as "endangered" under the NPPA became listed as endangered under CESA as well. Interestingly, however, plants listed as "rare" under the NPPA were not automatically granted any CESA listing status. Although NPPA "rare" plants are not protected by the CESA, recent CDFW regulations effective January 1, 2015 (see 14 CCR 786.9) have established that CESA's incidental take permitting mechanism will be applied to plants listed as "rare" under the NPPA.

#### **Porter-Cologne Water Quality Control Act**

Under the Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code), the SWRCB regulates discharges of pollutants into "waters of the State," broadly defined as any surface water or groundwater, including saline waters, within the boundaries of the State. This authority is independent of any Federal requirements, and is applicable to all waters of the State regardless of whether CWA jurisdiction applies. Waters of the State include all waters within the State, whether on private or public land and whether flowing in natural or artificial channels. Fill material for construction is included within the meaning of the term "pollutant," and persons seeking to fill waters of the State during construction must therefore obtain authorization from the SWRCB (or applicable RWQCB). In the wake of recent court cases limiting the scope of Federal CWA jurisdiction, the SWRCB is increasingly relying on its authority under the Porter-Cologne Act to regulate impacts to waters of the State.

#### **California Fish and Game Code Sections 1600 et seq.**

Pursuant to Sections 1600–1616 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or substantial changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. In regulations promulgated by the CDFW at 14 CCR 1.72, a stream is defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." In practice, CDFW has interpreted the term "streambed" to encompass all portions of the bed, banks, and channel of any stream, including intermittent and ephemeral streams, extending laterally to the upland edge of riparian vegetation. An entity proposing to

divert, obstruct, or substantially alter the bed, bank, or channel of a stream must obtain authorization through a Streambed Alteration Agreement from CDFW.

## Local

### City and County Plans

The Project area is located within unincorporated Kern County in the City of Tehachapi, and the proposed Project would be subject to applicable policies of the City of Tehachapi General Plan, the GTASCP, and the Kern County General Plan. Among other purposes, these plans were developed to protect the biological resources in the Project vicinity and surrounding area. Goals, policies, and implementation measures that apply to the proposed Project are presented below.

#### City of Tehachapi General Plan

The Tehachapi General Plan establishes the community's long-range vision for the planning area and serves the following purposes:

- a. identifies and articulates the community's vision for the town's next 100 years;
- b. sets forth the principles, goals, strategies, objectives, policies and actions to help achieve the community vision, establishing the basis for evaluating choices and making near- and long-term decisions;
- c. defines integrated strategies for economic development, environmental sustainability, transportation, land use, housing and community design to help achieve the community's vision;
- d. prioritizes actions to advance on-going implementation.

Tehachapi General Plan policies for the protection of biological resources that apply to the proposed Project are described below.

- Policy NR 18: Work with Kern County to maintain a diverse network of open land encompassing particularly valuable rural and agricultural resources, connected with the landscape around the urban area. Particularly valuable resources include, but are not limited to the following:
  - Creek and riparian corridors, including open channels with natural banks and vegetation;
  - Wetlands;
  - Undeveloped land within the sphere of influence not intended for urban uses;
  - Grassland communities and woodlands;
  - Wildlife habitat/corridors for the health and mobility of people and wildlife;
  - Unique plant and wildlife communities;
  - Groundwater recharge areas; and
  - Historically open-space settings for natural resources, native and traditional landscapes.
- Policy NR26: As part of the discretionary review process for development proposals, identify significant resources through Project design.

- Policy NR27: Maintain Antelope Run as a natural corridor to foster wildlife while being flanked by recreational trails and appropriate, low-intensity urban uses.
- Policy NR28: Protect and/or restore identified resources and areas.
- Policy NR30: Enhance the existing tree resources through regulations that set forth thresholds for identifying and protecting a significant tree resource.
- Policy NR31: Maintain planting standards that: a) minimize the need for water; and b) reflect the various intended physical contexts to which they will be applied.
- Policy CS17: In coordination with the Public Realm Element, promote a multi-use concept for flood plains, flood-related facilities, and waterways, including, where appropriate, the following uses: flood control, groundwater recharge, open space, nature study, habitat preservation, pedestrian, equestrian, and bicycle circulation, and outdoor sports, and recreation.
- Policy CS18: As feasible, maintain or return to the natural condition of waterways and flood plains to ensure adequate groundwater recharge and water quality, preservation of habitat, and access to mineral resources.
- Policy CS19: Coordinate with the Federal Emergency Management Act the U.S. Army Corps of Engineers and Kern County throughout construction, mitigation, and operation of the various components/projects that will directly affect Tehachapi and its sphere of influence.
- Policy CS20: Coordinate with all public and private agencies involved in flood control to ensure that improvement do not disrupt environmentally sensitive areas.

#### Greater Tehachapi Area Specific and Community Plan

The GTASCP will allow the County to identify and coordinate implementation strategies and policies for future land uses by balancing the competing social, economic, resource, and environmental factors for any future growth and development in the unincorporated area. The GTASCP sets forth a land use plan and goals, policies, and implementation measures designed to ensure any future development in the GTA is consistent with the goals and policies of the County's General Plan while recognizing the uniqueness of the region. GTASCP goals for the protection of biological resources that apply to the proposed Project are described below.

- GOAL COS.3: Preserve and protect scenic and natural resources and open space within the GTA.
- GOAL COS.4: Continue to protect threatened and endangered plant and wildlife species, habitats, and wetlands throughout the GTA;
- GOAL COS.5: Preserve and maintain open space, natural habitat, and vegetation communities that support native plants and animals;
- GOAL COS.6: Continue to conserve oak woodlands for their environmental value and scenic beauty. Protect oak woodlands and large oak trees where possible and incorporate existing trees into Project design and construction.

GTASCP policies and implementation measures for the protection of biological resources that apply to the proposed Project are presented below.

### *Policies*

- Policy COS.13: Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood-protection ordinances. Conserve areas along rivers and streams to enhance drainage, flood control, recreational, and other beneficial uses while acknowledging existing land use patterns.
- Policy COS.19: Coordinate with Federal, State, and other appropriate public agencies, private organizations, and landowners to conserve, protect, and enhance natural resources.
- Policy COS.24: Protect threatened and endangered plant and wildlife species, habitats, and wetlands in accordance with State and Federal laws.
- Policy COS.25: The County shall work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
- Policy COS.26: The County will seek cooperative efforts with local, State, and Federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.
- Policy COS.27: The County shall support public awareness initiatives to help educate property owners and the development community of local, State, and Federal programs concerning endangered species conservation issues.
- Policy COS.28: The County, under the provisions of CEQA, shall solicit comments from the CDFW and the USFWS when an environmental document (Negative Declaration, Mitigated Negative Declaration, or EIR) is prepared.
- Policy COS.29: Promote the conservation of oak tree woodlands for their environmental value and scenic beauty. Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

### *Implementation Measures*

- Implementation 13: New discretionary development shall require consultation with the Corps, the RWQCB, and CDFW if potential waters of the U.S. and/or waters of the State, including wetlands, are present on site. Preservation of wetlands shall be the primary consideration; otherwise, mitigation measures pursuant to CEQA shall be implemented.

#### *Policies COS.2, 13*

- Implementation 17: Any project which disturbs more than 1 gross acres of land, land disposes of waste (including mining waste), utilizes recycled water, proposes to potentially alter a streambed, or discharges fill material to a surface water shall consult with the RWQCB to assess the need for permits from that Agency. These permits may include, but are not limited to: CWA permits; a National Pollutant Discharge Elimination System General Construction Stormwater Permit, an individual stormwater permit, compliance with Title 27, WDRs, Water Reclamation Requirements, Water Quality Certification, etc. *Policies COS. 11, 12, 13, 14*

- Implementation 20: All discretionary development proposals that are within identified environmental hazard areas shall submit the appropriate technical studies, as determined by the Kern County Planning and Community Development Department, to identify the most suitable area for development within the property. *Policies COS.19, 20*
- Implementation 24: The County shall work with the Audubon Society, the Nature Conservancy, BLM, CDFW, U.S. Forest Service, and other appropriate public agencies, private entities and landowners to conserve, protect and enhance open space and wildlife habitat areas. *Policies COS.24, 25, 26, 27, 28*
- Implementation 25: All discretionary development proposals requiring preparation of an environmental document shall consult with responsible and trustee wildlife agencies, including but not limited to CDFW and the USFWS. *Policies COS.24, 25, 26, 27, 28*
- Implementation 26: All discretionary development proposals for project sites that have the potential to contain a sensitive or “special-status” plant or animal species shall be accompanied by a written Biota Study, when deemed necessary by the County. The report shall be submitted as a part of the discretionary application process and shall include an analysis of the known and potential sensitive species located within the project area and shall include recommendations for project-specific mitigation. The report shall also include recommendations regarding the need for additional surveys such as Pre-Construction Surveys, Special-Status Plant or Animal Surveys, and the need for further consultation with USFWS and CDFW. *Policies COS.24, 25, 26, 27, 28*
- Implementation 27: All development and construction activities shall adhere to any recommended mitigation measures as identified by any Biota Survey, Pre-Construction Survey, Special-Status Plant Survey, Incidental Take Authorization/Permit, and any requirements of USFWS and CDFW. *Policies COS.24, 25, 26, 27, 28*
- Implementation 28: The County shall explore the development and implementation of conservation programs with State and Federal wildlife agencies for property owners desiring streamlined endangered species mitigation programs. *Policies COS.24, 25, 26, 27, 28*
- Implementation 29: Where feasible, the County shall support efforts to secure key wildlife migration corridors and habitat areas through dedication, easements, or other acquisition mechanisms. *Policies COS.24, 25, 26, 27, 28*
- Implementation 30: Riparian areas will be managed in accordance with Corps, and CDFW rules and regulations to enhance drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns. *Policies COS.24, 25, 26, 27, 28*
- Implementation 31: The following applies to all discretionary development projects (General Plan Amendment, Zone Change, Conditional Use Permit, Tract Maps, Parcel Maps, Precise Development Plan) that contain oak woodlands, which are defined as development parcels having canopy cover by oak trees of at least ten percent (10%), as determined from base line aerial photography or by site survey performed by a licensed or certified arborist or botanist. If this study is used in an EIR, then a Registered Professional Forester (RPF) shall perform the necessary analysis. *Policy COS.29*

- a. Development parcels containing oak woodlands are subject to a minimum canopy coverage retention standard of thirty percent (30%). The consultant shall include recommendations regarding thinning and diseased tree removal in conjunction with the discretionary project.
  - b. Use of aerial photography and a dot grid system shall be considered adequate in determining the required canopy coverage standard.
  - c. Adjustments below thirty percent (30%) minimum canopy standard may be made based on a report to assess the management of oak woodlands.
  - d. Discretionary development, within areas designated as meeting the minimum canopy standard, shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
- Implementation 32: The following applies to development of parcels having oak tree canopy cover of less than ten percent (10%), but containing individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5 feet breast height. *Policy COS.29*
    - a. Such trees shall be identified on plot plans.
    - b. Discretionary development shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
    - c. Specified tree removal related to the discretionary action may be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record.

#### Kern County General Plan

The Kern County General Plan Kern County General Plan is a policy document with planned land use maps and related information designed to give long-range guidance to those County officials making decisions affecting the growth and resources of the unincorporated Kern County jurisdiction. Kern County General Plan objectives for the protection of biological resources that apply to the proposed Project are described below.

- Adopt policies and goals that reflect the County's on-going commitment to consult and cooperate with Federal, State, regional, and local agencies to plan for the long-term future of Kern County.
- Ensure the protection of environmental resources and the development of adequate infrastructure.

Kern County General Plan policies and implementation measures for the protection of biological resources that apply to the proposed Project are presented below. Policies and measures are from the Kern County General Plan's Land Use, Open Space, and Conservation Element (Kern County 2009).

#### *Physical and Environmental Constraints*

- Policy 9: Construction of structures that impede water flow in a primary floodplain will be discouraged.
- Policy 11: Protect and maintain watershed integrity within Kern County.



- Implementation Measure I: Designated flood channels and water courses, such as creeks, gullies, and riverbeds, will be preserved as resource management areas or in the case of urban areas, as linear parks whenever practical. *Policies 9, 11*

#### *Resource*

- Policy 11: Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood protection ordinances.
- Policy 20: Areas along rivers and streams will be conserved where feasible to enhance drainage, flood control, recreational, and other beneficial uses while acknowledging existing land use patterns.

#### *General Provisions*

- Policy 27: Threatened or endangered plant and wildlife species should be protected in accordance with State and Federal laws.
- Policy 28: County should work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
- Policy 29: The County will seek cooperative efforts with local, State, and Federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.
- Policy 31: Under the provisions of CEQA, the County, as lead agency, will solicit comments from the CDFW and the USFWS when an environmental document (Negative Declaration, Mitigated Negative Declaration, or EIR) is prepared.
- Policy 32: Riparian areas will be managed in accordance with USACE, and CDFW rules and regulations to enhance the drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns.
- Implementation Measure Q: Discretionary projects shall consider effects to biological resources as required by CEQA. *Policies 27, 28, 29, 31, 32*
- Implementation Measure R: Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to CEQA. *Policies 27, 28, 29, 31, 32*
- Implementation Measure S: Pursue the development and implementation of conservation programs with State and Federal wildlife agencies for property owners desiring streamlined endangered species mitigation programs. *Policies 27, 28, 29, 31, 32*
- Policy 44: Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by CEQA, to prevent the degradation of the watershed to the extent practical.
- Policy 47: Ensure that light and glare from discretionary new development projects are minimized in rural as well as urban areas

- Policy 48: Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.
- Implementation Measure AA: The County shall utilize CEQA Guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas. *Policies 47, 48*
- Policy 65: Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.
- Policy 66: Promote the conservation of oak tree woodlands for their environmental value and scenic beauty.
- Implementation Measure KK: The following applies to discretionary development projects (General Plan Amendment, zone change, conditional use permit, tract maps, parcel maps, precise development plan) that contains oak woodlands, which are defined as development parcels having canopy cover by oak trees of at least ten percent (10%), as determined from base line aerial photography or by site survey performed by a licensed or certified arborist or botanist. If this study is used in an EIR, then a RPF shall perform the necessary analysis. *Policies 65, 66*
  - a. Development parcels containing oak woodlands are subject to a minimum canopy coverage retention standard of thirty percent (30%). The consultant shall include recommendations regarding thinning and diseased tree removal in conjunction with the discretionary project.
  - b. Use of aerial photography and a dot grid system shall be considered adequate in determining the required canopy coverage standard.
  - c. Adjustments below thirty percent (30%) minimum canopy standard may be made based on a report to assess the management of oak woodlands.
  - d. Discretionary development, within areas designated as meeting the minimum canopy standard, shall avoid the area beneath and within the trees unaltered dripline unless approved by a licensed or certified arborist or botanist.
- Implementation Measure LL: The following applies to development of parcels having oak tree canopy cover of less than ten percent (10%), but containing individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5 feet breast height. *Policies 65, 66*
  - a. Such trees shall be identified on plot plans.
  - b. Discretionary development shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
  - c. Specified tree removal related to the discretionary action may be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record.

## 4.3.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to biological resources for the proposed project. It describes the methods used to determine the impacts of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

### Methodology

Direct and indirect impacts of the proposed Project on biological resources were evaluated by considering the proposed activities in the context of the existing biological resources occurring along the alignment. Existing conditions, as described in Section 4.1 above, are documented in a Biological Technical Report (Appendix D) for the Project. For purposes of this analysis, direct impacts of the proposed Project would include those effects that are caused by the Project and would occur at the same time and place. Examples of direct impacts could include habitat removal during construction, injury or mortality of plants or wildlife by construction equipment, and diversion or modification of stream channels.

Indirect impacts, in contrast, are Project impacts that would occur at a different time or place but would nevertheless be reasonably foreseeable. Thus, those Project-related impacts that would occur off-site or at a later time are considered indirect impacts. Examples of indirect impacts could include effects on wildlife behavior in adjacent areas due to noise or nighttime lighting in work zones.

### Thresholds of Significance

The significance criteria assessed in the Initial Study for the proposed Project, issued by the GHCSO in January 2016, have been used in assessing the Project's impacts in this EIR. The Project's impacts on biological resources would be considered significant if:

- The Project would 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 CDFW or USFWS;
- The Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS;
- The Project would have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- The Project would 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;

- The Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or,
- The Project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

Impacts of the proposed Project on biological resources, relative to each of the thresholds of significance listed above, are described below.

## Project Impacts

The proposed Project would entail the construction, replacement, and removal of wastewater infrastructure, including pipelines and lift stations, and would result in temporary habitat impacts and permanent changes to the type and amount of effluent discharge reaching Tom Sawyer Lake. The Project's impacts on biological resources are described below.

### Impacts to Plants and Wildlife

**Impacts 4.3-1 through 4.3-5: Have 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 CDFW or USFWS.**

This section addresses the impacts of the proposed Project on plants and wildlife, including a discussion of Project-related impacts to plants and wildlife in general, and separate analyses of impacts to special-status species. In addition to the threshold of significance stated above, the analysis also considers additional circumstances under which impacts to plants and wildlife species must be considered significant pursuant to Section 15065(a)(1) of the State CEQA Guidelines. These circumstances include:

- Impacts would be significant if the proposed Project would substantially reduce the habitat of a fish or wildlife species.
- Impacts would be significant if the proposed Project would cause a fish or wildlife population to drop below self-sustaining levels.
- Impacts would be significant if the proposed Project would substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

#### Impact 4.3-1: Impacts to Common Plants and Wildlife

Common wildlife species that currently traverse or inhabit the Project alignment could be impacted by construction of the proposed Project. Generally speaking, impacts could potentially include injury or mortality due to contact with construction equipment, temporary removal of suitable habitat, and construction-related edge effects. Because precise limits of Project-related construction zones are not yet known, it is conservatively presumed that any areas within the Project alignment could potentially be disturbed by the Project. As described in Section 4.3.2 above, the Project alignment includes 22.57 acres of native and naturalized habitat areas, which support associated plant and animal communities, and also includes an additional 28.10 acres of developed, ruderal, and rural residential areas that are not expected to substantially support

native flora and fauna (Appendix D). Considering this information, up to 23.57 acres of existing native and naturalized habitats within the Project alignment could be disturbed during construction. For the plants and wildlife that inhabit these areas, ground disturbance would lead to injury and mortality of individuals. The extent to which species would be impacted would be dependent on several factors, the most important of which is mobility.

All existing plants within the Project alignment could be eliminated if they occur in construction zones, as these species are completely immobile. Species to be removed would include common grasses, forbs, and shrubs in most areas, although removal of mature trees may be needed in certain areas. The common plant species that would be removed during construction are relatively widespread in the Project region.

For wildlife species of relatively low mobility, such as reptiles and small, fossorial mammals, construction-related ground disturbance would result in injury and mortality due to collapsed burrows and collisions with construction equipment. The severity of this impact is expected to be low, however, because the acreage to be impacted is limited and is linearly configured. Following Project completion, it is expected that common small mammals and reptiles from adjacent habitat areas would recolonize the construction zones.

For wildlife species of higher mobility, such as medium-sized mammals and birds, the risk of injury or mortality during Project construction would be lower. These species have home ranges that substantially exceed the size of the Project alignment, and encounters with construction equipment would not necessarily occur. Birds would almost certainly be able to escape collisions by flying away, and so the potential for construction equipment to injure or kill adult birds is minimal. Destruction of active bird nests containing eggs or young is prohibited by the Federal MBTA, and would be avoided. Similarly, large and medium-sized mammals would be expected to vacate construction zones and thereby avoid injury or mortality.

Long-term impacts on common plants and wildlife due to loss of habitat are not expected, because the Project does not include new above-ground development in existing habitat areas, and Project-related losses of habitat would be localized and temporary. The common species that occur within the Project alignment have wide geographic ranges and are abundant in the Project region, and would continue to occupy the area following Project completion. Impacts to common plants and wildlife would be less than significant, and no mitigation is proposed.

#### Impact 4.3-2: Impacts to Sensitive Plants

Vegetated habitats within the Project alignment could potentially support special-status plant species, including the following (Appendix D):

- Tracy's eriastrum (*Eriastrum tracyi*, State-listed rare)
- Round-leaved fillaree (*California macrophylla*, California Native Plant Society [CNPS] Rank 1B.1)
- Palmer's mariposa lily (*Calochortus palmeri* var. *palmeri*, CNPS Rank 1B.2)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*, CNPS Rank 1B.1)
- Pale-yellow layia (*Layia heterotricha*, CNPS Rank 1B.1)

- Calico monkeyflower (*Mimulus pictus*, CNPS Rank 1B.2)
- Tehachapi monardella (*Monardella linoides* ssp. *oblonga*, CNPS Rank 1B.3)

Although these species were not observed during reconnaissance-level biological surveys conducted for the Project, it is nevertheless conservatively assumed that they may occur in suitable habitat within the alignment. If present, special-status plant species within the Project alignment could be impacted by direct removal and mortality during construction activities, as well as indirectly through introductions of non-native, invasive plant species into intact habitats. In addition, the topsoil could be disrupted or buried during trench excavation, resulting in inability for the seed bank in the upper soil layers to germinate. In total, the Project could entail vegetation removal in up to 2.7 acres of vegetated habitats if Option A is selected and 5.7 acres of vegetated habitats if Option B-1 is selected. Impacts under Option B-2 would be similar to those under Option B-1, as the differences between these options would occur within existing disturbed areas. The Project's impacts to habitats would be localized and temporary (refer to Impact 4.3-6 below), and loss of habitat for sensitive plant species would not occur. Because sensitive plants are often sparsely distributed in the areas where they occur, the removal of even a few individuals can represent a substantial loss of the local population. Impacts to special-status plant species during construction would be considered potentially significant, absent mitigation.

### Mitigation Measures

**MM 4.3-1 Pre-Construction Rare Plant Surveys and Avoidance or Compensation.** During the spring season prior to removal of vegetation, the implementing agency shall retain a County-approved biologist to perform pre-construction surveys within the areas to be impacted. Surveys shall be conducted within the blooming period of the target species, and any special-status plants detected shall be documented. Numbers of individuals present within the proposed impact area shall be quantified by counting or estimating, as practical. Survey results shall be memorialized in a brief report, which shall be provided to the County prior to construction. If special-status plants are detected, the implementing agency shall either adjust construction plans to avoid impacting the individuals or shall compensate for the impact by including the impacted species in the Habitat Restoration Plan for the area (refer to Mitigation Measure 4.3-6). If compensation is selected, the restoration shall not be considered successful unless the number or extent of the special-status plant individuals within the restoration site exceeds the number or extent impacted after five years.

If pre-construction rare plant surveys identify the presence of any plant listed as endangered, threatened, or rare by the USFWS and/or CDFW, construction in the area shall not proceed until the implementing agency has consulted with these agencies to either obtain take authorization or to develop an avoidance strategy.

### Level of Significance after Mitigation

With incorporation of Mitigation Measures 4.3-1 and 4.3-6 (see discussion of Impact 4.3-6 below), the Project's impacts on special-status plant species would be less than significant. If present, special-status plants would be detected prior to construction and either avoided or included in the restoration design for the impacted area, such that the Project would not result in a net reduction in the abundance of special-status plants.

#### Impact 4.3-3: Impacts to Special-Status Aquatic Species

Portions of the Project alignment have the potential to support aquatic and moisture-dependent special-status species, including the Tehachapi slender salamander (*Batrachoseps stebbinsi*, State-listed threatened), foothill yellow-legged frog (*Rana boylei*, California species of special concern [CSC]), and southern western pond turtle (*Emys marmorata*, CSC). Suitable habitat for these species is limited, however, as relatively little of the alignment traverses aquatic or moisture-rich habitats. The foothill yellow-legged frog and southern western pond turtle may occur in and around Tom Sawyer Lake and perennial segments of Brite Creek, and the Tehachapi slender salamander has a remote possibility of occurrence in damp soils in portions of the Woodford-Tehachapi property.

All three of the species described above are known to burrow in soil and ground cover during daily and seasonal behavior cycles, and they can be difficult to detect. If the species are present in construction zones, injury or mortality may occur due to contact with construction vehicles. These species are not highly mobile, and it is unlikely they would be able to escape oncoming machinery. If present, impacts to these species due to injury or mortality would be potentially significant absent mitigation.

As described in greater detail in Impact 4.3-8 below, implementation of Project Options B-1 or B-2 would result in a discontinuation of effluent inputs to Tom Sawyer Lake. This would create a situation of deficit water balance for the lake, and over time, the lake would no longer contain perennial surface water. Brite Creek, which receives overflow from the lake, would also likely become an intermittent stream rather than a perennial one downstream of the lake. For southern western pond turtles and foothill yellow-legged frogs, which may inhabit or rely heavily on these perennial aquatic resources, the discontinuation of surface flows could lead to localized extirpations. There are no other perennial aquatic resources within the vicinity of Tom Sawyer Lake, to which these relatively low-mobility animals could move. Absent mitigation, this impact to southern western pond turtles and foothill yellow-legged frogs would be significant, if present. Tehachapi slender salamanders are not expected to rely directly on the aquatic habitats of Tom Sawyer Lake and Brite Creek, and would not be affected in this manner. Further, this impact would not occur if Project option A is selected.

### Mitigation Measures

**MM 4.3-2 Worker Environmental Awareness Program.** A WEAP shall be implemented for construction crews by a CDFW-approved biologist(s) provided by the implementing agency. Training materials and briefings shall include but not be

limited to: review of sensitive species likely to occur within the construction area, the FESA and CESA and MBTA and consequences of non-compliance with these laws, a contact person in the event of the discovery of dead or injured wildlife, and a review of mitigation requirements. The training sessions shall be conducted by a qualified biologist or other individual approved by the biologist. As part of the environmental training, construction personnel shall be provided with photographs or illustrations of potentially-occurring special-status species so they will be able to identify them, and avoid harming them during construction.

**MM 4.3-3 Biological Monitor.** Prior to grading, a CDFW-approved biologist shall be retained by the implementing agency as the biological monitor for the Project. The biological monitor shall ensure that impacts to biological resources are avoided or minimized to the fullest extent possible. During earth moving activities, the biological monitor shall be present to relocate wildlife species that may come into harm's way to undisturbed areas of suitable habitat using appropriate methods that would not injure the wildlife. The biological monitor shall have the authority to stop specific grading or construction activities if violations of mitigation measures or any local, State, or Federal laws are suspected.

**MM 4.3-4 Pre-Construction Burrowing Wildlife Surveys and Relocation.** Within five days prior to ground disturbance or removal of vegetation, a CDFW-approved biologist retained by the implementing agency shall inspect the ground surface proposed for disturbance in an effort to detect burrowing special-status species. The biologist shall be familiar with potentially-occurring species and their sign, including the American badger, burrowing owl, Tehachapi pocket mouse, western pond turtle, foothill yellow-legged frog, and Tehachapi slender salamander. If these or other special-status species are observed, they shall be relocated to areas of suitable habitat outside the construction zone using appropriate methods. For more mobile species, such as the American badger and burrowing owl, passive relocation techniques shall be used. Burrowing owls shall be relocated only in accordance with the recommendations set forth in the CDFW's (2012) *Staff Report on Burrowing Owl Mitigation*, and shall not be relocated during the breeding season (February 1 through August 31). If the Tehachapi slender salamander is observed, construction in the area shall not proceed until the implementing agency has consulted with the CDFW to either obtain take authorization or to develop an avoidance strategy.

### **Level of Significance after Mitigation**

With incorporation of Mitigation Measures 4.3-2, 4.3-3, and 4.3-4, the Project's direct impacts on special-status aquatic and moisture-dependent wildlife species would be less than significant. Education of construction personnel, presence of a biological monitor during construction, and



pre-construction surveys to identify and relocate sensitive species would reduce the potential for frogs, turtles, and salamanders to be inadvertently killed or injured during construction.

Long-term impacts caused by the loss of hydrologic inputs to Tom Sawyer Lake and Brite Creek would be less than significant if Mitigation Measure 4.3-8a is adopted, as this measure would secure a replacement water source for the lake and prevent its eventual conversion to a seasonal or intermittent aquatic resource. However, if Mitigation Measure 4.3-8b is implemented, and impacts to Tom Sawyer Lake and Brite Creek are offset through contributions to a regional mitigation bank, impacts to the southern western pond turtle and foothill yellow-legged frog would remain significant. There is no other suitable aquatic habitat for these species in the Project vicinity, and without perennial water in Tom Sawyer Lake and Brite Creek, any local populations of these species would be unlikely to persist.

#### Impact 4.3-4: Impacts to Special-Status Birds

Vegetated portions of the Project alignment contain shrubs, trees, and ground areas that may be used by nesting birds during the breeding season. Most native birds receive Federal protection under the MBTA (see Section 4.3.3 above), and some of the species potentially occurring within the Project alignment also maintain additional status designations. Special-status birds potentially occurring along the alignment include (Appendix D):

- Bald eagle (*Haliaeetus leucophalus*)
- Burrowing owl (*Athene cunicularia*)
- Nuttall's woodpecker (*Picoides nuttalli*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Oak titmouse (*Baeolophus inornatus*)
- Black-chinned sparrow (*Spizella atrogularis*)
- Tricolored blackbird (*Agelaius tricolor*)
- Lawrence's goldfinch (*Spinus lawrencei*)

If construction of the proposed Project occurs during the avian breeding season (generally February 1 through August 31), it is foreseeable that construction activities and vegetation clearing could remove bird nests that may be present in vegetation or on the ground within the disturbance footprint. The mobility of birds is significantly reduced during the breeding season, as they incubate eggs and raise and fledge chicks. Construction activities in close proximity to active nests can affect avian behavior, due to factors including construction noise, fugitive dust, and human presence. Project-related disturbance has the potential to drive off the parent birds, resulting in nest abandonment and mortality of the eggs or young. Impacts of this nature are prohibited by Federal and State law, and must be avoided. Outside the breeding season, birds are quite mobile and would be expected to vacate the area to avoid interactions with construction equipment or personnel. Impacts to special-status bird species due to potential injury or mortality would be potentially significant, absent mitigation.

The proposed Project would temporarily remove up to 5.7 acres of vegetation, but all areas of disturbance would be revegetated following Project construction. The areas of vegetation

removal would be limited and localized, and would not comprise a significant portion of the available avian breeding habitat along the Project alignment. No mature trees would be removed by the Project, and the Project is not expected to result in a reduction in available nesting substrate. The Project would not result in a permanent loss of avian breeding or foraging habitat, because all disturbed areas would be revegetated. Impacts to special-status birds due to loss of habitat would be less than significant.

### **Mitigation Measures**

The impact described above would be reduced by implementation of mitigation measures 4.3-2 and 4.3-3, described previously. In addition, the following measure would further reduce impacts:

**MM 4.3-5 Pre-Construction Nesting Bird Surveys and Avoidance.** The implementing agency shall make an effort to avoid vegetation removal within the Project alignment between February 1<sup>st</sup> and August 31<sup>st</sup>, the recognized breeding, nesting and fledging season for most bird species. If vegetation has to be removed within this period, a CDFW-approved biologist shall conduct bird surveys for nesting birds prior to construction. If breeding activities and/or an active bird nest is located, the implementing agency shall implement 300 foot minimum avoidance buffers for all passerine birds and 500 foot minimum avoidance buffer for all raptor species around the active nest. The breeding habitat/nest site shall be fenced and/or flagged in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project. These buffer distances may be modified in consultation with the biological monitor if a lesser distance would be adequate to prevent impacts to nesting birds, based on observations in the field. Any reduction in the buffer shall be submitted to CDFW for approval.

### **Level of Significance after Mitigation**

With implementation of mitigation measures 4.3-2, 4.3-3, and 4.3-5, the Project's impacts to nesting birds would be reduced to a less than significant level. The combination of monitoring, worker education, and preconstruction surveys with nest avoidance buffers would serve to ensure that birds or nests are not inadvertently destroyed during construction, and that birds in adjacent habitat are not disturbed to an extent that results in nest abandonment. Adherence to these measures would also help to ensure compliance with Federal and State laws protecting native birds, including the MBTA and Section 3503 of the California Fish and Game Code.

### Impact 4.3-5: Impacts to Special-Status Terrestrial Mammals

Two special-status terrestrial mammals, the American badger (*Taxidea taxus*, CSC) and the Tehachapi pocket mouse (*Perognathus alticolus inexpectatus*, CSC) have been previously documented in the vicinity of the Project alignment, and both of these species have potential to

occur in areas that would be disturbed by the Project. American badgers are highly mobile, and their burrows are distinctive. Pocket mice, however, excavate small and indistinct burrows which are often numerous. During Project construction, it is foreseeable that burrows of either of these species could potentially occur within the disturbance footprint. Absent mitigation, trenching activities could result in injury or mortality of badgers or pocket mice due to crushing or entombment by equipment. Like many small mammals, the Tehachapi pocket mouse exhibits a relatively short lifespan, high reproductive output, and moderate mobility. While the Project's disturbance of a linear corridor of vegetation could result in mortality of pocket mice if present within the disturbed area, it is expected that the area would be recolonized by individuals from adjacent habitat areas following construction. The linear configuration of the disturbance footprint makes this especially likely, as the degree of adjacency to adjacent habitat is high. Due to their high reproductive rate, the potential loss of some individual Tehachapi pocket mice is not expected to have a lasting effect on the population levels. Impacts to the Tehachapi pocket mouse would be less than significant.

Unlike pocket mice, American badgers are highly mobile, carnivorous, and exhibit much more modest rates of reproduction. Absent mitigation, injury or mortality of an American badger would constitute a potentially significant impact.

### **Mitigation Measures**

The impacts described above would be reduced by implementation of Mitigation Measures 4.3-2, 4.3-3, and 4.3-4, described previously.

### **Level of Significance after Mitigation**

By identifying American badger burrows prior to construction and conducting passive exclusion activities, injury or mortality of American badgers would be avoided. This would be further ensured through presence of a biological monitor during vegetation removal and implementation of a WEAP. By adopting these measures, impacts to the American badger would be reduced to a less than significant level.

### **Impact 4.3-6: Impacts to Special-Status Bats**

Portions of the Project alignment contain large, mature oak and cottonwood trees that could potentially support special-status bats. These species are generally nocturnal, and spend daylight hours sleeping in sheltered roosting sites. Cavities in large trees and foliage are used for roosting by some species, such as the western red bat (*Lasiurus blossevillii*, CSC) and hoary bat (*Lasiurus cinereus*, CSC). While the proposed Project would involve pipeline construction within mapped woodland habitats, no mature trees would be removed by the Project. As a result, the Project would not decrease the number or configuration of available bat roosts. Construction would occur during daylight hours, when bats are roosting, and would have the potential to disturb roosting individuals. However, because the proposed activities would be localized and would occur for a short duration in any single location, the disruption would not be substantial and would not result in injury or mortality of bats. The Project's impacts to special-status bat species would be less than significant, and no mitigation is recommended. However, Mitigation

Measures 4.3-2 and 4.3-3 (described previously) would further reduce this impact by requiring construction personnel to complete a Worker Environmental Awareness Program and by requiring a biological monitor to be present during vegetation removal.

### Impacts to Vegetation

**Impact 4.3-7: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.**

#### Impact 4.3-7: Impacts to Sensitive Vegetation Communities

As described in Section 4.3.1 above, the Project alignment traverses areas supporting a variety of land covers, including areas of developed roadways and areas of natural and anthropogenic vegetation. In some instances, the vegetation types within the Project alignment are designated as “sensitive natural communities” by the CDFW (2010) due to their limited distribution or historic decline within the State. Additionally, oak woodland communities receive protection under Kern County General Plan policies (Kern County 2009) and under Section 21083.4 of the CEQA statute.

To facilitate excavation of a trench for the pipeline installation, replacement, and removal activities proposed by the Project, vegetation within the alignment would need to be removed. The areas to be affected would be dependent on which Project Option is selected, as the two options call for improvements to be made in different locations. Vegetation to be removed under Options A, B-1, and B-2 is summarized in Table 4.3-1 below.

**Table 4.3-1 Vegetation to be Removed during Construction**

Vegetation Type	Acreage of Impacts		
	Option A	Option B-1	Option B-2
Annual Grassland	1.435 acres	3.501 acres	3.501 acres
Black Willow Thickets <sup>1</sup>	0.124 acres <sup>4</sup>	0.017 acres <sup>4</sup>	0.507 acres
Blue Oak Woodland <sup>2</sup>	0.055 acres <sup>4</sup>	No Impact	No Impact
Cottonwood Forest <sup>1</sup>	0.403 acres <sup>4</sup>	0.403 acres <sup>4</sup>	0.403 acres
Hydrophytic Perennial Grassland <sup>3</sup>	0.289 acres	0.620 acres	2.58 acres
Rubber Rabbitbrush Scrub	0.413 acres	1.016 acres	1.016 acres
Rush Marsh and Hydrophytic Perennial Grassland <sup>3</sup>	No Impact	No Impact	No Impact
Sandbar Willow Thickets <sup>3</sup>	No Impact	0.138 acres	0.138 acres

Vegetation Type	Acreage of Impacts		
	Option A	Option B-1	Option B-2
Tamarisk Thickets-Cattail Marshes-California Bulrush Marsh <sup>3</sup>	No Impact	No Impact	No Impact
Valley Oak Woodland <sup>1,2</sup>	0.083 acres <sup>4</sup>	No Impact	2.27 acres
Wildrye Grassland	No Impact	No Impact	No Impact
<b>Subtotal Native/Naturalized Communities</b>	<b>2.682 acres</b>	<b>5.695 acres</b>	<b>10.415 acres</b>
Anthropogenic Land Covers (non-habitat; Developed roadways, Ruderal, and Rural Residential).	1.618 acres	5.888 acres	5.888 acres
Total Project Disturbance	4.420 acres	11.583 acres	16.303 acres

<sup>1</sup> Sensitive Natural Community (CDFW 2010)

<sup>2</sup> County-Protected Community (Kern County 2009)

<sup>3</sup> Riparian/Hydrophytic Plant Community

<sup>4</sup> Impacts to ground cover only, no trees would be removed

The acreages of impact presented above were calculated based on the Project limits (see Figures 1-2, 1-3, and 1-4) and the mapping of vegetation along the Project alignment in the Biological Technical Report for the Project (Appendix D). Construction zone widths of 30 feet and 50 feet were conservatively assumed, as described in Section 3.2 of this Draft EIR. While limited construction would occur within tree-dominated habitats (willow thickets, oak woodlands, cottonwood forest), no removal of mature trees is proposed. In these habitats, the alignment would be micro-sited to avoid the need to conduct work beneath the driplines of mature native trees. In all instances, following Project completion all trenches would be backfilled and returned to existing grade. Where native vegetation is removed during trenching, the disturbance footprint will be revegetated with appropriate native plant species. The impacts to vegetation would therefore be temporary, and the Project would not result in the conversion of vegetated areas to a developed condition. Above-grade components of the proposed Project, such as construction and removal of lift stations and refurbishment of the Golden Hills WWTP under Project Option A, would occur in existing developed areas and would not require vegetation removal.

In sensitive or riparian forests and woodland habitats, such as black willow thickets, blue oak woodland, cottonwood forest, and valley oak woodland, the individual trees that define these habitats would be preserved in place, and trenching would occur between the trees. As a result, only shrubs and forbs would be removed during Project activities. Limited, localized removal of

shrubs and forbs would not substantially affect the ecological function of these woodland habitats, particularly considering that the impacts would be temporary and disturbed areas would be revegetated. The Project's impacts to forests and woodland habitats would be less than significant. The Habitat Restoration Plan required by Mitigation Measure 4.3-6 would further reduce these impacts.

In sensitive habitats that are dominated by herbaceous species and shrubs, such as hydrophytic perennial grassland, rush marsh, cattail/bulrush marsh, sandbar willow thickets, Project construction would result in the temporary removal of the community-defining species. Although these impacts would be localized, the potential exists for the impacted areas to remain unvegetated or sparsely vegetated, or to become colonized by invasive or other inappropriate species. Once established, such species could spread and affect adjacent portions of the sensitive habitat. Absent mitigation, impacts to sensitive/riparian herbaceous and scrub habitats would be potentially significant.

### **Mitigation Measures**

**MM 4.3-6 Habitat Restoration Plan.** Within mapped areas of sensitive or riparian vegetation, including black willow thickets, blue oak woodland, cottonwood forest, hydrophytic perennial grassland, rush marsh, cattail/bulrush marsh, sandbar willow thickets, and valley oak woodland, all areas impacted by the Project shall be revegetated with appropriate native species following completion of construction in the area. The implementing agency shall retain a CDFW approved biologist to prepare a Habitat Restoration Plan including lists of species to be planted in each location, and setting forth procedures for monitoring, maintenance, and reporting. The Habitat Restoration Plan shall be submitted to the implementing agency for review, and shall be approved prior to vegetation removal in areas of mapped sensitive or riparian vegetation. Monitoring of the revegetated areas shall be conducted no less than annually for a 5-year period, with maintenance conducted as necessary to achieve success criteria. To be considered successful, the planted areas shall have a minimum of 50% native vegetation cover after three years and 75% cover after five years. Prior to the mitigation sites being determined successful, they shall be entirely without supplemental irrigation for a minimum of 2 years; no woody invasive species shall be present, and herbaceous invasive species, excluding naturalized species, shall not exceed 5% cover. Specific permit conditions from the USACE, CDFW, and/or Central Valley RWQCB, all of which agencies have expertise and statutory mandates to maintain, restore, and enhance riparian habitats, may supersede or augment these requirements.

If special-status plant species are included in the Habitat Restoration Plan as required by Mitigation Measure 4.3-1, the number or extent of the special-status species at the end of the five-year monitoring period shall equal or exceed the number or extent removed.

### Level of Significance after Mitigation

Implementation of Mitigation Measure 4.3-6 would ensure that all sensitive or riparian vegetation temporarily removed by the Project is restored in a manner that prevents the permanent loss of such habitats. As the Project would not reduce the extent of sensitive habitats, impacts would be less than significant.

### Impacts to Jurisdictional Waters, Wetlands, and Streambeds

**Impacts 4.3-8 and 4.3-8: 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.**

Streams and waterways, including perennial and intermittent streams, lakes, and wetlands, can possess unique ecological functions and values, and these resources are protected from human destruction or degradation by Federal and State laws. As described in Section 4.3.1 above, the Project alignment encompasses portions of several waterways, including roadside ditches, unnamed ephemeral and intermittent streams, a herbaceous wetland, and a perennial segment of Brite Creek. Additionally, because effluent from the Golden Hills WTP is an important source of surface water into Tom Sawyer Lake and Brite Creek, the Project could result in indirect impacts to these aquatic resources if Option B-1 or B-2 is selected.

#### Impact 4.3-8: Direct Impacts to Streams and Wetlands during Construction

Maps presented in the Biological Resources Technical Report (Appendix D) prepared for the Project illustrates a total of 11 locations where potentially jurisdictional waters occur within or adjacent to the Project alignment. These locations and their relationship to Project activities are summarized in Table 4.3-2 below.

**Table 4.3-2 Potentially Jurisdictional Waters Affected by Project Construction**

Resource Location	Summary of Impacts		
	Option A	Option B-1	Option B-2
Golden Highlands drainage feature	No impact to drainage	No impact to drainage	No impact to drainage
Intermittent drainage at White Pine Drive and Lupine Avenue	Sewer line replacement in roadway adjacent to drainage	Sewer line replacement in roadway adjacent to drainage	Sewer line replacement in roadway adjacent to drainage
Intermittent drainage crossing White Pine Avenue between Lupine Avenue and Woodford Tehachapi Drive	Sewer line replacement in roadway over drainage	Sewer line replacement in roadway over drainage	Sewer line replacement in roadway over drainage

Resource Location	Summary of Impacts		
	Option A	Option B-1	Option B-2
Ditch along east side of Woodford Tehachapi Drive south of White Pine Drive	Sewer line replacement in roadway adjacent to drainage ditch	Sewer line replacement in roadway adjacent to drainage ditch	Sewer line replacement in roadway adjacent to drainage ditch
Channel conveying local runoff under Woodford Tehachapi Drive to Tom Sawyer Lake	Sewer line replacement in roadway over drainage	Sewer line replacement in roadway over drainage	Sewer line replacement in roadway over drainage
Segment of Brite Creek parallel to Project alignment east of Tom Sawyer Lake	Sewer line replacement in two localized areas, one in creek and one adjacent	No Impacts	No Impacts
Potential wetlands on Woodford Tehachapi Property south of Tom Sawyer Lake	No Impacts	New sewer line to be constructed within potential wetland	New sewer line to be constructed within potential wetland
Ephemeral drainage crossing Westwood Boulevard between Piedra Drive and San Gabriel Drive	No Impacts	New sewer transmission line to be constructed in roadway over drainage	New sewer transmission line to be constructed in roadway over drainage
Ephemeral drainage crossing Red Apple Avenue east of Westwood Boulevard	No Impacts	New sewer transmission line to be constructed in roadway over drainage	New sewer transmission line to be constructed in roadway over drainage
Ephemeral drainage crossing West Tehachapi Boulevard east of Tucker Road	No Impacts	No Impacts	No Impacts
Crossing of Tehachapi Creek near southeastern corner of Tehachapi WWTP	No Impacts	No Impacts	No Impacts



In most these stream crossing locations, the Project alignment is sited within existing paved roadways. In these areas, work on the wastewater conveyance system would entail excavating a trench within the existing pavement and road base and performing the necessary activities (installing, removing, or replacing the wastewater pipelines). At each of the road crossings, existing culverts convey stream flows beneath the roadway; designs and sizes vary but are generally proportional to the magnitude of the streams they serve. It is possible that excavating trenches within the existing road beds at drainage crossings would require temporary removal or breaching of culverts, depending on the culvert designs and excavation depths required. Impacts to culverted waters would not substantially affect biological resources, as culverts do not support vegetation or high quality aquatic habitat. Adverse impacts to downstream biological resources caused by sedimentation or water pollution could potentially occur, however, particularly if construction equipment or trench spoils come into contact with flowing water.

In some areas within the Woodford Tehachapi Property and along the Brite Creek corridor, implementation of the Project would require construction activities in potentially jurisdictional streams and wetlands where no roadway is present. These areas include approximately 300 feet of replacement pipeline that would be installed under Option A adjacent to the channel of Brite Creek, as well as an approximately 700-foot long segment of the new sewer transmission line to be constructed under Options B and B-2 which occurs within a potential herbaceous wetland south of Tom Sawyer Lake. Replacing a 300-foot segment of sewer pipeline immediately adjacent the channel of Brite Creek, as would occur under Project Option A, could require removal of riparian vegetation. However, the need to remove mature trees would be avoided, and vegetation removal would be limited to shrubs and understory species. Brite Creek is perennial in this reach, and the Project would also have the potential to affect biological resources within the creek through indirect means, such as polluted runoff or sedimentation from the work zone entering the creek.

In the potential wetland area affected by Options B-1 and B-2, existing vegetation would be temporarily removed and a trench would be excavated to the desired depth for pipeline installation. Assuming an impact zone with dimensions of 30 feet wide by 700 feet long, Project Options B-1 and B-2 would impact approximately 0.48 acre of the potential wetland through vegetation removal and compaction/disruption of wetland soils. Although this impact would be temporary, the effect of removing vegetation from 0.48 acre of potential wetland would be substantial. Although this area is likely to exhibit shallow groundwater depths, dewatering of the work zone is not proposed. Depending on the trench depths and the water levels encountered the pipe may be installed in the trench with water present.

As described above, all Project Options would involve work activities within and over potentially jurisdictional waters, and would result in temporary impacts to the features and their associated biota during construction. Absent mitigation, these impacts would be potentially significant. However, these impacts would be regulated by Federal and State agencies, and permits authorizing work in waters and streambeds would be required. Mitigation Measure 4.3-7 would require the GHCSO to secure and comply with Federal and State permits authorizing work in

jurisdictional waters, and compliance with these permits would reduce the magnitude of the Project's impacts.

### **Mitigation Measures**

**MM 4.3-7 Regulatory Authorizations for Aquatic Resource Impacts.** Prior to any ground disturbing activities occurring in areas where regulated aquatic resources may be present, as determined based on review of the Biological Resources Technical Report prepared for the Project (Appendix D), the NWI (USFWS 2015), the NHD (USGS 2015), or other available mapping, the implementing agency shall retain a qualified wetlands biologist to delineate the proposed work zones and confirm whether waters of the United States (including wetlands), CDFW-jurisdictional streambeds, or waters of the State are present. If such regulated features are present, biologist shall delineate the jurisdictional limits of the features. The implementing agency shall not conduct any vegetation removal or ground disturbing activity within the limits of any regulated aquatic resource without first either:

- 1) Obtaining Federal and/or State permits authorizing the proposed work, including a CWA Section 404 Permit, CWA Section 401 Water Quality Certification, Lake/Streambed Alteration Agreement, and/or WDR; or,
- 2) Obtaining a statement from the issuing agencies indicating that such permits are not required.

If permits are obtained, the implementing agency shall comply with all permit conditions when implementing the proposed activities, including any seasonal timing restrictions, impact avoidance measures, limitations on construction means and methods, site restoration, compensatory mitigation, and reporting requirements.

### **Level of Significance after Mitigation**

With incorporation of Mitigation Measure 4.3-7, the Project's impacts on regulated aquatic resources would be less than significant. Jurisdictional waters and wetlands are the subject of extensive Federal and State regulatory programs intended to protect and enhance aquatic resources, and permits under these programs are issued and conditioned by agencies with subject matter expertise to prevent the loss of aquatic resource functions and values. Compliance with such permits would prevent significant impacts on regulated resources from occurring.

#### Impact 4.3-9: Indirect Effects from Discontinuing Effluent Inputs to Tom Sawyer Lake

Currently, Tom Sawyer Lake receives hydrologic inputs from two sources: the Golden Hills WWTP effluent outfall and localized runoff from areas immediately surrounding the lake and on the west side of Woodford Tehachapi Road. Localized runoff is a wet-season input, and does not

contribute significant water to the lake outside the rainy season. The WWTP outfall, on the other hand, provides a steady stream of approximately 18 gallons per minute (28 acre-feet per year) of treated effluent to the lake (AECOM 2014). Under Project Options B-1 and B-2, the existing Golden Hills WWTP would be decommissioned and sewage from the area would be conveyed and treated at the Tehachapi WWTP. The outfall into Tom Sawyer Lake would no longer be used, and localized runoff would become the only source of surface water inputs to the lake.

With the effluent stream discontinued, Tom Sawyer Lake would experience substantial hydrologic changes. The lake level, which is currently fairly stable and controlled by the balance of inputs from the WWTP outfall and outflows into Supply Lake and Brite Creek, would become dictated wholly by climate conditions. During the rainy season, lake levels would rise and could potentially reach “full” conditions depending on the amount of precipitation received. However, during dry periods of the year, surface water would leave the lake through natural processes including evaporation into the atmosphere, transpiration by plants, and infiltration into the substrate, and these debits would not be offset by inputs to the lake. As a result, water depth in the lake would decrease. Further, because Tom Sawyer Lake is situated in an area of fairly low topographic relief, relatively modest decreases in water depth would have the effect of diminishing the surface area of the lake. Emergent and lacustrine vegetation along the existing lake margins could become stranded and desiccate, seasonally reducing the availability of habitat for wildlife dependent on the lake.

Over time, it is expected that without input from the Golden Hills WWTP outfall, water levels in Tom Sawyer Lake would continue to drop. The remaining inputs would not keep pace with natural water losses, and the lake would eventually go dry. Tom Sawyer Lake would be converted from a perennial aquatic resource to a seasonal one, with surface water present for some duration following winter rains but vanishing at some point in the spring or summer depending on precipitation levels and temperatures. A change of this nature would constitute a “type-conversion” of the lake, and the lake would assume a different role in the ecosystem. Use of the lake by plants and wildlife would differ, and the change could be beneficial for some types of species but detrimental to others. For instance, highly aquatic species such as fishes and turtles, which are dependent on aquatic habitat year-round, would no longer be expected to occupy the lake. However, even with seasonal hydrology, it is likely that the lake would continue to support lacustrine vegetation, and would remain suitable for birds. The bed of the lake, which is currently inaccessible to birds and terrestrial animals, could become seasonally available for colonization by herbaceous vegetation and provide habitat for these species.

Considering the information presented above, Project Options B-1 and B-2 could reduce the extent and aquatic habitat function of Tom Sawyer Lake due to hydrologic alterations. Absent mitigation, this impact would be potentially significant. Project Option A would not result in diversion of flows from the lake, and Impact 4.3-9 would not occur if Option A is selected.

### Mitigation Measures

**MM 4.3-8a Augmentation of Surface Water to Tom Sawyer Lake.** Prior to deactivating the Golden Hills WWTP outfall into Tom Sawyer Lake, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth, and shall construct any necessary conveyance and/or outfall infrastructure to deliver the water. The amount of water delivered shall be 28 acre-feet per year (the estimated flow rate of the Golden Hills WWTP outfall), unless a qualified hydrologist determines that a lesser rate would suffice to maintain the extent and depth of the lake. Input to the lake shall be continuous, except that flow augmentation may be suspended during periods when natural precipitation and conditions are adequate to maintain the lake at approximately maximum levels.

Implementation of this measure could result in temporary or permanent impacts to existing vegetation to accommodate construction of necessary water pipes or outfall structure. These impacts would be limited to the minimum area feasible, and sensitive biological resources would be avoided.

**MM 4.3-8b Compensatory Mitigation for Loss of Aquatic Resources.** If alternative water cannot be found to maintain Tom Sawyer Lake even on a seasonal basis, mitigation for the loss of the land as wetlands shall be paid either through the use of an existing Wetlands Bank or through contribution of funds to a restoration effort equal to 3:1 of loss of acreage. As the extent of Tom Sawyer Lake varies dependent on effluent discharge quantity in combination with seasonal precipitation and evaporation rates, the current extent of Tom Sawyer Lake shall be surveyed at the time of mitigation implementation in order to determine its acreage and the appropriate level of compensation.

### Level of Significance after Mitigation

By implementing Mitigation Measure 4.3-8, GHCSO would take one of two actions, either of which would reduce the Project's impacts to Tom Sawyer Lake to a less than significant level. If Mitigation Measure 4.3-8a is implemented, GHCSO would commit to ensuring that adequate replacement flows are provided to offset the reduction in surface water inputs that would result from decommissioning of the Golden Hills WWTP under Project Options B-1 and B-2. As a result, the Project would not threaten to disrupt the water level or hydroperiod of Tom Sawyer Lake in this scenario, and no significant impact would occur. If Mitigation Measure 4.3-8b is incorporated, the implementing agency that develops Option B-1 and B-2 would fund the long-term preservation and management of regional aquatic resources through participation in a local wetland mitigation bank. Use of mitigation banks to compensate for losses of aquatic resources is a demonstrated means of ensuring that lost wetlands functions and acreage are retained from a regional perspective, and the Clean Water Act Section 404 regulatory program identifies mitigation banks as the preferred means of meeting compensatory mitigation requirements (USACE and EPA 2008). The payment for restoration of Tom Sawyer Lake would

ensure a net gain in aquatic resource functions and acreage, and would thereby compensate for the loss of functions and acreage at Tom Sawyer Lake, which was last estimated to be 6 acres in size (AECOM 2014). As stipulated by Mitigation Measure 4.3-8b, the acreage of Tom Sawyer Lake would be determined prior to implementation of this option. By compensating for the loss of aquatic resource functions, Mitigation Measure 4.3-8b would reduce impacts to wetlands to a less than significant level.

### **Impacts to Wildlife Movement and Habitat Connectivity**

**Impact 4.3-10: 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.**

#### Impact 4.3-10: Disruption of Wildlife Movement Corridors

The Project alignment is not situated within recognized wildlife movement corridors or habitat linkages, and the proposed Project would not affect these resources. Implementation of the proposed Project would require the temporary removal of vegetation within construction zones to facilitate trenching for pipeline installation, replacement, and removal. Specific vegetation types and quantities to be removed are described in Impact 4.3-6 above. In all cases, disturbed areas would be restored to existing grade and revegetated following Project completion. The Project would not result in lasting effects on local or regional movement of wildlife due to vegetation removal.

The proposed Project would entail temporary disturbances, including trenching, human presence, noise, dust, and light, at work zones along the Project alignment during construction. In most locations, the proposed activities would occur within existing roadways which are unsuitable for wildlife movement. Project activities within existing roads are not expected to affect wildlife movement substantially, as the roads would remain passable during construction, other than during active work hours when wildlife movement is not expected. Trenches within roadways would be covered overnight for safety, and would not hinder nighttime movements of wildlife across roadways. Where present, culverts and drainage crossings (which are likely used by wildlife as an alternative to crossing the road surface) would continue to be available for wildlife use during construction.

Because the Project's impacts on wildlife movement would be temporary and localized, and would not occur within regionally important wildlife corridors, this impact would be less than significant and no mitigation is recommended. Although impacts would be less than significant in all cases, impacts under Project Option A would be slightly less than those under Project Options B-1 or B-2, because Option A would involve less overall vegetation disturbance and would avoid the need for construction activities within the Brite Creek riparian corridor, the most intact habitat along the Project alignment.

### **Consistency with Local Policies and Ordinances Protecting Biological Resources**

**Impact 4.3-11: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**Impact 4.3-11: Consistency with Local Resource Policies and Ordinances

As described in Section 4.3.2 above, the Project alignment includes pipeline segments within unincorporated Kern County and within the City of Tehachapi. Each of these jurisdictions has an adopted General Plan and ordinances guiding development within the planning area, including policies and laws for the protection of biological resources. In most cases, these plans address resources from a large-scale perspective, conveying a vision of the intended relationship between designated land uses and the surrounding landscape in the planning areas. Because the Project would not change any existing land uses, applicability of policies to the Project is limited. Regardless of which option is selected, the Project would not include substantial new land development. The proposed Project would require the extension, removal, and refurbishment of subterranean wastewater infrastructure and limited reconstruction of existing facilities. Ground disturbance associated with these activities would be temporary and localized, and would not affect land uses or biological resources on a long-term basis. Consequently, the majority of General Plan policies are not directly applicable to the Project, and the Project would therefore present no conflict with most planning policies. In some cases, however, policies and ordinances protecting biological resources are specific and applicable to Project activities. The Project's consistency with these provisions is described below. Policy consistency would be identical for the three Project Options under consideration, and the analysis below is applicable to all three options.

*Kern County General Plan Policies and Implementation Measures*

Policy 11. Development plans should minimize alteration of natural drainage areas and include mitigation to stabilize runoff and silt deposition.

- In most locations where drainage areas cross the Project alignment, the alignment is sited within existing paved roadways. Existing culverts allowing flows to pass beneath the roads would be retained, and the Project would not result in permanent changes to the drainage courses. In the limited locations where no roadway is present, such as along the Brite Creek corridor, construction activities within the drainage may be required. Impacts to aquatic resources are addressed in Section 4.3.3 of this Draft EIR, and mitigation measures have been identified to reduce these impacts to a less than significant level. Impacts to regulated aquatic resources would require Federal and/or State authorizations, and GHCS D would abide by all permit conditions. Considering this information, the Project would not conflict with Kern County General Plan Policy 11.

Policy 27. Threatened or endangered plant and wildlife species should be protected in accordance with State and Federal laws.

- Impacts to threatened and endangered plants and wildlife are addressed in Section 4.3.3 of this Draft EIR, and would be less than significant with incorporation of the recommended avoidance and minimization measures. In habitats potentially supporting

listed species, preconstruction surveys will be conducted prior to ground disturbance to ascertain whether such species are present. If a threatened or endangered species are detected, GHCS D would not proceed with construction, and would instead contact the USFWS and/or CDFW to seek take authorization or develop a take avoidance strategy. Under no circumstances would the take of any threatened or endangered plant or wildlife species occur without incidental take authorization from the appropriate agencies. The proposed Project would therefore not conflict with Kern County General Plan Policy 27.

Policy 28. The County should work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.

- The County has circulated this Draft EIR to State and Federal agencies, including the USFWS and CDFW, affording these agencies an opportunity to participate and provide recommendations regarding the protection of fish, wildlife, and botanical resources. Any comments received from these agencies during CEQA review will be considered and incorporated into the Final EIR. The proposed Project would not conflict with Kern County General Plan Policy 28.

Policy 31. Under CEQA, the County will solicit comments from CDFW and USFWS when an environmental document is prepared.

- The County, assisting the CSD as the lead agency, has circulated this Draft EIR and solicited comments from the USFWS and CDFW. Comments from these agencies will be considered and incorporated into the Final EIR. The proposed Project would not conflict with Kern County General Plan Policy 31.

Implementation Measure R. Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to CEQA.

- This Draft EIR has been prepared in accordance with CEQA. The County, assisting the GHCS D as the lead agency, has circulated the document and solicited comments from relevant State and Federal agencies, including the USFWS and CDFW. Comments received from these agencies will be considered and incorporated into the Final EIR. The proposed Project would not conflict with Kern County General Plan Implementation Measure R.

Policy 65. Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

Impacts to oak woodlands and large oak trees are addressed in Section 4.3.3 of this Draft EIR. As described, the proposed Project would traverse woodland habitats in some locations, but would not involve the removal of any mature oak trees or convert oak woodlands to a developed condition. In all areas with native vegetation, disturbance zones will be revegetated following

construction. Considering this information, the proposed Project would not conflict with Kern County General Plan Policy 65.

Implementation Measure KK: The following applies to discretionary development projects that contain oak woodlands, defined as parcels having oak tree canopy cover of at least ten percent. If the study is for an EIR, then a RPF shall perform the necessary analysis.

- a. Parcels containing oak woodlands are subject to a minimum canopy coverage retention standard of thirty percent. The consultant shall include recommendations for thinning and diseased tree removal in conjunction with the project.
- b. Use of aerial photography and a dot grid system shall be considered adequate in determining the required canopy coverage standard.
- c. Adjustments below thirty percent minimum canopy standard may be made based on a report to assess the management of oak woodlands.
- d. Development shall avoid the area beneath and within the trees unaltered dripline unless approved by a licensed or certified arborist or botanist.

Oak woodlands and oak trees, including the area beneath and within the trees unaltered dripline, will be completely avoided during construction. In all areas with native vegetation, disturbance zones will be revegetated following construction. The proposed Project would not conflict with the provisions of Kern County General Plan Implementation Measure KK.

Implementation Measure LL: The following applies to development of parcels having oak tree canopy cover of less than ten percent, but containing individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5 feet breast height.

- a. Such trees shall be identified on plot plans.
- b. Development shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
- c. Specified tree removal may be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record.

Oak woodlands and oak trees, including the area beneath and within the trees unaltered dripline, will be completely avoided during construction. In all areas with native vegetation, disturbance zones will be revegetated following construction. The proposed Project would not conflict with the provisions of Kern County General Plan Implementation Measure LL.

*Greater Tehachapi Area Specific and Community Plan Policies and Implementation Measures*  
Policy COS.13. Development plans should conserve areas along rivers and streams, minimize the alteration of natural drainage areas, and include mitigation to stabilize runoff and silt deposition.

In most locations where drainage areas cross the Project alignment, the alignment is sited within existing paved roadways. Existing culverts allowing flows to pass beneath the roads would be retained, and the Project would not result in permanent changes to the drainage courses. In the



limited locations where no roadway is present, such as along the Brite Creek corridor, construction activities within the drainage may be required. Impacts to aquatic resources are addressed in Section 4.3.3 of this Draft EIR, and mitigation measures have been identified to reduce these impacts to a less than significant level. Impacts to regulated aquatic resources would require Federal and/or State authorizations, and GHCS D would abide by all permit conditions. Considering this information, the Project would not conflict with Kern County General Plan Policy 11.

Policy COS.24. Protect threatened and endangered plant and wildlife species, habitats, and wetlands in accordance with State and Federal laws.

- Impacts to threatened and endangered plants and wildlife are addressed in Section 4.3.3 of this Draft EIR, and would be less than significant with incorporation of the recommended avoidance and minimization measures. In habitats potentially supporting listed species, preconstruction surveys will be conducted prior to ground disturbance to ascertain whether such species are present. If a threatened or endangered species are detected, GHCS D would not proceed with construction, and would instead contact the USFWS and/or CDFW to seek take authorization or develop a take avoidance strategy. Under no circumstances would the take of any threatened or endangered plant or wildlife species occur without incidental take authorization from the appropriate agencies.
- Additionally, impacts to jurisdictional waters and wetlands are addressed in Section 4.3.3 of this Draft EIR, and mitigation measures have been identified to reduce impacts to jurisdictional waters and wetlands to a less than significant level. Impacts to jurisdictional waters and wetlands would require Federal and/or State authorizations, and GHCS D would abide by all permit conditions imposed. The proposed Project would therefore not conflict with GTASCP Policy COS.24.

Policy COS.25. The County shall work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.

The County, assisting the GHCS D as the CEQA lead agency, has circulated this Draft EIR to State and Federal agencies, including the USFWS and CDFW, affording these agencies an opportunity to participate and provide recommendations regarding the protection of fish, wildlife, and botanical resources. Comments received from these agencies during CEQA review will be considered and incorporated into the Final EIR. The proposed Project would not conflict with GTASCP Policy COS.25.

Policy COS.28. Under CEQA, the County shall solicit comments from the USFWS and CDFW when an environmental document is prepared.

The County, assisting the GHCS D as the CEQA lead agency, has circulated this Draft EIR and solicited comments from the USFWS and CDFW. Comments from these agencies will be considered and incorporated into the Final EIR. The proposed Project would not conflict with GTASCP Policy COS.28.

Policy COS.29. Promote the conservation of oak tree woodlands; oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

Oak woodlands and oak trees, including the area beneath and within the trees unaltered dripline, will be completely avoided during construction. No removal of trees or conversion of oak woodlands to a developed condition is proposed. In all areas with native vegetation, disturbance zones will be revegetated following construction. Therefore, the proposed Project would not conflict with the provisions of Kern County General Plan Implementation Measure LL.

Implementation Measure 13. New discretionary development shall require consultation with the USACE, the RWQCB, and CDFW if potential waters of the U.S. and/or waters of the State, including wetlands, are present on site. Preservation of wetlands shall be the primary consideration; otherwise, mitigation measures pursuant to CEQA shall be implemented.

- In most locations where drainage areas cross the Project alignment, the alignment is sited within existing paved roadways. Existing culverts allowing flows to pass beneath the roads would be retained, and the Project would not result in permanent changes to the drainage courses. In the limited locations where no roadway is present, such as along the Brite Creek corridor, construction activities within the drainage may be required. Impacts to aquatic resources are addressed in Section 4.3.3 of this Draft EIR, and mitigation measures have been identified to reduce these impacts to a less than significant level. Impacts to regulated aquatic resources would require Federal and/or State authorizations, and GHCS D would abide by all permit conditions. The Federal CWA regulatory program requires the avoidance and minimization of impacts to wetlands to the maximum extent practicable, relying on compensatory mitigation only to offset remaining impacts. Considering this information, the Project would not conflict with GTASCP Implementation Measure 13.

Implementation Measure 17. Any project which disturbs more than 1 gross acres of land, land disposes of waste (including mining waste), utilizes recycled water, proposes to potentially alter a streambed, or discharges fill material to a surface water shall consult with the RWQCB to assess the need for permits from that Agency.

As described in Section 4.3.3 of this Draft EIR, construction of the proposed Project would entail the disturbance of up to 11.6 acres of land. Accordingly, as required by applicable laws and GTASCP Implementation Measure 17, the GHCS D will consult with the Central Valley RWQCB to confirm the need for permits from that agency. It is envisioned that the proposed construction would be enrolled for coverage under the General NPDES Permit for construction activities.

Implementation Measure 25. All discretionary development proposals requiring preparation of an environmental document shall consult with responsible and trustee wildlife agencies, including but not limited to CDFW and the USFWS.

The County, assisting the GHCS D as the CEQA lead agency, has circulated this Draft EIR and solicited comments from the USFWS and CDFW. Comments from these agencies will be

considered and incorporated into the Final EIR. The proposed Project would not conflict with GTASCP Implementation Measure 25.

Implementation Measure 26. All discretionary development proposals for project sites that have the potential to contain a sensitive or “special-status” plant or animal species shall be accompanied by a written Biota Study, when deemed necessary by the County.

A Biological Technical Report was prepared and is included in Appendix D of this Draft EIR. The Report describes the existing biological resources and includes an analysis of the known and potential sensitive species located within the Project area. Based on this report, Project-specific mitigation measures have been identified in this Draft EIR to reduce impacts to special-status plant and wildlife species to a less than significant level. In habitats potentially supporting listed species, preconstruction surveys will be conducted prior to ground disturbance to ascertain whether threatened or endangered species are present. If such species are detected, GHCS D would not proceed with construction, and would instead contact the USFWS and/or CDFW to seek take authorization or develop a take avoidance strategy. Considering this, the Project would not conflict with GTASCP Implementation Measure 26.

Implementation Measure 27. All development and construction activities shall adhere to any recommended mitigation measures as identified by any Biota Survey, Pre-Construction Survey, Special-Status Plant Survey, Incidental Take Authorization/Permit, and any requirements of USFWS and CDFW.

The County, assisting the GHCS D as the CEQA lead agency, has circulated this Draft EIR and solicited comments from the USFWS and CDFW. Comments from these agencies will be considered and incorporated into the Final EIR. Additionally, should Federal and/or State Incidental Take Permits be required for the Project, GHCS D would comply with all required permit conditions. The proposed Project would not conflict with GTASCP Implementation Measure 27.

Implementation Measure 31 The following applies to discretionary development projects that contain oak woodlands, defined as parcels having oak tree canopy cover of at least ten percent. If the study is for an EIR, then a RPF shall perform the necessary analysis.

- a. Parcels containing oak woodlands are subject to a minimum canopy coverage retention standard of thirty percent. The consultant shall include recommendations for thinning and diseased tree removal in conjunction with the project.
- b. Use of aerial photography and a dot grid system shall be considered adequate in determining the required canopy coverage standard.
- c. Adjustments below thirty percent minimum canopy standard may be made based on a report to assess the management of oak woodlands.
- d. Development shall avoid the area beneath and within the trees unaltered dripline unless approved by a licensed or certified arborist or botanist.

Oak woodlands and oak trees, including the area beneath and within the trees unaltered dripline, will be completely avoided during construction. In all areas with native vegetation, disturbance zones will be revegetated following construction. The proposed Project would not conflict with the provisions of GTASCP Implementation Measure 31.

Implementation Measure 32. The following applies to development of parcels having oak tree canopy cover of less than ten percent, but containing individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5 feet breast height.

- a. Such trees shall be identified on plot plans.
- b. Development shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
- c. Specified tree removal may be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record.

Oak woodlands and oak trees, including the area beneath and within the trees unaltered dripline, will be completely avoided during construction. In all areas with native vegetation, disturbance zones will be revegetated following construction. The proposed Project would not conflict with the provisions of GTASCP Implementation Measure 32:

#### *City of Tehachapi General Plan Policies*

Policy CS18. As feasible, maintain or return to the natural condition of waterways and flood plains to ensure adequate groundwater recharge and water quality, preservation of habitat, and access to mineral resources.

In most locations where drainage areas cross the Project alignment, the alignment is sited within existing paved roadways. Existing culverts allowing flows to pass beneath the roads would be retained, and the Project would not result in permanent changes to the drainage courses. In the limited locations where no roadway is present, such as along the Brite Creek corridor, construction activities within the drainage may be required. Impacts to aquatic resources are addressed in Section 4.3.3 of this Draft EIR, and mitigation measures have been identified to reduce these impacts to a less than significant level. Impacts to regulated aquatic resources would require Federal and/or State authorizations, and GHCS D would abide by all permit conditions. Considering this information, the Project would not conflict with TGP Policy CS18.

#### **Mitigation Measures**

The proposed Project would not conflict with local plans, policies, or ordinances protecting biological resources, and no mitigation is recommended.

#### **Level of Significance after Mitigation**

Impacts would be less than significant.

### **Consistency with Habitat Conservation Plans**

#### **Impact 4.3-12: 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 alignment is not within the coverage area of an adopted HCP (CDFW 2015 and USFWS 2016). No impacts related to consistency with HCPs would occur, and no mitigation is recommended.

### **Cumulative Setting Impacts and Mitigation Measures**

Impacts to biological resources from the Project are localized and would be fully mitigated with implementation of the identified mitigation measures. The issue that was of greatest concern was the potential loss of Tom Sawyer Lake as a habitat for special-status species. However, those impacts would have either not occurred under Option A or been offset or compensated for under Options B-1 or B-2. Of the nine projects within the six-mile radius identified in the Project Description, only two, Identification Numbers 11313 and 14596, are larger than 10 acres and are not separated by hills or other topographic features. The two identified projects have footprints of 652 and 75.69 acres, respectively, and would likely also have impacts to biological resources. However, for this EIR, the working assumption is that impacts to biological resources would also be localized and fully mitigated. Based on this assumption and the recognition that neither project is in close proximity to the Project when considering the potential resources affected by the Projects, the Project would result in less than significant cumulative impacts to biological resources.

#### **Mitigation Measures**

No mitigation measures are required.

#### **Level of Significance after Mitigation**

Cumulative impacts to biological resources are less than significant.

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## Section 4.4

# Cultural Resources

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### 4.4.1 Introduction

The Project is located in the Tehachapi Mountain Valley, east-southeast of Bakersfield, California and west of the Mojave Desert. The Tehachapi Mountains are one of southern California's Transverse Ranges, which connect the Coast Ranges on the west to the southern end of the Sierra Nevada Mountains on the east. This range separates the Mojave Desert from the southernmost end of the Great Central Valley. The geographic and environmental location of this Project places it at a nexus of several cultural regions: the Central Valley, the Mojave Desert, and the Great Basin. The interactions of these areas provided a context for unique cultural and historical development.

### 4.4.2 Environmental Setting

This section discusses the existing conditions related to cultural resources in the study area (Figure 4.4-1). The study area for cultural resources is defined as the Project area plus a half-mile buffer. The Area of Potential Effect (APE) is three dimensional and includes all areas that may be affected by the Project, including the surface area and extending belowground to the depth of Project excavations. The APE examined for this Project consists of equipment staging areas, construction areas, and a 50-foot buffer around these areas.

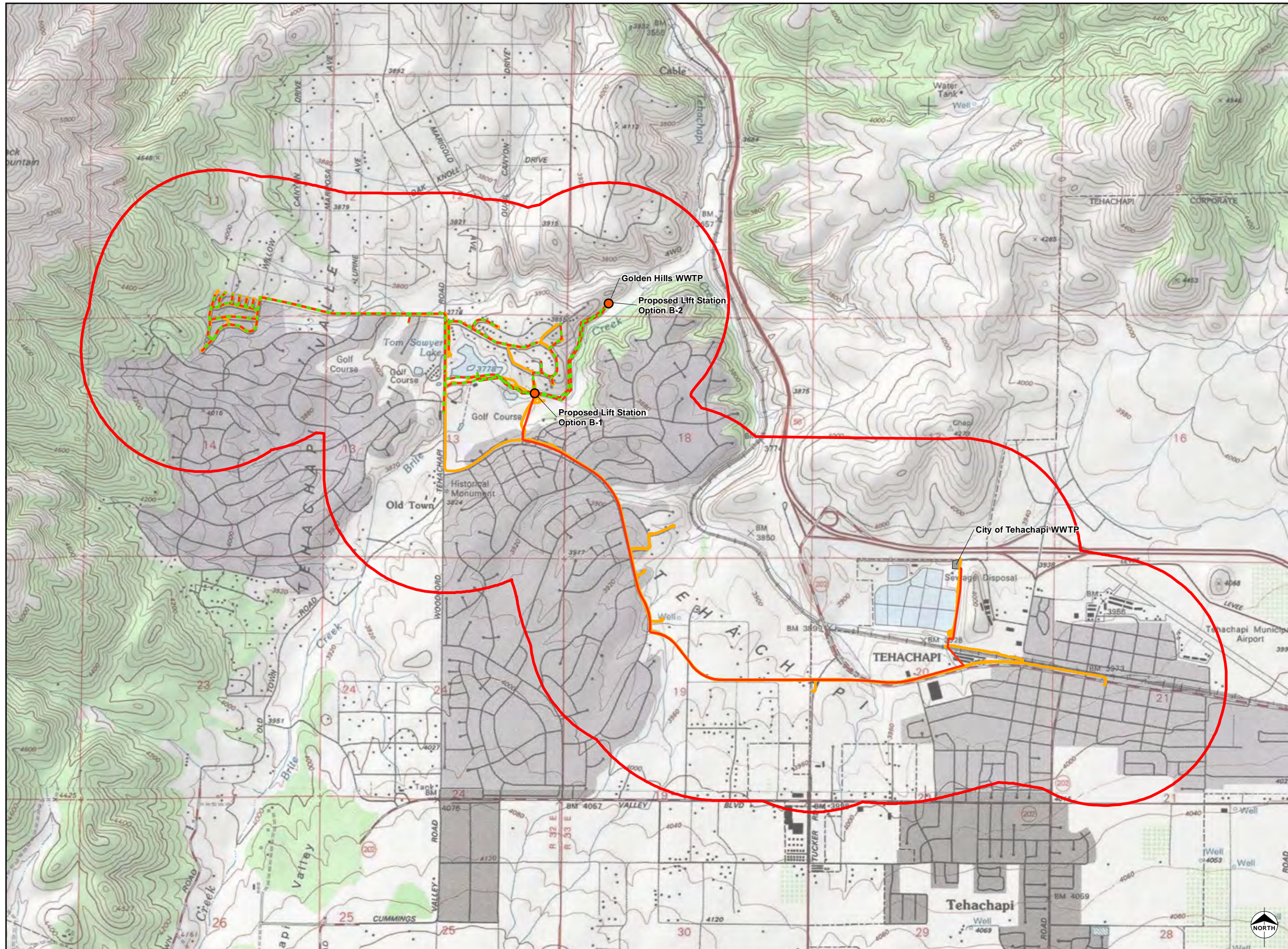
#### Regional

Precipitation varies widely though the Project area, averaging about 10 inches annually. Rain typically falls in the desert portion of the Project during winter, although summer monsoons can also bring rain. Snow occurs at the higher elevations. Annual rainfall is higher in the Tehachapi Mountains, and water can flow year round in the canyons. Southwest winds regularly blow through the area, funneled through Oak Creek Pass, the closest pass to the Project area, through the Tehachapi Mountains, which leads out of the Mojave Desert and into the San Joaquin Valley. In the fall, a reversal of wind direction, or Santa Ana conditions, frequently occurs.

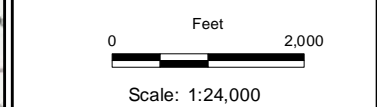
The Project area is located within a transition area represented by several native biotic communities, including the Joshua Tree Woodland, the Pinyon-Juniper Woodland, the Chaparral, the Riparian Woodland, and the Southern Oak Woodland communities. The environmental setting of the area determined the kinds of floral and faunal resources that were available in prehistory and shaped the kinds of crops that could be grown historically.

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- Legend**
- Option A
  - Option B-1, B-2
  - Survey route Buffer (50 feet)
  - GHWTP Buffer (0.5 Mile)



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**Golden Hills  
Community Services District**

**Project APE With  
1/2 Mile Buffer**

Sources:  
USGS 1:24,000 Topographic Quadrangle  
Series Index; Esri (2014)

Date: 2/15/2016 | Project: 60317952

**AECOM** Figure 4.4-1

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## Geology

Deposition within the Project area consists of older Plio-Pleistocene alluvium, and recent Holocene alluvium. A large part of the Project area is located within the extensive alluvial fans which extend south and east from the Tehachapi Mountains. Alluvial deposition occurs within some of the proposed Project area within the Tehachapi Mountains, as well. Plutonic rocks, including quartz monzonite, granodiorites, and tonalites, and igneous rocks, such as basalts, andesites, and rhyolites, occur within the Project (Dibblee 1967). Prehistoric people utilized these materials for both groundstone and flaked stone. Metamorphosed limestone (marble) pendants occur in the area, as well. Bedrock exposures consist of igneous and metamorphic rocks. Further, portions of the Tehachapi Formation, a coarse alluvial fan deposit, are located in the Project area. There are also deposits of younger Quaternary Alluvium that are derived from fluvial deposits from Brite Creek.

### Paleontological Setting

California is naturally divided into the following twelve geomorphic provinces, each distinguished from one another by having unique topographic features and geologic formations: (1) the Sierra Nevada, (2) the Klamath Mountains, (3) the Cascade Range, (4) the Modoc Plateau, (5) the Basin and Range, (6) the Mojave Desert, (7) the Colorado Desert, (8) the Peninsular Ranges, (9) the Transverse Ranges, (10) the Coast Ranges, (11) the Great Valley, and (12) the Offshore area. The Golden Hills study area is located in the southernmost area of the Sierra Nevada geomorphic province. The Sierra Nevada is bound to the east by the Basin and Range, to the north by the Modoc Plateau and the Cascades, to the south by the Mojave Desert, and to the west by the Great Valley. The province is dominated by the Mesozoic granitic rocks of the Sierra Nevada batholith in the south, but also contains a belt of highly metamorphosed Paleozoic and Mesozoic volcanic and sedimentary rocks in the west, Tertiary volcanic rocks in the north, and Cretaceous, Tertiary, and Quaternary sedimentary rocks in the north and west (SWCA 2008).

From late Pre-Cambrian to early Paleozoic time, the western edge of North America was a passive continental margin. Sediments were deposited by westward flowing streams and eventually formed a terrace of thick beds of shale, sandstone, limestone, and chert. In the late Paleozoic to early Mesozoic, the area was transformed into a convergent margin as the Pacific plate began to subduct beneath the North American plate. As sediments from the Pacific plate began to accumulate on the western edge of North America, the existing terrace deposits were compressed, thickened, and eventually formed the metamorphic rocks that are today exposed along the western edge of the Sierra Nevada geomorphic province (SWCA 2008).

As the Pacific plate was subducted, the oceanic crust eventually reached a depth of sufficient pressure and temperature in order to melt. The relatively light molten rock, surrounded by heavy continental material, rose slowly and intruded the continental crust above it, creating a chain of volcanoes. The convergent plate boundary also caused the continental margin to be compressed and uplifted, which, combined with the volcanic activity, helped create the

Nevadan Orogeny approximately 150 million years ago (Ma). Molten rock that cooled and recrystallized within the continental crust formed granitic intrusions or plutons throughout the Sierra Nevada province from approximately 225 to 70 Ma. The Sierra Nevada batholith is a group of granitic plutons formed between 206 and 88 Ma. The relatively recent volcanic and sedimentary rocks from the Tertiary and Quaternary were deposited as the new mountains continued to be uplifted and eroded, creating the present-day Sierra Nevada geomorphic province (SWCA 2008).

## **Prehistoric Setting**

Native Americans occupied California for thousands of years prior to European contact and settlement. The prehistory of the area of the Tehachapi Mountains and extreme southern Sierra Nevada has not been extensively studied in terms of archaeological resources, and as a result little data on the regional prehistory of this area is available. The archaeological work that has been done has shown that the lithic (stone) artifact assemblages associated with the Early Period in California are characterized by the presence of stemmed projectile points, and in some cases, 'fluted' and concave based points. Other Early Period lithic artifacts include cobble core and flake tools, a variety of bifaces, and expedient groundstone artifacts showing light use wear (Moratto 1984). General summaries of the prehistory of this area are available in Schiffman and Garfinkel (1981) and Moratto (1984) and a detailed discussion of the prehistory of the Project area is provided in Appendix E.

## **Ethnographic Setting**

The Project area is located in the Kawaiisu tribal group area. Their traditional homeland included portions of the Southern Sierra Nevada Mountains to the northeast and by the Tehachapi Mountains to the southwest. The Kawaiisu traditionally occupied an area encompassing an approximate 100-mile radius. The environment of this area is diverse and includes desert and mountain habitats. The lack of abundant rainwater is common throughout the area. The arid conditions required that the Kawaiisu set up villages near permanent water sources.

The Kawaiisu is a western branch of the Numic division of the Uto-Aztecan stock. In California, this includes groups such as the Takic, Tubatulabal, and Numic. Kawaiisu homeland was bordered by speakers of non-Numic Uto-Aztecan languages. The Kitanemuk to the south spoke Takic, and the Tubatulabal to the north spoke Tubatulabal, which is a linguistic isolate. The Yokuts to the west were non-Uto-Aztecan. Since, they also spoke a Southern Numic language, the Chemehuevi to the east are the closest linguistic relatives to Kawaiisu. Some scholars believe the Kawaiisu were late migrants into California (around A.D. 1400); while other scholars believe they have been in California for approximately 2,000 years. In addition, the Kawaiisu themselves have stated that their lack of migration story is indicative of their long habitation in California. Kroeber (1925) and others consider the Kawaiisu to be Californian, largely due to their settlement pattern.

The Kawaiisu exhibit some cultural similarities with their indigenous neighbors the Serrano, Kitanemuk, Tubatulabal, Paiute, and Shoshone, though there are enough differences to classify

them as a distinctly unique culture. According to Kroeber (1925), pre-contact population estimates are around 500, with a decline in population into the modern era. The Kawaiisu economy was based on hunting and gathering. Family groups were semi-nomadic and would travel seasonally to harvest natural resources from different locales. No agriculture was practiced, although there is evidence of the pruning of tobacco plants to improve the plant and of the burning of wild seed fields to improve the plant yields for the next year. It is generally accepted that many California Native American groups who were thought to engage in simple hunting and gathering, actually practiced a form of slash and burn horticulture, where the native plant environment was “tended to” in order to yield larger harvests. Acorns were a major staple, as they were for most southern California tribes. A 1981 ethnobotanical survey of the Kawaiisu found 233 plant species of utility. Of the 233 plants, 112 provided food and beverage, 94 had medicinal uses and 27 had supernatural and/or mythological properties. While the Kawaiisu relied heavily on the acorn as a foodstuff, the reliance on particular plants was dependent on nearby environments. The plant sources were seasonal, so the degree of use also depended on location and the season when the resource was available (Zigmond 1981).

## **Historic Setting**

Early European exploration of the coasts and inland trade routes of California began in the 1600s, but more than a century passed before Spain mounted a concerted colonization effort in the land they christened Alta California. The historical era in California began with Spanish colonization and is often divided into three periods: the Spanish or Mission period (1769 to 1821), the Mexican or Rancho period (1821 to 1848), and the American period (1848 to present). Early California history was shaped by Spanish Colonial rule and the Mission system that was established at that time. The Project area is located on the fringes of Spanish influence. European and Anglo settlers came to the region in greater numbers after the Mexican/American War. For a detailed discussion of the historical developments in the region, refer to Appendix E.

## **The Tehachapi Region**

In the Tehachapi Region, the shift from Mexican to American rule and the subsequent Gold Rush resulted in a slow but steady increase in non-native settlement in the Tehachapi region and along the Kern River (Garfinkel and Williams 2011). The first American settlers in the Tehachapi Mountains were self-identified Southern Democrats, pro-slavery democrats who emigrated in large numbers from the south at the end of the Civil War. From the 1850s to the 1870s, these settlers moved into Tehachapi from El Monte, the terminus of the Southern Emigrant Route (Barras 1976; Garfinkel and Williams 2011). Cattle ranching was the most significant economic pursuit in the Tehachapi region from the 1850s forward. Mining in the region began in the early 1850s and, by the end of the decade, gold, silver, copper, tin, and lead mines stretched from Fort Tejon to San Bernardino (Cleland 1941). Commercial agriculture developed in the Tehachapi Mountains quickly at the end of the 1800s. Pears, especially, were grown throughout the region (Barras 1976). Concomitantly, sheepherders moved into the area with their flocks. Increasing traffic through the Tehachapi Mountains during the 1860s was fueled by the development of new mining and wagon routes. In the summer of 1861, a new Coso Road was

created. The Coso Road extended over 18 miles of mountainous terrain from Elizabeth Lake to Tehachapi Road, through Oak Creek, over the Tehachapi Pass, and onward to Willow Springs. In 1862, travel to the Coso Mines in Tehachapi increased dramatically enough to be mentioned in a Los Angeles newspaper (Barras 1976).

The influx of miners into the Southern Sierras in the early 1960s began to strain the fragile local environment. The Panamint Shoshone did not watch passively as their ancestral lands suffered and their traditional food resources were impinged upon by the dramatic influx of non-native peoples (Barras 1976; Powers 2002). As more miners moved in, the Panamint began to retaliate with raids and robberies. On July 4, 1862, Army troops led by Army Captain Moses McLaughlin entered the Owens River Valley and set up Camp Independence as a base from which to suppress Native American uprisings. Over the course of the next few years, Captain McLaughlin led more than 900 Native Americans into exile, forcing them to resettle at the Sebastian Indian Reservation in Tejon Canyon. Many exiles did not survive the long trek (Garfinkel and Williams 2011).

In the 1860s, a small community known as Williamsburg sprung up at the site of present-day Golden Hills. For some time, this community was also known as Tehachapi. In 1875, another town site, Greenwich, was established several miles east of Tehachapi by P.D. Greene. Beginning as early as 1872, larger numbers of non-native American families began traveling from Los Angeles County to settle in the Tehachapi region and farm the land (Barras 1973). A few intrepid white settlers had previously established farming claims in the Tehachapi region, as early as the 1850s. John Moore Brite and Amanda Duty Brite arrived in the Tehachapi Valley in 1854 after traveling west with a wagon train. They parted ways with the larger company and made the Tehachapi Mountains their new home. The Brites raised stock and farmed crops alongside other early non-native pioneer families including the Cuddebacks, the Smiths, and the Wiggins. The Brite family helped shape the history of Kern County when John Brite signed the original document to form Kern County in 1866 (Barras 1973).

The near continuous flow of animal-drawn freight transport passing through the Tehachapi region supported a large market in hay, barley and flour to feed the draught animals. This opened up commerce for farmers in what was previously an isolated area. In 1873, farmers sowed eight times more grain than they had planted in 1872, and sold the resultant crops to the passing Owens River freight teams. The frequency at which freight trains traveled the roads of Tehachapi required the constant improvement of roads, which resulted in the development of new routes and the construction of toll roads. In 1872, Peter D. Greene constructed a toll road that connected Tehachapi Valley to the San Joaquin Valley, and shortened travel time by a day (Barras 1973).

The increase in traffic encouraged an increase in the population of Tehachapi that, in turn, promoted a boom in commerce between 1874 and 1877. During the boom years, hotels, saloons, mercantile stores, a school, and a brewery were erected in town. In addition, 15 families planted and harvested approximately 1,500 acres; three doctors attended to the sick; and church services were regularly available. This unprecedented growth was modest compared

to the impact that the completion of the Southern Pacific Railroad would have on the region (Barras 1973). Tehachapi first appeared on an 1853 map of the Pacific Railroad Survey as Tah-ee-chaypah Pass. The name apparently came from a local Native American name for a nearby creek (now known as Tehachapi Creek) (Barras 1984). In 1876, Southern Pacific Railroad crews finished laying the track to the summit of Tehachapi Pass, and named the station there Tehachapi Summit (Barras 1973). A new town developed at the rail station and the name was eventually shortened to Tehachapi (Signor 1983). In 1876, the Southern Pacific Railroad came to the Tehachapi Valley and established its' own town of "Tehachapi" about a mile east of Greenwich. That same year, 1876, southern California endured a severe drought that lasted until 1877. The drought prompted most ranchers to switch from sheep to cattle production. The completion of the Southern Pacific Railroad – and the availability of large cargo containers suitable for cattle transport – also contributed to the shift to cattle production (Garfinkel and Williams 2011). The railroad extends from Tehachapi to Willow Springs, the site of the 1900 gold strike. Eventually, businesses and people moved to the railroad's town of Tehachapi and the former communities faded away.

In the midst of these changes, stone mining emerged as a viable commercial enterprise in the region. In the summer of 1877, a high-quality source of limestone marble was discovered north of Tehachapi and a quarry was established. The claim became known as the Golden Vein Marble Works (Barras 1973). The extraction of limestone in Tehachapi has continued to shape the development of the region until quite recently.

John Norboe, a miner responsible for the discovery of various minerals in the Tehachapi region during his lifetime, is credited with the earliest commercial limestone extraction for the production of cement. In the summer of 1877, Norboe and his partner I. B. Malin, built a kiln in Antelope Canyon south of the Tehachapi Valley and produced 500 barrels of lime for use in the production of cement. The lime that Norboe and Malin produced was shipped to Bakersfield and Los Angeles. Following Norboe and Malin, F. O. Wyman entered the lime-production business in Tehachapi and operated a limestone quarry from the mid-1880s to 1929. Wyman's limestone business was known as Summit Lime Company (Barras 1973). The town of Tehachapi was established legally in 1909, and Greenwich became known as Old Town. In 1946, an Act of the State Legislature changed the town's official name to the "City of Tehachapi."

## **Cultural Resources Identified in the Project Area**

To assess the sensitivity of the Project area for cultural resources AECOM had a records search performed at the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield. The records search was conducted by the staff at the SSJVIC on October 30, 2015. The staff at SSJVIC identified the location of cultural resource studies and cultural resources within one-half mile of the Project area. In addition to site records provided by the SSJVIC, AECOM staff also consulted national, State, and local registers of cultural resources to identify possible resources in the vicinity of the proposed Project, as listed in Table 4.4-1. No additional sites or other resources were identified in the registers, but a search of the Bureau of Land Management General Land Office Records, available online, revealed that the proposed

Project location largely belonged to the Southern Pacific Railroad during the early 1890s. Smaller sections of land were also acquired by Matthew A. Tyler in 1873, Isaac B. Malin in 1874, John Doshier in 1881, Jeremiah Shields in 1890, and Anton Pauly in 1890.

**Table 4.4-1 Additional Historical Sources Consulted**

Source	Results
National Register of Historic Places	Positive
California Register of Historic Resources	Negative
California Inventory of Historic Resources	Negative
California Historical Landmarks	Positive
California Points of Historical Interest	Negative
Local Historical Register Listings	Negative
Bureau of Land Management General Land Office Records	Multiple landowners

### Records Search Results

The findings of the 2015 and the 2014 records searches identified 17 previously recorded cultural resources. Two cultural resources are located within the Project area: one is a site and the other is an isolate. The site is Burgeis Place, an early ranch and farm. The other cultural property is an isolated artifact. The remaining 15 cultural resources are not located in the Project area but are located within one-half mile of the Project. Of the remaining cultural resources: 13 are sites, one is an isolated artifact, and one is a partially documented site (Table 4.4-2).

Several sites, located outside the Project APE were identified as significant resources and include: Old Town Tehachapi (15-007760), the Errea House (15-007770, NRHP Property Number 103543), the Tehachapi Railroad Depot (15-011130, NRHP Property Number 119866), and a multicomponent site (15-002553) (refer to Appendix A on file with the GHCSO). Old Town Tehachapi is a California Registered Historical Landmark (#643), was established in the 1860s, and was first known as Tehichipa. The town became an important freight station between southern California and the San Joaquin Valley. The Errea House (15-00770) was constructed in the 1870's. The Errea House is the last remaining structure from Tehichipa.

Old Town Tehachapi began to decline as the movement of freight shifted from the wagon station in Old Town to the rail station that was constructed by the Southern Pacific Railroad. The rail station was constructed about a mile from the former town of Greenwich in 1876. The town around the rail station was named Tehachapi and the train station there is still in use today. The Tehachapi Railroad Depot (15-011130) consists of a one-story combination passenger-freight station constructed in 1904. The depot was built by the Southern Pacific Railroad and is one of



more than 60 standard plan No. 23 depots that were built between 1896 and 1916. The Tehachapi Depot is one of the oldest surviving depots of this design. The structure is still in use by its current owner, the Union Pacific Railroad.

One multicomponent site of particular importance is 15-002553, which is significant because human remains have been identified in the area. The site was initially recorded in 1989, and it was recorded again in 2004. The site consists of bedrock milling stations, cupuled rocks, a dark midden, areas with dense lithic scatters, and projectile points. The two burials identified at this site are believed to be the remains of Chinese workers that were killed in a railroad accident in the 1800s.

**Table 4.4-2. Recorded sites within One-Half Mile Radius of the Project**

Site Number	Resource Description	Recorder (Date)	Location
15-002553	Prehistoric and historical site containing milling stations, lithic scatters, a midden, and human remains	P. Murphy (1989), B. Walker (2004)	Within ½-mile of APE
15-002649	Bedrock milling site, two mortars on one boulder	Drover and Smith (1989)	Within 1/2-mile of APE
15-002687	Rock art site	Knight and Dallons (1991)	Within ½ -mile of APE
15-007760	Old Town Tehachapi, California Registered Historical Landmark #643	Lester McDonald	Within ½ -mile of APE
15-007770	Errea House, a historic structure on the NRHP (Property #103543)	Troy, Farrell, and Sammis	Within ½ -mile of APE
15-010705	Prehistoric lithic scatter	A. Wesson et al. (2001)	Within ½-mile of APE
15-011130	Tehachapi Railroad Depot, listed on the NRHP (Property # 119866)	T. Farrell et al. (1999)	Within ½-mile of APE
15-011714	Prehistoric site containing two locations of bedrock milling	S. Hudlow (2004)	Within ½-mile of APE
15-012456	Prehistoric site containing lithic debitage, groundstone and midden like soils	J. Schmidt and J. Schmidt (2006)	Within ½-mile of APE
15-012457	Prehistoric isolate	J. Schmidt and J. Schmidt	Within ½-mile of

Site Number	Resource Description	Recorder (Date)	Location
		(2006)	APE
15-012643	The Burgeis Place, an early century ranching and farming complex	S. Hudlow (2004)	In APE (partially within APE)
15-015623	Abandoned irrigation system feature dated to the early to mid-twentieth century	J. Schmidt (2011)	Within one-½-mile of APE
15-015624	Elements of an abandoned irrigation system dated from early to mid-twentieth century	J. Schmidt (2011)	Within ½-mile of APE
15-017503	Historical concrete structure with unknown function	R.E. Parr (2013)	Within ½-mile of APE
15-017504	Concrete foundation and irrigation feature	R.E. Parr (2013)	Within ½-mile of APE
PRO-21	Prehistoric site containing rock art and bedrock milling	M. Sutton (1995)	Within ½-mile of APE
No formal record.	Prehistoric rock art	Unidentified	Within ½-mile of APE

A total of 31 archaeological studies have been conducted within a one-half mile radius of the Project area. A portion of eight studies overlaps some part of the proposed Project footprint (Table 4.4-3). Most of these studies involved archaeological and historic property surveys and background research. None of the eight previous studies that cover the proposed Project footprint included testing or excavations (Laylander 1996, 1997; Garfinkel and Schiffman 1979; Schiffman 1998; Hudlow 2004; and Romani 2005, 2007).

**Table 4.4-3. Previous Archaeological Studies within One-Half Mile of the Project**

Report Number	Year	Author	Title	Within Project APE
KE-00096	1997	D. Laylander	Negative Archaeological Survey Report: DOT-09-KER-202, PM 8.9/12.1, EA 267800	X
KE-00107	1996	D. Laylander	Negative Archeological Survey Report: DOT 09-ker-202, PM 8.9/11.4, EA 263401	X

<b>Report Number</b>	<b>Year</b>	<b>Author</b>	<b>Title</b>	<b>Within Project APE</b>
KE-00113	1989	C. Drover and D. Smith	A Draft Cultural Resource Assessment: The Keen Ranch, Tehachapi Pass, California	-
KE-00404	1994	R. Weaver and T. Fung	Negative Archaeological Survey Report DOT-09-KER-202, PM 11.5/11.6, Charge Unit 09-140, EA 09-27110K for Seismic Refit	-
KE-00420	1979	A. Garfinkel and R. Schiffman	Cultural Resources Survey Report for a Proposed Underground Telephone Cable in the Tehachapi Valley, Kern County, California	X
KE-01073	1979	R. Schiffman	Archaeological Overview of the Keene and Broome Ranches, Kern County	-
KE-01369	1990	R. Schiffman	Archaeological Investigation of Loop Ranch Tehachapi, Kern County, California	
KE-01375	1990	R. Schiffman	Archaeological Investigation for Tentative Tract #5165	-
KE-02194	1998	R. Schiffman	Archaeological Investigation for Tract No. 10566, Kern County, California	X
KE-02299	1999	D. Laylander	Negative Archaeological Survey Report: 06-KER-68, PM 90.5	-
KE-02679	2002	R. Schiffman	Archaeological Investigation for Loop Ranch Grading Project, Kern County, California	-
KE-02723	2003	A. Wesson	Supplemental Historic Property Survey Report: 06-KER-202, PM 8.9/12.1	-
KE-02831	2003	C.L. Pruett	A Cultural Resources Assessment for the North Side Park Project in Tehachapi, Kern County, California	-
KE-02933	2004	C. Hacking	State Route 202 at Tehachapi Creek Bridge Replacement, Tehachapi, California: Supplemental Historic Property Survey Report and Extended Phase I Report	-
KE-03052	2004	S. Hudlow	A Phase I Cultural Resource Survey for Golden Hills Zone Change, Tehachapi, Kern County, California	-
KE-03142	2005	R. Schiffman and A. Gold	Cultural Resource Survey for a 13.93. Acre Parcel along State Highway 58 and North Mill Street in Tehachapi, Kern County, California	-

<b>Report Number</b>	<b>Year</b>	<b>Author</b>	<b>Title</b>	<b>Within Project APE</b>
KE-03145	2005	J. Romani	Archaeological Monitoring Report: Road Improvements along Red Apple Avenue, Reeves Street, and Winesap Street, Tehachapi, Kern County, California	X
KE-03324	2007	S. Hudlow	A Phase II Cultural Resource Evaluation for Golden Hills Zone Change, Tehachapi, Kern County, California	-
KE-03511	2004	S. Hudlow	An Architectural Survey Project for Red Apple Land Project, Kern County, California	X
KE-03727	2007	J. Romani	Extended Phase I / Limited Phase II Report: P-15-002553; and Kern Roads Tehachapi #2, Proposed Tehachapi Bicycle and Pedestrian Path, Tehachapi, Kern County, California	-
KE-03729	2009	R. Parr	Cultural Resource Assessment for the Replacement of Eight Deteriorated Power Poles on the Southern California Edison Company Caliente 12 kV Circuit Tehachapi and Caliente, Kern County, California	-
KE-03742	2008	R. Parr	Cultural Resource Assessment for the Replacement of Four Deteriorated Power Poles on the Southern California Edison Caliente 12 kV Circuit Tehachapi Kern County, California	-
KE-03800	2007	J.F. Romani	Archaeological Survey Report Tehachapi Bicycle and Pedestrian Path, Tehachapi, Kern County, California	X
KE-03801	2007	J.F. Romani	Historic Property Survey Report Tehachapi Bicycle and Pedestrian Path, Tehachapi, Kern County, California	X
KE-03950	2009	R. Parr	Archaeological Assessment for the Replacement of Forty-Two Deteriorated Power Poles on the Southern California Edison Viento, Cuddeback, Caliente and Discovery 12kV Circuits near Keene and Tehachapi, Kern County, California	
KE-04016	2008	A.P. Monastero	Cultural Resources Survey for a Proposed Wal-Mart Supercenter in Tehachapi, Kern County, California	-
KE-04144	2011	G. Romani	Archaeological Survey Report for Improvements to Reeves Street from Alta Vista Avenue to State Route 202, Tehachapi, Kern County California	-

Report Number	Year	Author	Title	Within Project APE
KE-04278	2011	R. Orfila	A Phase I Cultural Resources Assessment of Telecommunications Lines, Subtransmission Extension Lines, and Proposed Substation Locations for the Banducci 66/12kV "B" Substation Project in Kern County, California.	
KE-04517	2013	J. Schmidt	Phase I Archaeological Investigation for a 13.9 Acre Parcel Located at the Southwest Corner of Tucker Road and Red Apple Avenue, Tehachapi, Kern County, California.	–
KE-04518	2014	G. Romani	Archaeological Survey Report Antelope Run Bicycle/Pedestrian Path, Tehachapi, Kern County California.	–
KE-04697	2014	R. Parr	Archaeological Monitoring Report of Southern California Edison Deteriorated Pole Replacement Project, TD 738529, Tehachapi, Kern County, California.	–

### Field Surveys

On February 2, 2015, an intensive pedestrian survey was conducted by AECOM archaeologist Alec Stevenson. The survey methods consisted of an intensive pedestrian survey along the proposed linear corridor, covering the entire Project area. The corridor was defined by the various work areas, the work areas were used as a centerline for the surveys and a 50-foot corridor was added around all areas where impacts are anticipated to occur. Much of the Project is located within existing paved roads. When possible an intensive pedestrian survey occurred along the shoulder of the road. Ground surfaces were always inspected in areas where there was visibility for the presence of historic and prehistoric artifacts and features. The outer extent of the Project area and the location of certain landmark features were collected using a hand-held GPS; digital photographs were also taken of the Project area and are included in this report.

The Project area is located in existing paved road surfaces and in open, gradual sloping undeveloped landscape with moderate ground vegetation. Land uses surrounding the study area include open undeveloped land, residential and commercial development, disturbed open areas, and public infrastructure. In unpaved areas, the survey was conducted by walking linear transects along the proposed linear Project corridor. In areas where development has not occurred, the natural ground surface is covered by various grasses and trees, offering fair (35 to 45 percent) visibility (Figure 4.4-2, Photo 1). As the majority of the Project area is within paved

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**Photo 1**  
 Representative photograph depicting natural ground surface covered by various grasses and trees in the Project area.

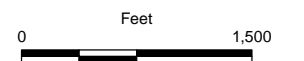


**Photo 2**  
 Representative photograph depicting exposed ground surfaces adjacent to the proposed work areas in the Project area.



**Photo 3**  
 Representative photograph depicting developed residential, and/or commercial areas with exposed ground surfaces in the Project area.

OVERVIEW MAP



Scale: 1:15,000

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**Golden Hills  
 Community Services District**

**Representative Survey  
 Area Photographs**

Date: 2/9/2016 | Project: 60317952

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road surfaces, the paved portions of the Project were not surveyed. Instead, exposed ground surfaces adjacent to the work area were examined (Figure 4.4-2, Photo 2). In areas where the Project is located within heavily developed, residential, and/or commercial areas, exposed ground surfaces were examined (Figure 4.4-2, Photo 3). These portions of the Project area do not appear to be previously impacted by prior construction or agricultural activities. The native soils of the Project area consist primarily of light-brown silt mixed with sand and granitic gravels and cobbles.

Historic property 12643 (The Burgeis Place), consisting of an early century ranching and farming complex, was revisited. It appeared to be unaffected since it was recorded by S. Hudlow in 2004. The historic property is located partially within the original easement of Red Apple Avenue, as indicated in the site record. The existing historic property is located south of the proposed Project location along Red Apple Avenue. No new historic properties were identified with the Project area.

#### **Native American Consultation**

On June 3, 2014, AECOM requested that NAHC staff perform a search of their Sacred Lands File to look for resources documented within and in the vicinity of the proposed Project (Appendix E). On June 4, NAHC staff responded that the search failed to indicate the presence of Native American traditional sites or places within the proposed Project APE. NAHC staff recommended that AECOM contact a list of ten Native American parties, which the NAHC provided, for more information concerning sacred or traditional places.

On March 11, 2015, letters with Project information and location maps were sent to the ten Native American contacts provided by NAHC. The letters requested information on known heritage sites within or adjacent to the Project area, or general cultural concerns or comments pertinent to the proposed Project vicinity. As of February 2016, no additional responses were received.

Follow up calls to the NAHC contacts were made on April 23, 2015. Messages were left with eight of the ten Native American contacts, asking them to contact AECOM if they had additional information or concerns regarding the Project. Mr. David Laughinghorse Robinson of the Kawaiisu Tribe of Tejon Reservation did not have a phone contact number or email address and, therefore, was not contacted. Mr. John Valenzuela, Chairperson of the San Fernando Band of Mission Indians was contacted on April 23, 2015. He said that the Project was out of his jurisdiction and that he had no additional information to add. No additional responses were received as of February 2016.

## Paleontological Resources Identified in the Project Area

In June 2014, at AECOM's request, Natural History Museum of Los Angeles County staff conducted a paleontological records search of the Project and immediate vicinity. The search revealed no paleontological fossil localities within the proposed Project boundary (Appendix E). Additionally, AECOM staff conducted a search of the University of California, Berkeley Museum of Paleontology paleontological online database ( on July 28, 2014, and found various plant and vertebrate fossil specimens within Tehachapi area. The locational information provided by the online database was not specific enough to identify whether the resources are within the proposed Project footprint.

Bedrock in the elevated terrain in the very northwestern portion of the proposed Project area consists of igneous and metamorphic rocks that will not contain recognizable fossils. In the very eastern portion of the proposed Project area, in slightly elevated terrain, there are surface deposits of the Tehachapi Formation, a very coarse alluvial fan deposit that is unlikely to contain significant vertebrate fossils. In the lower-lying terrain in the northwestern portion of the proposed Project area, the surface consists of younger Quaternary Alluvium, derived primarily as fluvial deposits from Brite Creek that flows through this portion of the proposed Project area. These deposits typically do not contain significant vertebrate fossils in the uppermost layers, but are usually underlain at relatively shallow depth by older Quaternary deposits that may contain significant fossil vertebrate remains. The remainder of the proposed Project area in the Tehachapi Valley has surface deposits composed of both younger and older Quaternary deposits derived as alluvial fan deposits from the surrounding elevated terrain and the drainages. The closest vertebrate fossil locality from these Quaternary deposits is LACM 3722, immediately east of the southeastern portion of the proposed Project area and found during excavation for a sewer line within the City of Tehachapi, that produced a specimen fossil horse, *Equus*.

Results from the University of California, Berkeley Museum of Paleontology database indicates the presence of 127 plant fossils and two vertebrate fossils found throughout the Tehachapi area (University of California, Berkeley Museum of Paleontology 2014). These plant fossils (Spec. #1398-1526) are from the classes magnoliopsida, a type of flowering plant; sphenopsida, a vascular plant also known as horsetails; pinopsida, or cone-bearing conifers like cedars and junipers; liliopsida or lily family; and filicopsida, a group of fern that reproduce via spores. The remaining two mammalia are *elephas* and *procamelus* representing elephants and an extinct genus of camel respectively. Geological formations that might contain paleontological resources are located within the Project area; however, no paleontological localities have been identified within the Project area.

### 4.4.3 Regulatory Setting

Numerous laws and regulations require Project proponents to consider the effects of a Project on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the proposing actions, and prescribe the relationships among other involved agencies (e.g., the State Historic Preservation Office [SHPO] and the Advisory Council on Historic

Preservation). The primary Federal law governing the treatment of cultural resources is Section 106 of the NNHPA. The primary State law in California is CEQA. Both require action to consider potential impacts on historic properties from proposed undertakings.

Specifically, the Project is anticipated to receive funding through the SWRCB's SRF Loan Program. The SRF loan process must meet the requirements of both CEQA and NEPA. NEPA is triggered, because the SRF Program is partially funded by the EPA. In addition, the GHCSO may secure Federal funds for construction from the USDA, HUD, or other agencies. The SWRCB refers to the combined NEPA and CEQA process as "CEQA-Plus." As its name implies, CEQA-Plus uses CEQA as its compliance base; however, as there is also a Federal nexus for such projects (due to EPA funding), CEQA-Plus environmental compliance documents also address a list of Federal regulations (SWRCB 2005).

Numerous laws, ordinances, regulations, and standards on Federal, State, and local levels seek to protect and target the management of cultural resources. The Project will comply with applicable regulations throughout construction and operation.

## Federal

A variety of Federal laws apply to this Project; a brief discussion of these laws follows below.

### **National Historic Preservation Act (NHPA), Title 16 USC, Section 470 et seq.**

The NHPA sets in place a program for the preservation of historic properties. Section 106 of the NHPA requires Federal agencies to take into account the effects of projects on historic properties (resources included in or eligible for the NRHP). It also gives the Advisory Council on Historic Preservation and SHPO an opportunity to consult. Federal agencies issuing permits for the Project would be required to comply with NHPA requirements. To be eligible for inclusion in the NRHP, a cultural resource must possess integrity and meet at least one of the following four criteria delineated at 36 CFR Part 60.4. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- A. are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. are associated with the lives of persons significant in our past; or
- C. embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possess high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. have yielded or may be likely to yield, information important in prehistory or history.

To retain historic integrity, a property will always possess several and usually most aspects that demonstrate integrity and generally would retain most aspects of that integrity. The retention of

specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant (National Park Service 1997).

**Executive Order 11593 of May 13, 1971; 36 Federal Register 8921**

This Executive Order focuses on the protection and enhancement of the cultural environment. It outlines responsibilities of Federal agencies and the Secretary of the Interior with regard to cultural resources.

**Archeology and Historic Preservation: Secretary of Interior's Standards and Guidelines 48 CFR 44716-42**

This document establishes standards and guidelines regarding professional qualification requirements for archaeological and historic preservation professionals, technical report format and content, and standards for resource evaluation required by SHPO.

**Native American Graves Protection and Repatriation Act, Title 25 USC, Sections 3001-3013**

The Native American Graves Protection and Repatriation Act describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations associated with the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony with such entities can show a relationship of lineal descent or cultural affiliation. Among other provisions, the Act stipulates that illegal trafficking in human remains and cultural items may result in criminal penalties; authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with the statute; and requires the Secretary of the Interior to establish a Review Committee to provide assistance in carrying out key provisions of the statute.

**American Indian Religious Freedom Act, Title 42 U.S.C., Section 1996**

This act establishes a national policy to protect the right of Native Americans and other indigenous groups to exercise their traditional religions. Federal agencies issuing permits for the Project would be required to comply with this act if Native Americans identify issues regarding their right to exercise traditional religious practices. If the Federal lead agency determines that the Project may have significant effects on unique archaeological resources, the environmental impact report would address those resources. If it can be demonstrated that a project would cause damage to a unique archaeological resource, the Federal lead agency may require for reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state.

## State

### California Environmental Quality Act

CEQA of 1972 (PRC 21000, *et seq.*; CEQA Guidelines, CCR, 15000, *et seq.*) is the principal regulatory control addressing impacts on historical resources, unique archaeological resources, and paleontological resources in California. Projects with the potential to adversely affect significant cultural resources must be reviewed through the CEQA process. As the designated CEQA lead for the Project, the GHCS D is responsible for complying with CEQA's requirements regarding the identification of feasible measures to mitigate significant adverse changes to historical resources, unique archeological resources, and paleontological resources, as applicable, and ensuring that measures are enforceable through permit conditions, agreements or other measures.

The CEQA Guidelines (Section 15064.5, "Determining the Significance of Impacts to Archaeological and Historical Resources"), provides further direction regarding cultural resources. Subsection (a) defines the term "historical resources." Subsection (b) explains when a project may be deemed to have a significant on historical resources and defines terms used in describing those situations. Subsection (c), describes CEQA's applicability to archeological sites and provides a bridge between the application of the terms "historical resource" and "unique" archaeological resource.

The term "historical resource" is similar to but more inclusive than the NRHP significance criteria. Under CEQA, a historical resource includes, but is not limited to:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR) (PRC 5024.1; 14 CCR 4852).
- A resource listed in a local register of historical resources (as defined by PRC 5020.1[k]), or identified in a historical resource survey meeting the requirements of PRC 5024.1(g) (presumption of historical significance.)
- A resource that meets at least one of the following criteria for CRHR listing (criterion below).
- A resource that the lead agency otherwise determines is a historical resources as defined by PRC Sections 5020(j) or 5024.1.

The CEQA Guidelines (Section 15126.4, "Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects" subsection [b]), discusses impacts of maintenance, repair, stabilization, restoration, conservation, or reconstruction of a historical resource. Subsection (b) also discusses mitigation through avoidance of damaging effects on any historical resource of an archaeological nature, preferably by preservation in place, or by data recovery through excavation if avoidance or preservation is not feasible. Data recovery must be conducted in accordance with an adopted data recovery plan.

As noted above, CEQA also requires lead agencies to consider whether projects will affect “unique archaeological resources,” which are archaeological artifacts, objects, or sites about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that they meets any of the following three criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (Section 15064.5[c][4]).

### **California Register of Historical Resources**

The CRHC was created under Public Resources Code Section 5024.19(a) and sets forth the criteria to determine significance, defines properties, and lists nomination procedures. The California Register is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[b]). To be eligible for CRHR inclusion, a resource must retain enough of this historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance, and must meet at least one of the following criteria described above in this section.

### **Native American Heritage Commission**

Public Resources Code, Section 5097.91, established the NAHC. PRC 5097.98 discusses the procedures that need to be followed upon the discovery of Native American human remains. The NAHC, upon notification of the discovery of human remains by the County Coroner, is required to notify those persons it believes to be most likely descended from the deceased Native American. It enables the descendant to inspect the site of the discovery of the Native American human remains and to recommend to the land owner (or person responsible for the excavation) means of treating, with dignity, the human remains and any associated grave goods. These procedures must be followed when remains are found on lands not managed by the Federal government.

PRC Sections 5097.99 and 5097.991 establish that it is a felony to obtain or possess Native American artifacts or human remains taken from a grave or cairn and sets penalties for these actions. They also mandate that it is the policy of the State to repatriate Native American remains and associated grave goods.

**Assembly Bill 2641**

AB 2641 provides procedures for private landowners to follow upon discovering Native American human remains. Landowners are encouraged to consider culturally appropriate measures if they discover Native American human remains as set forth in PRC 5097.98. The bill further clarifies how the landowner should protect the site both immediately after discovery and into the future.

**Assembly Bill 52**

This bill amends CEQA to require a lead agency to consult with California Native American tribes that are affiliated with the geographic area of a proposed project. Further, that consultation with interested parties would occur prior to determinations of negative declarations or mitigated negative declarations.

**California Health and Safety Code**

Health and Safety Code Sections 7050.5 and 7052 establish that any person who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location without authority of the law is guilty of a misdemeanor. It further defines procedures for the discovery and treatment of Native American remains. Section 7052 makes it a felony to mutilate, disinter, or otherwise disturb human remains, except by relatives. Health and Safety Code Sections 8010-8011 are intended to provide consistent State policy to ensure that all California Indian human remains and cultural materials are treated with dignity and respect. The code extends policy coverage to non-Federally recognized tribes, as well as Federally recognized groups.

**California Penal Code California Penal Code, Section 622.5**

This section makes it a misdemeanor to injure or destroy objects of historic or archaeological interest located on public or private lands, but this provision specifically excludes the landowner.

**California Public Resources Code, Section 5097.5**

The PRC protects paleontological resource thorough Section 5097.5 which prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under State, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with the jurisdiction has granted permission.

## Local

### Kern County General Plan

Following are the policies, goals, and implementation measures for cultural resources in the Kern County General Plan Land Use, Conservation, and Open Space Element that are applicable to the Project (Kern County 2009).

The Archaeological, Paleontological, Cultural, and Historical Preservation provisions of the County's Land Use, Conservation, and Open Space Element are as follows below.

Per Policy 25, the County will promote the preservation of cultural and historic resources that provide ties with the past and constitute a heritage value to residents and visitors.

Implementation Measures for Policy 25 include:

- Measure K: Coordinate with the California State University, Bakersfield's SSJVIC.
- Measure L: The County shall address archaeological and historical resources for discretionary projects in accordance with CEQA.
- Measure M: In areas of known paleontological resources, the County should address the preservation of these resources where feasible.
- Measure N: The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.
- Measure O: On a project-specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

### Greater Tehachapi Area Specific and Community Plan

The Project is also located within the GTA. Chapter 3, Conservation and Open Space, of the GTASCP includes policies that are consistent with the County General Plan but provided additional specificity for projects in the GTA. Section 3.3.4, Cultural and Paleontological Resources, of the GTASCP includes the following goals, policies, and implementation measures.

#### Goals

Goal COS.7 Promote the protection of archeological and historical resources that are important to the culture and history of the GTA.

#### Policies

Policy COS.30 Encourage the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residences and visitors.



### Implementation Measures

Measure 33 All discretionary projects (including Specific Plan Amendment requests) shall be required to comply with the California Environmental Quality Act and may be required to provide a Cultural Resources Records Search prepared by the SSJVIC at California State University, Bakersfield, when deemed necessary by the County. The report shall be submitted as part of the discretionary application process and shall include recommendations regarding the need for a physical Archaeological and/or Paleontological Study on the site.

Additionally, all projects that are located within those areas defined as “Archaeological Sensitivity Area” in Figure 3-5, Culturally Sensitive Areas, of the GTASCP shall be required to prepare and submit the following items to the County prior to project approval:

1. A Phase I Cultural Assessment by a qualified archaeologist, if recommended by one of the following: the County, the SSJVIC, or the Cultural Resources Records Search; or if the site is within close proximity to a known cultural resource.
2. A Phase II Cultural Assessment by a qualified archaeologist if resources are found during the Phase I Cultural Assessment which would require archaeological testing to determine the vertical and horizontal limits of the resource, an assessment of site integrity, and an evaluation of site importance through the analysis of site features and artifacts.
3. A Phase III (data recovery) evaluation if the potentially significant resource could not be avoided. The Phase III evaluation would require data recovery and excavation of a representative sample of the cultural resource and site. As part of the data recovery excavations, partial preservation or avoidance of said resource could occur.
4. A Paleontological Resource Mitigation Plan shall be prepared if paleontological resources are anticipated to occur onsite or as recommended by the Paleontological Report. The mitigation plan shall be submitted to the Kern County Planning and Community Development Department for review and approval and shall include the following:
  - a. Procedures for the discovery, recovery, and salvage of paleontological resources encountered during construction, if any, in accordance with standards for recovery established by the Society of Vertebrate Paleontology.
  - b. Identification and mapping of specific areas of high and moderate sensitivity that would be monitored during construction.
  - c. Verification that the applicant has an agreement with a recognized museum repository, for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as required

by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged).

- d. Description of monitoring reports that would be prepared.

### **Tehachapi General Plan**

The City of Tehachapi regards archaeological and paleontological resources as important links to the natural and cultural history of the region. Further, the City has determined that the natural and cultural history of the area contributes to the identity of the City and its people. To that end, the City has identified two objectives in its General Plan.

Objective 1. States that archaeological and paleontological resources are important and integral to Tehachapi's future. To that end, there are two anticipated results: A. to develop unique public spaces; and B to enhance community identity. To foster these results two policies were adopted.

Policy NR40. To incorporate archeological and paleontological resources into public space, as practical.

Policy NR41. To incorporate archeological and paleontological resources into the communities identity and marketing.

Objective 2. States that archeological and paleontological resources should be protected and three policies were developed for this purpose.

Policy NR42. To maintain a step in the development process for evaluating the potential for archaeological and paleontological resources.

Policy NR43. To maintain that excavation, exploration and documentation of archeological and paleontological resources be conducted only by recognized authorities by applicable State laws.

Policy NR44. To maintain in the event of discovering an archeological or paleontological site, that the appropriate authorities and parties be notified according to established procedures and applicable State laws.

### **Society of Vertebrate Paleontology Impact Mitigation Guidelines**

The Impact Mitigation Guidelines published by the Society of Vertebrate Paleontology provide a set of standard procedures intended to be applicable to both private and public lands under the jurisdiction of local, city, county, regional, State, and Federal agencies (Society of Vertebrate Paleontology 2010). Protection of paleontological resources includes: (a) assessment of the potential for land to contain significant paleontological resources which could be directly or indirectly impacted, damaged, or destroyed by proposed development and (b) formulation and implementation of measures to mitigate these adverse impacts, including permanent

preservation of the site and/or permanent preservation of salvaged fossils along with all contextual data in established institutions.

The Society of Vertebrate Paleontology Guidelines define the paleontological potential of rock units as high, undetermined, low, or no potential. Sedimentary rock units with a high potential for containing significant nonrenewable paleontological resources are those within which vertebrate or significant invertebrate, plant, or trace fossils have been determined by previous studies to be present or likely to be present. Significant paleontological resources are fossils or assemblages of fossils, which are unique, unusual, rare, uncommon, diagnostically or stratigraphically, taxonomically, or regionally. Rock units with undetermined potential have little information available concerning their paleontological content, geological age, and depositional environment. Further study is needed to determine if these rock units have high or low potential to contain significant paleontological resources.

Rock units with low potential are poorly represented by fossil specimens in the institutional collections, or preserve fossils in rare circumstances (e.g., basalt flows or recent colluvium). Metamorphic rocks (such as gneisses and schists) and plutonic and igneous rocks (such as granites and diorites) generally have no potential to contain significant paleontological resources. Rock units with low or no potential will not typically require impact mitigation measures to protect fossils.

#### **4.4.4 Impacts and Mitigation Measures**

This section describes the impact analysis relating to cultural resources for the proposed Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

##### **Methodology**

The methods used to identify cultural resources in the Project APE included a cultural resources records search; an archival search; and reviews of historic maps, the NHRP, the CRHR, the California Inventory of Historic Resources, the Bureau of Land Management General Land Office Records, a listing of California Historical Landmarks, a listing of California Points of Historical Interest, and a listing of Local and Historical Registers. Additionally, a Sacred Lands file search was performed by the NAHC and related communication with local Native American groups and individuals was undertaken. Further, a pedestrian survey of the Project area was conducted. In order to identify paleontological resources within the Project area, AECOM requested that the Natural History Museum of Los Angeles County of Los Angeles County conduct a paleontological records search of the Project area and the immediate vicinity. The impact analysis in this section is based on the results of the methods used to identify cultural and paleontological resources within the Project alignment. Impacts are evaluated in light of the following thresholds.

## Thresholds of Significance

As set forth in Appendix G, Environmental Checklist Form, of the CEQA Guidelines, the proposed Project would cause a significant impact on cultural resources if the Project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; and/or
- Disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5 of the CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Material impairment includes changes to the physical characteristics that make a historical resource eligible for listing in the CRHR such that the resource would no longer be eligible for the NRHP, CRHR, or local historical registers (CEQA Guidelines, 14 CCR Section 15064.5 [b][2]).

Section 21083.2 of CEQA defines “unique archaeological resource” as an archeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria: (1) that it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) that it is of a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person.

## Project Impacts

Potential Project impacts to historic, archaeological, and paleontological resources and their applicable regulations are discussed below.

### Results and Evaluation of Cultural Resources Identified in the Project Area

One historic property (The Burgeis Place, Historic Property 12643) is located adjacent to the Project APE. The property was originally recorded in 2004, the site was revisited and the archaeologist determined that no impacts have occurred to the property since it was initially recorded. The property is located south of the APE on Red Apple Avenue no impacts to this property are anticipated. Further, no additional sites, properties, or objects were identified during the pedestrian survey.

### **Results and Evaluation of Paleontological Resources Identified in the Project Area**

Excavations in the igneous and metamorphic rocks exposed in the elevated terrain in the very northwestern portion of the proposed Project area will not encounter recognizable fossils. Excavations in the coarse alluvial fan deposits of the Tehachapi Formation are highly unlikely to uncover significant vertebrate fossils. Shallow excavations in the younger Quaternary Alluvium exposed in the northwestern and eastern portions of the proposed Project area are unlikely to encounter significant fossil vertebrate remains. Deeper excavations in those latter areas that extend down into older Quaternary deposits, as well as excavations in the exposures of older Quaternary deposits exposed in the central and eastern portions of the Tehachapi Valley, however, may uncover significant vertebrate fossils. Substantial excavations in the finer-grained sedimentary deposits in the proposed Project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

#### **Impact 4.4-1: Cause a substantial adverse change in the significance of a historical resource.**

No historical resources have been identified within the Project APE. One historical resource does occur adjacent to the Project APE. As the one known resource is located outside the Project APE, no Project impacts to that resource are anticipated. Therefore, the impact of the proposed Project to NRHP, CRHR, or local historical listings would be less than significant.

#### **Mitigation Measures**

No mitigation measures are required.

#### **Level of Significance After Mitigation**

The impact is less than significant and no mitigation measures are required.

#### **Impact 4.4-2: Cause a substantial adverse change in the significance of an archaeological resource.**

Due to the nature of the Project, and its ground-disturbing activities, the possibility exists that unidentified and/or previously unknown buried archaeological resources may be encountered during the construction period. Therefore, the proposed Project is considered to have a potentially significant impact to archaeological resources.

#### **Mitigation Measures**

**MM 4.4-1** A qualified archaeological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that cultural resources are discovered during Project-related construction activities, all ground disturbances within a minimum of 100-feet of the find shall be halted until the designated monitor examines the

find and evaluates its significance. The monitor shall examine the resources, assess their significance, and recommend appropriate procedures to either further investigate or mitigate adverse impacts (e.g., adverse effect on a significant historical resource). If the find is determined to be a significant archaeological resource and cannot be avoided, then applicable mitigation measures for significant resources shall be completed (e.g., preservation in place, data recovery program pursuant to PRC 21083.2[i]). During evaluation of the significance of the identified resource, ground disturbance and construction work shall be permitted to continue on other parts of the Project alignment outside the designated buffer area determined by the monitor. A Cultural Resource Monitoring and Mitigation Plan shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if a cultural resource is inadvertently encountered. Further, the plan shall list the key contacts that must be notified if an inadvertent discovery occurs.

#### **Level of Significance After Mitigation**

Implementation of Mitigation Measure 4.4-1 would ensure that previously undocumented cultural resources or inadvertent discoveries of cultural resources during construction period ground-disturbing activities would be properly recorded and that the archaeological significance of the resources are documented. Therefore, the significant impact resulting from the Project's potential inadvertent damage or destruction of previously unknown cultural resources during construction would be reduced to less than significant.

#### **Impact 4.4-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

Due to the nature of the Project, and its ground-disturbing activities, the possibility exists that buried paleontological resources may be encountered during excavation. The paleontological records search determined that the portion of the Project located in the Tehachapi Valley contains Quaternary alluvial deposits within which fossil horse remains have been recovered. Further, plant and vertebrate fossils have been recovered from the Tehachapi area. Therefore, the proposed Project is considered to have a potentially significantly impact to paleontological resources or unique geological features.

#### **Mitigation Measures**

**MM 4.4-2** A qualified paleontological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that fossils or other paleontological resources are encountered during construction, all work shall be halted within a 100-foot until the designated monitor examines the find and evaluates its significance. If the find is deemed to have a significant scientific value, the monitor shall formulate a plan to either avoid impacts or to continue construction without disturbing

the integrity of the find (e.g., by carefully excavating the material containing the resources under the direction of paleontologist followed by routine conservation, laboratory preparation, and curation). During evaluation of the significance of the identified resource, ground disturbance and construction work shall be permitted to continue on other parts of the Project alignment outside the designated buffer area determined by the monitor. A Paleontological Resource Monitoring and Mitigation Plan shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if a paleontological resource is inadvertently encountered. Further, the plan shall list the key contacts that shall be notified if an inadvertent discovery occurs.

#### **Level of Significance after Mitigation**

Implementation of Mitigation Measure 4.4-2 would ensure that inadvertent discoveries of paleontological resources during construction period ground-disturbing activities are properly documented and salvaged. Therefore, potentially significant impacts of the Project resulting from inadvertent damage or destruction of unknown paleontological resources would be reduced to less than significant.

#### **Impact 4.4-4: The Project would disturb any human remains, including those interred outside of formal cemeteries.**

Due to the nature of the Project, and its ground-disturbing activities, the possibility exists for human remains to be encountered during the construction period. The cultural resources records search identified one site that consisted of a human burial within one-half mile of the Project area. This resource would not be impacted by the proposed action; however, the proximity of such a resource indicates that the potential for encountering similar deposits exists in the Project area. Therefore, the proposed Project is considered to have a potentially significant impact on previously unidentified human remains.

#### **Mitigation Measures**

**MM 4.4-3** A qualified archaeological monitor shall be retained by the implementing agency to monitor ground-disturbing activities during the construction period of the Project. In the event that human remains are discovered during the Project ground-disturbing activities, all work within a minimum of 100-feet of the discovery shall halt immediately. The monitor shall notify the County Coroner, as stipulated in Section 7050.5 of the California Health and Safety Code. The Coroner shall determine whether the remains are Native American and, if so, he/she shall contact the NAHC by telephone within 24 hours. The Commission shall follow the stipulations in Section 5097.98 of the PRC, including the determination of a most-likely descendent. If the Commission is unable to identify a descendant, the descendant is unable to make a recommendation, or

the landowner rejects the recommendation, the Commission shall mediate any dispute between the parties. Where such mediation fails to provide measures acceptable to the landowner, the landowner shall reinter the human remains and associated funerary items with appropriate dignity on the property, in a location not subject to further subsurface disturbance. A Cultural Resource Monitoring and Mitigation Plan shall be developed prior to construction activities. The plan shall outline monitoring procedures that will be employed during construction activities and will identify the steps that shall be taken if human remains are identified during construction activities. Further, the plan shall list the key contacts that must be notified if an inadvertent discovery occurs.

#### **Level of Significance after Mitigation**

Implementation of Mitigation Measure 4.4-1 would ensure that undocumented or inadvertent discoveries of human remains during construction period ground-disturbing activities would be properly managed in accordance with the laws of the State of California. Therefore, potentially significant project impacts resulting from inadvertent disturbance or undocumented human remains that were identified during construction would be reduced to less than significant.

#### **CEQA-Plus Evaluation**

Projects that are reviewed according to CEQA-Plus guidelines are required to contain several specific elements: that cultural resources within the Project APE are evaluated according to the National Historic Preservation Act; that the APE for the Project is well defined; that per SHPO requirements the background research includes a records search; and that per SHPO requirements Native American Consultation be conducted. These required elements are discussed below.

#### **Project Areas of Potential Effect**

The APE of the Project includes Option A and Option B, as well as a 50-foot buffer around work areas (Figures 1-2, 1-3, and 4.4-1). Within the residential areas of the GHCSO, approximately 1,830 linear feet of 8-inch pipe, 585 linear feet of 6-inch pipe, and 27 manholes would require significant repair and replacement. Trenching for this work would be at an average depth of 6 feet and the construction work corridor would be approximately 30 feet wide. The work would be in existing roads and road shoulders.

In addition to this work, approximately 900 linear feet of existing 8-inch gravity main and 535 linear feet of 6-inch force main currently running south along Woodford Tehachapi Road from the former lift station would be replaced with 1,426 linear feet of 8-inch gravity main. The 1,426 linear feet of gravity main is a more direct link to the manhole than the existing combination of gravity main and force main. This excavation would be at an average depth of 15 feet and the construction work corridor would be approximately 30 feet wide and include the use of the existing road and shoulder.



From the southern terminus of this work segment, a new 1,983 linear foot segment of 12-inch gravity sewer would be constructed due east across Woodford Tehachapi Road the GHCSO Woodford Tehachapi Property south of Tom Sawyer Lake. The excavation for this portion would be at an average depth of 10 feet with a construction work corridor approximately 50 feet wide through the GHCSO-owned Woodford Tehachapi Property.

#### Additional Option B Areas of Potential Effect

The proposed lift station would encompass an area of approximately 120-feet by 50-feet (Figure 3-3). The lift station site work would require excavation and grading for the wet well and building construction as well as for the overflow basin. The existing sewer collection line to the Golden Hills WWTP would be abandoned in place from the point where the new lift station is constructed north to the WWTP. Construction of the overflow basin would excavate an area that measures 65-feet by 40-feet (Figure 3-3). From the new lift station in the GHCSO-owned Woodford Tehachapi Property adjacent to Brite Creek, the pipeline would be routed south across GHCSO property to Fontana Street, then to Westwood Boulevard proceeding east and south, and then to Red Apple Avenue proceeding south then east (Figure 1-3). This would be approximately 8,843 linear feet of 4-inch force main. The excavation would be approximately 4 feet deep and 3 feet wide with an associated 30-foot-wide work corridor along the named roads. The corridor would encompass the available road shoulder and the remainder would be taken from traffic lanes. Approximately 1,740 feet west of Tucker Road (SR 202), the force main would become a new gravity main and continue to flow easterly to the proposed point of connection with the City of Tehachapi gravity main at Tucker Road and Red Apple/Tehachapi Boulevard. The excavation for this portion of the Project would be approximately 8 feet deep and 5 feet wide, with the work corridor being approximately 30 feet wide.

The trenches excavated to replace or install pipe would be between 3 and 5 feet wide, depending on soil conditions. Trenching for most pipeline replacement will average 6 feet deep; however, excavation for the 8-inch gravity main will be an average of 15-feet deep. The construction work corridor is planned to be 30-feet wide and will be placed in existing road and road shoulders. All machinery will operate on one side of the trench and excavated materials will be stockpiled on the opposite side of the trench.

#### **Background Research**

A cultural resource records search was conducted by the staff at the Southern San Joaquin Valley Information Center on October 30, 2015. The area studied includes the Project APE plus a one-half mile buffer around the APE. The results of that records search are presented above as well as in the Phase I Cultural Resources Assessment located in Appendix E.

#### **National Historic Preservation Act, Section 106**

No cultural resources are identified within the APE of the Project. Two cultural resources are located adjacent to the APE. The Burgeis Place is located near the APE but outside of proposed Project impact areas. The second cultural resource is an isolated artifact. Developing a Cultural Resource Monitoring and Mitigation Plan and monitoring all excavations during the construction

efforts would ensure that cultural resources encountered during Project construction would be recorded, that the proper parties and agencies would be notified, and that the resource would be evaluated in a timely manner.

### **Native American Consultation**

On June 3, 2014 AECOM, requested that the NAHC staff preform a Sacred Lands File search to determine if sensitive resources are located in the vicinity of the Project. No traditional sites or places were identified within the Project APE. The NAHC staff provided AECOM with a list of interested parties for the Project area. On March 11, 2015 letters were sent to all interested parties identified by the NAHC. No responses were received. On April 23, 2015, follow up phone calls were made to all parties with telephone numbers. Records of these communications are included in the Phase I Cultural Resources Assessment (Appendix E).

### **Cumulative Setting Impacts and Mitigation Measures**

The geographic scope for cumulative impacts to cultural and paleontological resources by the proposed Project includes the GTA, as the archaeological, historical, and paleontological resources within the GTA would be similar to those in the Project area due to physical proximity and similar geological and hydrological characteristics, which yield artifacts and fossils of similar type and sensitivity.

According to the Draft EIR prepared for the GTASP (Kern County 2010a), development within the GTA, which includes the development of 4,780 additional dwelling units with an associated two percent growth rate, would occur in areas known to have cultural, historic, and paleontological sensitivity. A total of 519 cultural sites were recorded within the GTASP study area; the Sacred Lands file search by the NAHC indicated that the GTASP contained numerous Native American cultural resources, including burial grounds; three California-Registered historical landmarks were found, including Old Towne Tehachapi, Tehachapi Loop, and Caliente; and there are also several known paleontological sites within the GTASP, including elephant and camel fossil material, just west of the City of Tehachapi.

The GTASCP therefore includes policies to protect cultural, historic, and paleontological resources, and development in the GTA is required to be consistent with the GTASCP, County General Plan, and Zoning Ordinance. Where potential impacts would occur to these resources in the GTA, Project applicants are required to apply specific mitigation measures as identified in the required cultural and paleontological studies. Therefore, the Draft EIR for the GTASP determined that cumulative impacts to cultural and paleontological resources would be less than significant.

Consistent with the findings of the GTASP Draft EIR, the Phase I Cultural Resources Assessment (Appendix E) prepared for the Project found that similar cultural and paleontological resources sensitivity exists within the Project area. The Project area does not include historic resources, however. Potential Project impacts to cultural and paleontological resources would be mitigated by implementation of Mitigation Measures 4.4-1, 4.4-2, and 4.4-3. The development of related

projects in the vicinity of the Project would also be required to comply with GTASCP and County regulations pertaining to cultural, historic, and paleontological resources. Therefore, the Project's contribution to cumulative cultural and paleontological resources impacts in the GTA would be less than significant.

**Mitigation Measures**

Through preparation of a Phase I Cultural Resources Assessment (Appendix E) and implementation of Mitigation Measures 4.4-1, 4.4-2, and 4.4-3, the proposed Project would result in a less than significant contribution to cumulative cultural and paleontological resources impacts in the GTA.

**Level of Significance after Mitigation**

The Project would result in less than significant cumulative cultural and paleontological resources impacts.

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## Section 4.5

# Greenhouse Gas Emissions

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### 4.5.1 Introduction

This section is based on the Greenhouse Gas Emissions Impact Analysis prepared for the proposed Project and provided in Appendix F. Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. GHGs have the potential to adversely affect the environment, because such emissions contribute cumulatively to global climate change. Global climate change has the potential to result in sea level rise (resulting in flooding of low-lying areas), affect rainfall and snowfall (leading to changes in water supply and runoff), affect temperatures and habitats (affecting biological and agricultural resources), and result in many other adverse effects. It is unlikely that a single project contributes significantly to climate change, but cumulative emissions from many projects could affect global GHG concentrations and the climate system. Unlike the locations of criteria air pollutants and toxic air contaminants, which are pollutants of localized or regional concern, the specific location of GHG emissions are of limited concern. Rather, the total amount and types of GHG emissions ultimately have the most substantial effect on climate change.

### 4.5.2 Environmental Setting

#### Greenhouse Gases

Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth.

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals and plants, decomposition of organic matter, and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels, waste treatment, and agricultural processes. These emissions in excess of natural causes have led to a trend of unnatural warming of the earth's atmosphere

and oceans, with corresponding effects on global atmospheric/oceanic circulation patterns and climate (IPCC 2013).

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Emissions of CO<sub>2</sub> are byproducts of fossil fuel combustion. CH<sub>4</sub> is the main component of natural gas and is associated with agricultural practices and landfills. N<sub>2</sub>O is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices. HFCs are synthetic chemicals used as a substitute for chlorofluorocarbons in automobile air conditioners and refrigerants. PFCs are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors. SF<sub>6</sub> is an inorganic, odorless, colorless, nontoxic, nonflammable GHG used for insulation in electric power transmission and distribution equipment, and in semiconductor manufacturing.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO<sub>2</sub>. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The reference gas for GWP is CO<sub>2</sub>; therefore, CO<sub>2</sub> has a GWP of 1. The other main GHGs that have been attributed to human activity include CH<sub>4</sub>, which has a GWP of 28, and N<sub>2</sub>O, which has a GWP of 265 (IPCC 2013). For example, 1 ton of CH<sub>4</sub> has the same contribution to the greenhouse effect as approximately 28 tons of CO<sub>2</sub>. GHGs with lower emissions rates than CO<sub>2</sub> may still contribute to climate change, because they are more effective at absorbing outgoing infrared radiation than CO<sub>2</sub> (i.e., high GWP). HFCs, PFCs and SF<sub>6</sub> are considered high GWP GHGs. The concept of CO<sub>2</sub>-equivalency (CO<sub>2</sub>e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

Although the exact lifetime of a particular GHG molecule depends on multiple variables and cannot be pinpointed, more CO<sub>2</sub> is currently emitted into the atmosphere than is stored, or “sequestered.” The quantity of GHGs that it takes to ultimately result in climate change is not precisely known, but the quantity is enormous, and no single project could measurably contribute to a noticeable incremental change in the global average temperature or climate.

## Effects of Climate Change

Climate change could affect environmental conditions in California through a variety of mechanisms. One effect of climate change is sea level rise. Sea levels along the California coast rose approximately 7 inches during the last century (CEC 2006) and are predicted to rise an additional 7 to 22 inches by 2100, depending on the future levels of GHG emissions (IPCC 2013). However, the Governor-appointed Delta Vision Blue Ribbon Task Force has recommended that the State plan for a scenario of 16 inches of sea level rise by 2050 and 55 inches by 2100 (California Natural Resources Agency 2008). Effects of sea level rise could include increased coastal flooding and inundation from storm and tidal surges; saltwater intrusion, especially of

concern in the low-lying Sacramento–San Joaquin Delta, where pumps delivering potable water to southern California could be threatened; and disruption of wetlands (CEC 2006).

As the existing climate throughout California changes over time, the geographic ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct if suitable conditions are no longer available. Additional concerns associated with climate change are a reduction in the snowpack, leading to less overall water storage in the mountains (the largest “reservoir” in the State); increasing unpredictability and variability of precipitation and dry conditions (including frequency of multi-year droughts); and increased risk of wildfire caused by changes in rainfall patterns and plant communities (CEC 2006).

## Greenhouse Gas Emissions Sources and Inventory

For purposes of accounting for and regulating GHG emissions, sources of GHG emissions are grouped into emission categories. ARB identifies the following main GHG emission categories that account for most anthropogenic GHG emissions generated within California:

- Transportation: On-road motor vehicles, recreational vehicles, aviation, ships, and rail
- Electric Power: Use and production of electrical energy
- Industrial: Mainly stationary sources (e.g., boilers and engines) associated with process emissions
- Commercial and Residential: Area sources, such as landscape maintenance equipment, fireplaces, and consumption of natural gas for space and water heating
- Agriculture: Agricultural sources that include off-road farm equipment; irrigation pumps; crop residue burning (CO<sub>2</sub>); and emissions from flooded soils, livestock waste, crop residue decomposition, and fertilizer volatilization (CH<sub>4</sub> and N<sub>2</sub>O)
- High GWP: Refrigerants for stationary and mobile-source air conditioning and refrigeration, electrical insulation (e.g., SF<sub>6</sub>), and various consumer products that use pressurized containers
- Recycling and Waste: Waste management facilities and landfills; primary emissions are CO<sub>2</sub> from combustion and CH<sub>4</sub> from landfills and wastewater treatment

### California

California contributes a significant quantity of GHGs to the atmosphere and is the second largest emitter of GHG emissions in the U.S. and twentieth largest in the world (EIA 2015). With respect to the U.S., California’s 2013 per capita GHG emissions (i.e., 9.2 metric tons [MT] CO<sub>2</sub>e/capita/year) are the fourth lowest in the nation above Vermont, New York, and District of Columbia, and approximately 45 percent lower than the national average of 16.7 MT CO<sub>2</sub>e per person (EIA 2015).

As shown in Figure 4.5-1, California produced 459 million metric tons of CO<sub>2</sub>e in 2013. Combustion of fossil fuel in the transportation category was the single largest source of California’s GHG emissions in 2013, accounting for 37 percent of total GHG emissions in the

State. The transportation category was followed by the industrial category, which accounts for 23 percent of the State’s total GHG emissions, and the electric power category (including in-State and out-of-State sources), which accounts for 20 percent of total GHG emissions in California (ARB 2015b).

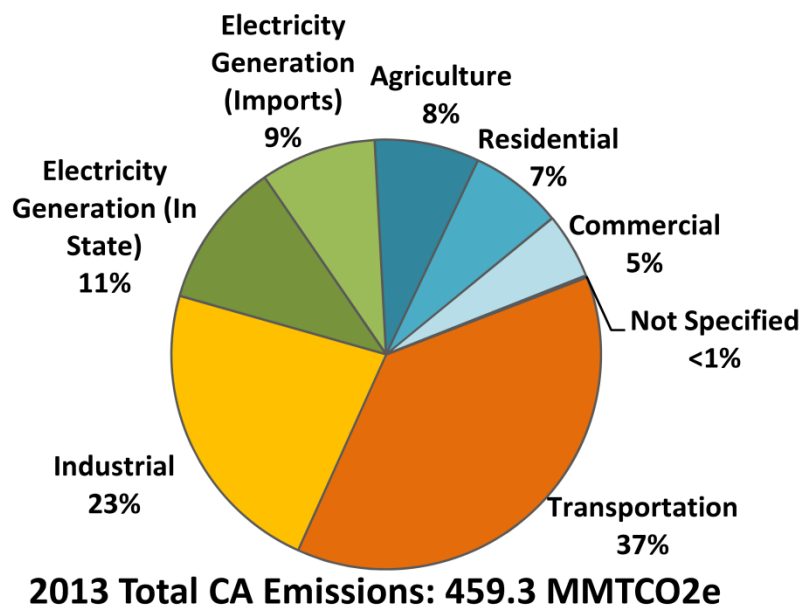


Figure 4.5-1 2013 California GHG Emissions by Category

### 4.5.3 Regulatory Setting

Climate change and GHG emissions in California are governed by several regulations and case law. Key laws and regulations are summarized below. However, this discussion is not exhaustive of the evolving body of GHG and climate change regulations.

#### Federal Plans, Policies, and Regulations and Laws

The EPA is the Federal agency responsible for implementing the CAA. On April 2, 2007, the U.S. Supreme Court held that the EPA must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.*, 12 states and cities (including California) along with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Supreme Court ruled that GHGs fit within the CAA’s definition of a pollutant and that EPA had the authority to regulate GHGs.

#### EPA “Endangerment” and “Cause or Contribute” Findings

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA which applies to the Federal government’s ability to regulate GHG emissions:



- *Endangerment Finding:* The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) in the atmosphere threaten the public health and welfare of current and future generations.
- *Cause or Contribute Finding:* The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

### **Mandatory Greenhouse Gas Reporting Rule**

On September 22, 2009, the EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (House of Representatives Bill 2764; Public Law 110-161), which required the EPA to develop "...mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy..." The Reporting Rule applies to most entities that emit 25,000 MT CO<sub>2</sub>e or more per year. Since 2010, facility owners have been required to submit an annual GHG emissions report with detailed calculations of the facility's GHG emissions. The Reporting Rule also mandates compliance with recordkeeping and administrative requirements to enable the EPA to verify annual GHG emissions reports.

### **EPA and National Highway Traffic Safety Administration Standards**

The EPA and National Highway Traffic Safety Administration (NHTSA) are currently in the process of implementing the National GHG Emission and Fuel Economy Standards for Light Duty Cars and Trucks in model years 2012 through 2016. The second phase of the standards includes GHG and fuel economy standards for model years 2017 through 2025. The 2017 through 2025 standards are anticipated to save approximately 4 billion barrels of oil and 2 billion MT of GHG emissions. In 2025, if all standards are met through fuel efficiency improvements, the average industry fleetwide fuel efficiency for light duty cars and trucks would be approximately 54.5 miles per gallon (EPA 2012).

The EPA and NHTSA are also currently implementing Phase 1 of the Medium- and Heavy-Duty Vehicle GHG Emissions and Fuel Efficiency Standards, which applies to model years 2014 through 2018. It is anticipated that medium- and heavy-duty vehicles built to these standards from 2014 through 2018 would reduce CO<sub>2</sub> emissions by approximately 270 million MT over their lifetimes (EPA 2011). Phase 2 of these standards would apply to model years 2021 through 2027 and is anticipated to reduce GHG emissions by 1 billion MT over its lifetime (EPA 2015). In addition to the GHG reduction and increased fuel efficiency, the standards are anticipated to generate development and research jobs focused on advanced cost-effective technology for cleaner and more efficient commercial vehicles.

### **Council on Environmental Quality Guidance**

On December 18, 2014, the Council on Environmental Quality (CEQ) released revised draft guidance that supersedes the draft GHG and Climate Change Guidance released by CEQ in

February 2010. The revised draft guidance applies to all proposed Federal agency actions, including land and resource management actions. This guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action (CEQ 2014). The guidance encourages agencies to draw from their experience and expertise to determine the appropriate level (broad, programmatic or project- or site-specific) and type (quantitative or qualitative) of analysis required to comply with the National Environmental Policy Act. The guidance recommends that agencies consider 25,000 MT CO<sub>2</sub>e on an annual basis as a reference point below which a quantitative analysis of GHG emissions is not recommended unless it is easily accomplished based on available tools and data (CEQ 2014).

## **State Plans, Policies, Regulations, and Laws**

The legal framework for GHG emission reductions in California has come about through Executive Orders, legislation, and regulations. The major components of California's climate change initiative are reviewed below.

### **Assembly Bill 1493**

AB 1493 required that ARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the State." To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations adding GHG emissions standards to California's existing standards for motor vehicle emissions.

### **Executive Order S-3-05**

Executive Order S-3-05, signed in June 2005, proclaimed that California is vulnerable to the impacts of climate change. Executive Order S-3-05 declared that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emissions targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

### **Assembly Bill 32**

In 2006, the California Legislature passed AB 32 (California Health and Safety Code Section 38500 et seq.), also known as the Global Warming Solutions Act. Under AB 32, ARB must design and implement feasible and cost-effective emissions limits, regulations, and other measures, to reduce Statewide GHG emissions to 1990 levels by 2020. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions. AB 32 applies to the thresholds of significance aimed to achieve the emission reduction targets.

Pursuant to AB 32, ARB adopted the Climate Change Scoping Plan (Scoping Plan) in December 2008, outlining measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 28 to 30 percent below projected 2020 business-as-usual emissions levels, or about 15 percent from today's levels (i.e., levels as of 2005).

ARB is required to update the Scoping Plan at least once every 5 years to evaluate progress and develop future inventories that may guide this process. ARB approved the First Update to the Climate Change Scoping Plan: Building on the Framework in June 2014 (ARB 2014). The Scoping Plan update includes a status of the 2008 Scoping Plan measures and other State, Federal, and local efforts to reduce GHG emissions in California from 2008 to 2013 with respect to the 2020 GHG reduction target. The Scoping Plan Update determined that the State is on schedule to achieve the 2020 target; however, an accelerated reduction in GHG emissions is required to achieve the 2050 reduction target. Many agencies have developed thresholds of significance based on the reductions associated with the Scoping Plan update. However, in 2015, the California Supreme Court, in *Center for Biological Diversity v. Department of Fish and Wildlife*, Case No. S217763, held that the lead agencies must connect the "business as usual" standard to individual project emissions (California Supreme Court 2015).

#### **Executive Order S-1-07**

Executive Order S-1-07 acknowledges that the transportation sector is the main source of GHG emissions in California. The Executive Order established a goal of reducing the carbon intensity of fuels for mobile, stationary and portable emissions sources sold in California by a minimum of 10 percent by 2020. ARB adopted the Low Carbon Fuel Standard on April 23, 2009, and is currently considering adoption of an updated Low Carbon Fuel Standard.

#### **Senate Bill 97**

Senate Bill (SB) 97, signed August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the California Office of Planning and Research to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010.

#### **Senate Bills 1078 and 107 and Executive Orders S-14-08 and S-21-09**

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities (IOUs) and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In February 2014, the CPUC reported that California's three largest OUs (i.e., Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas and Electric Company) collectively provided 22.7 percent of their 2013 retail electricity sales using renewable sources and are continuing progress toward future 2020 requirements (CPUC 2015).

Executive Order S-14-08 expanded the State's Renewable Portfolio Standard to 33 percent renewable power by 2020. Executive Order S-21-09 directs ARB under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020.

The 33 percent-by-2020 goal and requirements were codified in April 2011 with SB X1-2. This new Renewable Portfolio Standard applies to all electricity retailers in the State, including publicly owned utilities, IOUs electricity service providers, and community choice aggregators. Consequently, Pacific Gas and Electric, which would be the electricity provider for the proposed Project, must meet the 33 percent goal by 2020.

### **Senate Bill 375**

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or an Alternative Planning Strategy, which will prescribe land use allocation in that MPO's Regional Transportation Plan. On September 23, 2010, ARB adopted regional GHG targets for passenger vehicles and light trucks for 2020 and 2035 for the 18 MPOs in California. ARB is required to update the regional GHG targets at least every 8 years, and may revise them every 4 years.

### **Executive Order B-30-15**

In April 2015, Governor Edmund Brown issued an Executive Order establishing a Statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-03-05 goal of reducing Statewide emissions 80 percent below 1990 levels by 2050. In addition, the Executive Order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014 (Office of the Governor 2015).

## **Regional and Local Plans, Policies, Regulations, and Ordinances**

### **Eastern Kern Air Pollution Control District**

On March 8, 2012, the EKAPCD Governing Board adopted an addendum to the EKAPCD CEQA Guidelines titled "Addressing GHG Emission Impacts for Stationary Source Projects When Serving as the Lead CEQA Agency." This addendum is the policy that the EKAPCD will use when it is the lead agency for CEQA to determine the significance of GHG emissions from new and modified stationary source (industrial) projects. A proposed project is considered to have a less than significant or cumulatively considerable impact on GHG emissions if it meets one of the following conditions:

- Project-specific GHG emissions are less than 25,000 tons per year;

- Project demonstrates to EKAPCD that it is in compliance with a State GHG reduction plan such as AB 32 or future Federal GHG reduction plan if it is more stringent than State plan; and
- Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20 percent below Business-As-Usual emissions.

### **San Joaquin Valley Air Pollution Control District**

In August 2008, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted a climate change action plan (CCAP). The CCAP authorized the SJVAPCD's air pollution control officer to develop guidance documents to:

- Assist land use agencies and other permitting agencies in addressing GHG emissions as part of the CEQA process;
- Investigate the development of a GHG banking program;
- Enhance the existing emissions inventory process to include GHG emission reporting consistent with State requirements; and
- Administer voluntary GHG reduction agreements.

In December 2009, as directed by the CCAP, SJVAPCD adopted the Final Staff Report Addressing Greenhouse Gas Emissions Impacts under CEQA and Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (GHG CEQA Guidance) (SJVAPCD 2009). The SJVAPCD's GHG CEQA Guidance was developed to assist lead agencies in establishing their own processes for determining significance of project-related impacts on global climate change. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would have a less-than-significant individual and cumulative impact for GHG emissions. Projects implementing Best Performance Standards and reducing project-specific GHG emissions by at least 29 percent compared to business as usual condition would have a less than significant individual and cumulative impact on global climate change (SJVAPCD 2009).

### **Kern County General Plan**

Kern County's General Plan includes policies that address GHG emissions in their Land Use, Open Space, and Conservation Element (Kern County 2009):

- Policy 19: In considering discretionary projects for which an Environmental Impact Report must be prepared pursuant to the CEQA, the appropriate decision making body, as part of its deliberations, will ensure that:
  - All feasible mitigation to reduce significant adverse air quality impacts have been adopted; and
  - The benefits of the proposed project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation. This finding shall be made in a statement of overriding considerations and shall be

supported by factual evidence to the extent that such a statement is required pursuant to the CEQA.

- Policy 23: The County shall continue to implement the local government control measures in coordination with the Kern Council of Governments and SJVAPCD.

### **Greater Tehachapi Area Specific and Community Plan**

In December 2010, the Kern County Planning and Community Development Department prepared the GTASCP, which includes the Project site. Policies and goals in the Open Space and Conservation Element of the GTASCP address GHG emissions (Kern County 2010b).

- Goal COS.10: Reduce air pollution and GHG emissions by promoting greater energy efficiency and conservation, and through the use of renewable resources.
- Policy COS.40: Promote energy-efficient design features and green building measures, including appropriate site orientation, use of lighter color roofing and building materials, and use of deciduous shade trees and windbreak materials to reduce fuel consumption for heating and cooling.

### **City of Tehachapi General Plan**

In January 2012, the City of Tehachapi developed a General Plan that serves as a blueprint and guidance for future growth. Policies and goals in the Natural Resources Element of the Tehachapi General Plan would address GHG emissions (City of Tehachapi 2012):

- Policy NR1: Require planting of trees along all right-of-way and within open space.
- Policy NR2: Take affirmative steps toward reduction of motor vehicle-related air pollution including, but not limited, the following:
  - Require land use and transportation strategies that promote use of alternatives to the automobile for transportation, including walking, bicycling, bus transit and carpool;
  - Encourage the development of alternative fuel stations;
  - Require percentage of parking spaces in large parking lots/garages to provide electrical vehicle charging facilities;
  - Promote ride-sharing/car-sharing programs;
  - Discourage activities that result in unnecessary idling of vehicles;
  - Evaluate alternative traffic control devices such as roundabouts that slow automobiles rather than devices such as traffic signals and stop signs which make automobiles start and stop.
- Policy NR3: Reduce emissions for stationary point sources of air pollution and stationary area sources which, cumulatively, represent large quantities of emissions.

## 4.5.4 Impacts and Mitigation Measures

This section includes the impact analysis relating to GHG emissions of the proposed Project. It describes the methods used to determine the impacts of the proposed Project and lists the thresholds used to conclude whether an impact would be significant.

### Methodology

Construction-related emissions for the proposed Project were estimated using emission factors from ARB's OFFROAD and EMFAC 2014 inventory models. Construction emissions from the operation of diesel-fueled off-road equipment were estimated by multiplying daily usage (i.e., hours per day) and total days of construction by OFFROAD equipment-specific emission factors. GHG emissions from on-road motor vehicles were estimated using vehicle trips, vehicle miles traveled, and EMFAC2014 mobile source emission factors. The emission factors represent the fleet-wide average emission factors within Kern County. All GHG emissions associated with construction equipment at the Project site would occur within the MDAB, which is under the jurisdiction of the EKAPCD. Based on the assumption that trips may originate in Bakersfield, the analysis assumes that 50 percent of the round trip distance for construction worker commutes would occur in the SJVAB, which is under the jurisdiction of the SJVAPCD.

The proposed Project is not anticipated to generate new vehicle trips and would not generate additional activities related to maintenance or operations that would exceed existing levels. The proposed Project would not significantly increase the generation or use of electricity, water, wastewater, and solid waste. Therefore, operational GHG emissions were not estimated for the proposed Project, as described in the IS/NOP (Appendix A).

### Thresholds of Significance

As described in the IS/NOP prepared for the proposed Project, which is based on Appendix G, Environmental Checklist Form, of the CEQA Guidelines, an impact related to GHG emissions is considered significant if the proposed Project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Amendments to the CEQA Guidelines authorize lead agencies to determine thresholds of significance. Lead agencies must use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" a project's GHG emissions (14 CCR Section 15064.4 (a)). The EKAPCD has adopted a significance threshold of 25,000 tons of GHG emissions per year for stationary source projects where the air district is the lead agency. However, as discussed above, construction worker commutes and haul trucks also have the potential to generate emissions in the SJVAB, which includes the valley portion of

Kern County. However, the SJVAPCD methodology was developed primarily to address long-term operational activities of land use development projects (e.g., residential and commercial buildings). The SJVAPCD has not established Best Performance Standards or quantitative significance thresholds for the evaluation of construction-related GHG emissions. Therefore, the thresholds of significance for the SJVAB will be based on the EKAPCD thresholds of significance.

The CEQA-Plus analysis is based on the CEQ guidance. The CEQ guidance explains that agencies should consider both the estimated GHG emissions and the implications of climate change for the environmental effects of a proposed action. If a project exceeds 25,000 MT CO<sub>2</sub>e per year, it would have a significant effect on the environment.

## Project Impacts

### Impact 4.5-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction-related GHG emissions would be generated by vehicle engine exhaust from construction equipment, haul trips, material delivery trips, and construction worker trips. While construction-related emissions would only be generated during the construction period, GHG emissions would persist in the atmosphere for extended periods of time. Construction of the proposed Project would begin in late 2016 and is expected to last for approximately one year. The total Project annual construction-related GHG emissions for Options A, B-1, and B-2 and for both the EKAPCD and SJVAPCD (worker commutes) are shown in Table 4.5-1. While Option B-2 would entail the installation of approximately 3,000 feet more of force main as compared to Option B-1, it would re-use a portion of the overflow basin already located at the former Golden Hills WWTP site, whereas the Option B-1 lift station at the Woodford Tehachapi property would require development of a new overflow basin. Therefore, construction-related GHG emissions generated by Options B-1 and B-2 are anticipated to be similar.

**Table 4.5-1 Estimated Construction-Related GHG Emissions**

District and Project Option	Emissions (MT CO <sub>2</sub> e)
MDAB (EKAPCD)	
Option A	542
Option B-1 or B-2	564
<b>Significance Threshold</b>	<b>25,000</b>
<b>Exceeds Threshold?</b>	<b>No</b>
SJVAB (SJVAPCD)	
Option A	42
Option B-1 or B-2	47



District and Project Option	Emissions (MT CO <sub>2</sub> e)
<b>Significance Threshold</b>	<b>25,000</b>
<b>Exceeds Threshold?</b>	<b>No</b>
Total Project Emissions	
Option A	<b>584</b>
Option B-1 or B-2	<b>611</b>

Notes: MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent.

Totals may not add due to rounding.

Additional details available in Appendix F.

Source: Modeled by AECOM in 2016.

As shown in Table 4.5-1, the maximum annual emissions for Option A are estimated at 584 MT CO<sub>2</sub>e. Emissions for Option B-1 or B-2 are estimated at 611 MT CO<sub>2</sub>e. The construction-related CO<sub>2</sub>e emissions associated with Option A and Option B would be less than the thresholds of significance for both the MDAB and SJVAB. Therefore, the proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant.

The total annual GHG emissions would also not exceed the CEQ threshold of 25,000 MT CO<sub>2</sub>e per year. Therefore, the proposed Project would not result in a substantial adverse effect related to the generation of GHG emissions, either directly or indirectly, that may have a significant effect on the environment.

### Mitigation Measures

There are no significant impacts related to construction and operation of the proposed Project, and therefore, no mitigation measures are required.

### Level of Significance after Mitigation

Impacts would be less than significant.

### Impact 4.5-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

At the time of this writing, the EKAPCD, Kern County, and the City of Tehachapi have not developed Climate Action Plans. Therefore, for the purposes of this analysis, the applicable GHG reduction plan to evaluate the proposed Project against is the ARB Scoping Plan update. Measures included in the Scoping Plan update would indirectly address GHG emissions levels associated with construction activities, including the phasing-in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a low-carbon fuel standard. Policies formulated under the mandate of AB 32 that apply to construction-related

activity, either directly or indirectly, are assumed to be implemented Statewide and would affect the proposed Project should those policies be implemented before construction begins. The proposed Project would comply with mandates or standards set forth by the Scoping Plan update.

The Scoping Plan update did not directly create regulatory requirements for the proposed Project. Option A entails upgrades to the existing wastewater treatment collection system and replacement of the Woodford Tehachapi Road lift station with a gravity pipeline. Option B entails the general upgrades to the existing wastewater treatment collection system, replacement of the Woodford Tehachapi Road lift station with a gravity pipeline, and installation of a lift station, force main, and gravity pipeline to the City of Tehachapi WWTP. Both options are consistent with the goals of the Scoping Plan update, which indicate that the primary mechanisms to reduce water-related energy use are energy efficiency and water conservation strategies, such as conservation-adjusted business plans and investments in efficient infrastructure (ARB 2014).

The proposed Project would not conflict with the Scoping Plan update or any other plans, policies, or regulations for the purpose of reducing GHG emissions. As discussed earlier, the proposed Project would also not generate GHG emissions that would have a significant impact on the environment. Therefore, the proposed Project would not conflict with applicable plans, policies, or regulations developed for the purpose of reducing GHG emissions. This impact would be less than significant.

### **Mitigation Measures**

There are no significant impacts related to construction and operation of the proposed Project, and therefore, no mitigation measures are required.

### **Level of Significance after Mitigation**

Impacts would be less than significant.

### **Cumulative Setting Impacts and Mitigation Measures**

The analysis of GHG emissions is inherently a cumulative impact analysis. Therefore, no additional analysis is required, and as described above, it is not anticipated that construction and operation of the proposed Project would generate GHG emissions that would cause a significant impact on the environment. Therefore, the proposed Project would result in a less than significant cumulatively considerable incremental contribution to a significant cumulative impact. This impact would be less than significant.

It should be noted that water treatment in California requires substantial amounts of energy. The proposed Project would require energy during the operational period, which would be

consumed during vehicle trips associated with the operators and maintenance staff. However, the primary source of energy consumption by the proposed Project would be related to the wastewater treatment processes. The Golden Hills WWTP uses 117,676 kilowatts per hour (kWh) per year for pumps and other sources of energy consumption (AECOM 2014). Since Option A would include the replacement of older equipment, energy consumption would be anticipated to be more efficient than the existing conditions. Option B is estimated to use 41,435 kilowatts per hour per year, which is substantially less than the Golden Hills WWTP (AECOM 2014). Therefore, the proposed Project would reduce energy consumption and associated GHG emissions for water treatment, consistent with Statewide goals.

**Mitigation Measures**

There are no significant cumulative impacts related to construction of the proposed Project, and therefore, no mitigation measures are required.

**Level of Significance after Mitigation**

Cumulative impacts would be less than significant.

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## Section 4.6

# Hydrology and Water Quality

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### 4.6.1 Introduction

This section presents existing conditions and potential impacts related to hydrology and water quality associated with implementation of the proposed Project.

The Lead Agency determined in the IS/NOP that the proposed Project would result in no impacts or less than significant impacts associated with several of the environmental issues required to be evaluated by CEQA and associated with the Project. To focus this EIR, those topics are not considered further. Appendix A of this EIR contains a copy of the IS/NOP for additional information regarding these systems.

### 4.6.2 Environmental Setting

The Project is located in the Tehachapi Mountains at approximately 3,900 feet above mean sea level, in a north-central portion of the Tehachapi Creek watershed. Tehachapi Creek is the primary drainage feature of the watershed, flowing north then northwest toward the San Joaquin Valley. The Project overlies the Tehachapi Valley West Groundwater Basin, an adjudicated, appropriative, managed groundwater basin that is part of the larger Tulare Lake Hydrologic Region.

#### Surface Water Resources

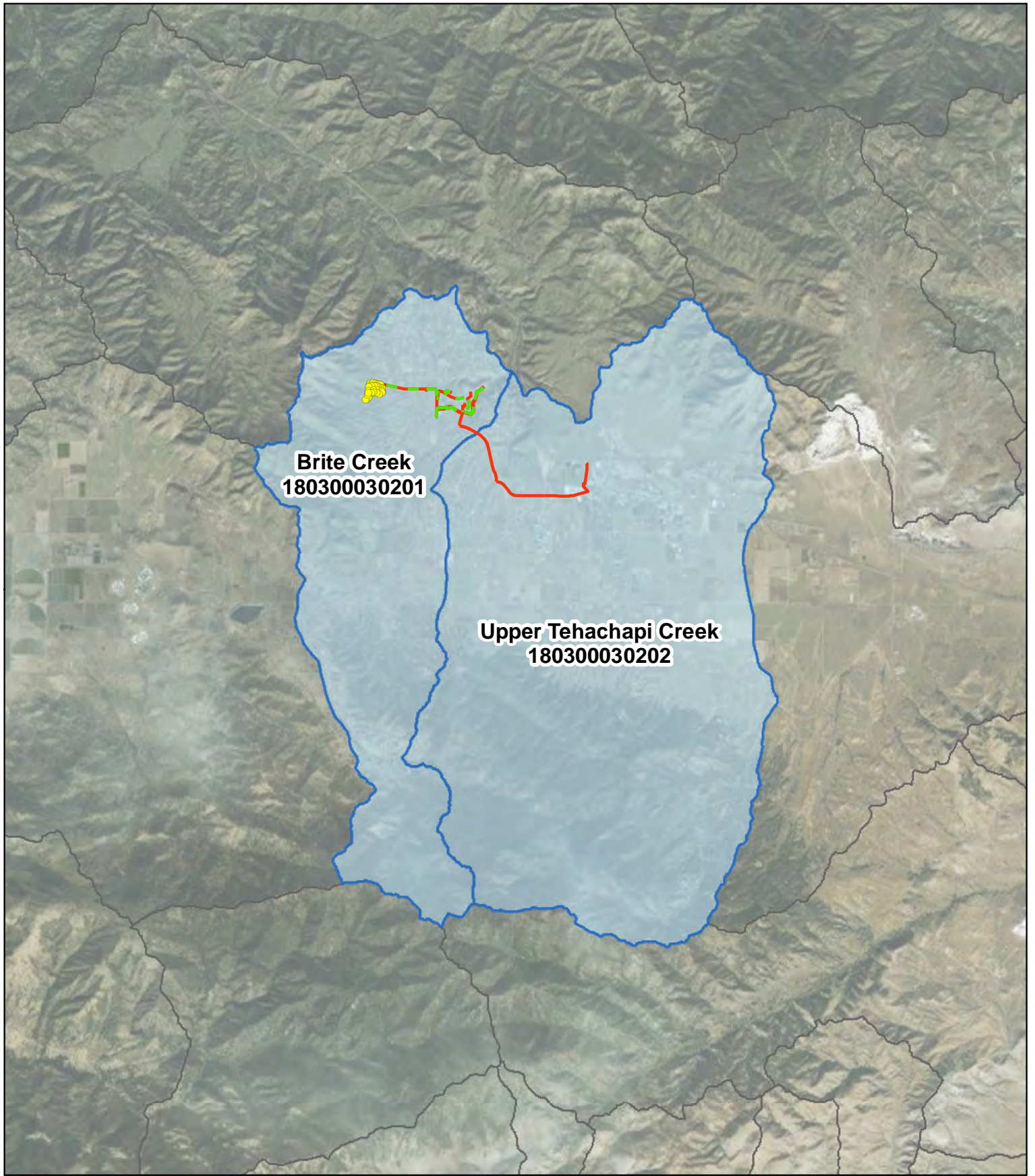
##### Hydrologic Units Based on Watershed

Option A, Continued Operations of the Golden Hills WWTP, is located within the Brite Creek Hydrologic Unit (Hydrologic Unit Code [HUC] 12 – 180300030201). Options B-1 and B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment are located within the Brite Creek Hydrologic Unit and Upper Tehachapi Creek Hydrologic Unit (HUC12 - 180300030202). Both hydrologic units are part of the greater Middle Kern-Upper Tehachapi Hydrologic Unit (HUC10 - 1803000302) of the Tehachapi Watershed (EPA 2016). The Tehachapi Watershed drains a surface area of approximately 50 square miles. The areal extent of the Brite Creek Hydrologic Unit and Lower Kern River Flood Canal-Kern River Channel Hydrologic Units defined by the United States Geological Survey (USGS) are shown on Figure 4.6-1, Golden Hills WWTP Watershed Hydrologic Units.

##### Hydrologic Units for Surface Water Quality Goals

The community of Golden Hills lies in the Tulare Lake Hydrologic Basin which is under the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB), Region 5. These hydrologic basins have been established by the RWQCB for the purpose of

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**Legend**

- Proposed new manhole
- Option A
- Option B
- Hydrologic Units

Golden Hills  
Community Services District

**Golden Hills WWTP  
Hydrologic Units**

Date: 2/5/2016 | Project: 60317952

**AECOM** Figure 4.6-1

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establishing surface water quality goals. This region includes approximately 10.8 million acres (16,800 square miles) of the Central Valley and southern Sierras.

The vast majority of the Greater Tehachapi Area (GTA) is located in the southeast edge of the Tulare Lake Hydrologic Basin, within the Grapevine Hydrologic Unit (No. 556.00). The Grapevine Hydrologic Unit is divided into two subunits, the Tehachapi Creek Hydrologic Area (HA; No. 556.10) on the northeast and the Tejon Creek HA (No. 556.20) on the southwest (RWQCB 2015). All surface drainages emanating from the GTA portions of the Tehachapi Creek HA and Tejon Creek HA ultimately discharge to the west-northwest and west-southwest, respectively, into the Arvin-Weeler Ridge HA (No. 557.20) of the South Valaley Floor Hydrologic Unit (RWQCB 2015). Downstream receiving waters from Tejon Creek HA include the Arvin Edison Canal, while the Tehachapi Creek HA is not tributary to any major downstream surface waters. Surface waters from both HAs recharge the Kern County Sub-basin of the San Joaquin Valley Groundwater Basin (Department of Conservation 2007). The hydrologic units in the region as defined by RWQCB are shown on Figure 4.6-1, Golden Hills WWTP Watershed Hydrologic Units.

### **Site Topography**

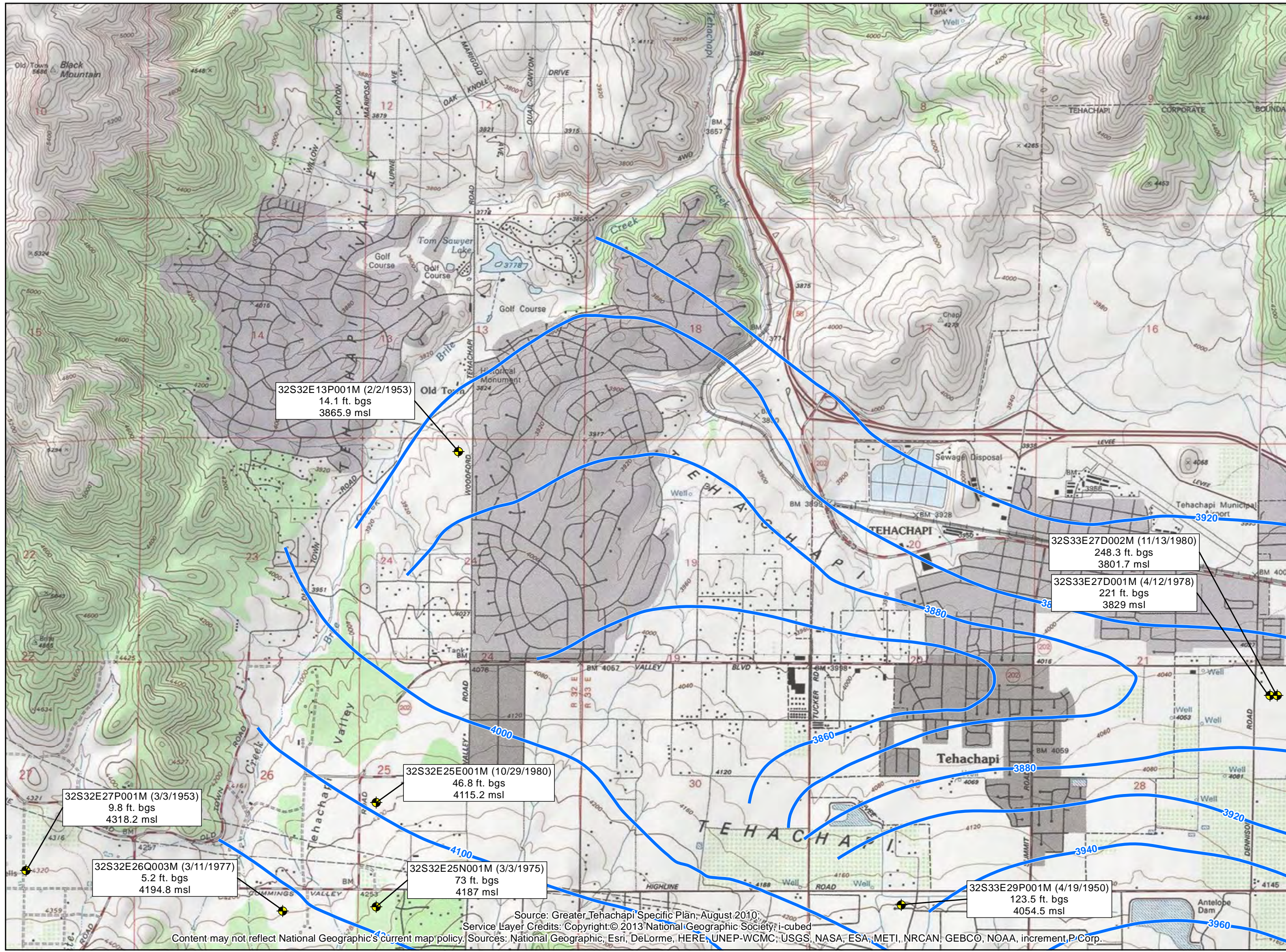
The proposed Project is located in southeastern Kern County in the Tehachapi Mountains between the San Joaquin Valley and the Mojave Desert, at elevations ranging between approximately 3,700 and 4,250 feet above mean sea level (GEI Consultants, Inc. 2010). The topography is multifaceted; as mountains surround the valley floor, and a complex pattern of surface drainage features is a result of complex geologic structure, including faulting (Kern County 2010b).

The community of Golden Hills is at an approximate elevation of 3,900 feet above mean sea level and is situated immediately west of the City of Tehachapi (AECOM 2014). The Golden Hills waste WWTP is located at Monroe Lane-Utility Extension, Old Camp Road at an elevation of approximately 3,650 feet above mean sea level, on approximately 0.5 acres, approximately 5 miles west of the City of Tehachapi. Topography at the proposed Project site is shown in Figure 4.6-2, Summary Groundwater Conditions Map, Tehachapi and Golden Hills Area.

### **Surface Waters**

The proposed Project is located within the north-central portion of the Tehachapi Creek watershed, which covers 50.6 square miles, or 32,420 acres. Elevations within the watershed range from 3,800 to 7,960 feet above sea level. The main drainage in this watershed is the Tehachapi Creek that flows north then northwest toward the San Joaquin Valley. Surface outflow from Tehachapi Valley occurs during times of heavy storms via Tehachapi Creek. Other drainages within the watershed include Brite Creek, Water Canyon Creek, Antelope Creek, and Blackburn Creek (GEI Consultants, Inc. 2010). Brite Creek flows northeast into Tehachapi Creek (located approximately 1 mile west of the proposed Project). The Effluent transmission system, gravity sewer pipeline, and sewer pipeline to be replaced run along the northern bank of Brite Creek.

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32S32E13P001M (2/2/1953)  
14.1 ft. bgs  
3865.9 msl

32S33E27D002M (11/13/1980)  
248.3 ft. bgs  
3801.7 msl

32S33E27D001M (4/12/1978)  
221 ft. bgs  
3829 msl

32S32E27P001M (3/3/1953)  
9.8 ft. bgs  
4318.2 msl

32S32E25E001M (10/29/1980)  
46.8 ft. bgs  
4115.2 msl

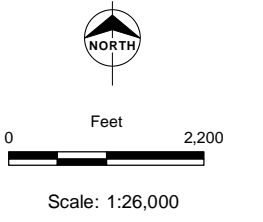
32S32E26Q003M (3/11/1977)  
5.2 ft. bgs  
4194.8 msl

32S32E25N001M (3/3/1975)  
73 ft. bgs  
4187 msl

32S33E29P001M (4/19/1950)  
123.5 ft. bgs  
4054.5 msl



- Legend**
- State Well
  - Groundwater Contour (2004)



Golden Hills  
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### Summary Groundwater Conditions Map, Tehachapi and Golden Hills Area

Date: 1/22/2016 | Project: 60317952

Source: Greater Tehachapi Specific Plan, August 2010;  
Service Layer Credits: Copyright © 2013 National Geographic Society, i-cubed  
Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment, P Corp.

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Tom Sawyer Lake is located just north of the new gravity pipe for the proposed Project. It is a designated as a wetland, and predates the WWTP which was installed in 1989. Historically, sources of water to Tom Sawyer Lake included effluent from the Golden Hills WWTP, fresh water from a dam on Brite Creek, discharge from Fountain Lake during large storm events via an underground pipeline, and Recovery Pond via a pump station and discharge line (AECOM 2014). However, a wash-out of Brite Creek dam during a heavy storm year stopped the periodic flow of freshwater into Tom Sawyer Lake. Currently, the Golden Hills WWTP discharges effluent to Tom Sawyer Lake, providing the only routine source of water for the lake (AECOM 2014). The other source of water to the lake comes from localized runoff from areas immediately surrounding the lake and on the west side of Woodford Tehachapi Road. Localized runoff is a wet-season input, and does not contribute significant water to the lake outside the rainy season.

### **Floodplain**

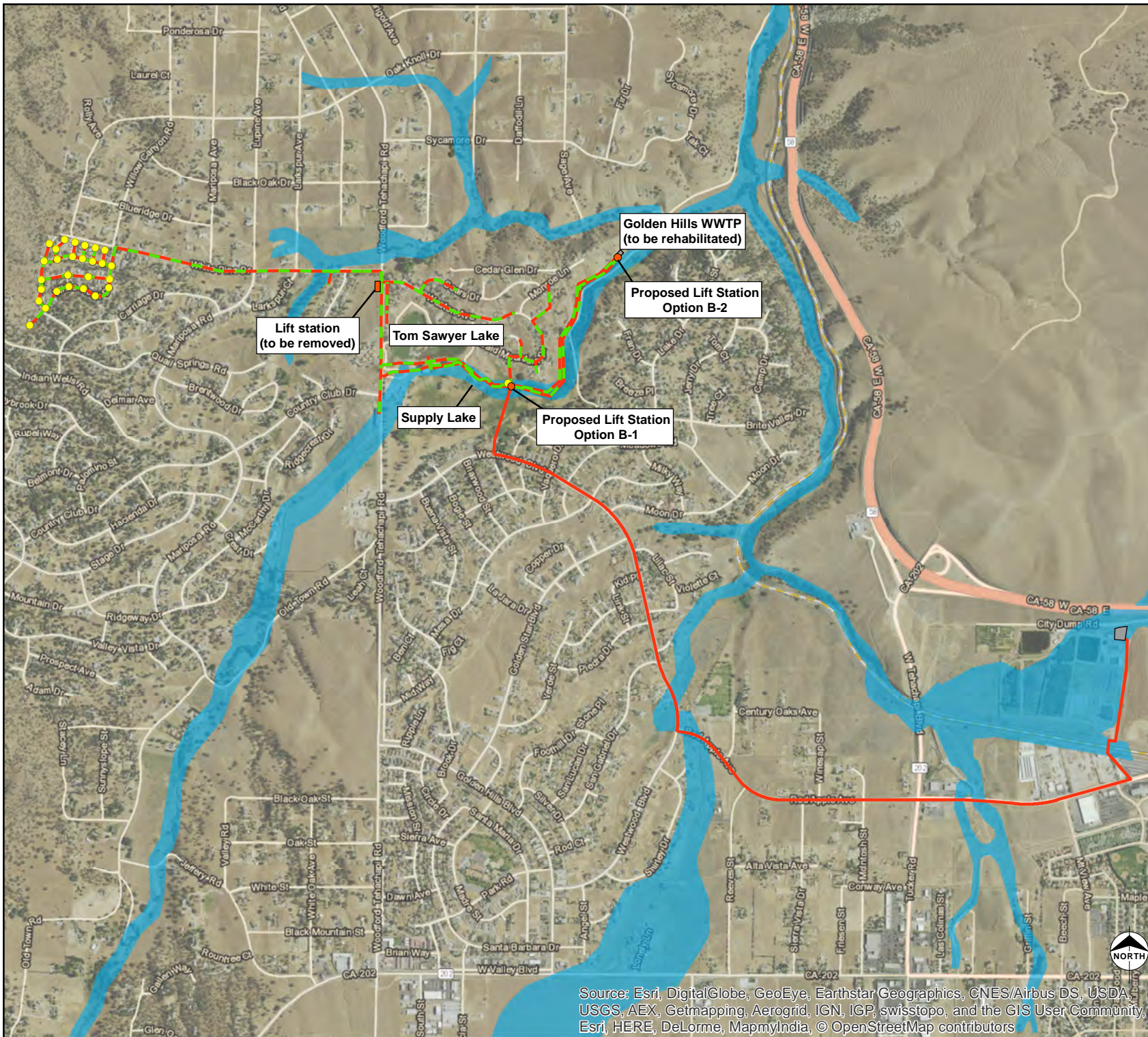
Federal Emergency Management Agency 100-year flood zones have been mapped in portions of the proposed Project (Figure 4.6-3). The 100-year flood zones in the proposed Project Area are classified as Zone Z, meaning that no Base Flood Elevation has been determined (FEMA 2008a and 2008b). Two of these flood zones are crossed by the eastern portion of the gravity sewer pipeline and sewer pipeline to be replaced along White Pine Drive and Woodford Tehachapi Road. Proposed Project components along Brite Creek are within and adjacent to a 100-year flood zone. In addition, the western portions of Options B-1 and B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment, cross a 100-year flood zone in three areas and run along this flood zone near the City of Tehachapi WWTP.

Kern County Flood Plain Management determined that the Golden Hills WWTP building is not within the Flood Insurance Rate Map 100-year floodplain; however, a portion of the larger emergency overflow basin is located within the 100-year floodplain (Figure 4.6-3). As such, modifications under Option A, Continued Operations of the Golden Hills WWTP, to the larger overflow basin include relocating it away from the floodplain and lining it, as well as incorporating potential earthen improvements, which may be necessary between the basins and flood zone for protection. Use of the emergency overflow basins would be subject to RWQCB approval.

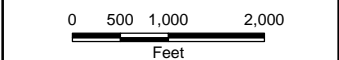
### **Stormwater Drainage**

The proposed Project site is located within a relatively dense urban area of Golden Hills that has a network of storm water drainage features, which convey surface water runoff to Tom Sawyer Lake, Brite Creek and Recovery Pond. Groundwater from nearby wells was used in the past to fill Tom Sawyer Lake. Kern County and each municipal jurisdiction within the Project vicinity require the implementation of storm water pollution prevention efforts such that conveyance systems are designed to protect surface water and groundwater quality as mandated by the State and Federal regulations (AECOM 2014).

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- Legend**
- Proposed new manhole
  - Option A
  - Option B-1, B-2
  - 100 Year Flood



Golden Hills  
Community Services District

### Golden Hills WWTP Project Components and FEMA Flood Zones Options A, B-1, and B-2

Date: 2/15/2016    Project: 60317952

**AECOM**    Figure 4.6-3

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

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## Groundwater Resources

### Groundwater Basin

The proposed Project overlies the Tehachapi Valley West Groundwater Basin (No. 5-28) that is part of the larger Tulare Lake Hydrologic Region (California Department of Water Resources 2004). Figure 4.6-4 shows the location of the groundwater basin. The basin is bound on the north by the Sierra Nevada and on the south by the Tehachapi Mountains. On the west, the basin is bound by a low-lying ridge that connects the mountains to the north and south, and a similar ridge with a narrow gap separates Brite Valley from the Tehachapi Valley. A surface drainage divide (alluvial high) between the basin and the adjacent Tehachapi Valley East basin forms the eastern boundary.

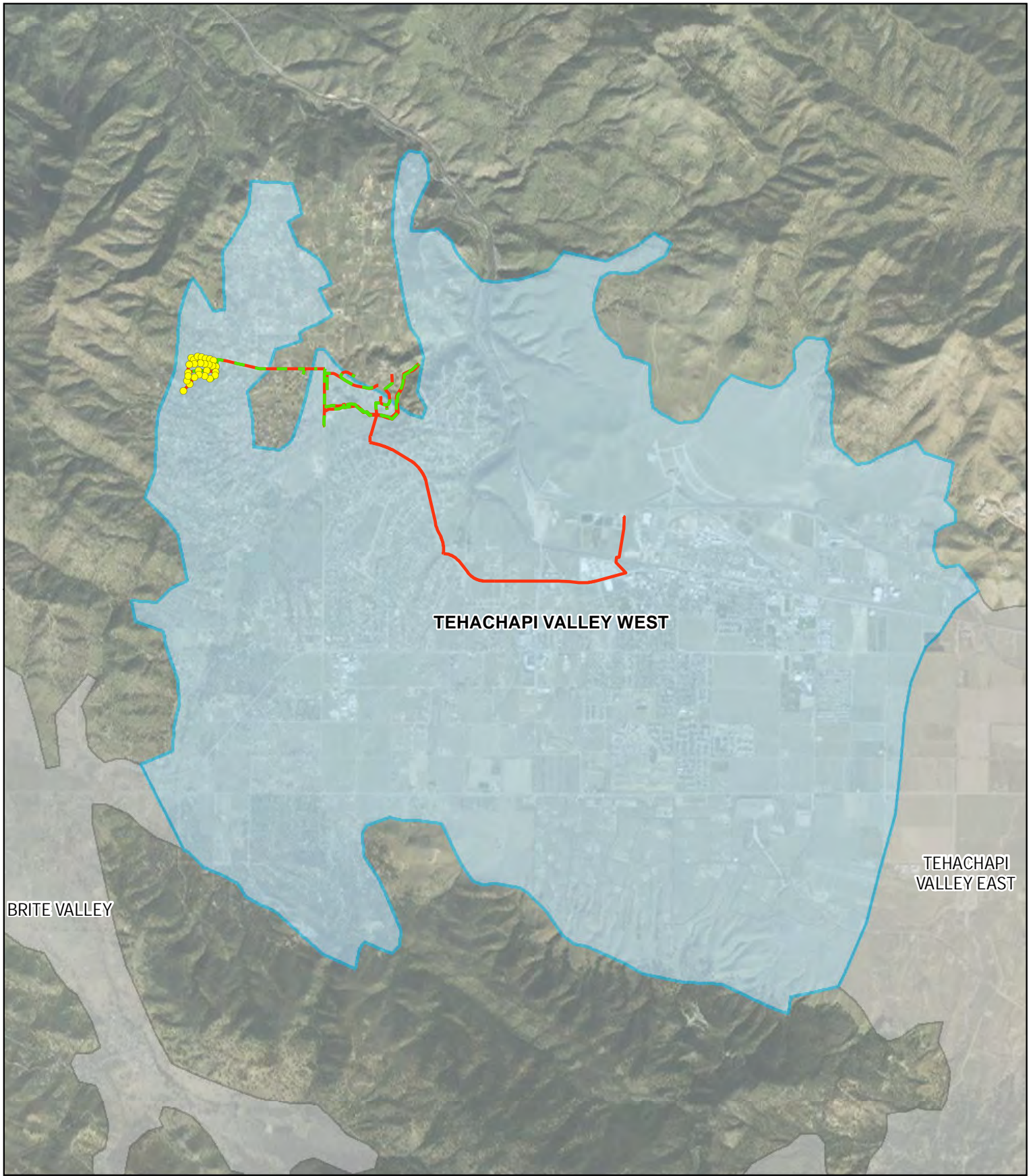
Water-bearing units include Pleistocene and recent alluvial fans lining the margins of the basin deposited via drainage from the Tehachapi Mountains, the Sierra Nevada and flood plain deposits. The water-bearing units are comprised of cobbles, gravels, sands, silts and clays, with the finer materials in the flood plains. Sediments in the valley consist of Quaternary alluvium that extends to a depth of at least 600 feet (California Department of Water Resources 2004). A bedrock high at the north end of Brite Creek and at Tehachapi Pass limits subsurface outflow from the valley. To the east, subsurface outflow has been limited by the persistence of a groundwater pumping depression southeast of the City of Tehachapi. Due to these conditions, very little groundwater exits the basin. Of the little groundwater that does flow out of the basin, the flow is most-likely split near the drainage divide between Tehachapi Valley East and West basins (California Department of Water Resources 2004). Pumping of groundwater in areas south of Tehachapi and Monolith has created a large pumping depression, altering the natural movement of groundwater. In addition, inferred southeast trending faults in the southwestern portion of the basin appear to act as groundwater barriers based on the observation of different groundwater elevations on either side of the fault (California Department of Water Resources 2004).

Groundwater supplies are drawn from recent and underlying older alluvial deposits (California Department of Water Resources 2004). Surface and subsurface basin inflow occurs from the creeks of the surrounding watershed areas and replenishes the groundwater within the basin. Groundwater is stored within the alluvium of the basin and the average annual safe yield of groundwater within the basin has been determined by the Court to be 5,500 acre feet (AF)(Tehachapi-Cummings County Water District 2014).

### Recharge

Recharge to the basin is mainly from the percolation of streamflow originating in the watershed, and to a lesser extent, the deep percolation of direct rainfall (California Department of Water Resources 2004). The majority of recharge from precipitation is found near mountain fronts after long duration storms; however, this source is irregular. The main recharge areas capable of moderate recharge rates are the Antelope, China, and Brite Creeks. Natural recharge to the Tehachapi Groundwater Basin is estimated at 3,000 acre- feet (California Department of Water

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TEHACHAPI VALLEY WEST

TEHACHAPI VALLEY EAST

BRITE VALLEY



**Legend**

- Proposed new manhole
- Option A
- Option B
- Tehachapi Valley West Groundwater Basin

Golden Hills  
Community Services District

**Golden Hills WWTP  
Groundwater Basin**

Date: 2/5/2016 | Project: 60317952

**AECOM** Figure 4.6-4

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Resources 2004). Additional sources include deep percolation of precipitation, treated sewage effluent, applied agricultural and municipal water, and septic tank leach fields. Artificial recharge is estimated to be 1,217 acre-feet and applied water is estimated at 380 acre-feet. Other than the flow of groundwater toward the groundwater pumping depression southeast of Tehachapi, there is no subsurface inflow, or subsurface outflow from the basin (California Department of Water Resources 2004).

Golden Hill WWTP has transferred treated water to Tom Sawyer Lake for disposal, where it reportedly evaporates and infiltrates. Estimates indicate at least 50 percent of water delivered to homes is used for irrigation of landscaping and trees. Approximately 20 percent of this water is returned to the aquifer through infiltration (GEI Consultants, Inc. 2010).

GTA imports water from the State Water Project (SWP) via the California Aqueduct, a 444-mile concrete-lined channel. The imported water is delivered to the Tehachapi, Cummings and Brite groundwater basins through percolation ponds or drainage channels and then pumped by municipal agencies. Pumped water recharged into the Tehachapi Groundwater Basin is for use by municipal and industrial customers, the City of Tehachapi, and GHCS D (GEI Consultants, Inc. 2010).

### **Groundwater Levels**

Between 1951 and 1961, groundwater pumping activities of 73,000 acre-feet lead to a average water level decline in the basin of 58 feet (California Department of Water Resources 2004). From 1961 to 1978, 32,700 acre-feet of groundwater was lost and groundwater levels decreased an average of 26 feet. However, between 1978 and 1999, groundwater levels recovered by 71 feet, representing an increase of 89,500 acre-feet of groundwater in the basin (California Department of Water Resources 2004).

Groundwater in Tehachapi Valley floor has varied over time from deep water conditions within the valley alluvium to artesian wells (Leighton 2010). Limited historic groundwater level data and land forms and existing features (lakes, playas, streams, springs, etc.), and the potential for liquefaction on the valley floor indicate that groundwater in the vicinity of the proposed Project is shallow (less than 50 feet bgs). Groundwater levels fluctuate due to seasonality, precipitation, and snow pack melt. Groundwater data for the basin is scarce. A study conducted in 2007 used groundwater depth information from 1942 to 1980 (Leighton 2010). The most recent (1980) data from this study showed that depth to groundwater ranged from 46.8 feet bgs approximately 2 miles south of the proposed Project to 248 feet bgs approximately 1 mile southeast of the Tehachapi WWTP (Leighton 2010).

California Department of Water Resources wells are plotted with their highest groundwater elevations (shallowest depth) and the dates of the readings, as well as modeled groundwater contours as of May 2004 on Figure 4.6-2 (Leighton 2010).

## Adjudication

Groundwater management in California is a local responsibility under the authority of the California Water Code and court decisions. As early as 1947, there was an awareness of a need to import water to supplement the dwindling groundwater supply.

The Tehachapi Groundwater Basin is an adjudicated, appropriative, managed groundwater basin. California Superior Court, Kern County, Case No. 97210, filed in 1971, established the base water rights for the basin. In 1973, the “Amended to Judgment” was filed and determined the following (GEI Consultants, Inc. 2010):

- Safe yield is 5,500 acre-feet annually.
- Initial base water right of 8,200 acre-feet per year.
- Established an annual allowed pumping allocation of approximately 66 2/3 percent. (5,524 acre-feet) of the Initial base water right (prescriptive right).
- Allowed domestic users to pump three acre-feet per year (not reduced).
- Appointed Tehachapi-Cummings County Water District as Watermaster and designated duties, powers, and responsibilities.
- Established Exchange Pool as part of the physical solution.
- Established necessary rules and regulations.
- Under continuing jurisdiction of the Court.
- Injunction against exporting water.

Pumping within the Tehachapi Basin is kept within the basin’s safe yield under the adjudication. An investigation in 2009 found that with continued operation of the existing conjunctive use programs and with maximum delivery of 3,300 acre-feet of SWP water to the area, the basin would operate satisfactorily through 2023 (GEI Consultants, Inc. 2010).

## Groundwater Use

Annually, a total of 3,535 acre-feet of groundwater is extracted from the Tehachapi Groundwater Basin. Approximately 2,600 acre-feet is extracted for urban use, 200 acre-feet for agricultural use, and 735 acre-feet for “other extractions” (California Department of Water Resources 2004). Groundwater is pumped by agricultural, municipal, and industrial users is consistent with the adjudication. Potable water for urban use within the basin is provided by GHCS and pumped from the adjudicated Tehachapi Groundwater Basin, with lesser amounts from outside the basin.

GHCS has developed two conjunctive use programs to assure adequate supplies are maintained in the basin. The programs are the Water Canyon Project and the Antelope Conjunctive Use Project. Both utilize SWP water purchased from Tehachapi-Cummings County Water District to recharge the aquifer upgradient from GHCS wells (GEI Consultants, Inc. 2010). Afterward, the wells are used to recover the water into GHCS’s storage and distribution system. GHCS’s production is subject to its Allowable Water Rights; however, additional water

rights may be purchased or leased from other parties to the Judgement (Integrated Resource Mangement, Inc. 2010).

## **Water Quality**

### **Surface Water**

The SWRCB and RWQCBs assess water quality data for California's waters every two years to determine if they contain pollutants at levels that exceed protective water quality criteria and standards. None of the surface drainage features within the Tehachapi Creek watershed are listed on the CWA 303(d) List of Impaired Water Bodies.

The existing wastewater treatment plant disposes treated effluent into Tom Sawyer Lake. The original plan for effluent disposal included blending the treated effluent with surface water from Brite Creek to irrigate the golf course. Blending in this manner and using mixed water for irrigation is ideal for maintaining reasonable concentrations of total dissolved solids (TDS) in the lake water. However, irrigation of the golf course stopped in 1992, and in 1997 a storm washed out the earthen diversion structure (Fountain Lake) on Brite Creek that was used to divert water into Tom Sawyer Lake.

The earthen structure and other facilities once used by the golf course operators to provide fresh water to the lake (Fountain Lake, Recovery Pond, water wells and the Willow Trees Apartment culvert) are currently in disrepair. Consequently, the only steady source of water into the lake since 1997 has been treated effluent from the wastewater treatment plant. Over time the lake has accepted the effluent and has had no means of discharge. As a result, the water in Tom Sawyer Lake has become stagnant, has increased in concentration of minerals and TDS that infiltrates into ground water.

Violations have been issued by the RWQCB as a result of odors from stagnant water conditions in Tom Sawyer Lake. Improvements at Tom Sawyer Lake may be required regardless of the option selected to avoid future odor issues.

In 2014, AECOM tested the water and sediments at Tom Sawyer Lake, treated effluent entering the lake, and the potable water serving Golden Hills Community for metals and TDS. The soils and water samples were taken at four distinct locations around the lake. The treated effluent was sampled directly from the discharge pipeline. The potable water sample was taken from a sampling spigot within the water distribution system.

The results indicate that sediments appear to be uncontaminated except for excessive TDS (salts). Concentrations of TDS ranged from 700 milligrams per liter (mg/L) in the effluent discharged to the lake to 12,000 mg/L in the sediments. High salt loading can be problematic for groundwater; however, no quality standards are available for salt loading. No metals exceeded standards for aquatic habitat in either water or sediments (AECOM 2014).

Since nearly all of the input to Tom Sawyer Lake is treated effluent, and the previously anticipated freshwater inflow is no longer present, TDS concentrations in the lake and

surrounding sediments exceed planned levels and continue to increase over time (AECOM 2014).

### **Groundwater**

In accordance with the Groundwater Quality Monitoring Act of 2001, the U.S. Geological Survey (USGS) and the SWRCB initiated the Statewide Basin Assessment Project of the Groundwater Ambient Monitoring and Assessment Program. In 2006, the Groundwater Ambient Monitoring and Assessment Program investigated groundwater quality in the approximately 1,800 square-mile Southern Sierra Study Unit. The Tehachapi Groundwater Basin is situated within the southern portion of the Southern Sierra Study Unit.

The data indicated that groundwater quality in the Tehachapi Groundwater Basin is generally high. None of the wells sampled contained concentrations of contaminants above State or Federal maximum contamination levels, health advisory levels, or notification levels for hazardous or acutely hazardous substances (Kern County 2010b). TDS range from 280 to 365 mg/L (California Department of Water Resources 2004).

Nitrate contributions to the basin are not well defined, as available data are from a small number of wells sampled since the mid-1990s (GEI Consultants, Inc. 2010). Nitrate levels exceeding 30 mg/L have been detected in Tehachapi municipal wells and in two former supply wells in an annexed subdivision northeast of Tehachapi. This nitrate plume is extracted and piped to surrounding agricultural land for use as irrigation supply (California Department of Water Resources 2004). Potential sources include city of Tehachapi WWTP effluent, Golden Hills WWTP effluent, septic tanks, existing nitrates in soil beneath the city's former wastewater lagoon, and nitrates from agricultural and domestic fertilizer applications (GEI Consultants, Inc. 2010).

### **Imported Water**

Water imported into the Tehachapi Groundwater Basin is from the SWP via the California Aqueduct. This imported water is used by the GHCS D to recharge the aquifer upgradient from water supply wells (GEI Consultants, Inc. 2010). Results of general mineral analysis in December 2015 did not exceed maximum contaminant levels (California Department of Water Resources 2015).

## **4.6.3 Regulatory Setting**

The proposed Project will comply with applicable governmental regulations, as discussed below. The analysis in this EIR section takes into account that compliance with the applicable regulations will be required and thus are essentially a part of the proposed Project. Standard compliance with existing regulations pertinent to the proposed Project cannot be considered mitigation for significant impacts under CEQA but may be identified in the impact analysis below as regulatory requirements.



## Federal

### Clean Water Act of 1977 (Including 1987 Amendments) – Sections 401 and 402

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulates quality standards for surface waters. Under the CWA, the EPA has implemented many pollution control standards for industries, as well as water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutants from a point source into navigable waters, unless a NPDES permit is obtained.

The primary objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's surface waters. Pollutants regulated under the CWA include "priority" pollutants, including various toxic pollutants; "conventional" pollutants, such as biochemical oxygen demand, total suspended solids, oil and grease, and pH; and "non-conventional" pollutants, including any pollutant not identified as either conventional or priority.

Section 401: This section of the CWA requires certification from one of California's nine RWQCB's that the proposed Project is in compliance with established water quality standards and including the implementation of BMPs during site grading activities and other activities associated with construction of the proposed Project.

Porter-Cologne authorizes the RWQCB to regulate discharges of waste and fill material to waters of the State, including "isolated" waters and wetlands, through the issuance of WDRs. Under Porter-Cologne all parties proposing to discharge waste that could affect the quality of waters of the State, other than into a community sewer system, shall file with the appropriate RWQCB a ROWD containing such information and data as may be required by the RWQCB. As such, the proposed Project will file or amend the ROWD for evaluation of 401 water quality impacts and in association with the proposed Project.

Section 402: This section sets forth regulations for direct and indirect discharges and storm water discharges into waters of the U.S. pursuant to a NPDES permit (CWA Section 402). NPDES permits contain industry-specific, technology-based limits and may also include additional water quality-based limits, and establish pollutant-monitoring requirements.

In 1987, the CWA was amended to include a program to address storm water discharges for industrial and construction activities. Storm water discharge is covered by an NPDES permit, either as an individual or general permit. The Central Valley RWQCB administers the NPDES permit program under the CWA in the proposed Project area.

### Floodplain Management - Executive Order 11988

Executive Order 11988 requires Federal "agencies to provide leadership and take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities". Be doing so the long and short-term adverse impacts associated

with the occupancy and modification of flood plains shall be avoided (to the extent possible). Agencies shall also avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

This objective shall be applied for the following actions:

- acquiring, managing, and disposing of Federal lands and facilities;
- providing Federally undertaken, financed, or assisted construction and improvements; and
- conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

The decision-making process for agencies required by Section 2(a) of the Order include:

1. Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year, i.e., 100-year flood).
2. Conduct early public review, including public notice.
3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain.
4. Identify impacts of the proposed action.
5. If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate.
6. Reevaluate alternatives.
7. Present the findings and a public explanation.
8. Implement the action.

Emphasis should be given for agencies to select alternative sites for projects outside the flood plains, if practicable, and to develop measures to mitigate unavoidable impacts.

### **National Flood Insurance Act**

Congress implemented the National Flood Insurance Act of 1968 to make flood insurance coverage available on reasonable terms and conditions to those who have need for this protection. The National Flood Insurance Act was amended by the Flood Disaster Protection Act of 1973, (42 U.S.C. 4001 et. seq.). These Acts are administered by Federal Emergency Management Agency (FEMA). FEMA has delineated both the special hazard flood areas and risk premium flood zones applicable to individual communities. The Flood Insurance Rate Maps help private citizens and insurance companies locate properties in flood risk areas, aid lending institutions when making loans, and administer floodplain management regulations to mitigate flood damage. Within designated floodplains, the community must not permit any development, new construction, or encroachment that would cause a significant increase in the 100-year flood elevation. FEMA defines a significant increase to mean a maximum rise in the base flood elevation of 1 foot. Portions of the proposed Project are located the 100-year flood zone.

## State

### State of California Constitution Article X, Section 2

Article X, Section 2 prohibits the waste or unreasonable use of water, regulates the method of use and method of diversion of water and requires all water users to conserve and reuse available water supplies to the maximum extent possible.

### Porter-Cologne Water Quality Control Act

Porter-Cologne is California's comprehensive water quality control law. The Porter-Cologne Act regulates both surface water and groundwater and gives the RWQCB authority to issue WDRs to recycled water producers. This Act is promulgated in Title 22 CCR. Title 22 includes requirements for treatment and reuse tertiary-treated recycled water projects throughout California.

The Act also requires the adoption of water quality control plans (basin plans) by the RWQCBs for watersheds within their regions. The basin plans are reviewed triennially and amended as necessary by the RWQCB, subject to the approval of the California Office of Administrative Law, the SWRCB, and ultimately the EPA. Moreover, pursuant to Porter-Cologne, these basin plans become part of the California Water Plan.

Water quality standards for the proposed Project area are contained in the Water Quality Control Plan for the Tulare Lake Basin, which was adopted in 1995 and was last amended in 2015. This plan sets numeric and/or narrative water quality criteria controlling the discharge of wastes to the State's waters and land.

Under the authority of the Porter-Cologne Act, the RWQCBs require persons who discharge or propose to discharge waste that could affect the quality of waters in the State to file a ROWD with the appropriate RWQCB. The RWQCB then issues or waives WDRs for the discharge or requires the discharger to enroll under a general NPDES Order or general WDR order. Under Option A, a ROWD would need to be filed for the discharge of effluent to Tom Sawyer Lake.

### State Water Resources Control Board Policies

*Recycled Water Policy (Resolution No. 2009-0011):* With Resolution No. 2009-0011, the SWRCB adopted the Recycled Water Policy for the State of California. This policy encourages increased use of recycled water and local stormwater and requires local water. The policy specifically identifies the use of recycled water as having a beneficial impact because it supports the sustainable use of groundwater and/or surface water and substitutes for the use of potable water. It encourages local and regional water agencies to optimize their use of local water sources by emphasizing water recycling, water conservation, the maintenance of supply infrastructure and use of stormwater (including dry-weather urban runoff). In addition, the policy requires wastewater treatment entities to develop a Salt and Nutrient Management Plan for the groundwater basins in California. A Salt and Nutrient Management Plan would be prepared for Option A, Continued Operations of the Golden Hills WWTP, because effluent from the WWTP would be used as a source of water for Tom Sawyer Lake.

*Anti-Degradation Policy (Resolution No. 68-16):* This policy requires the RWQCB, in regulating the discharge of waste, to: a) maintain existing high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses, and will not result in water quality less than that described in SWRCB or RWQCBs policies; and b) require that any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters, must meet WDRs which will result in the best practicable treatment or control of the discharge necessary to assure that: a) a pollution or nuisance will not occur; and b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

### **State Water Resources Control Board Waste Discharge Requirements**

#### Statewide WDRs

The SWRCB adopted General WDRs for Landscape Irrigation Uses of Municipal Recycled Water (General Permit) in July 2009. The General Permit allows those eligible to use recycled water for landscape irrigation.

#### Project-Specific WDRs

Under the Porter-Cologne Act, the regional RWQCBs regulate the “discharge of waste” to “waters of the State.” Parties proposing to discharge waste that could affect waters of the State must file a ROWD with the appropriate regional board. The RWQCB will then respond to the ROWD discharge by issuing WDRs in a public hearing, or by waiving WDRs (with or without conditions) for that proposed discharge.

### **Colbey-Alquist Flood Plain Management Act**

The Colbey-Alquist Flood Plain Management Act (Water Code section 8400 et seq.) requires floodplains be developed with structural measures for flood control to prevent loss of life and economic loss caused from excessive flooding. The primary responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management falls upon local levels of government.

### **California Water Code**

The use of water in the State is governed by the California Water Code or Title 23 CCR. Title 23 requires that water resources must be put to beneficial use to the fullest extent of which they are capable, and that the waste, unreasonable use, or unreasonable method of use of water is illegal. The conservation of water is encouraged as a reasonable and beneficial in the interest of the people and for the public welfare.

*Section 461:* Stipulates that the primary interest of the people of the State of California is the conservation of all available water resources and requires the maximum reuse of reclaimed water as an offset to using potable resources.

*Section 1210:* This section of the California Water Code assigns exclusive rights to recycled water to the owner of the WWTP.

*Section 1211:* This section defines actions that must be taken if points of discharge are to be changed or use of discharge is to change. Approval of the SWRCB is required prior to making any change in the point of discharge, place of use, or purpose of use of recycled water. The owner of any WWTP shall obtain permission for that change through a petition process. This does not apply to changes in the discharge or use of recycled water that do not result in decreasing the flow in any portion of a watercourse.

*Section 13510:* This section declares that the people of the State have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the State.

Section 13550 et seq.: States that under certain conditions, the use of potable water for non-potable purposes (landscape irrigation) is a waste or unreasonable use of water if recycled water is available.

*Section 1600:* This section, Streambed Alteration Agreement, requires the CDFW to review project impacts to waters of the State (bed, banks, channel, or associated riparian areas of a river, stream, or lake), including impacts to wildlife and vegetation from sediments, diversions, and other disturbances.

### **California Code of Regulations, Title 22, Division 4, Chapter 3**

The use of recycled water throughout the State of California is governed by Title 22 CCR, Division 4, Chapter 3. Water recycling criteria are incorporated in water reclamation requirements issued by the local RWQCB. Groundwater replenishment using recycled water is also governed by Title 22, Division 4, Chapter 3. The California Department of Public Health has updated the regulations to govern groundwater replenishment for aquifers designated as sources of drinking water using recycled water from domestic wastewater sources. The regulations for groundwater replenishment using recycled water became effective on June 18, 2014 (California Department of Public Health 2014).

A discharge permit must be obtained from the Central Valley RWQCB for the use of recycled water. The reuse of Title 22 recycled water and the discharge of fully advanced treated water intended for groundwater recharge or injection require Water Recycling Requirements.

### **California Stormwater NPDES Permitting Program**

California's Construction General Permit for Stormwater Discharges Associated with Construction and Land Activities (Construction General Permit [CGP]) Order No. 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ and 2012-0006-DWQ issued by the SWRCB is required for construction or demolition activity resulting in land disturbance of equal to or greater than one acre. Construction activities, including grading, trenching, excavation, stockpiling, and disturbances to the ground, are covered under the CGP. Dischargers must file

Permit Registration Documents to the SWRCB via the Stormwater Multi Application and Report Tracking System by the Legally Responsible Person. Permit Registration Documents consist of a Notice of Intent, risk assessment, site map, SWPPP, signed certification statement, and first annual fee. The RWQCB may require a risk assessment when the site poses a significant risk to water quality.

Under the CGP, responsible parties must address pollutants and their sources, including sources of sediment associated with construction; install effective site BMPs that result in the reduction or elimination of pollutants in stormwater discharges; and either eliminate, control, or treat all non-stormwater discharges. BMPs are designed to reduce impacts to the Maximum Extent Practicable by focusing on pollution prevention and source control.

### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act was established to protect water quality in the State of California and is responsible for creating the State's extensive regulatory program for water pollution control. The Porter-Cologne Water Quality Control Act of 1967, Water Code Section 13000 et.seq., requires the SWRCB and the nine RWQCBs to adopt water quality standards to protect State waters. Those standards include the identification of beneficial uses, narrative and numerical water quality criteria, and implementation procedures. Water quality standards for the proposed Project area are contained in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan), which was adopted in 1995 and was last amended in 2015. This plan sets numeric and/or narrative water quality criteria controlling the discharge of wastes to the State's waters and land.

## **Local**

### **Kern County General Plan**

The County's various development standards and ordinances address water supply and sewer availability. The County's Engineering and Survey Services Department is responsible for implementing the NPDES Storm Water Program for projects disturbing one acre or greater. This department has developed BMP instructions that outline examples of effective erosion and sediment control during construction (Integrated Resource Management, Inc. 2010). The proposed Project will disturb more than one acre; therefore, BMPs required by the NPDES permit will apply to the Project.

#### Land Use, Conservation, and Open Space Element

##### *Chapter 1. Land Use, Conservation, and Open Space Element*

The Kern County General Plan originally adopted in June 2004, and last amended in 2009, contains policies, goals, and implementation measures for development within Kern County. The Kern County General Plan contains measures to protect and manage groundwater and surface water resources, including groundwater contamination and overdraft, use of surface water as a water supply, and protection and management of floodplains. Elements of the plan that could potentially affect the proposed Project are discussed below.

Subchapter 1.3, Policy 1. Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard] to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.

### **Greater Tehachapi Area Specific and Community Plan**

#### Land Use, Conservation, and Open Space Element

**Policy 11.** Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood protection ordinances.

**Implementation C.** The County Planning Department will seek review and comment from the County Engineering and Survey Services Department on the implementation of the NPDES for all discretionary projects.

#### General Provisions

**Goal 1.** Ensure that the county can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.

**Implementation B.** The County shall develop fiscal impact guidelines and shall be responsible for reviewing fiscal impact analysis to identify the cost to the county of services, facilities, and infrastructure expansion which new discretionary development necessitates.

#### Surface Water and Ground Water

**Policy 34.** Ensure that water quality standards are met for existing users and future development.

**Policy 39.** Encourage the development of the county's groundwater supply to sustain and ensure water quality and quantity for existing users, planned growth, and maintenance of the natural environment.

**Policy 43.** Drainage shall conform to the Kern County Development Standards and the Grading Ordinance.

**Policy 44.** Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by CEQA, to prevent the degradation of the watershed to the extent practicable.

**Implementation U.** The Kern County Public Health Services Department, Environmental Health Division will develop guidelines for the protection of ground water quality, which will include comprehensive well construction standards and the promotion of groundwater protection for identified degraded watersheds.

**Implementation W.** Applications for General or Specific Plan Amendments will include sufficient data for review to facilitate desirable new development proposals consistent with General Plan policies, using the following criteria and guidelines:

- i. The provision of adequate water, sewer, and other public services to be used.
- ii. The provision of adequate on-site nonpublic water supply and sewage disposal if no public systems are available or used.

**Implementation X.** Encourage effective groundwater resource management for the long-term economic benefit of the County through the following:

- i. Promote groundwater recharge activities in various zone districts.
- ii. Support for the development of Urban Water Management Plans and promote California Department of Water Resources grant funding for all water providers.
- iii. Support the development of Groundwater Management Plans.
- iv. Support the development of future sources of additional surface water and groundwater, including conjunctive use, recycled water, conservation, additional storage of surface water and ground water and desalination.

#### Physical and Environmental Constraints

**Goal 1.** To strive to prevent loss of life, reduce personal injuries, and property damage, minimize economic and social diseconomies resulting from natural disaster by directing development to areas which are not hazardous.

**Policy 8.** Encourage the preservation of the floodplain's flow conveyance capacity, especially in floodways, to be open space/passive recreation areas throughout the county.

**Policy 9.** Construction of structures that impede water flow in a primary floodplain will be discouraged.

**Policy 10.** The county will allow lands which are within flood hazard areas, other than primary floodplains, to be developed in accordance with the Kern County General Plan and Floodplain Management Ordinance, if mitigation measures are incorporated so as to ensure that the proposed development will not be hazardous within the requirements of the Safety Element (Chapter 4) of the General Plan.

**Policy 11.** Protect and maintain watershed integrity within the county.

**Implementation D.** A geologist registered in the State of California, within or retained by the county, must evaluate the geologic reports required herein and advise the Kern County Planning Department of the findings.



**Implementation F.** The county will comply with the Colbey-Alquist Floodplain Management Act in regulating land use within designated floodways.

**Implementation H.** Development within areas subject to flooding, as defined by the appropriate agency, will require necessary flood evaluations and studies.

**Implementation I.** Designated flood channels and water courses, such as creeks, gullies, and riverbeds, will be preserved as resource management areas or in the case of urban areas, as linear parks whenever practical.

**Implementation J.** Compliance with the Floodplain Management Ordinance prior to grading or improvement of land for development or the construction, expansion, conversion or substantial improvements of a structure is required.

**Implementation N.** Applicants for new discretionary development should consult with the appropriate Resource Conservation District and the California RWQCB regarding soil disturbances issues.

#### Land Use, Conservation, and Open Space Element - Flooding

**Goal 1.** Minimize injuries and loss of life and reduce property damage.

**Goal 2.** Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.

**Goal 3.** Assist in the allocation of public resources in the county to develop information regarding geologic, fire, and flood safety hazards and to develop a systematic approach toward the project of public health, safety, and welfare from such hazards.

**Goal 4.** Create an awareness of the residents in the county through the dissemination of information about geologic, fire, and flood safety hazards.

**Policy 1.** That the county's program of identification, mapping, and evaluating the... flood safety hazard areas,...presently under way by various county departments, be continued.

**Policy 2.** Those hazardous areas, identified as unsuitable for human occupancy, are guided toward open space uses, such as agriculture, wildlife habitat, and limited recreation.

**Policy 3.** That the county government encourage public support of local, State, and Federal research programs on...flood hazards...so that acceptable risk may be continually reevaluated and kept current with contemporary values.

**Policy 5.** The adopted Kern County California Multi-Hazard Mitigation Plan is incorporated by reference. This multi-jurisdictional plan, approved in compliance with the Disaster Mitigation Act of 2000, provides long-term planning to reduce the impacts of future disasters.

**Implementation A.** All hazards (geologic, fire, and flood) should be considered whenever a Planning Commission or Board of Supervisor's action could involve the establishment of a land use activity susceptible to such hazards.

**Implementation B.** The Safety Element should be reviewed and comprehensively revised every five years, or whenever substantially new scientific evidence becomes available.

**Implementation C.** Require detailed site studies for ground shaking characteristics, liquefaction potential, dam failure inundation, flooding potential, and fault rupture potential as background to the design process for critical facilities under county discretionary approval.

**Implementation F.** The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by FEMA Act, shall be used as a source document for preparation of environmental documents pursuant to CEQA, evaluation of project proposals, formulation of potential mitigation, and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats of public safety.

### **Kern County Development Standards and Ordinances**

#### Stormwater Quality

The County's various development standards and ordinances address hydrology and water quality conditions. The county's Engineering and Survey Services Department is responsible for implementing the NPDES Storm Water Program for projects disturbing one acre or greater. This department has developed BMP instructions that outline examples of effective erosion and sediment control during construction.

#### Flood Control Floodplain Management Ordinance

The county's Floodplain Management Ordinance (Kern County Code Chapter 17.48) requires that all development be reviewed for compliance with necessary flood protection regulations intended for the protection of life and property.

According to Section 19.70.010 of the Zoning Ordinance, the purpose of the Floodplain Combining District is to protect the public health and safety and minimize property damage by designating areas that are potentially subject to flooding and by establishing reasonable restriction on land use in such areas. The Floodplain designation is applied to those areas lying within Zone A on the Flood Insurance Maps or those areas potentially subject to flooding, as designated by Kern County Public Works Department.

Detailed engineering studies are performed and/or approved by the Kern County Public Works Department prior to the reclassification of the Floodplain Combining District into the FPP District and/or FPS Combining District.

Policies COS.12, 13 require a flood hazard study for new discretionary development within floodplain areas as designated by Map Code 2.5 and require the floodplain constraints with all zone changes. New construction located within the flood hazard zones shall conform to the Kern County Flood Hazard Protection Ordinance.

### **Kern County Multi-Hazard Mitigation Plan**

The purpose of the Kern County Multi-Hazard Mitigation Plan (2005) is to reduce or eliminate long-term risk to people and property from natural hazards in the county, including floods and their effects. This plan was prepared to meet the Disaster Mitigation Act of 2000 requirements in order to maintain the county's eligibility for FEMA Pre-Disaster Mitigation and Hazard Mitigation Grant Programs. This plan lays out the strategy that will enable the County to become less vulnerable to future disaster losses.

#### Water Supply and Wastewater

The Kern County Public Health Services Department, Environmental Health Division has published and enforces the Standards and Rules and Regulations for Land Development – Sewage Disposal, Water Supply, and Preservation of Environmental Health, revised November 17, 2008. The standards are intended to safeguard the public health, and are primarily intended to apply to residential units.

#### Water Wells and Small Water Systems

The Kern County Public Health Services Department, Environmental Health Division's Water Well & Small Water System Programs ensure the public receives water that is safe to drink and the quantity supplied is adequate to meet the community's needs. The Water Well Program issues permits to construct, reconstruct and destroy water wells. The Small Water System Program is involved with the permitting, inspection, and monitoring of small public water systems and the evaluation of the construction and water quality of existing water wells. There are a total of 146 completed well permits, including domestic agricultural and small systems, within the GTASP boundaries.

#### Water Supply and Sewage Disposal

The Kern County Public Health Services Department, Environmental Health Division's Land Development program reviews new and tentative land uses for proposed water supply, sewage disposal methods, and preservation of environmental quality. The Kern County Public Health Services Department, Environmental Health Division is responsible for reviewing and approving plans for septic systems in the GTA. If a parcel is located in Golden Hills, then septic plans must receive additional review by GHCS D.

### **Golden Hills Community Services District**

The GHCS D establishes, by Resolution of the Board of Directors, water service policies and terms for water service extension. Resolution 745 adopted Water Shortage Regulations in 1993. Developers or owners are required to provide water rights, water supply or equivalent, per the GHCS D annexation guidelines (GEI Consultants, Inc. 2010).

## 4.6.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to hydrology and water quality for the proposed Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

### Methodology

To establish baseline conditions, AECOM performed a search of publicly accessible databases and information from various sources. The data sources utilized in this document are listed in footnotes throughout this section of the EIR.

To assess the impacts of the proposed Project, activities have been divided into construction activities and operations activities. Construction activities include all of the initial earth moving work associated with removal, rehabilitation, and replacement of existing structures, construction of new structures, construction of other infrastructure additions, and demolitions.

Potential Project impacts were determined by evaluating the proposed Project changes to the recharge activities above current operations with respect to the Significance Criteria presented below. The changes were then evaluated for significant impacts based upon the State significance thresholds, if relevant, and taking into account required compliance with applicable regulations and standard best practices.

### Thresholds of Significance

The Appendix G Environmental Checklist Form of the CEQA Guidelines was utilized to determine whether the Project could potentially have a significant adverse impact on hydrology or water quality for those issues not eliminated in the IS/NOP. The Project would result in a significant adverse impact on hydrology or water quality if it would:

- Violate any water quality standards or waste discharge requirements;
- 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Otherwise substantially degrade water quality;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

## Project Impacts

This analysis of the potential impacts is based on physical changes to the environment above the existing baseline conditions.

### **Impact 4.6-1: Violate Water Quality Standards or Waste Discharge Requirements and/or otherwise substantially degrade water quality.**

#### Construction

Under all three options A, B-1, and B-2, the proposed Project will require ground disturbance in paved city right-of-ways, along and across the stream bed of Brite Creek, and in native soils south of Tom Sawyer Lake. Activities include preparing the ground for replacement or construction of new pipelines. During construction there would be no impact to water quality, as construction-specific BMPs would be implemented to prevent runoff from entering local stormwater sewers or surface water features.

In addition, because more than one acre will be disturbed during construction, the proposed Project will comply with the NPDES CGP No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities. This CGP requires the development of a SWPPP to control all pollutants and their sources associated with construction, construction site erosion and all other activities associated with construction activities. Post-construction standards to be addressed in the Project planning process are also contained in the General Permit.

Construction-specific BMPs that will be implemented during construction would include the following, which are considered a standard of industry for stormwater BMPs in California. Designations in parentheses refer to BMPs in the California Stormwater Quality Association Construction and Industrial Handbooks 2011 and 2013.

- **Preservation of Existing Vegetation (EC-2).** Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs, and grasses that protect soil from erosion. This BMP is also used in conjunction with minimizing the total disturbed area, which reduces the potential for soil erosion by wind or stormwater.
- **Erosion Control (SC-40).** Areas where surface soil is contaminated or susceptible to erosion will employ erosion control construction BMPs to prevent excessive erosion or contaminated soil migration. Erosion controls that may be implemented during construction include soil binders (EC-5), geotextiles and mats (EC-7), earth dikes and drainage swales (EC-9), silt fence (SE-1), fiber rolls (SE-5), gravel bag berms (SE-6), sandbag barriers (SE-8), and placement of gravel on exposed soil areas, such as access roads and laydown areas.
- **Wind Erosion Control (WE-1).** Wind erosion control measures, such as covering soil stockpiles or application of water will be used in areas subject to soil erosion caused by wind.

- **Housekeeping Practices (SC-60).** General good housekeeping practices, such as trash and debris removal, and drainage system maintenance will be conducted during construction activities.
- **Vehicle and Equipment Cleaning, Fueling, and Maintenance (NS-8, 9, 10, SC-20, 21, 22).** Vehicle and equipment cleaning, fueling, and maintenance will be conducted off site when possible, and will be restricted to designated areas on site.
- **Material Delivery and Storage (WM-1, SC-30).** Outdoor material delivery activities will be performed properly, and only in designated areas to reduce the potential for contaminating stormwater. Materials stored outdoors will be stored properly in designated areas. Liquids stored outdoors will be stored in proper containers and only in designated areas to reduce the potential for contaminating stormwater.
- **Spill Prevention, Control, and Cleanup (WM-4, SC-11).** Spill prevention and control measures will be implemented during construction to minimize the potential for spills to occur. Spills that may occur will be contained and cleaned up properly.
- **Solid Waste Management (WM-5, SC-34).** Solid waste generated during construction activities will be handled, containerized, covered, and disposed of per applicable regulatory guidelines.
- **Hazardous Waste Management (WM-6).** Hazardous waste generated during construction activities will be handled, containerized, covered, and disposed of in accordance with applicable regulatory guidelines.
- **Contaminated Soil Management (WM-7).** Contaminated soils will be handled, stored, covered, and disposed of in accordance with applicable regulatory guidelines.
- **Concrete Waste Management (WM-8).** Concrete waste will be managed to prevent the discharge of pollutants to stormwater by conducting washout on site or off site in a designated area, and by employee and subcontractor training.
- **Sanitary/Septic Waste Management (WM-9).** Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal. Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, portable facilities should be placed a minimum of 50 feet from drainage conveyances and traffic areas.
- **Liquid Waste Management (WM-10, SC-10).** Liquid waste generated during construction activities will be handled, stored, and disposed of in accordance with regulatory guidelines.
- **Clear Water Diversion (NS-5):** Clear water diversions such as berms and other systems of structures and measures will be used to divert clean runoff from entering contaminated or storage areas.

With implementation of effective BMPs, as identified in the CGP and WEAP Training, potential impacts to water quality would be minimized during construction. Therefore, construction impacts related to the violation of water quality standards or waste discharge requirements would be less than significant.

### Operations

Under all three options A, B-1, and B-2, operation of the proposed Project includes the transportation, via pipelines, of effluent and sewage associated WWTP activities. Pipelines for the proposed Project would be located underground. As such, stormwater runoff during operation of the proposed Project would not impact water quality. The potential exists for a spill or leak to affect surface water; groundwater or soils, in the areas where the pipelines occur. BMPs would be used during operations to reduce sources of potential contaminants, reduce the potential for hazardous materials spills, reduce fugitive dust, and prevent runoff and contaminants from leaving the site.

Under Option A, Continued Operations of the Golden Hills WWTP, surface water quality in Tom Sawyer Lake could be affected by continued discharge of effluent from the Golden Hills WWTP. This impact would be significant.

To address this potentially significant impact, a plan would need to be developed to address the water quality violations issued by the CRWQCB, and the facility would need to implement measures. These measures would include obtaining a new WDR from SWQRCB and compliance with the Cleanup and Abatement Order (R5-01-717) issued on July 3, 2001. With implementation of this mitigation measure, operations impacts with regard to a violation of surface water quality standards would be less than significant for Option A, Continued Operations of the Golden Hills WWTP.

Under Option B-1 and B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment, re-routing of effluent from the Golden Hills WWTP to the Tehachapi WWTP would eliminate the only current water supply source to Tom Sawyer Lake. Currently, nearly all of the input to Tom Sawyer Lake is treated effluent, and the previously anticipated freshwater inflow is no longer present, therefore, TDS (salts) in the lake and surrounding sediments exceed planned levels.

Testing in 2014, showed that no metals exceeded standards for aquatic habitat in either water or sediments (AECOM 2014). Concentrations of TDS ranged from 700 mg/L in the effluent discharged to the lake, 7,000 mg/L in lake water, and 12,000 mg/L in the sediments. High salt loading can be problematic for groundwater; however, no water quality standards are available for salt loading. Surface water would be affected by the removal of effluent as a source to the lake because TDS concentrations in the lake and sediments would increase as the water evaporates and salts become concentrated. However, once the lake water is evaporated and no new sources of water enter the lake, concentrations of TDS in the sediment would no longer increase and would then become stable. A temporary impact to surface water would occur as water evaporates; however, impacts to surface water quality would be less than significant once water in Tom Sawyer Lake evaporates.

TDS in the regional groundwater basin range from 280 to 365 mg/L (California Department of Water Resources 2004). Existing concentrations of TDS in the effluent, lake water and sediment would contribute TDS to groundwater, thereby reducing the quality of the groundwater. Under Option A, Continued Operations of the Golden Hills WWTP, discharge of effluent would require

obtaining a new WDR from Central Valley RWQCB and compliance with the Cleanup and Abatement Order (R5-01-717) issued on July 3, 2001, thereby improving the water quality in Tom Sawyer Lake. Improved water quality in the lake would improve the quality of the water being recharged to groundwater. Under Option B-1 or B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment, if the source of water is removed from the lake, groundwater quality would remain stable because salt loading would cease. Therefore, under either option impacts to groundwater quality would be less than significant with implementation of the mitigation measure (Option A).

### **Mitigation Measures**

**MM 4.6-1**      **The implementing agency** shall execute a plan to address the water quality violations issued by the CRWQCB, and a ROWD shall be submitted to obtain a new WDR order. The implementing agency shall apply measures that ensure long-term compliance with the new WDR and the Cleanup and Abatement Order (R5-01-717) issued on July 3, 2001.

### **Level of Significance after Mitigation**

Impacts would be less than significant with the implementation of mitigation measures.

**Impact 4.6-2: 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 (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).**

### Construction

Construction activities would require water for dust control during demolition, grading, and construction activities. Water for these activities would be supplied from existing water connections or would be trucked in from an off-site source. Therefore, construction of any of the options for the proposed Project would not create a net deficit in the existing aquifer volume or lower the groundwater table level. There would be no impact to this resource area.

Groundwater recharge in the Tehachapi Valley West Groundwater Basin is mainly from percolation of stream flow from surrounding mountains. Streams disturbed during construction would be reestablished and would continue to recharge groundwater through percolation into the local aquifer. As such, impacts to groundwater supplies, groundwater recharge and groundwater levels during construction of the proposed Project would be less than significant.

### Operation

Under Option A, Continued Operations of the Golden Hills WWTP, operation of the proposed Project would not require groundwater pumping, and would not significantly impact infiltration in the area. Effluent would continue to be discharged from the Golden Hills WWTP to Tom Sawyer Lake; therefore groundwater recharge to the local groundwater aquifer would continue



to occur in this area. The operational impact of the proposed Project on groundwater supplies, groundwater recharge and groundwater levels would be less than significant.

Under Options B-1 or B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment, discharge of effluent to Tom Sawyer Lake from the Golden Hills WWTP would cease. Currently, approximately 30,000 gpd of tertiary-treated effluent is processed at the WWTP and discharged into Tom Sawyer Lake on a daily basis. The removal of the only steady source of water to Tom Sawyer Lake would cause water levels in the lake to decrease over time and impact groundwater recharge to the local aquifer. As such, the proposed Project would interfere slightly with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The lowering of the groundwater table should not affect the production rate of pre-existing nearby wells so they would drop to a level that would not support existing land uses or planned uses for which permits have been granted. Therefore, the operational impact of the proposed Project on groundwater supplies, groundwater recharge and groundwater levels would be less than significant.

It should be noted that removing the discharge of effluent to Tom Sawyer Lake under Options B-1 or B-2, Conveyance of Wastewater to the City of Tehachapi for Treatment, would cause a potentially significant impact to the extent and aquatic habitat function of the lake. Mitigation Measure 4.3-8a: Augmentation of Surface Water to Tom Sawyer Lake would be implemented to mitigate this impact. Under this mitigation measure, the implementing agency shall allocate from its holdings an annual allotment of water adequate to maintain Tom Sawyer Lake at its current maximum size and depth.

If a new source of water from within the groundwater basin is used to fill Tom Sawyer Lake at the same rate as current effluent discharge rate, recharge and groundwater levels would be similar to existing conditions in the immediate area. However, since the potential sources of water are from within the basin, changes to the regional aquifer would be less than significant. Therefore, the operational impact from implementation of mitigation measure 4.3-8a on groundwater supplies, groundwater recharge and groundwater levels would be less than significant.

### **Mitigation Measures**

No mitigation measures are required.

### **Level of Significance after Mitigation**

Impacts would be less than significant.

### **Impact 4.6-3: Otherwise substantially degrade water quality.**

The effects of the proposed Project on water quality are discussed in detail under Impact 4.9-1. Please refer to this section for explanations of the impact determination during construction and operation. Impacts related to substantially degrading water quality would be less than significant with implementation of MM 4.6-1.

**Mitigation Measures**

No additional mitigation measures beyond MM 4.6-1 are required.

**Level of Significance after Mitigation**

Impacts would be less than significant with the implementation of mitigation measures.

**Impact 4.6-4: Place within a 100-year flood hazard area structures which would impede or redirect flood flows.**Construction and Operation

Pipeline repair, replacement, and installation associated with all options, A, B-1, or B-2, would occur in areas designated as 100-year flood zones. In most of these stream crossing locations, the Project alignment is sited within existing paved roadways. In these areas, work on the wastewater conveyance system would entail excavating a trench within the existing pavement and road base and performing the necessary activities (installing, removing, or replacing the wastewater pipelines). At each of the road crossings, existing culverts convey stream flows beneath the roadway; designs and sizes vary but are generally proportional to the magnitude of the streams they serve. It is possible that excavating trenches within the existing road beds at drainage crossings would require temporary removal or breaching of culverts, depending on the culvert designs and excavation depths required. However, the Project does not include residential development and is not located in the vicinity of a dam or levee. In addition, with the exception of the proposed lift station that would be located in a 120-foot by 50-foot area, the Project would be located underground.

Therefore, the Project would not place housing within a 100-year flood hazard area, would not be subject to the effects of flooding or dam or levee failure, and would not construct structures that would impede or redirect flood flows. Flooding impacts of the Project are not considered to be significant.

**Mitigation Measures**

No mitigation measures are required.

**Level of Significance after Mitigation**

Impacts would be less than significant.

**Cumulative Setting Impacts and Mitigation Measures**

In addition to the proposed Project, six projects within the Tehachapi West Groundwater Basin are proposed. The closest proposed project is located approximately 0.5 miles west from the intersection of Reeves Street and Red Apple Avenue, near the new sewer transmission line under Options B-1 and B-2. The proposed Project is for a performing arts center with an auditorium, museum, solar panels and wind turbines. The proposed Project does not have

potentially significant impacts that cannot be reduced to less than significant impacts with incorporation of mitigation measures. As such, cumulative impacts from the proposed projects in the basin, including all Options A, B-1 and B-2, are less than significant.

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## Section 4.7

# Land Use and Planning

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### 4.7.1 Introduction

This section identifies potential Project impacts related to land use and planning under Option A, Continued Operations of the Golden Hills WWTP and System, and Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment. It also describes the applicable environmental and regulatory settings for the proposed Project. The information in this section is based primarily on a review of the Kern County General Plan (2009), Kern County Zoning Ordinance (2012), GTASCP (Kern County 2010b), City of Tehachapi Zoning Code (2014), and the Kern County Airport Land Use Compatibility Plan (ALUCP 2012).

### 4.7.2 Environmental Setting

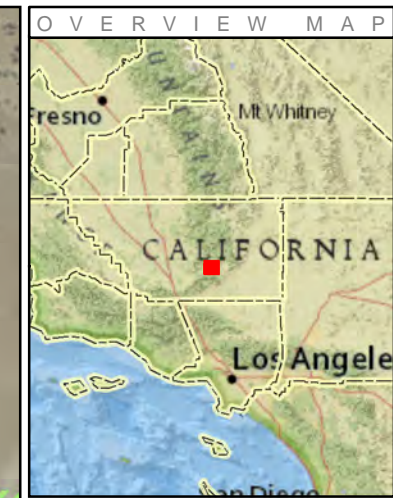
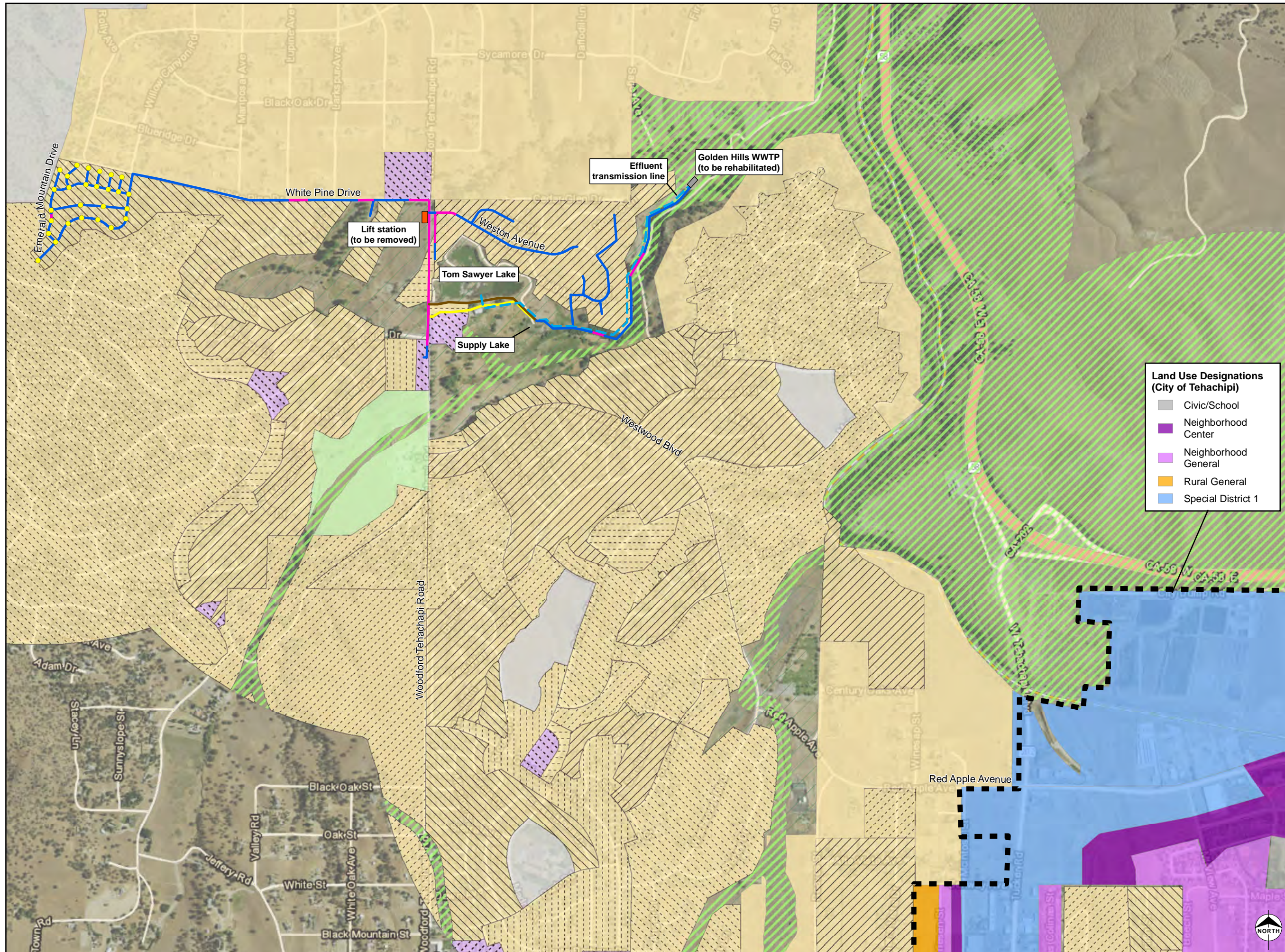
The proposed Project is located in the unincorporated Kern County community of Golden Hills, California, which is located in the Tehachapi Mountains between the San Joaquin Valley and the Mojave Desert immediately west of the City of Tehachapi (Figure 1-1). The community encompasses approximately 7,680 acres (12 square miles) at an approximate elevation of 3,900 feet above mean sea level. The City of Tehachapi occupies approximately 6,400 acres (10 square miles) at an elevation of roughly 4,000 feet above mean sea level.

The Golden Hills WWTP is located at Monroe Lane-Utility Extension, Old Camp Road, in a portion of Section 7, T32S, and R33E (referenced from the Mount Diablo Base and Meridian, or MDB&M), on approximately 0.5 acres, approximately 5 miles west of the City of Tehachapi (Figure 1-2). The City of Tehachapi WWTP is located at 750 Enterprise Way in the City of Tehachapi, immediately south of the Kern County Korean War Veterans Memorial Highway and approximately 0.50 miles northeast of the intersection of Red Apple Avenue/West Tehachapi Boulevard and Tucker Road (Figure 1-3).

#### **Existing General Plan and Specific Plan Land Use Designations**

The proposed Project is located within the GTASCP area within Kern County. The GTASCP's goals, policies, and implementation measures are consistent and compatible with those outlined in the Kern County General Plan, but are tailored to the particular needs of the Greater Tehachapi Area (GTA). The Kern County General Plan land Use designations for properties that could be affected under Option A, Continued Operations of the Golden Hills WWTP and Wastewater Treatment System, include: Residential (maximum 4 units/net acre), Residential (maximum 10 units/net acre), Residential (maximum 16 units/net acre), General Commercial, Resource Reserve (minimum 20 acre parcel size), and Public or Private Recreation Areas, as shown in Figure 4.7-1.

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**Legend**

- Proposed new manhole
- Effluent transmission system
- Gravity sewer piping
- Sewer pipe to be replaced
- To be abandoned
- New gravity pipe

**Land Use Designations (City of Tehachapi)**

- Civic/School
- Neighborhood Center
- Neighborhood General
- Rural General
- Special District 1

**Land Use Designations (Kern County)**

- Minimum 2.5 Gross Acres/Unit
- Maximum 1 Unit/Net Acre
- Maximum 2 Units/Net Acre
- Maximum 4 Units/Net Acre
- Maximum 10 Units/Net Acre
- Maximum 16 Units/Net Acre
- Maximum 29 Units/Net Acre
- Highway Commercial
- General Commercial
- Educational Facilities
- Public or Private Recreation Areas
- Resource Reserve (Min. 20 Acre Parcel Size)
- Incorporated Cities
- Other Facilities

0 Feet 1,500

Scale: 1:15,000

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Golden Hills  
Community Services District

**Golden Hills WWTP  
Project Components  
and Land Use Designations  
Option A**

Sources: Esri (2014)

Date: 12/17/2015 | Project: 60317952

**AECOM** Figure 4.7-1

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In addition to the land use designations for properties that could be affected under Option A, the land use designations for properties that could be affected under Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, include Residential (maximum 1 unit/net acre), Residential (maximum 2 units/net acre), and Residential (2.5 gross acres/unit) in the GTASCP and Kern County General Plan (Figure 4.7-2).

### Existing Zoning Classifications

Figure 4.7-3 presents zoning designations of Option A, Continued Operations of the Golden Hills WWTP and Wastewater Treatment System, including: E 1/4 (Estate - minimum 0.25-acre lot size), E 2 1/2 (Estate – minimum 2.5-acre lot size), R-1 (Low Density Residential), R-3 PD (High Density Residential – Precise Development Combining), C-2 PD (General Commercial – Precise Development Combining), MS (Mobilehome Subdivision), C-1 (Neighborhood Commercial), and RF (Recreation Forestry). The Golden Hills WWTP area is located primarily on land with a zoning designation of 8.2 (Resource Reserve – minimum 20-acre parcel).

Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, would include the land use designations listed for Option A, in addition to the following zoning classifications: E5 (Estate – minimum 5.0-acre lot size), E10 (Estate – minimum 10.0-acre lot size), and A-1 (Limited Agricultural), (Figure 4.7-4).

Table 4.7.1, Existing Land Use and Zoning Designations, illustrates the land use and zoning designations that apply to the properties that comprise the proposed Project under Option A and Option B.

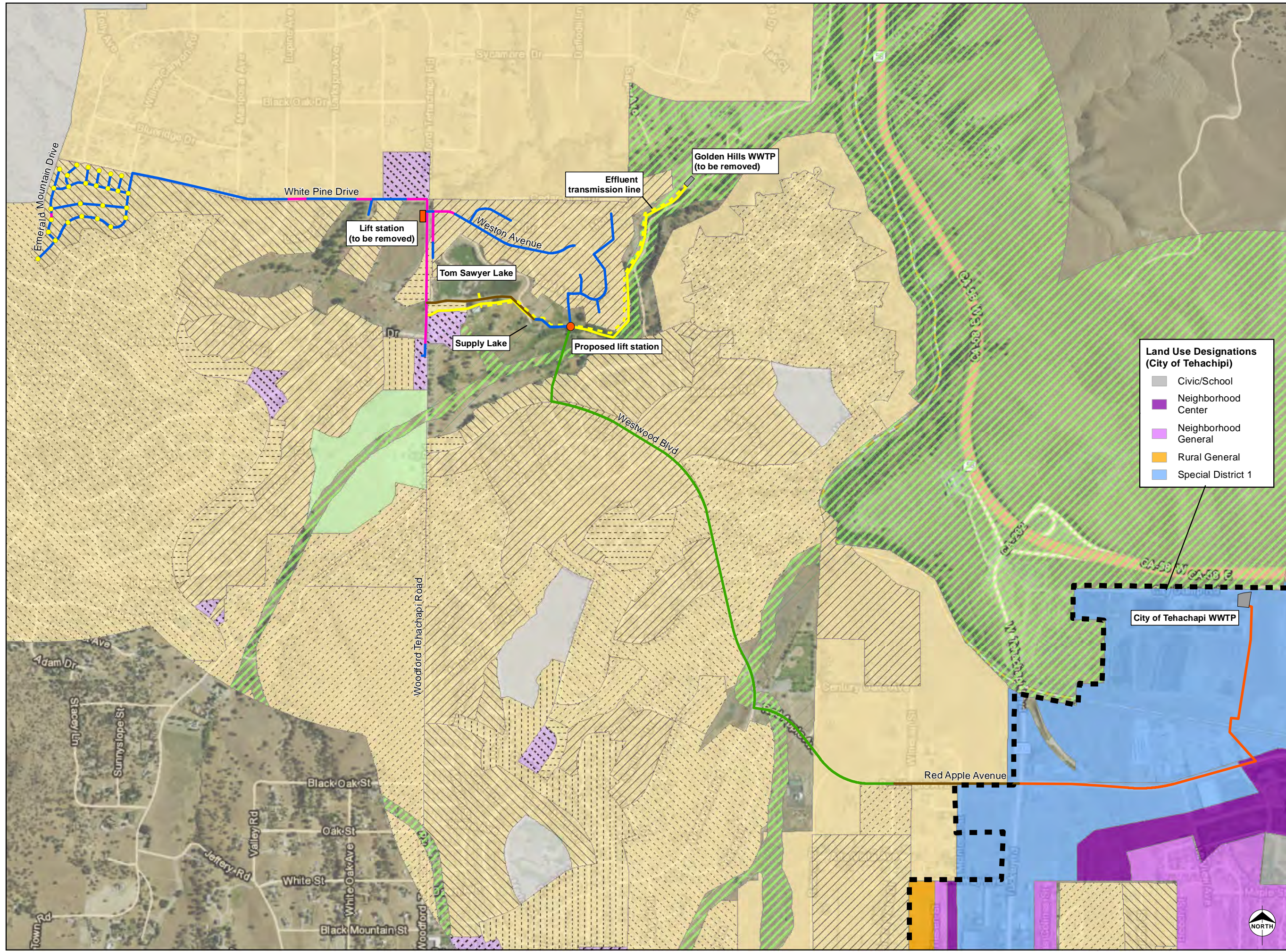
**Table 4.7-1 Existing Project Area Land Use and Zoning Designations**

General Land Use and Location within the Project Area	Existing Map Code and Land Use Designation(s)	Existing Zoning Classifications
<ul style="list-style-type: none"> <li>• Residential (Golden Highlands Community and areas west of Woodford Tehachapi Road and south and north of White Pine Drive)</li> </ul>	<ul style="list-style-type: none"> <li>• 5.3: Maximum 10 units/acre</li> <li>• 5.6: Minimum 2.5 Gross Acres/Unit</li> <li>• 6.2: General Commercial</li> <li>• 3.1: Public or Private Recreation Areas</li> </ul>	<ul style="list-style-type: none"> <li>• MS: Mobilehome Subdivision</li> <li>• R-1: Low Density Residential</li> <li>• R-2: Medium Density Residential</li> <li>• C-1: Neighborhood Commercial</li> <li>• E(1/4): Estate (0.25 acre)</li> <li>• E(2 ½): Estate (2.5 acres)</li> <li>• RF: Recreation Forestry</li> </ul>
<ul style="list-style-type: none"> <li>• Residential along</li> </ul>	<ul style="list-style-type: none"> <li>• 3.1: Public or Private</li> </ul>	<ul style="list-style-type: none"> <li>• RF: Recreation Forestry</li> </ul>

General Land Use and Location within the Project Area	Existing Map Code and Land Use Designation(s)	Existing Zoning Classifications
Woodford Tehachapi Road <ul style="list-style-type: none"> <li>Commercial along Woodford Tehachapi Road</li> <li>Undeveloped portions along Woodford Tehachapi Road</li> </ul>	Recreation Areas <ul style="list-style-type: none"> <li>5.2: Maximum 16 units/acre</li> <li>6.2: General Commercial</li> <li>5.4: Maximum 4 units/acre</li> </ul>	<ul style="list-style-type: none"> <li>C-2 - General Commercial</li> <li>E(1/4) - Estate (0.25 acre)</li> <li>R-3 - High Density Residential</li> </ul>
<ul style="list-style-type: none"> <li>Residential along Weston Avenue</li> </ul>	<ul style="list-style-type: none"> <li>5.4: Maximum 4 units/acre</li> </ul>	<ul style="list-style-type: none"> <li>E(1/4): Estate (0.25 acre)</li> </ul>
<ul style="list-style-type: none"> <li>Woodford Tehachapi Property</li> <li>Brite Creek</li> <li>Golden Hills WWTP</li> </ul>	<ul style="list-style-type: none"> <li>3.1: Public or Private Recreation Areas</li> <li>8.2: Resource Reserve</li> </ul>	<ul style="list-style-type: none"> <li>RF: Recreation Forestry</li> </ul>
<ul style="list-style-type: none"> <li>Residential along Fontana Street<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>5.3: Maximum 10 units/acre</li> </ul>	<ul style="list-style-type: none"> <li>R-1: Low Density Residential</li> </ul>
<ul style="list-style-type: none"> <li>Residential and undeveloped land along Westwood Boulevard<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>3.1: Public or Private Recreation Areas</li> <li>5.3: Maximum 10 units/acre</li> <li>5.4: Maximum 4 units/acre</li> <li>5.45: Maximum 2 units/acre</li> <li>5.5: Maximum 1 units/acre</li> <li>8.2: Resource Reserve</li> </ul>	<ul style="list-style-type: none"> <li>R-1: Low Density Residential</li> <li>E(1/4): Estate (0.25 acre)</li> <li>E(2 ½): Estate (2.5 acres)</li> <li>E(5) - Estate (5.0 acres)</li> <li>E(20) - Estate (20.0 acres)</li> </ul>
<ul style="list-style-type: none"> <li>Residential and undeveloped land along Red Apple Avenue<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>3.1: Public or Private Recreation Areas</li> <li>8.2: Resource Reserve</li> <li>5.6.1: Minimum 2.5 gross acres/unit</li> <li>5.5: Maximum 1 units/acre</li> </ul>	<ul style="list-style-type: none"> <li>E(1/2) - Estate (0.5 acre)</li> <li>E(1) - Estate (1 acre)</li> <li>E(5) - Estate (5.0 acres)</li> <li>E(20) - Estate (20.0 acres)</li> <li>A-1 - Limited Agriculture</li> </ul>

Sources: Kern County General Plan (2009), Kern County Zoning Ordinance (2012), GTASCP (Kern County 2010b), and City of Tehachapi Zoning Code (2014).

Notes: <sup>1</sup>Pertains to Option B only.



**Legend**

- Proposed new manhole
- Effluent transmission system
- Gravity sewer piping
- Current sewer pipe to be replaced with gravity pipe
- To be abandoned
- Existing sewer (City of Tehachapi)
- New sewer transmission line
- New gravity pipe

**Land Use Designations (Kern County)**

- Minimum 2.5 Gross Acres/Unit
- Maximum 1 Unit/Net Acre
- Maximum 2 Units/Net Acre
- Maximum 4 Units/Net Acre
- Maximum 10 Units/Net Acre
- Maximum 16 Units/Net Acre
- Maximum 29 Units/Net Acre
- Highway Commercial
- General Commercial
- Educational Facilities
- Public or Private Recreation Areas
- Resource Reserve (Min. 20 Acre Parcel Size)
- Other Facilities

0 Feet 1,500

Scale: 1:15,000

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Golden Hills Community Services District

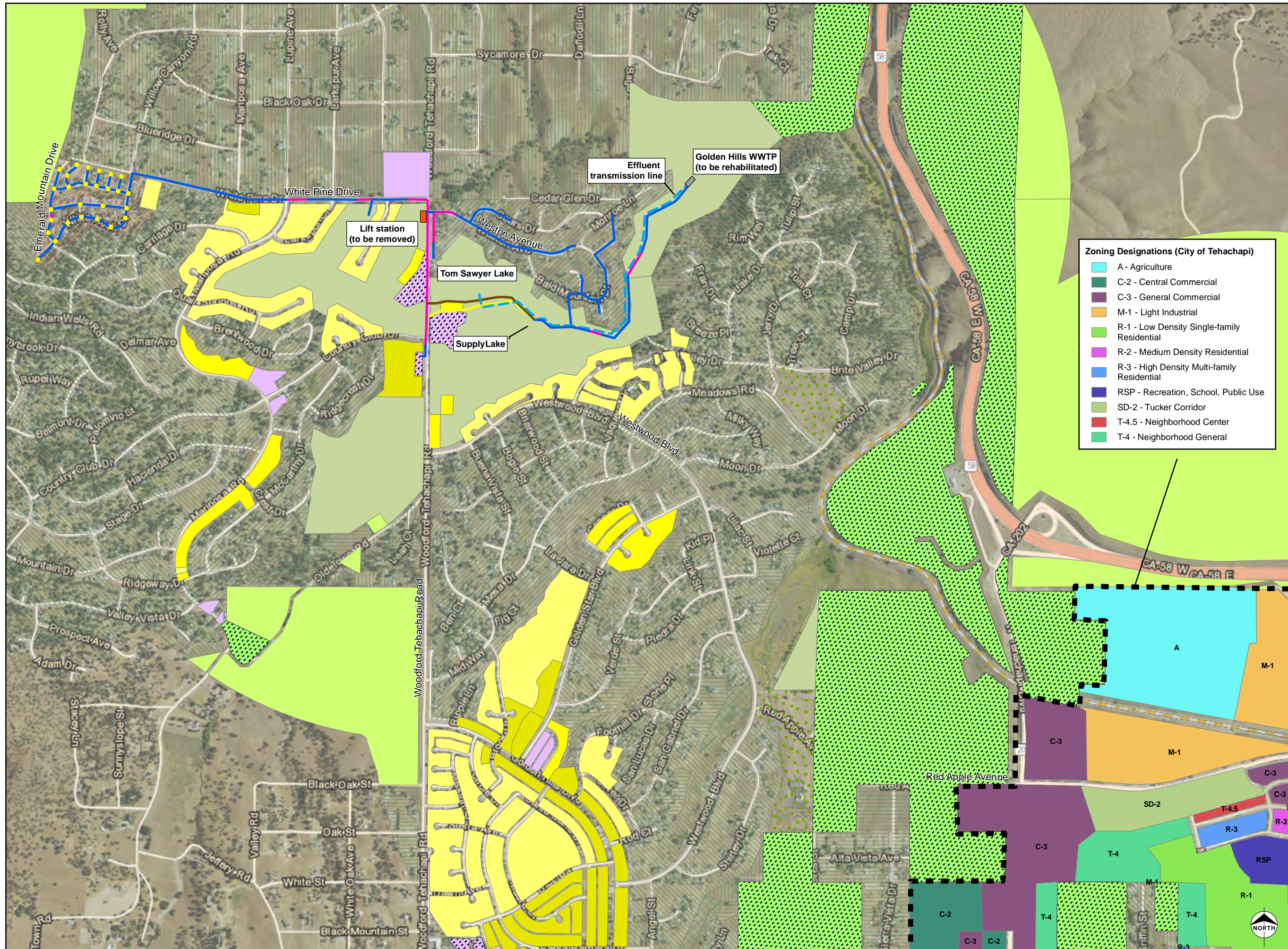
**Golden Hills WWTP Project Components and Land Use Designations Option B**

Sources:  
Kern County (2014), Esri (2014)

Date: 2/1/2016 | Project: 60317952

**AECOM** Figure 4.7-2

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**Zoning Designations (City of Tehachapi)**

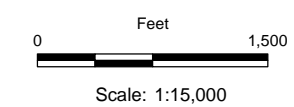
- A - Agriculture
- C-2 - Central Commercial
- C-3 - General Commercial
- M-1 - Light Industrial
- R-1 - Low Density Single-family Residential
- R-2 - Medium Density Residential
- R-3 - High Density Multi-family Residential
- RSP - Recreation, School, Public Use
- SD-2 - Tucker Corridor
- T-4.5 - Neighborhood Center
- T-4 - Neighborhood General

**Legend**

- Proposed new manhole
- Effluent transmission system
- Gravity sewer piping
- Sewer pipe to be replaced
- To be abandoned
- New gravity pipe

**Zoning Designations (Kern County)**

- A - Exclusive Ag
- A-1 - Limited Ag
- C-1 - Neighborhood Commercial
- C-2 - General Commercial
- E(1/4) - Estate (0.25 acre)
- E(1/2) - Estate (0.5 acre)
- E(1) - Estate (1.0 acre)
- E(2 1/2) - Estate (2.5 acres)
- E(5) - Estate (5.0 acres)
- E(10) - Estate (10.0 acres)
- E(20) - Estate (20.0 acres)
- MS - Mobilehome Subdivision (6,000 sqft)
- R-1 - Low Density Residential
- R-2 - Medium Density Residential
- R-3 - High Density Residential
- RF - Recreation Forestry



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Golden Hills  
Community Services District

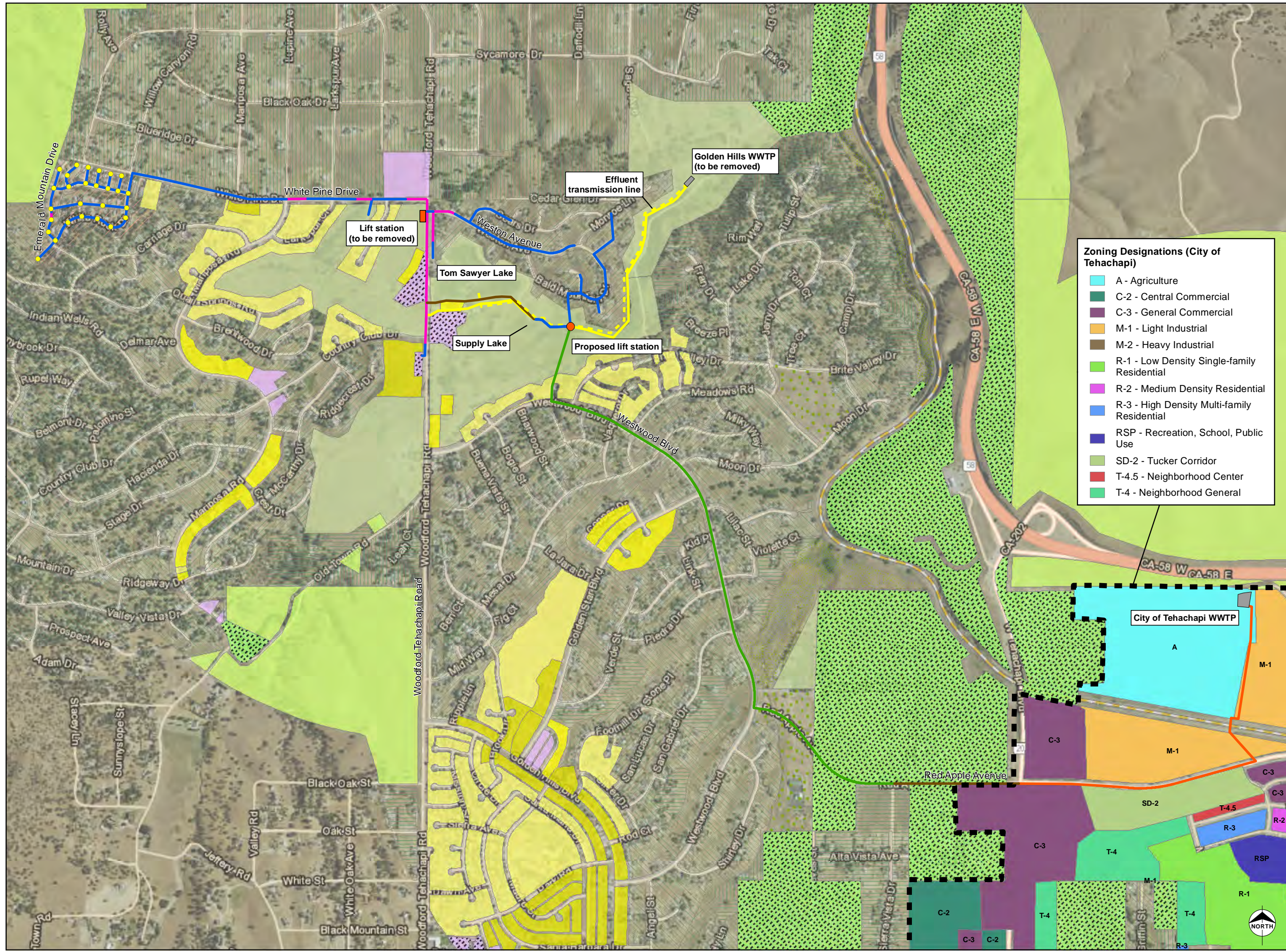
**Golden Hills WWTP  
Project Components  
and Zoning Designations  
Option A**

Sources: Esri (2014)

Date: 12/15/2015 | Project: 60317952

**AECOM** Figure 4.7-3

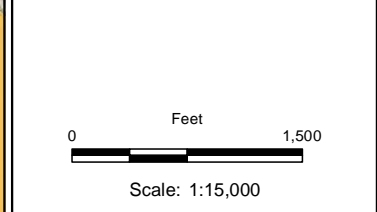
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- Legend**
- Proposed new manhole
  - Effluent transmission system
  - Gravity sewer piping
  - Current sewer pipe to be replaced with gravity pipe
  - To be abandoned
  - Existing sewer (City of Tehachapi)
  - New sewer transmission line
  - New gravity pipe

- Zoning Designations (City of Tehachapi)**
- A - Agriculture
  - C-2 - Central Commercial
  - C-3 - General Commercial
  - M-1 - Light Industrial
  - M-2 - Heavy Industrial
  - R-1 - Low Density Single-family Residential
  - R-2 - Medium Density Residential
  - R-3 - High Density Multi-family Residential
  - RSP - Recreation, School, Public Use
  - SD-2 - Tucker Corridor
  - T-4.5 - Neighborhood Center
  - T-4 - Neighborhood General

- Zoning Designations (Kern County)**
- A - Exclusive Ag
  - A-1 - Limited Ag
  - C-1 - Neighborhood Commercial
  - C-2 - General Commercial
  - E(1/4) - Estate (0.25 acre)
  - E(1/2) - Estate (0.5 acre)
  - E(1) - Estate (1.0 acre)
  - E(2 1/2) - Estate (2.5 acres)
  - E(5) - Estate (5.0 acres)
  - E(10) - Estate (10.0 acres)
  - E(20) - Estate (20.0 acres)
  - MS - Mobilehome Subdivision (6,000 sqft)
  - R-1 - Low Density Residential
  - R-2 - Medium Density Residential
  - R-3 - High Density Residential
  - RF - Recreation Forestry



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Golden Hills  
Community Services District

## Golden Hills WWTP Project Components and Zoning Designations Option B

Sources:  
Kern County (2014), Esri (2014)

Date: 2/1/2016 | Project: 60317952

**AECOM** Figure 4.7-4

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GTASCP Overlay Map Codes 2.5 (Flood Hazard) and 2.7 (Liquefaction Risk) designations also apply to portions of the Project site and immediately adjacent properties, (Figure 4.7-5.) Overlay Map Codes are established where there are physical constraints to development. The Flood Hazard Overlay Map Code is described in Table 2-5 of the GTASCP as Special Flood Hazard Areas (Zone A) as identified on the Flood Insurance Rate Maps of the FEMA and supplemented by floodplain delineating maps that have been approved by the Kern County Public Works Department.

### **Existing On-Site Land Uses**

The primary construction components for Option A, Continued Operations of the Golden Hills WWTP and Wastewater Treatment System, include upgrades to the existing wastewater treatment collection system and WWTP, replacement of the Woodford Tehachapi Road lift station with a gravity pipeline, and installation of new gravity pipeline east of Woodford Tehachapi Road, between Tom Sawyer Lake and Supply Lake. Land uses under Option A of the Project include roadways (such as Woodford Tehachapi Road, White Pine Drive, and Weston Avenue), the Golden Hills WWTP, and the Woodford Tehachapi Property. Land uses of the Project under Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, include roadways (such as Woodford Tehachapi Road, White Pine Drive, and Weston Avenue, as well as Westwood Boulevard, Red Apple Avenue, and Tucker Road), the Golden Hills WWTP, and the Woodford Tehachapi Property.

### **Existing Surrounding Land Uses**

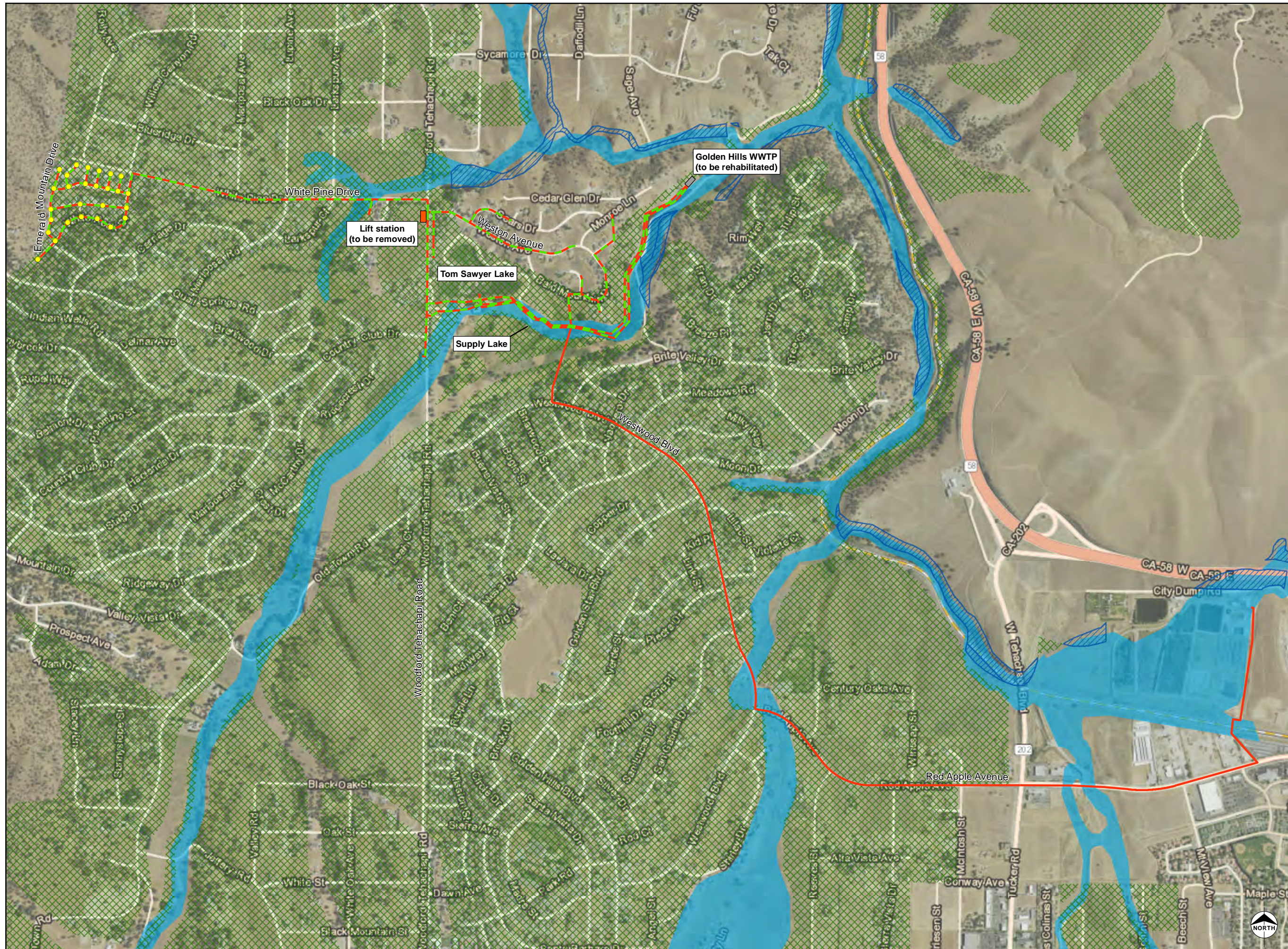
Lands surrounding the Project site under Option A, Continued Operations of the Golden Hills WWTP and System, consist of single-family, apartment, and mobile home residential uses; and commercial land uses including a motel. In addition, the Woodford Tehachapi Property surrounds components of the proposed pipelines and pipeline improvements, as do Tom Sawyer Lake and Brite Creek. With Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, surrounding land uses are the same as those listed for Option A, but include a greater degree of residential and commercial land uses, due to the extension of a pipeline in Westwood Boulevard and Red Apple Avenue from the Woodford Tehachapi Property to the connection point at the intersection of Red Apple Avenue and Tucker Road.

## **4.7.3 Regulatory Setting**

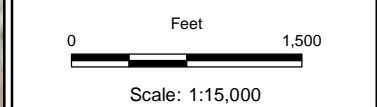
The Project will need to be conducted in conformance with and be regulated by a number of plans, procedures, and policies. These include each of which are summarized below:

- Kern County General Plan and Zoning Ordinance
- GTASCP
- City of Tehachapi General Plan and Zoning Ordinance
- Kern County ALUCP

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- Legend**
- Proposed new manhole
  - Option A
  - Option B
  - Liquefaction Risk (2.7)
  - Flood Hazard (2.5)
  - 100 Year Flood Zones



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Golden Hills  
Community Services District

**Golden Hills WWTP  
Project Components  
and FEMA Flood Zones  
Option A and B**

Sources: Esri (2014)

Date: 2/8/2016 | Project: 60317952

**AECOM** Figure 4.7-5

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## Kern County General Plan

The Kern County General Plan is a policy document designed to provide long-range guidance for planning decisions in unincorporated areas of Kern County. The General Plan helps to ensure that day-to-day decisions conform to long-range policies designed to protect and further the public interest related to the County's growth and development. The Kern County General Plan is comprised of the following elements: Land Use, Open Space, and Conservation; Circulation; Noise; Safety; Energy; and Military Readiness. Each Kern County General Plan element establishes goals, policies, and implementation measures that guide the planning decisions in unincorporated Kern County. The elements and associated goals, policies, and implementation measures of the General Plan that are relevant to the proposed Project are listed below.

### Chapter 1: Land Use, Open Space, and Conservation Element

#### 1.3 Physical and Environmental Constraints

##### *Goals*

Goal 1 To strive to prevent loss of life, reduce personal injuries, and property damage, minimize economic and social diseconomies resulting from natural disaster by directing development to areas which are not hazardous.

##### *Policies*

Policy 1 Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained (Map Code 2.1 [Seismic Hazard], Map Code 2.2 [Landslide], Map Code 2.3 [Shallow Groundwater], Map Code 2.5 [Flood Hazard], Map Codes from 2.6 – 2.9, Map Code 2.10 [Nearby Waste Facility], and Map Code 2.11 [Burn Dump Hazard]) to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.

Policy 6 Regardless of percentage of slope, development on hillsides will be sited in the least obtrusive fashion, thereby, minimizing the extent of topographic alteration required and reducing soil erosion while maintaining soil stability.

Policy 10 The County will allow lands which are within flood hazard areas, other than primary floodplains, to be developed in accordance with the General Plan and Floodplain Management Ordinance, if mitigation measures are incorporated so as to ensure that the proposed development will not be hazardous within the requirements of the Safety Element (Chapter 4) of this General Plan.

Policy 11 Protect and maintain watershed integrity within Kern County.

##### *Implementation Measures*

Measure F The County will comply with the Colbey-Alquist Floodplain Management Act in regulating land use within designated floodways.

- Measure H Development within areas subject to flooding, as defined by the appropriate agency, will require necessary flood evaluations and studies.
- Measure I Designated flood channels and water courses, such as creeks, gullies, and riverbeds, will be preserved as resource management areas or in the case of urban areas, as linear parks whenever practical.
- Measure J Compliance with the Floodplain Management Ordinance prior to grading or improvement of land for development or the construction, expansion, conversion or substantial improvements of a structure is required.

#### 1.4 Public Services and Utilities

##### *Goals*

- Goal 1 Kern County residents and businesses should receive adequate and cost effective public services and facilities. The County will compare new urban development proposals and land use changes to the required public services and facilities needed for the proposed project.
- Goal 3 Distribute the cost of new services or facilities equitably among the beneficiaries.
- Goal 4 Provide coordination between public entities to ensure infrastructure standards and equitable financial support.
- Goal 6 Provide a healthful and sanitary means of collecting, treating, and disposing of sewage and refuse for the residents and industries of Kern County.
- Goal 7 Facilitate the provision of reliable and cost-effective utility services to residents of Kern County.
- Goal 11 Reduce residential contamination of groundwater by encouraging sanitary sewer systems.

##### *Policies*

- Policy 2 The efficient and cost-effective delivery of public services and facilities will be promoted by designating areas for urban development which occur within or adjacent to areas with adequate public service and facility capacity.
- a. Ensure that water quality standards are met for existing users and future development
  - b. Ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.
  - d. Encourage the utilization of wastewater treatment facilities which provide for the reuse of wastewater.
  - f. Encourage the conversion of private sewer systems (septic tanks) to public systems.

- g. Ensure that adequate collection, treatment, and disposal facilities are constructed concurrently with planned growth.
- h. Ensure that appropriate funding mechanisms are in place to fund the needed improvements which result from development and subsequent growth.

#### *Implementation Measures*

- Measure F      The County will comply with the Colbey-Alquist Floodplain Management Act in regulating land use within designated floodways.
- Measure H      Development within areas subject to flooding, as defined by the appropriate agency, will require necessary flood evaluations and studies.

#### 1.10.1 General Provisions for Public Services and Facilities

##### *Policies*

- Policy 9              New development should pay its pro rata share of the local cost of expansions in services, facilities, and infrastructure which it generates and upon which it is dependent.
- Policy 12             All methods of sewage disposal and water supply shall meet the requirements of the Kern County Public Health Services Department, Environmental Health Division and the RWQCB. The Kern County Public Health Services Department, Environmental Health Division shall periodically review and modify, as necessary, its requirements for sewage disposal and water supply, and shall comply with any new standards adopted by the State for implementation of Government Code Division 7 of the Water Code, Chapter 4.5 (Section 13290-13291.7) (Assembly Bill 885)(2000).
- Policy 14             The County will explore financing and methods of installation of public sewage systems, which will be encouraged both in areas of existing urban density served by septic systems and in existing communities experiencing repeated septic failures.

#### 1.10.2 General Provisions for Air Quality

##### *Policies*

- Policy 19             In considering discretionary projects for which an EIR must be prepared pursuant to CEQA the appropriate decision making body, as part of its deliberations, will ensure that:
- a. All feasible mitigation to reduce significant adverse air quality impacts have been adopted; and
  - b. The benefits of the proposed project outweigh any unavoidable significant adverse effects on air quality found to exist after inclusion of all feasible mitigation. This finding shall be made in a statement of

overriding considerations and shall be supported by factual evidence to the extent that such a statement is required pursuant to CEQA.

- Policy 20 The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits.

*Implementation Measures*

- Measure F All discretionary permits shall be referred to the appropriate air district for review and comment.

- Measure H Discretionary projects may use one or more of the following to reduce air quality effects:

- a. Pave dirt roads within the development.
- b. Pave outside storage areas.
- c. Provide additional low (VOC producing trees on landscape plans.
- d. Use of alternative fuel fleet vehicles or hybrid vehicles.
- e. Use of emission control devices on diesel equipment.
- f. Develop residential neighborhoods without fireplaces or with the use of EPA certified-low emission natural gas fireplaces.
- g. Provide bicycle lockers and shower facilities on site.
- h. Increasing the amount of landscaping beyond what is required in the Zoning Ordinance (Chapter 19.86).
- i. The use and development of park and ride facilities in outlying areas.
- j. Other strategies that may be recommended by the local Air Pollution Control Districts.

- Measure J The County should include PM<sub>10</sub> control measures as conditions of approval for subdivision maps, site plans, and grading permits.

1.10.3 General Provisions for Archaeological, Paleontological, Cultural, and Historic Preservation

*Policies*

- Policy 25 The County will promote the preservation of cultural and historical resources which provide ties with the past and constitute a heritage value to residents and visitors.

*Implementation Measures*

- Measure K Coordinate with the California State University, Bakersfield's Archaeology Inventory Center.

- Measure L The County shall address archaeological and historical resources for discretionary projects in accordance with CEQA.



- Measure M In areas of known paleontological resources, the County should address the preservation of these resources where feasible.
- Measure O On a project specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

#### 1.10.5 General Provisions for Threatened and Endangered Species

##### *Policies*

- Policy 27 Threatened or endangered plant and wildlife species should be protected in accordance with State and Federal laws.
- Policy 28 County should work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
- Policy 31 Under the provisions of CEQA, the County, as lead agency, will solicit comments from the CDFW and USFWS when an environmental document is prepared.
- Policy 32 Riparian areas will be managed in accordance with USACE, and the CDFW rules and regulations to enhance the drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns.

##### *Implementation Measures*

- Measure Q Discretionary projects shall consider effects to biological resources as required by CEQA.
- Measure R Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to CEQA.

#### 1.10.6 General Provisions for Surface Water and Groundwater

##### *Policies*

- Policy 34 Ensure that water quality standards are met for existing users and future development.
- Policy 35 Ensure that adequate water storage, treatment, and transmission facilities are constructed concurrently with planned growth.
- Policy 38 Encourage utilization of wastewater treatment facilities which provide for the reuse of wastewater.
- Policy 43 Discretionary projects shall analyze watershed impacts and mitigate for construction related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by CEQA, to prevent the degradation of the watershed to the extent practical.

Policy 44 Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow pattern and introduction of impervious surfaces as required by CEQA, to prevent the degradation of the watershed to the extent practical.

Policy 44 Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow pattern and introduction of impervious surfaces as required by CEQA, to prevent the degradation of the watershed to the extent practical.

#### 1.10.7 General Provisions for Light and Glare

##### *Policies*

Policy 47 Ensure that light and glare from discretionary new development projects are minimized in rural as well as urban areas.

Policy 48 Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.

#### 1.10.10 Oak Tree Conservation

##### *Policies*

Policy 65 Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

### **Chapter 2: Circulation Element**

#### 2.3.3 Highway Plan

##### *Goals*

Goal 5 Maintain a minimum LOS D.

##### *Implementation Measures*

Measure B Project development shall comply with the requirements of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards.

#### 2.5.1 Trucks and Highways

##### *Goals*

Goal 1 Provide for Kern County's heavy truck transportation in the safest way possible.

Goal 2 Reduce potential overweight trucks.

Goal 3 Use State Highway System improvements to prevent truck traffic in neighborhoods.

##### *Policies*

Policy 1 Caltrans should be made aware of heavy truck activity on Kern County's roads.

### 2.5.2 Airport Land Use Compatibility Plan (ALUCP)

#### *Goal*

Goal 1 Plan for land uses that are compatible with public airport and military bases and mitigate encroachment issues.

#### *Implementation Measures*

Measure A Review discretionary land use development applications within the airports influence area and the military base operating area as shown in the ALUCP for consistency.

## **Chapter 3: Noise Element**

### 3.2 Noise Sensitive Areas

#### *Goals*

Goal 1 Ensure residents of Kern County are protected from excessive noise and that moderate levels of noise are maintained.

#### *Policies*

Policy 1 Review discretionary industrial, commercial, or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.

Policy 4 Utilize good land use planning principles to reduce conflicts related to noise emissions.

Policy 7 Employ the best available methods of noise control.

#### *Implementation Measures*

Measure C Review discretionary development plans, programs and proposals, including those initiated by both the public and private sectors, to ascertain and ensure their conformance to the policies outlined in this element.

Measure E Review discretionary development plans to ensure compatibility with adopted ALUCPs.

Measure G At the time of any discretionary approval, such as a request for a General Plan Amendment, zone change or subdivision, the developer may be required to submit an acoustical report indicating the means by which the developer proposes to comply with the noise standards. The acoustical report shall:

- a. Be the responsibility of the applicant.
- b. Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- c. Be subject to the review and approval of the Kern County Planning Department and the Kern County Public Health Services Department,

Environmental Health Division. All recommendations therein shall be complied with prior to final approval of the project.

- Measure I Noise analyses shall include recommended mitigation, if required, and shall:
- a. Include representative noise level instruments with sufficient sampling periods and locations to adequately describe local conditions.
  - b. Include estimated noise levels, in terms of [Community Noise Equivalent Level] CNEL, for existing and projected future (10 – 20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
  - c. Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
  - d. Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.
- Measure J Develop implementation procedures to ensure that requirements imposed pursuant to findings of an acoustical analysis are conducted as part of the project permitting process.

#### **Chapter 4: Safety Element**

##### *Goals*

- Goal 1 Minimize injuries and loss of life and reduce property damage.

##### *Policies*

- Policy 4.2.4 The County shall encourage extra precautions be taken for the design of significant lifeline installations, such as highways, utilities, and petrochemical pipelines.
- Policy 4.6.1 All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

#### **Greater Tehachapi Area Specific and Community Plan**

Both Options A and B of the proposed Project are located within the GTASCP. The purpose of the GTASCP is to provide guidance for the orderly and efficient development of lands within the Plan area in accordance with the provisions of the Kern County General Plan. The Kern County General Plan, Zoning Ordinance, Land Division Ordinance, and various Kern County Development Standards provided guidance for the Land Use Element of the GTASCP. The GTASCP's goals, policies, and implementation measures are consistent and compatible with those outlined in the Kern County General Plan, but are tailored to the particular needs of the GTA.

In addition, the GTASCP supersedes development standards and policies outlined in the Golden Hills Specific Plan (Kern County 1986), as described in GTASCP Section 1.3, Rescission of Existing Specific Plans. The following section summarizes the goals, policies, and implementation measures of the GTASCP (Kern County 2010b) that are applicable to the proposed Project.

## **Chapter 2: Land Use**

### 2.3.1 General Land Use and Development

#### *Goals*

Goal LU.1      Ensure that the GTA can accommodate projected future growth and development while maintaining a safe and healthful environment and prosperous economy by guiding development away from hazardous areas, and assuring the provision of adequate public services and infrastructure.

#### *Policies*

Policy LU.4      Development projects shall be consistent with the adopted Kern County ALUCP and R-2508 Complex.

Policy LU.9      The County shall not support new development on properties with physical and/or environmental constraints unless appropriate studies establish development will not be hazardous to life and property, and that potential impacts may be mitigated or overriding circumstances exist that preclude mitigation of all impacts.

Policy LU.7      “Dark Sky” principles of lighting control shall be required in all new development.

Policy LU.11     The County will continuously consider new ideas and approaches to further streamline, improve and facilitate effective land use development. Additionally, the County shall encourage project proponents to consult with local advisory agencies and public utilities/community services districts which maintain a council/board/committee, such as the Tehachapi Municipal Advisory Council.

#### *Implementation Measures*

Measure 1.B.1    All specific plan amendment requests and all other development proposals for new industrial uses, new commercial uses, and any new residential subdivision where any created lot will measure 2.5 gross acres or less shall be required to connect to a public sewer. This connection can be accomplished via (1) annexation into the City of Tehachapi, (2) annexation to a Community Services District or any Public Utility Commission regulated entity, or (3) the project shall install a package treatment plant designed per the requirements of the Kern County Public Health Services Department, Environmental Health Division.

Measure 3        All development proposals shall be reviewed for compatibility with the adopted ALUCP and R-2508 Complex. Appropriate limitations and conditions shall be

incorporated to address compatibility with the Tehachapi Municipal Airport and Mountain Valley Airport.

**Measure 7** All discretionary proposals shall be subject to Dark Skies development principles, as specified by the Kern County Zoning Ordinance and as follows:

1. **Shielding:** All outdoor lighting fixtures which utilize 100 watts or more (based on an incandescent bulb), or emit 1,600 lumens or more per fixture, shall be fully shielded, unless the fixture is exempted by this chapter. All floodlights which utilize less than 100 watts per fixture must be at least partially shielded to reduce light spill-over onto adjacent properties.
2. **Uplighting:** The light source (bulb) within all lighting fixtures shall be oriented downward to prevent direct uplighting, except as follows:
  - a. **Accent lighting of architectural features:** Architectural features may be illuminated by vertical uplighting, provided that no glare or off-site light spillover is produced. Lamps used for this type of accent lighting shall be low intensity to produce a subtle lighting effect and shall utilize less than 100 watts and shall emit less than 1,600 lumens per fixture.
  - c. **All other lighting aimed against structures:** An outdoor lighting fixture may be aimed against a structure only if: (1) the light is effectively contained by the structure; (2) no glare is visible from off site; and (3) the fixture is fully shielded so that no light is emitted above the horizontal plane.
  - d. **Low voltage landscape light:** Low voltage landscape lighting such as that used to illuminate fountains, shrubbery, trees, walkways, etc., shall be permitted provided that such lighting is limited to fixtures utilizing a maximum of 60 watts, the fixture is not mounted to poles or buildings, and the fixture is shielded to eliminate glare and light spillover onto adjacent properties.

**Measure 9** All Specific Plan Amendment Requests and all discretionary development proposals shall be required to comply with CEQA and may be required to provide additional technical information to demonstrate compliance with CEQA, including, but not limited to:

- a. Biological Study;
- b. Archaeological and Paleontological Study;
- c. Air Quality Study; and/or
- d. Other studies as deemed necessary by the Planning and Community Development Department [Noise].

**Measure 10** The County Planning and Community Development Department will seek review and comment from the County Engineering, Surveying and Permit Services

Department on the implementation of the NPDES for all discretionary projects (Policies LU. 5, 9).

### 2.3.2 Residential Development

#### *Policies*

Policy LU.14 Facilitate the provision of reliable and cost-effective utility services to residents.

#### *Implementation Measures*

Measure 13 The County shall encourage development that provides cost-effective delivery of infrastructure/utility services and limits rural sprawl by developing within or adjacent to areas with adequate infrastructure and utility capacity (Policies LU. 12, 12, 14, 15, 18).

## **Chapter 3: Conservation and Open Space**

#### *Goals*

Goal COS.1 Ensure that the GTA can accommodate projected future growth and development while maintaining a safe and healthful environment and prosperous economy by guiding development away from hazardous areas, and assuring the provision of adequate public services and infrastructure.

### 3.3.1 Water Resources

#### *Policies*

Policy COS.2 Ensure that water quality standards are maintained for existing users and future development and that water-related infrastructure is provided in an efficient and cost-effective manner.

Policy COS.8 Require the use of feasible and practical best management practices to protect surface water and groundwater from the adverse effects of construction activities and post-construction runoff, including stormwater runoff.

Policy COS.11 Discretionary projects shall analyze watershed impacts and reduce impacts from construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces to prevent the degradation of the watershed to the extent such measure are practical.

Policy COS.13 Minimize the alteration of natural drainage areas. Require development plans to include necessary mitigation to stabilize runoff and silt deposition through utilization of grading and flood-protection ordinances. Conserve areas along rivers and streams to enhance drainage, flood, control, recreational, and other beneficial uses while acknowledging existing land use patterns.

Policy COS.14 Encourage utilization of wastewater treatment facilities which provide for the reuse of wastewater and require the highest possible quality of wastewater

treatment to increase the potential use of recycled water for existing and future needs to the GTA.

- Policy COS.17 The County shall coordinate with the City of Tehachapi, Tehachapi-Cummings County Water District and other water purveyors within the GTA to pursue funding to support infrastructure improvements.

#### Implementation Measures

- Measure 8 All discretionary development proposals shall include the submittal of erosion and sediment control plans. The project shall be designed according to the recommendations of the plan and to prevent increased discharge of sediment at all stages of grading and development.
- Measure 13 New discretionary development shall require consultation with the USACE, the RWQCB, and the CDFW if potential waters of the U.S. and/or waters of the State, including wetlands, are present on site. Preservation of wetlands shall be the primary consideration; otherwise, mitigation measures pursuant to CEQA shall be implemented. Policies COS.2, 13.
- Measure 14 Require a flood hazard study for new discretionary development within floodplain areas as designated by Map Code 2.5 and require the floodplain constraints with all zone changes. New construction located within the flood hazard zones shall conform to the Kern County Flood Hazard Protection Ordinance (Policies COS.12, 13).
- Measure 17 Any project which disturbs more than 1 gross acres of land, land disposes of waste (including mining waste), utilizes recycled water, proposes to potentially alter a streambed, or discharges fill material to a surface water shall consult with the RWQCB to assess the need for permits from that Agency. These permits may include, but are not limited to: CWA permits; a NPDES General Construction Stormwater Permit, an individual stormwater permit, compliance with Title 27, WDRs, Water Reclamation Requirements, Water Quality Certification, etc. (Policies COS. 11, 12, 13, 14).

#### 3.3.2 Scenic and Natural Resources

##### *Goals*

- Goal COS.3 Preserve and protect scenic and natural resources and open space within the GTA.

##### *Policies*

- Policy COS.19 Coordinate with Federal, State, and other appropriate public agencies, private organizations, and landowners to conserve, protect, and enhance natural resources.



- Policy COS.23 Comply with dark sky lighting guidelines as established by the Kern County Zoning Ordinance to preserve night-time views, prevent light pollution, and minimize impacts on wildlife.

#### *Implementation Measures*

Measure 20 All discretionary development proposals that are within identified environmental hazards areas shall submit the appropriate technical studies, as determined by the Kern County Planning and Community Development Department, to identify the most suitable area for development within the property (Policies COS.19, 20).

Measure 22 All discretionary development proposals and ministerial projects shall be subject to the Dark Skies development principles, as specified by the Kern County Zoning Ordinance. These provisions include requirements that outdoor light fixtures be oriented downward and are fully shielded (Policy COS.23).

### 3.3.3 Biological Resources

#### *Goals*

Goal COS.4 Continue to protect threatened and endangered plant and wildlife species, habitats, and wetlands throughout the GTA.

Goal COS.5 Preserve and maintain open space, natural habitat, and vegetation communities that support native plants and animals.

Goal COS.6 Continue to conserve oak tree woodlands for their environmental value and scenic beauty. Protect oak woodlands and large oak trees where possible and incorporate existing trees into project design and construction.

#### *Policies*

Policy COS.24 Protect threatened and endangered plant and wildlife species, habitats, and wetlands in accordance with State and Federal laws.

Policy COS.25 The County shall work closely with State and Federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.

Policy COS.26 The County will seek cooperative efforts with local, State, and Federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.

Policy COS.28 The County, under the provisions of CEQA, shall solicit comments from the CDFW and the USFWS when an environmental document is prepared.

Policy COS.29 Promote the conservation of oak tree woodlands for their environmental value and scenic beauty. Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

*Implementation Measures*

Measure 24 The County shall work with the Audubon Society, the Nature Conservancy, BLM, CDFW, U.S. Forest Service, and other appropriate public agencies, private entities, and landowners to conserve, protect, and enhance open space and wildlife habitat areas (Policies COS.24, 25, 26, 27, 28).

Measure 25 All discretionary development proposals requiring preparation of an environmental document shall consult with responsible and trustee wildlife agencies, including but not limited to the CDFW and the USFWS (Policies COS.24, 25, 26, 27, 28).

Measure 26 All discretionary development proposals for project sites that have the potential to contain a sensitive or “special-status” plant or animal species shall be accompanied by a written Biota Study, when deemed necessary by the County. The report shall be submitted as a part of the discretionary application process and shall include an analysis of the known and potential sensitive species located within the project area and shall include recommendations for project-specific mitigation. The report shall also include recommendations regarding the need for additional surveys such as Pre-Construction Surveys, Special-Status Plant or Animal Surveys, and the need for further consultation with the USFWS and CDFW (Policies COS.24, 25, 26, 27, 28).

Measure 27 All development and construction activities shall adhere to any recommended mitigation measures as identified by any Biota Survey, Pre-Construction Survey, Special-Status Plant Survey, Incidental Take Authorization/Permit, and any requirements of the USFWS and CDFW. These requirements include, but are not limited to the following:

- a. Requirements for avoidance, protection, installation of fencing/ buffers/ conservations easements, on-site habitat restoration/enhancement, implementation of best management practices, payment of conservation fees, preparation of project specific management plans as required by the CDFW/USFWS, etc.
- b. Consultation with regulatory agencies such as the CDFW or the USFWS.
- c. Requirements for vehicle wash-out to prevent the spread of invasive plants.
- d. Consultation with the CDFW/USFWS to identify appropriate measures to prevent impacts to the nesting bird species, such as establishing a buffer around occupied nests.

- e. Requirements for the applicant to retain a biological firm as an on-call service provider to recover and relocate ground-dwelling special-status species if encountered during construction.
  - f. Requirements for the applicant to provide environmental training to all personnel working on the site during project construction and operation.
  - g. Procedures to address any found special-status species that is injured or dead.
  - h. Requirements to cover steep-walled trenches or excavations used during construction
  - i. Requirements to set exterior lighting at the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from neighboring habitat to the maximum extent practicable.
  - j. Migratory or native avian species, ground-disturbing and vegetation removal associated mitigation.
  - k. Mitigation identified to avoid adverse impacts to jurisdictional habitats.
  - l. Mitigation identified to address potential impact wildlife corridors (Policies COS.24, 25, 26, 27, 28).
- Measure 30 Riparian areas will be managed in accordance with USACE, and the CDFW rules and regulations to enhance drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns (Policies COS.24, 25, 26, 27, 28).
- Measure 32 The following applies to development of parcels having oak tree canopy cover of less than ten percent, but containing individual oak trees equal to or greater than a 12-inch diameter trunk at 4.5-feet breast height.
- a. Such trees shall be identified on plot plans.
  - b. Discretionary development shall avoid the area beneath and within the trees unaltered drip line unless approved by a licensed or certified arborist or botanist.
  - c. Specified tree removal related to the discretionary action may be granted by the decision making body upon showing that a hardship exists based on substantial evidence in the record (Policy COS.29).

### 3.3.4 Cultural and Paleontological Resources

#### *Goals*

- Goal COS.7 Promote the protection of archeological and historical resources that are important to the culture and history of the GTA.

#### *Policies*

- Policy COS.30 Encourage the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residences and visitors.

*Implementation Measures*

**Measure 33** All discretionary projects (including Specific Plan Amendment requests) shall be required to comply with CEQA and may be required to provide a Cultural Resources Records Search prepared by the SSJVIC at California State University, Bakersfield, when deemed necessary by the County. The report shall be submitted as part of the discretionary application process and shall include recommendations regarding the need for a physical Archaeological and/or Paleontological Study on the site.

Additionally, all projects that are located within those areas defined as “Archaeological Sensitivity Area” in Figure 3-5, Culturally Sensitive Areas, of the GTASCP shall be required to prepare and submit the following items to the County prior to project approval:

1. A Phase I Cultural Assessment by a qualified archaeologist, if recommended by one of the following: the County, the SSJVIC, or the Cultural Resources Records Search; or if the site is within close proximity to a known cultural resource.
2. A Phase II Cultural Assessment by a qualified archaeologist if resources are found during the Phase I Cultural Assessment which would require archaeological testing to determine the vertical and horizontal limits of the resource, an assessment of site integrity, and an evaluation of site importance through the analysis of site features and artifacts.
3. A Phase III (data recovery) evaluation if the potentially significant resource could not be avoided. The Phase III evaluation would require data recovery and excavation of a representative sample of the cultural resource and site. As part of the data recovery excavations, partial preservation or avoidance of said resource could occur.
4. A Paleontological Resource Mitigation Plan shall be prepared if paleontological resources are anticipated to occur on site or as recommended by the Paleontological Report. The mitigation plan shall be submitted to the Kern County Planning and Community Development Department for review and approval and shall include the following:
  - a) Procedures for the discovery, recovery, and salvage of paleontological resources encountered during construction, if any, in accordance with standards for recovery established by the Society of Vertebrate Paleontology.
  - b) Identification and mapping of specific areas of high and moderate sensitivity that would be monitored during construction.
  - c) Verification that the applicant has an agreement with a recognized museum repository, for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as

required by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged).

- d) Description of monitoring reports that would be prepared (Policy COS.30).

### 3.3.6 Air Quality

#### *Goals*

- Goal COS.9 Protect and improve air quality in the GTA.
- Goal COS.10 Reduce air pollution and GHG emissions by promoting greater energy efficiency and conservation, and through the use of renewable resources.

#### *Policies*

- Policy COS.34 Cooperate with the EKAPCD to implement Air Quality Attainment Plans and to meet Federal and State standards.
- Policy COS.35 Include fugitive dust control measures, as required by the EKAPCD, as conditions of approval for discretionary projects.
- Policy COS.38 Enforce the Kern County Grading Ordinance through the Engineering, Surveying, and Permit Services Department, along with dust control and other EKAPCD regulations to mitigate air quality effects during construction and rehabilitation of new and existing structures.
- Policy COS.41 The County will work with the State, Kern COG, and local governments in the implementation of AB 32, the Global Warming Solutions Act of 2006; SB 375 (2008), the Smart Growth/ Climate Change through Regional Housing and Transportation Planning Act; and AB 1358 (2008), the Complete Streets Act.

#### *Implementation Measures*

- Measure 38 The County shall refer all discretionary permits to the EKAPCD for review and comment (Policies COS.34, 35, 36, 37, 41).
- Measure 40 All new discretionary development proposals shall include mitigation measures and/or conditions of approval to reduce any air quality impacts resulting from construction and operational stages (Policies COS.34, 35, 36, 37, 38, 39, 40, 41).
- Measure 41 All new discretionary development proposals shall include mitigation measures and/or conditions of approval to require that construction complies with the Kern County Grading Ordinance and all adopted applicable dust control measures of the EKAPCD (Policies COS.37, 38).
- Measure 45 Prior to the issuance of a grading permit, if deemed appropriate by the County, future applicants shall develop a Fugitive Dust Control Plan in compliance with the EKAPCD Rule 402 to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions during construction.

The Fugitive Dust Control Plan shall include:

- a. Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan;
- b. Description and location of operation(s); and
- c. Listing of all fugitive dust emissions sources included in the operation.
- d. The following dust control measures shall be implemented:
  1. All on-site unpaved roads shall be effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than ARB-approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation.
  2. All material excavated or graded will be sufficiently watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. The excavated soil piles are watered hourly for the duration of construction or covered with temporary coverings.
  3. Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when winds exceed 25 miles per hour and when those activities cause visible dust plumes.
  4. Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday.
  5. A wheel-washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the proposed project property.
  6. All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
  7. Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
  8. All grading activities shall be suspended when wind speeds are greater than 30 miles per hour.
  9. Other fugitive dust control measures as necessary to comply with EKAPCD Rules and Regulations (Policies COS.34, 35, 37).

Measure 46 Prior to issuance of a grading permit, the County and/or EKAPCD shall determine which of the measures to reduce construction emissions would be appropriate for any future project.

- a. All off-road construction diesel engines not registered under California Air Resources Board's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine

- shall be equipment with retrofit controls that would provide NOx and PM emissions that are equivalent to Tier 2 engine.
- b. All equipment shall be turned off when not in usage. Engine idling of all equipment used during both construction and operation/maintenance shall be minimized.
  - c. All equipment engines shall be maintained in good operating condition and in proposed tune per manufacturer's specification.
  - d. The unpaved main access road for employees and deliveries to the maintenance complex shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than ARB-approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation.
  - e. The other unpaved roads at the site shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes.
  - f. Traffic speeds on unpaved roads shall be limited to 15 miles per hour. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex.
  - g. All on-site off-road equipment and on-road vehicles for operation/maintenance shall be new equipment that meets the recent ARB engine emission standards or alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, as appropriate.
  - h. All equipment shall be turned off when not in usage. Engine idling of all equipment used during both construction and operation/maintenance shall be minimized.
  - i. All equipment engines shall be maintained in good operating condition and in proposed tune per manufacturer's specification (Policies COS.34, 37).

## **Chapter 4: Circulation**

### 4.3.1 General Circulation and Roadways

#### *Goals*

- Goal CIR.2      Maintain a LOS C or better on roadways within the identified Transportation Impact Fee (TIF) areas within the GTA and LOS D for all areas outside of the TIF areas.

#### *Policies*

- Policy CIR.2      Encourage the implementation of carpool, vanpool, and other programs to reduce traffic congestion.

Policy CIR.4 Maintain a minimum LOS C on all circulation system segments within the identified TIF Areas (Policies CIR.1, 3, 4, 5, 6, 7, 8, 9).

*Implementation Measures*

Measure 1 All new discretionary development proposals shall consult with the County of Kern Public Works Department, Building and Development Division to determine the need for a Traffic Impact Analysis. Any required analysis shall identify the appropriate circulation/street improvements to be implemented by the project to maintain appropriate LOS standard on facilities serving the project and surrounding area.

4.3.4 Rail Services and Aircraft Operations

*Goals*

Goal CIR.9 Plan for land uses that are compatible with public airport and military overflight areas, including the R-2508 Complex, and mitigate encroachment issues.

*Policies*

Policy CIR.19 Review land use designations and zoning near public and private airports for compatibility and prevent encroachment into runway protection zones.

*Implementation Measures*

Measure 19 The County shall review for consistency discretionary land use development applications within airport influence areas (as shown in the ALUCP) and military overflight areas, including the R-2508 Complex (Policies CIR. 19, 20, 21).

**Chapter 5: Safety**

5.3.1 General Safety

*Goals*

Goal SAF.2 Minimize injuries and loss of life and reduce property damage.

*Policies*

Policy SAF.4 The County shall encourage extra precautions be taken for the design of significant lifeline installations, such as highways, utilities, and petrochemical pipelines.

*Implementation Measures*

Measure 1 The County shall review all development proposals within identified hazard areas (geologic, fire, and flood) for compatibility and shall identify measures necessary to reduce potential impacts susceptible to such hazards (Policies SAF.1, 2).

Measure 2 The County shall require detailed site studies for ground shaking characteristics, liquefaction potential, dam failure, inundation, flooding potential, and fault rupture potential as background to the design process in association with the



discretionary development of sites which may be in potential hazardous areas (Policies SAF.1, 2, 3).

### 5.3.2 Seismic Hazards, Landslides, Steep Slopes, and Liquefaction

#### *Goals*

Goal SAF.7 Minimize possible damage to structures and loss of life that could result from geological hazards, landslides, and steep slopes.

#### *Policies*

Policy SAF.6 Consider the presence of geologic hazard areas in development regulations and land use decisions. Development standards shall be more stringent in geologically hazardous areas than in areas where constraints are absent.

Policy SAF.8 Site construction standards shall incorporate practices and techniques to reduce potential damage from seismic events.

Policy SAF.13 Reduce exposure of property and people to landslide risk through a combination of geotechnical investigations, engineering practice, and enforcement of applicable Kern County Ordinances.

Policy SAF.16 Regardless of percentage of slope, development on hillsides shall be sited in the least obtrusive fashion, thereby minimizing the extent of topographic alteration required and reducing soil erosion while maintaining soil stability.

Policy SAF.17 Ensure effective slope stability, wastewater drainage, and sewage treatments in areas with steep slopes are adequate for development.

#### *Implementation Measures*

Measure 15 Route major lifeline components such as highways, utilities, petroleum or chemical pipelines around areas of high groundwater whenever possible. Where they must cross an area of high groundwater, plans, and permits shall require design features to accommodate extensive ground rupture without prolonged disruption of an essential service or threat to health and safety (Policies SAF.6, 7, 8, 13).

Measure 16 Require that plans and permits for installation of major lifeline components such as highways, utilities, petroleum or chemical pipelines to incorporate design features to accommodate potential fault movement in areas of active faults without prolonged disruption of essential service or threat to health and safety.

### 5.3.3 Flood Hazard, Shallow Groundwater, and Dam Failure

#### *Goals*

Goal SAF.8 Minimize the potential for damage from floods by protecting and restoring the natural water storage and conveyance functions of flood-prone areas, giving

preference, wherever possible, to nonstructural surface water management methods.

Goal SAF.9 Prevent loss of life, reduce personal injuries, reduce property damage, and minimize economic loss resulting from flood hazard and dam inundation conditions.

Goal SAF.10 Protect areas of shallow groundwater from potential contamination by surface uses.

#### *Policies*

Policy SAF.18 Minimize the potential for damage from floods by protecting and restoring the natural water storage and conveyance functions of flood-prone areas, giving preference, wherever possible, to nonstructural surface water management methods.

Policy SAF.19 Prevent loss of life, reduce personal injuries, reduce property damage, and minimize economic loss resulting from flood hazard and dam inundation conditions.

#### *Implementation Measures*

Measure 29 All development proposals in areas designated 2.5 (Flood Hazard) shall be accompanied by a Flood Hazard Study prepared by a certified engineer, if required by the Kern County Department of Engineering, Surveying, and Permit Services. Any mitigation measures identified by the study shall be incorporated into the project's design and engineering (Policies SAF.18, 19, 20).

Measure 30 All development proposals in areas designated 2.5 (Flood Hazard) shall construct required drainage facilities as specified by the Kern County Department of Engineering, Surveying, and Permit Services. The facilities shall be constructed in accordance with applicable Kern County standards and best management practices to facilitate water conveyance and avoid or minimize potential flood impacts. Drainage facilities shall also be required outside of those areas designated 2.5, as determined necessary by the Kern County Department of Engineering, Surveying and Permit Services (Policies SAF.18, 19).

## **Chapter 6: Noise**

### 6.3.1 General Noise and Noise Sensitive Areas

#### *Goals*

Goal NOI.1 Protect the health and welfare of GTA residents from both long-term operational noise impacts (e.g., traffic noise) and short-term construction related noise impacts.

Goal NOI.2 Maintain the predominantly lower ambient noise levels reflective of the rural and agricultural character of the GTA and its various communities.

Goal NOI.4 Protect sensitive land uses from excessive noise which could be harmful.

*Policies*

Policy NOI.1 The County shall not support proposed projects that generate noise emissions that are not compatible to the standards established in the GTASCP and other applicable county regulatory documents.

*Implementation Measures*

Measure 1 All development proposals shall be reviewed to ensure conformance with the noise standards of 65 [decibel Day/Night Average Sound Level] dB Ldn or less in outdoor activity areas and 45 dB Ldn or less within the interior living spaces (Policies NOI.1, 2, 4).

Measure 3 All discretionary development proposals may be required to submit an acoustical report, as deemed necessary by the Kern County Public Health Services Department, Environmental Health Division, indicating the means by which the developer proposes to comply with the noise standards. The acoustical report shall:

- a. Be the responsibility of the applicant.
- b. Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- c. Be subject to the review and approval of the Kern County Planning and Community Development Department and the Kern County Public Health Services Department, Environmental Health Division. All recommendations therein shall be compiled prior to final approval of the project (Policies NOI.1, 2, 3, 4).

Measure 4 Any required acoustical report shall include recommended mitigation and shall:

- a. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- b. Include estimated noise levels, in terms of CNEL, for existing and projected future (10 - 20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
- c. Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
- d. Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided (Policies NOI.1, 2, 3, 4).

Measure 6 All discretionary development proposals shall be required to adhere to the Kern County Noise Ordinance related to construction times unless specific deviations

are requested during review of the project and specific mitigation measures or conditions of approval are identified to off-set potential impacts (Policies NOI.1, 2, 3, 4).

Measure 7 The County shall review discretionary development plans to ensure compatibility with adopted ALUCPs (Policy NOI.5).

## City of Tehachapi General Plan

Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, would include installation of a pipeline connection to the City of Tehachapi sewer system at Tucker Road and Red Apple Avenue. Construction activities associated with the Project under Option B will be occurring adjacent to the City's boundary with unincorporated Kern County area; therefore, the City of Tehachapi General Plan (2013) was reviewed to ensure Project compliance and consistency with City objectives and policies. The City of Tehachapi General consists of the following elements: Town Form, Mobility, Public Realm, Economic Vitality, Natural Resources, Sustainable Infrastructure, Civic Health and Culture, and Community Safety. The following section summarizes the goals, policies, and implementation measures of the City of Tehachapi General Plan (2013) that apply to the Project.

### Chapter 2.1E: Natural Resources Element

#### *Policies*

- NR2 Take affirmative steps toward reduction of motor vehicle-related air pollution including, but not limited to, the following:
- a. Promote ride-sharing and car-sharing programs.
  - b. Discourage activities that result in unnecessary idling of vehicles.
- NR42 Maintain a step in the development process for evaluating the potential for archaeological and paleontological resources.
- NR43 Maintain that excavation, exploration and documentation of archaeological and paleontological sites be conducted only by recognized authorities by applicable State laws.
- NR44 Maintain that in the event of discovering an archaeological or paleontological site, that the appropriate authorities and parties be notified according to established procedures and applicable State laws.

### Chapter 2.1F: Sustainable Infrastructure Element

#### *Policies*

- SI 23B Provide adequate sanitary sewer capacity per:
- a. Minimum 8-inch lines;
  - b. Minimum 4-inch laterals.

## **Chapter 2.1F: Community Safety Element**

### *Policies*

- CS15            Require new development within the 100-year floodplain to implement measures as identified in the Flood Plain Ordinance, to protect structures from 100-year flood hazards (e.g., by raising the finished floor elevation outside the floodplain).
- CS19            Coordinate with FEMA, the USACE, and Kern County throughout construction, mitigation, and operation of the various components/ projects that will directly affect Tehachapi and its Sphere of Influence.
- CS40            New and realigned pipelines shall be located adjacent to street rights-of-way and constructed as vertically deep as economically feasible.
- CS61            Incorporate noise considerations into planning and development decision-making, and guide the location and design of transportation facilities to minimize effects of noise on adjacent and nearby land uses.

## **Kern County Zoning Ordinance**

Title 19 of the Kern County Municipal Code is the County's Zoning Ordinance, which establishes the standards by which land in the County is developed and provides a description of permitted uses, building height, and distance between buildings for the various zoning designations within the County (Kern County 2015b). The Kern County Zoning Ordinance is comprised of two primary parts: a zoning map, which delineates boundaries for specific zoning districts, and explanations of the purposes of districts, permitted and conditional uses within the districts, and development and performance standards. Although the GTASCP provides specific goals, policies, and implementation measures for the GTA, the Plan did not modify the areas' existing zoning classifications (Kern County 2010b). As the proposed Project is located in unincorporated Kern County, the County's Zoning Ordinance applies to development in the GTA.

## **Kern County Airport Land Use Compatibility Plan**

The Kern County ALUCP was originally adopted in 1996 and establishes procedures and criteria by which Kern County and the affected incorporated cities can address compatibility issues when making planning decisions regarding airports and the land uses that surround them. Section 1.3.1 of the Kern County ALUCP lists the airports for which an airport influence area and compatibility zone boundary map exist. Lands within the influence area and depicted within the compatibility zone boundary are subject to specific land use requirements outlined in the Kern County ALUCP. The lands within the jurisdiction of the Tehachapi Municipal Airport's compatibility map are depicted in the Kern County ALUCP by Figure 4-71: Comprehensive Land Use Map for Tehachapi Municipal Airport. The Project site is located outside of the compatibility zones of concern.

Section 4.17 of the Kern County ALUCP addresses land use policies and procedures relative to military aviation. In order to minimize flight hazards to non-military aircraft, the military aircraft from these installations fly within restricted airspace known as the Joint Service Restricted R-2508 Complex. According to the R-2508 Joint Land Use Study prepared by the California Office of Planning and Research, the Golden Hills community is within a Military Operating Area (MOA) (California Office of Planning and Research 2008). Within MOA airspace, the military conducts flight training activities, such as abrupt maneuvers and aerial refueling, which may potentially impact public or commercial flight activities.

### **City of Tehachapi Zoning Code**

The City's Zoning Code was adopted in 2014 in order to promote and protect public health, safety, and welfare through the regulation of land uses throughout the City of Tehachapi. The City of Tehachapi Zoning Code divides the City into non-transect zones and transect zones that implement the Tehachapi General Plan. Transect zones are described in Chapter 3.20 of the Tehachapi General Plan and focus on mixed-use, walkable areas of the City. The transect zones range in function and density from residential areas to commercial and mixed-use retail areas. Non-transect zones are described in Chapter 3.30.160 of the Tehachapi General Plan and are primarily the zones that reflect established land uses that are more auto-dependent, such as single family subdivisions, other suburban residential areas, auto-dependent retail areas, and industrial areas.

The City of Tehachapi Zoning Code and Map (2015 and 2015, respectively) apply to the proposed Project, since Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, would include installation of a connection to the City of Tehachapi sewer system at Tucker Road and Red Apple Avenue. According to the 2014 City of Tehachapi Zoning Map, this intersection is located within the City limits. The areas immediately surrounding this intersection are zoned C-3, General Commercial.

### **Habitat Conservation and Natural Community Conservation Plans**

As discussed in Section 4.3, Biological Resources, of this EIR, several conservation plans exist or are in the planning stages for portions of Kern County. The Bakersfield Regional HCP and NCCP are both in the planning phase. The Kern County Valley Floor HCP is also in the planning stage. The Kern County Water Bank HCP and NCCP and Metropolitan Bakersfield HCP are in the implementation phase. The proposed Project is not located in these HCP or NCCP areas.

## **4.7.4 Impacts and Mitigation Measures**

The following sections provide an analysis of the proposed Project's land use and planning impacts, including the methods used to determine the impacts of the proposed Project, the thresholds used to conclude whether an impact would be significant, and whether the implementation of mitigation measures is necessary to reduce or avoid identified impacts.

## Methodology

The potential land use and planning impacts associated with the proposed Project are evaluated on a qualitative basis through a comparison of the existing and proposed Project land uses with consideration of the applicable zoning ordinances and Kern County General Plan, GTASCP, and City of Tehachapi General Plan planning goals, policies, and implementation measures described above. The evaluation of the significance of Project impacts is based on the significance criteria established in Appendix G of the CEQA Guidelines, which the Lead Agency has deemed appropriate for use in this EIR.

## Thresholds of Significance

The thresholds of significance are derived from Appendix G, Environmental Checklist Form, of the CEQA Guidelines, and are utilized to determine whether implementation of the proposed Project would potentially result in a significant adverse impact on land use and planning. A Project would have a significant adverse impact on land use and planning if it would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable HCP or NCCP.

The GHCSO, as the Lead Agency for the proposed Project, determined through the IS/NOP process that the proposed Project would not result in a significant impact to the following environmental issue area; therefore, it is not evaluated further in this EIR:

- Physically divide an established community.

Please refer to Appendix A, IS/NOP, of this EIR for additional information regarding this issue area.

## Project Impacts

**Impact 4.10-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.**

### Consistency of the Project with Applicable General Plans, Specific Plans, and Zoning Codes

Land uses within the Project area under Option A, Continued Operations of the Golden Hills WWTP and System, and Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, are primarily governed by the GTASCP. As previously discussed, the GTASCP's goals, policies, and implementation measures are consistent and compatible with those outlined in the Kern County General Plan and Zoning Ordinance, but are tailored to the particular needs of the

GTA. The GTASCP works in tandem with the Kern County General Plan, Zoning Ordinance, various development standards, and the Kern County ALUCP to guide land use decisions. To maintain consistency with these County planning documents, the GTASCP utilizes land use designations (Map Codes) established in the Kern County General Plan. The land use designations identify the types and nature of development that are allowed on properties within the GTASCP and are broad in scope in order to address the variety of land uses throughout the County. The land use designations, zoning designations, and Map Codes that apply to the proposed Project are listed in Table 4.7-1, above.

The Project under either Option A or Option B would provide for repaired and improved sewer service to the Golden Hills community and serve existing and previously planned residential and commercial customers in the Golden Hills community. Pipeline improvements would be installed primarily underground within existing paved right-of-ways, as well as in portions of the Woodford Tehachapi Property. The Project also entails modifications to the existing Golden Hills WWTP with Option A, or the construction of a lift station southeast of Tom Sawyer Lake under Option B. Neither Project option would conflict with the guiding land use and planning standards of the Project Area.

#### Consistency of the Project with Applicable Airport Land Use Compatibility Plans

Section 4.17 of the Kern County ALUCP addresses land use policies and procedures relative to military aviation. In order to minimize flight hazards to non-military aircraft, the military aircraft from these installations fly within restricted airspace known as the Joint Service Restricted R-2508 Complex. According to the R-2508 Joint Land Use Study prepared by the California Office of Planning and Research, the Golden Hills community is within a MOA (California Office of Planning and Research 2008). Within MOA airspace, the military conducts flight training activities, such as abrupt maneuvers and aerial refueling, which may potentially impact public or commercial flight activities. However, the proposed Project does not propose aboveground development, with the exception of modifications to the existing Golden Hills WWTP with Option A or the construction of a lift station southeast of Tom Sawyer Lake under Option B. Furthermore, neither Project Option is located within 25 miles of military installation boundaries; therefore, the proposed Project is inherently consistent with the applicable provisions of the Kern County ALUCP.

As discussed in Chapter 3 of this EIR, the following discretionary approvals are required for Project implementation:

- Kern County Board of Supervisors approval for a Franchise Agreement for the installation of a new pipeline in public access easements or County Roads in unincorporated areas;
- SWRCB approval to grant SRF funding for construction of the Project;
- For Option A, Air Pollution Control District approval for the new replacement generator;
- For Option A, RWQCB approval for the emergency overflow basins, the proposed Golden Hills WWTP improvements, and maintenance of Tom Sawyer Lake with treated effluent; and/or



- For Option B, approval by the City of Tehachapi City Council to accept the effluent and new connections.

By virtue of Project design and scope, and implementation of applicable mitigation measures and securement of relevant permits and approvals required in this EIR for the identified environmental impacts of the Project, the proposed Project would be consistent with applicable Kern County and City of Tehachapi zoning standards, as well as with the goals, policies, and implementation measures of the GTASCP, Kern County ALUCP, Kern County General Plan, and City of Tehachapi General Plan (described above in Section 4.7.3 of this Draft EIR). Therefore, the proposed Project would result in a less than significant land use and planning impact.

#### **Mitigation Measures**

No mitigation measures are required.

#### **Level of Significance after Mitigation**

Impacts would be less than significant and do not require the implementation of mitigation measures.

#### **Impact 4.10-2: Conflict with any applicable habitat conservation plan or natural community conservation plan.**

The proposed Project is not located within an area governed by an HCP and/or NCCP. Therefore, the proposed Project would result in no impact with regard to conservation planning conflicts.

#### **Mitigation Measures**

No mitigation measures are required.

#### **Level of Significance after Mitigation**

The proposed Project would result in no impact to an HCP and/or NCCP with regards to conservation planning conflicts and does not require the implementation of mitigation measures.

### **Cumulative Setting Impacts and Mitigation Measures**

The Project under either Option A or Option B would provide for repaired and improved sewer service to the Golden Hills community and serve existing and previously planned residential and commercial customers in the Golden Hills community. As such, the Project would not induce new unplanned residential or commercial development that, when analyzed in conjunction with cumulative development in the Project area, would inherently result in land use impacts. Implementation of the proposed Project would not directly result in future zoning changes or amendments to the GTASCP. Therefore, the Project would result in a less than significant cumulatively considerable land use and planning impact.

**Mitigation Measures**

No mitigation measures are required.

**Level of Significance after Mitigation**

Impacts would be less than significant and do not require the implementation of mitigation measures.

# Section 4.8

## Noise

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### 4.8.1 Introduction

This section identifies potential Project impacts related to noise. The section includes: a) the affected environment and regulatory setting for noise impacts, b) the noise impacts that would result from implementation of the proposed Project, and c) potential noise reduction measures and/or mitigation measures that would reduce these impacts, where applicable. The information in this section is based on the Noise Technical Report prepared for the proposed Project, which is summarized here, and attached as Appendix G for reference.

#### Acoustical Terminology

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB); decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

#### Human Perception of Noise

The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called “A-weighting” is used to filter noise frequencies that are not audible to the human ear. The A-scale approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale levels of those sounds. Therefore, the “A-weighted” noise scale is used for measurements and standards involving the human perception of noise. In this report, all noise levels are A-weighted dB (dBA). Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two noise sources do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA (increase or decrease); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (or half) as loud (Caltrans 2011).

Table 4.8-1 provides typical noise levels associated with common activities.

**Table 4.8-1 Typical Noise Levels**

<b>Common Outdoor Activities</b>	<b>Noise Level (dBA)</b>	<b>Common Indoor Activities</b>
-	110	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	100	-
Gas Lawn Mower at 1 m (3 ft.)	90	-
Diesel Truck at 15 m (50 ft.), at 80 km/hr (50 mph)	80	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	70	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	60	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
-	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2011

Notes:

m=meters

ft=feet

km/hr=kilometers per hour

mph=miles per hour

**Averaging Noise Levels**

In addition to noise levels at any given moment, the duration and averaging of noise over time is also important for the assessment of potential noise disturbance. Noise levels varying over time are averaged over a period of time, usually hour(s), expressed as dBA  $L_{eq}$ . When no period is specified, a 1-hour average is assumed ( $L_{eq(1)}$  or  $L_{eq}$ ). Noise levels averaged over a 24-hour period can be expressed as the CNEL, which is calculated from hourly  $L_{eq}$  values, with 5 dBA added to the hourly  $L_{eq}$  levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dBA added to the hourly  $L_{eq}$  levels occurring between 10:00 p.m. and 7:00 a.m., to reflect the greater disturbance potential from evening and nighttime noise, respectively, when people are typically at home and sleeping. CNEL is similar to the day/night average sound level (Ldn), except for Ldn, the daytime period of 7:00 a.m. to 10:00 p.m. includes the evening period.

### **General Characteristics of Community Noise**

Ambient noise is the background noise level of any location or environment, normally specified to compare it to a new intrusive noise source. Ambient noise includes all sounds present in an environment and can be measured at any moment in time, but it typically varies over time. Ambient noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. Outdoor Ldn levels over 50 dBA vary depending on the specific type of land use. For example, in wilderness areas, Ldn noise levels average approximately 35 dBA; in small towns or wooded residential areas, Ldn averages approximately 50 dBA; in urban downtown areas, Ldn averages approximately 75 dBA; and near major freeways and airports, it averages approximately 85 dBA (EPA 1974). Average ambient levels in urban environments at night are about 7 dB lower than the corresponding daytime average ambient levels. The day-to-night difference in rural areas away from roads and other human activity can be considerably less (EPA 1974).

### **Noise Attenuation**

From the source to the receiver, noise changes both in level and frequency spectrum. The most obvious change is the decrease in noise level as the distance from the source increases, which depends on geometric divergence, ground absorption, atmospheric effects and refraction, shielding by natural and man-made features, noise barriers, diffraction, and reflection.

For a point source (i.e., a stationary noise source), such as construction equipment, the distance attenuation or drop-off in noise level would be at least -6 dBA for each doubling of unobstructed distance between source and the receiver, and up to -7.5 dBA depending on the acoustic characteristics of the intervening ground. For a linear noise source, such as vehicles traveling on a roadway, the attenuation or drop-off in noise level would be approximately -3 dBA for each doubling of unobstructed distance between source and the receiver.

A large object in the path between a noise source and a receiver can significantly attenuate noise levels at that receiver. The amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, as well as man-made features, such as buildings and walls, can significantly alter noise levels. Walls or berms are often specifically used to attenuate noise.

### **Noise-Sensitive Receptors**

Some land uses are considered more sensitive to noise than others due to the types of persons or activities involved, such as sleeping, reading, talking, or convalescing. Noise-sensitive receptors are generally considered those individuals engaged in activities, or occupying land uses that may be subject to the stress of significant interference from noise, including talking, reading, and sleeping. Typically, land uses associated with noise-sensitive human receptors include residential dwellings, hotels/motels, hospitals, nursing homes, educational facilities, and libraries.

### **Vibration Characteristics**

In addition to noise, construction activities generate vibration, which can be interpreted as energy transmitted in waves through the soil mass. These energy waves generally dissipate with distance from the vibration source, due to spreading of the energy and frictional losses. The energy transmitted through the ground as vibration, if great enough and in proximity to structures, can result in structural damage. However, groundborne vibrations from typical construction activities (i.e., non-impact related) do not often reach levels that can damage structures in proximity to construction, but their effects may manifest and be noticeable in buildings that are within 25 feet of construction activities.

Construction vibration has the potential to result in structural damage, and human annoyance from the vibration of room surfaces affecting people. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Vibration levels are expressed in terms of peak particle velocity (ppv), typically in units of inches per second (in/sec). Typically, a vibration level of 0.2 ppv is the threshold of risk of structural damage, and 0.1 in/sec ppv is the threshold of human annoyance.

Construction equipment activities can generate various levels of groundborne vibration. In general, blasting, pile driving, and demolition of structures generate the highest vibrations. At a reference distance of 25 feet, some construction equipment generates vibration at levels exceeding the threshold of risk of structural damage (0.2 in/sec ppv) and therefore, also the threshold of human annoyance (0.1 in/sec ppv). However, at 50 feet, vibration from this same equipment would dissipate to below the thresholds of human annoyance and structural damage (FTA 2006).

## **4.8.2 Existing Noise Environment**

The noise environment in the proposed Project area is typical of a rural setting, except at locations more directly affected by noise sources from transportation and non-transportation sources of roadway vehicle traffic, railroad train operations, and aircraft operations. Intermittent noise from outdoor activities at the surrounding residences (e.g., people talking, operation of landscaping equipment, car doors slamming, and dogs barking), although minor, also influences the ambient noise environment.

### **Traffic Noise**

Generally, transportation-related noise sources (e.g., vehicle traffic noise) characterize the ambient noise environment of an area. The traffic noise level generated on a roadway is dependent on traffic speed, traffic volume, and the percentage of truck volume. In general, the greater the traffic volume is on a roadway, the higher the noise levels that are generated on that roadway, until the traffic volume is so great (i.e., approaching capacity) that traffic flow degrades and traffic speeds decrease, which lowers traffic noise levels. Roadways with large percentages of heavy trucks will generate higher noise levels (FHWA 2006). Therefore, interstate

and state highways (e.g., SR 58) generate the highest noise levels as they have the highest speed limits, the largest traffic volumes, and the highest percentage of trucks.

The proposed Project alignment, for either Option A or Option B, would be located primarily along major and minor streets of the community of Golden Hills. Therefore, the ambient noise levels at sensitive receptors along the alignment are estimated at approximately 60 - 65 dBA CNEL at 50 feet from the roadways along the Project alignment. Ambient noise levels in proximity to Project construction activities were estimated using available noise studies in the Project area available from the City and County. Corresponding daytime hourly average ambient noise levels in proximity to the Project area are estimated to range between 60 to 65 dBA  $L_{eq}$ , decreasing away from roadways. Mobile (i.e., linear) noise sources, such as vehicle traffic on roadways, attenuate at a rate of 3 dBA per doubling of distance from the roadway.

#### **Other Noise Sources**

Secondary noise sources in the Project area include rail activity and aircraft overflights. Railroad activity occurs in the vicinity of the proposed Project site along the transcontinental rail lines of the Burlington Northern & Santa Fe Railroad, which is located approximately 0.5 mile east of the Golden Hills WWTP. Sporadic aircraft flyovers occur in the vicinity of the proposed Project site from high altitude commercial and military jets; low elevation traffic and news helicopters; and low elevation, single-engine, fixed-wing aircraft. The closest airport to the eastern extent of the proposed Project site (the area of connection of the pipeline to the City of Tehachapi system in the intersection of Red Apple Road and Tucker Road) is the Tehachapi Municipal Airport, which is located approximately 1.4 miles to the east/northeast of the Red Apple Road and Tucker Road intersection. For the 12-month period ending on June 3, 2015, Tehachapi Municipal Airport operations averaged 30 flights per day (AirNav 2016). Edwards Air Force Base is located approximately 35 miles to the southeast of the Project area.

#### **Noise Sensitive Receptors**

Noise sensitive receptors located in proximity to the proposed Project are single-family residences located along the roadways of the proposed Project alignment, approximately 300 feet from the proposed pump station, and approximately 360 feet from the Golden Hills WWTP (Figures 1-1 and 1-3).

### **4.8.3 Regulatory Setting**

The following Federal, State and local regulations that apply to the proposed Project are discussed in the sections below.

#### **Federal**

Federal noise policies and programs are developed by Federal agencies, such as the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). The Federal government actively advocates that local jurisdictions use their land use regulatory authority to

arrange new development in such a way that “noise-sensitive” uses are prohibited from being sited adjacent to a highway or, alternately, that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

## **State**

Caltrans guidance regarding vibration will be used as reference for the proposed Project.

### **California Department of Transportation**

Caltrans provides vibration level thresholds for architectural and structural damage and human perception thresholds. The proposed Project is not subject to Caltrans requirements; however, Caltrans provides vibration thresholds for reference. To assess the potential for structural damage associated with vibration from construction activities, the vibratory ground motion in the vicinity of an affected structure is measured in terms of ppv, typically in units of in/sec. For its construction projects, Caltrans uses a vibration criterion of 0.2 in/sec ppv, except for pile driving and blasting activities.

## **Local**

Noise-related municipal policies, ordinances, and significance thresholds that are applicable to the proposed Project are included in Kern County’s General Plan Noise Element (Kern County 2009), Kern County’s Municipal Code Noise Ordinance (Kern County 2015a), and the GTASCP (Kern County 2010b). The proposed Project is located adjacent to the City of Tehachapi (at the eastern extent of the proposed force main under Option B); therefore, applicable City noise regulations include the City of Tehachapi General Plan Community Safety Element, Part B: Noise (City of Tehachapi 2012).

### **County of Kern General Plan, Noise Element**

The Noise Element of the Kern County General Plan contains specific goals and policies for evaluating a project’s compatibility with surrounding land uses (Kern County 2009). The County defines noise sensitive land uses as residential areas, schools, convalescent and acute care hospitals, parks and recreational areas, and churches.

### **Kern County Municipal Code, Noise Ordinance**

Kern County regulates noise in accordance with Chapter 8.36, Noise Control of the Kern County, California – Code of Ordinances (Kern County 2015a). Section 8.36.020 – Prohibited Sounds, of the Municipal Code states that it is unlawful for any person to do, or cause to be done, any of the following acts within the unincorporated areas of the County:

- H. To create noise from construction, between the hours of nine (9:00) p.m. and six (6:00) a.m. on weekdays and nine (9:00) p.m. and eight (8:00) a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of one hundred fifty (150) feet from the construction site,



if the construction site is within one thousand (1,000) feet of an occupied residential dwelling.

#### **Greater Tehachapi Area Specific and Community Plan**

The GTA is a collection of unincorporated communities located in eastern Kern County along SR-58 between the San Joaquin Valley and the Mojave Desert and includes the community of Golden Hills. Kern County prepared a program-level specific and community plan entitled the GTASCP (Kern County 2010b). Chapter 6 (Noise) of the GTASCP sets goals, policies, and implementation measures designed to ensure that future development in the GTA is consistent with the goals and policies of the County's General Plan, while recognizing the uniqueness of the region. The plan provides the 60 dBA CNEL noise level contour at 20 feet from the centerline of Woodford-Tehachapi Road, a segment of the Project alignment. The plan shows that the Project alignment is also affected by railroad noise level contours of up to 60 dB CNEL. The plan establishes the exterior noise level standard of 65 dB CNEL for residential land uses. All discretionary development proposals shall be required to adhere to the Kern County Noise Ordinance related to construction times unless specific deviations are requested during review of the Project and specific mitigation measures or conditions of approval are identified to off-set potential impacts (Kern County 2010b).

#### **City of Tehachapi General Plan, Community Safety Element**

The City of Tehachapi General Plan, Community Safety Element, Part B: Noise, contains specific goals and policies for evaluating a Project's compatibility with surrounding land uses within the City (City of Tehachapi 2012). Tehachapi's noise ordinance provides noise guidelines and standards to address the issues associated with significant sound-generators. The ordinance limits building construction activities, including the operation of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist between the hours of 7 p.m. and 8 a.m. within a residential zone or within a radius of 500 feet. These standards are provided to limit noise during sensitive time periods (City of Tehachapi 2012).

### **4.8.4 Impacts and Mitigation Measures**

This section describes the impact analysis relating to noise for the proposed Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

#### **Methodology**

The following section describes the methodology used to analyze Project noise and vibration effects, which were predicted for proposed Project construction activities. Noise and vibration levels associated with Project construction activities were compared to established CEQA significance thresholds in order to determine the level of significance of each impact.

### Construction Noise

Construction noise is considered temporary, short term, and variable depending on construction activities, duration, and the type and usage of equipment involved. Noise impacts from construction are dependent on the construction noise levels generated, the timing and duration of the construction activities, proximity to sensitive receptors, and applicable noise regulations and standards. Construction equipment can be stationary or mobile. Stationary equipment operates in one location for various periods of time with fixed-power operation, such as pumps, generators, and compressors, or a variable noise operation, such as pile drivers, concrete saws, and pavement breakers. Mobile equipment moves around the construction site such as bulldozers, graders, and loaders (FTA 2006). Site preparation may involve demolition, grading, compacting, and excavating, which may require the use of backhoes, bulldozers, loaders, excavation equipment (e.g., graders and scrapers), and/or compaction equipment. Finishing activities may include the use of pneumatic hand tools, scrapers, concrete trucks, vibrators, and haul trucks. Typical maximum noise levels generated by typical pieces of construction equipment are listed in Table 4.8-2.

**Table 4.8-2 Construction Equipment Noise Levels**

<b>Equipment</b>	<b>Noise Level (dBA L<sub>max</sub>) at 50 Feet</b>
Backhoe	80
Blasting	94
Clam Shovel	93
Compactor (ground)	80
Compressor (air)	80
Concrete Mixer Truck	85
Concrete Pump	82
Concrete Saw	90
Crane (mobile or stationary)	85
Dozer	85
Dump Truck	84
Excavator	85
Front End Loader	80
Generator (25 KVA or less)	70
Generator (more than 25 KVA)	82
Grader	85
Hydra Break Ram	90
Impact Pile Driver (diesel or drop)	95
In-situ Soil Sampling Rig	84
Jackhammer	85
Mounted Impact Hammer (hoe ram)	90

<b>Equipment</b>	<b>Noise Level (dBA L<sub>max</sub>) at 50 Feet</b>
Paver	85
Pneumatic Tools	85
Pumps	77
Rock Drill	85
Scraper	85
Tractor	84
Vacuum Excavator (vac-truck)	85
Vibratory Concrete Mixer	80
Vibratory Pile Driver	95

Source: Thalheimer 2000, FTA 2006.

Notes: KVA = kilovolt amps

L<sub>max</sub> = maximum sound level measured during a noise event or period of time

As shown in Table 4.8-2, maximum construction equipment noise levels range from 70 to 95 dBA L<sub>max</sub> at 50 feet, when operating (FTA 2006). In typical construction projects, earthmoving and impact activities typically generate the highest noise levels. Soil grading involves the largest, heaviest equipment and typically includes bulldozers, excavators, dump trucks, front-end loaders, and graders with maximum noise levels ranging from 80 to 85 dBA L<sub>max</sub>. Impact equipment includes pile drivers, rock drills, pavement breakers, concrete crushers, and industrial/concrete saws with maximum noise levels range from 90 to 95 dBA L<sub>max</sub>. Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase, and its own noise characteristics; some phases have higher continuous noise levels than others, and some have high-impact noise levels.

Heavy construction equipment typically operates for short periods at full power followed by extended periods of operation at lower power, idling, or powered-off conditions. Typical construction projects, with equipment moving from one point to another, work breaks, and idle time, have hourly average noise levels (L<sub>eq</sub>) that are lower than the maximum operational noise levels shown in Table 4.8-2. The L<sub>eq</sub> of each phase is determined by combining the L<sub>eq</sub> contributions from each piece of equipment used in that phase (FTA 2006). Therefore, typically, hourly average noise levels would be approximately 75 to 80 dBA L<sub>eq</sub> at 50 feet from the center of the construction activities area, with approximately 80 dBA L<sub>eq</sub> at 50 feet for impact equipment. Average noise levels of other construction activities would be less.

Noise levels from construction activities attenuate with distance at a rate of 6 dBA per doubling of distance over acoustically hard sites, such as streets and parking lots. Intervening structures and/or topography would further attenuate noise levels. These factors generally limit the distance construction noise travels and ensure noise impacts from construction are localized.

#### Project Construction Activities

Under either option of the proposed Project, components of the existing Golden Hills sewage collection system would be replaced including collection and gravity main pipes, and manholes,

and the existing lift station on Woodford Tehachapi Road would be removed. These activities would utilize haul trucks, a backhoes, excavators, trenching equipment, and pavement cutting and breaking equipment to excavate and replace the collection pipe. Under Option A, the Golden Hills WWTP and conveyance system would be improved and continue operations, which would utilize trucks and various heavy equipment. Under Option B, wastewater would be conveyed to the City of Tehachapi WWTP for treatment with the construction of a force main and lift station. This activity would utilize haul trucks, backhoes, excavators, trenching equipment, and pavement cutting and breaking equipment to excavate and install the pipeline and the lift station. This option would also include the demolition of the Golden Hills WWTP, which would also use haul trucks, a backhoe, jackhammers, and other demolition equipment.

Nighttime construction work is not necessary for Project implementation. In general, construction of the proposed pipeline alignment would follow a sequence of operations including right-of-way acquisition, access road identification, site clearing, pavement breaking, construction staging, excavation and trenching, pipe installation, repaving, cleanup, and site restoration. Various phases of construction may occur at the same time at different locations throughout the construction process, requiring several construction crews operating simultaneously in different locations.

#### Project Construction Noise Levels

Project construction activities may occur at multiple locations along the proposed Project alignment within the Project area. Project construction noise was predicted based on the “general assessment” methodology of the FTA’s *Transit Noise and Vibration Impact Assessment* (FTA 2006) guidance report, which presumes the two loudest pieces of equipment associated with an activity (e.g., trenching) are operating at full power and located at the geographic center of a construction area or zone, which would be collinear with the proposed Project alignment. Consistent with the high end of value ranges for the reference maximum construction noise levels in Table 4.8-2, an hourly average noise level of 80 dBA  $L_{eq}$  at 50 feet was conservatively estimated as the highest average noise level for Project construction activities (e.g., during pavement cutting and breaking). Project noise analysis is based on Project construction activities (e.g., pavement breaking and trenching) not occurring at the same time (i.e., not concurrently) at a given location. Noise levels attenuate with distance at a conservative rate of 6 dBA per doubling of distance. Therefore, the highest estimated average construction noise level for the Project of 80 dBA  $L_{eq}$  at 50 feet, would attenuate with distance to 74 dBA  $L_{eq}$  at 100 feet, 68 dBA  $L_{eq}$  at 200 feet, and 62 dBA  $L_{eq}$  at 400 feet, etc.

#### **Construction Vibration**

In addition to noise, typical construction activities generate localized vibration; however, these vibrations typically do not reach levels that can damage structures in proximity to construction. FTA provides a threshold of risk of structural damage of 0.2 ppv in/sec. Groundborne vibration generated by construction projects is usually highest during pile driving, and impact-related activities. Table 4.8-3 shows typical vibration levels at a standard reference distance of 25 feet

for various construction equipment (except pile driving) that generate high vibration levels (FTA 2006).

**Table 4.8-3 Construction Equipment Vibration Levels**

Construction Equipment	PPV at 25 Feet (in/sec)
Vibratory Roller	0.210
Hoe Ram	0.089
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: FTA 2006

As shown in Table 4.8-3, vibration levels at 25 feet from typical construction equipment, with the exception of vibratory rollers, are below (approximately half) the threshold of risk of structural damage (0.2 ppv in/sec), and just below the threshold for human perception (0.1 ppv in/sec) (FTA 2006).

For vibration at a distance of less than 25 feet, vibration can be estimated by the following formula (Caltrans 2013):

$PPV_{\text{equipment}} = PPV_{\text{reference}} (25/D)^n$  (in/sec), where:

- $PPV_{\text{reference}}$  = reference PPV at 25 feet;
- D = distance from equipment to the receiver in feet; and
- n = 1.1 (the value related to the attenuation rate through ground).

## Thresholds of Significance

The assessment of significant noise impacts is weighed in consideration of CEQA requirements. Appendix G of the CEQA Guidelines defines areas of concern regarding a project's potential impact on noise-sensitive receptors by considering whether a project would result in the following:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

- 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, exposure of people residing or working in the project area to excessive noise levels; and/or
- For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

However, as evaluated in the IS/NOP, the Project would not result in a substantial permanent increase in ambient noise in the Project vicinity, nor would it expose the public to excessive noise related to public or private airport operations (refer to Appendix A). Therefore, these issues are not analyzed further in this section. Though determined to be less than significant, operational noise sources are addressed in the Noise Technical Report prepared for the Project and included as Appendix G to this EIR.

## **Project Impacts**

### **Impact 4.8-1: Exposure of Persons to, or Generation of, Noise Levels in Excess of Standards Established in a Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies.**

Project construction noise impacts would be significant if the proposed Project would exceed the construction standards or regulations of Kern County or City of Tehachapi. The Kern County Noise Ordinance limits construction activities to the hours of 6 a.m. to 9 p.m. on weekdays, and 8 a.m. to 9 p.m. on weekends, for those activities that are audible to a person with average hearing faculties or capacity at a distance of 150 feet from the construction site, if the construction site is within 1,000 feet of an occupied residential dwelling. The City of Tehachapi Noise Ordinance limits building construction activities between the hours of 7 p.m. and 8 a.m. within a residential zone or within a radius of 500 feet (City of Tehachapi 2012). Neither the County nor City provides a construction noise level limit. Proposed Project construction noise would be localized at the specific areas of construction activity and occur only during the allowable construction hours of the County and City noise ordinances. Therefore, Project construction would not exceed County and City standards, and this impact would be less than significant.

### **Mitigation Measures**

Project construction and operation would not result in a significant impact. Therefore, no mitigation measures are required.

However, the following typical construction noise reduction measures are recommended as BMPs to reduce and minimize noise and vibration levels during construction:

- Pneumatic impact tools and equipment used at the construction site should have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations.

- Provide impact noise-producing equipment (i.e., jackhammers and pavement breaker[s]) with noise-attenuating shields, shrouds or portable barriers or enclosures, to reduce operating noise.
- Provide upgraded mufflers, acoustical lining, or acoustical paneling for other noisy equipment, including internal combustion engines.
- Use alternative procedures of construction and select a combination of techniques that generate the least overall noise and vibration.
- Use construction equipment manufactured or modified to reduce noise and vibration emissions, such as:
  - Electric instead of diesel-powered equipment.
  - Hydraulic tools instead of pneumatic tools.
  - Electric saws instead of air- or gasoline-driven saws.

#### **Level of Significance after Mitigation**

Impacts would be less than significant and do not require the implementation of mitigation measures. BMPs are recommended above to minimize construction noise effects.

#### **Impact 4.8-2: Exposure of Persons to, or Generation of, Excessive Groundborne Vibration or Groundborne Noise Levels.**

Project construction noise impacts would be significant if the proposed Project would expose persons to, or generate, excessive groundborne vibration or groundborne noise levels. Project construction activities would include pavement breaking, excavation, and trenching, surface grading, repaving, and pump station construction. In some areas along the pipeline route, particularly in the western part of the Project area, there are existing structures that would be within roughly 25 feet of the major construction activities (i.e., pavement cutting and breaking). At 25 feet, the vibration levels from the Project construction activities would be approximately 0.89 ppv in/sec, which is less than half of the FTA vibration threshold of risk for structural damage 0.2 in/sec ppv, and just below the threshold for human perception (0.1 ppv in/sec) (FTA 2006).

As a point of reference, where construction is as close as 15 feet from structures at a construction site, the vibration levels of the construction equipment would be approximately 0.16 ppv in/sec, which are still below the FTA vibration threshold of risk for structural damage 0.2 in/sec ppv.

Transport of materials by heavy trucks to and from construction sites has the potential to generate higher levels of groundborne vibration than mechanical equipment. However, heavy trucks generally operate at very low speeds on site, thus limiting their potential for groundborne vibration. Therefore, the groundborne vibration induced by heavy truck traffic would not result in structural damage or be annoying to humans at distances greater than 25 feet, and would be a less than significant impact.

Therefore, groundborne vibration generated by Project construction activities would not result in cosmetic or structural damage to nearby structures, or be excessively annoying to humans and this impact would be less than significant.

### **Mitigation Measures**

Project construction vibration impacts would be less than significant. Therefore, no mitigation measures are required.

### **Level of Significance after Mitigation**

Impacts would be less than significant.

### **Impact 4.8-3: Substantial Temporary Increase in Ambient Noise Levels in the Project Vicinity Above Levels Existing Without the Project.**

Project construction noise impacts would be significant if construction noise levels would result in a substantial temporary increase in ambient noise levels, defined as a direct Project-related ambient increase of 10 dBA  $L_{eq}$  or greater, at noise sensitive receptors. Ambient noise levels in proximity to Project construction activities were estimated using available noise studies in the Project area available from the City and County. Therefore, a programmatic approach was taken to estimating ambient noise levels and construction noise levels along the alignment.

Based on day-night ambient noise levels of approximately 60 dBA CNEL (Kern County 2010b, City of Tehachapi 2012), corresponding daytime ambient noise level hourly averages are estimated up to 65 dBA  $L_{eq}$  along the proposed Project alignment, due to traffic noise estimated from the centerline of adjacent roadways. Estimated Project construction noise levels of approximately 80 dBA  $L_{eq}$  at 50 feet from the proposed Project alignment would occur during daytime Project construction activities, which would attenuate with distance to approximately 74 dBA  $L_{eq}$  at 100 feet. Therefore, construction noise levels would be less than approximately 75 dBA  $L_{eq}$ , which is a less than a substantial increase in ambient levels of 65 dBA  $L_{eq}$ .

There are residences located closer than 100 feet to the proposed Project alignment. While such residences would be closer to Project construction noise (i.e., higher construction noise levels), these residences are also closer to the adjacent roadway and its traffic noise (i.e., higher traffic noise levels), though construction noise increases at a higher rate (as a point source, 6 dBA increase per halving of distance) than traffic noise and (as a line source, 3 dBA increase per halving of distance). However, Kern County and the City of Tehachapi do not restrict construction noise level limits (Kern County 2015b, City of Tehachapi 2012). The County and City only limit when construction activities occur in residential areas, which is during daytime hours (i.e., no construction at night [when typical sleeping activities occur]). The proposed Project construction would occur during daytime hours (not disrupting typical [daytime] sleeping activities), and therefore, would be in compliance with Kern County and City of Tehachapi noise regulations. In addition, construction activities of pipeline installation along the Project alignment would progress at a linear rate (e.g., approximately 200 feet per day), and therefore,



would not be expected to occur adjacent to any one residence for more than approximately 2-3 days. Therefore, this impact is considered less than significant.

### **Mitigation Measures**

Project construction would not result in a significant impact. Therefore, no mitigation measures are required.

However, the BMPs for reducing construction noise from Impact 4.8-1 are recommended to minimize temporary noise levels during construction.

### **Level of Significance after Mitigation**

Impacts would be less than significant.

## **Cumulative Setting Impacts and Mitigation Measures**

The geographic scope for the consideration of cumulative noise impacts includes the areas immediately surrounding the Project site and along designated haul routes where heavy truck traffic would travel during construction. Generally, noise impacts are limited to the area directly surrounding the noise generator as noise attenuates with distance and only has the potential to combine with other noise sources in the immediate vicinity.

As detailed above, Project construction would not result in the exposure of persons to, or the generation of, noise levels in excess of standards established in the local general plans and noise ordinances. Project construction would similarly not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Project construction noise levels would not result in a substantial temporary net increase in ambient noise levels during Project construction activities at noise-sensitive receptors in proximity to construction activities.

Related projects in Kern County and the City of Tehachapi located in the Project area are too distant from each other to overlap with one another and the Project. Therefore, the current related projects would not create a cumulative noise or vibration impact individually or when combined with the current project. For this reason, the Project would result in a less than significant cumulatively considerable contribution to a cumulative noise impact.

### **Mitigation Measures**

Project construction would not result in a significant cumulative noise or vibration impact. Therefore, no mitigation measures are required.

### **Level of Significance after Mitigation**

Cumulative noise and vibration impacts would be less than significant.

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## Section 4.9

# Transportation and Traffic

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### 4.9.1 Introduction

This section of the EIR addresses potential impacts of the proposed Project on transportation and traffic, and also describes the environmental and regulatory settings. Applicable thresholds of significance, as well as mitigation measures that would reduce impacts, where applicable, are also provided. Due to the nature of the proposed Project, potential Project impacts to existing traffic levels and roadways were determined for the construction period using publicly available roadway traffic volumes and estimated construction vehicle trips that are based on the type of construction activities, equipment, and workforce.

### 4.9.2 Environmental Setting



The following section describes the regional and local environmental traffic and transportation setting for the proposed Project.

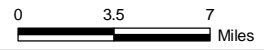
#### Regional Circulation Network

The majority of the proposed Project is located in an unincorporated portion of Kern County, in the community of Golden Hills, which is located approximately 3 miles west of the City of Tehachapi. The terminal portion of Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, is also located adjacent to the boundary of the City of Tehachapi. Regional access to the Project area (shown in Figure 4.9-1) is provided primarily by SR58SR 58 (Kern County Korean War Veterans Memorial Highway), which generally runs in an east-west direction between San Luis Obispo County and San Bernardino County, north of the proposed Project, and includes both two- and four-lane rights-of-way. SR 58 interchanges in the GTA are located at Sand Canyon Road, East Tehachapi Boulevard, North Mill Street, and SR 202 SR 202. SR 202 is an expressway that also generally runs in an east-west direction in the Project area and includes two- and four-lane sections. SR 202 runs through both unincorporated Kern County areas and the City of Tehachapi. Between Woodford-Tehachapi Road and Tucker Road, SR 202 is an enhanced two-lane collector with a two-way turn lane acting as the median and adequate space to provide for acceleration and deceleration lanes that serve local businesses (Kern County 2010a). In addition, SR 14, which also includes two- and four-lane rights-of-way, runs in a north-south direction east of the proposed Project and the City of Tehachapi, joining Highway 58 in Kern County to the north and Interstate 5 in Los Angeles County to the south (Kern County 2009).

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- Legend**
-  Interstate
  -  State Route



Golden Hills  
Community Services District

**Regional Circulation  
Network**

Date: 2/8/2016  
Project: 60317952

**AECOM** Figure 4.9-1

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

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## Local Circulation Network

The local roadways in Golden Hills and the GTA mainly consist of community and neighborhoods streets, as well as rural County roads. The local circulation system providing access to the Project area includes Tucker Road, Red Apple Avenue, Westwood Boulevard, and Woodford Tehachapi Road (Figures 1-2 and 1-3). Tucker Road is a four-lane arterial between Highline Road Avenue in the City of Tehachapi to Tehachapi Boulevard, but is a two-lane collector between Tehachapi Boulevard and SR 58. Tucker Road is the first major roadway that vehicles travel when entering the southern and eastern portions of the City of Tehachapi and it also provides an intersection to Red Apple Avenue, a two-lane undivided road. Tucker Road and Red Apple Avenue serve as the main access points to the southeastern portions of Golden Hills. Westwood Boulevard and Woodford Tehachapi Road, which are also two-lane undivided roads, provide access to the central and northern portions of Golden Hills (Kern County Planning and Community Development Department 2010).

The public streets within the unincorporated County area are within the jurisdiction of the County of Kern Public Works Department, Building and Development Division. Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, includes construction activities in the intersection of Tucker Road (SR 202) and Red Apple Avenue. Tucker Road/SR 202 is under the jurisdiction of Caltrans.

### Existing Average Daily Traffic Volumes

Traffic volumes for roadways in the Project area were obtained from the Kern County COG Traffic Count Database (Kern COG 2000 and 2015). Annual average daily trip (AADT) data are publicly available for two intersections within the Project alignments and are presented in Table 4.9-1 below.

**Table 4.9-1 Traffic Volumes in the Project Area**

Route	Intersection	Collected Volume (AADT)	Collection Date (Year)
Tucker Road/SR 202	Red Apple Avenue/ West Tehachapi Boulevard	11,050	2000
Westwood Boulevard	Woodford Tehachapi Road	4,694	2015

Source: Kern COG 2000 and Kern COG 2015.

## Public Transportation Systems

Kern Transit, operated by the County, is a division of the County of Kern Public Works Department, Building and Development Division and provides public transportation in the rural communities of Kern County, including the Tehachapi area. While there are no bus stops in Golden Hills, Bus Route 100 (Bakersfield to Lancaster) passes through Tehachapi, east of Golden

Hills. A bus stop is located on the west side of Mulberry Street, just off Tehachapi Boulevard (Kern Transit 2016a and 2016b).

The Tehachapi Unified School District (TUSD) provides school bus service for elementary, middle, and high school students within Golden Hills. Bus routes include stops at Tucker Road, White Pine Drive, Weston Avenue, Woodford Tehachapi Road, Westwood Boulevard, and Golden Hills Boulevard (TUSD 2016).

### **Bicycle and Pedestrian Circulation**

Pedestrian facilities include sidewalks, walkways, bridges, crosswalks, signals, illumination, and benches and are provided in portions of the GTA. While there are no sidewalks in the Golden Hills Community, a paved bike/pedestrian path was opened in July 2008 in the GTA, which begins at SR 202 (near its intersection with Golden Hills Boulevard) and travels northeasterly through a greenbelt that is owned by the GHCSO. This path provides access in the easterly direction to Meadowbrook Park and continues towards the City of Tehachapi on a Class I bike path (provides for bicycle travel on a paved right-of-way completely separate from the street or highway ) entering the Tehachapi City limits at the intersection of Tucker Road and Tehachapi Boulevard. Within the city, the path is a Class II bike lane (or a bike lane that provides a striped and stenciled lane for one-way travel on a street or highway) that connects with existing and proposed bike and walking paths/lanes through the City. Several roads in the Project area, including Westwood Boulevard, Red Apple Avenue, and Tucker Road include shoulders that may be used by pedestrians or bicyclists.

## **4.9.3 Regulatory Setting**

The following section describes the State and local traffic and transportation regulations and policies that apply to the proposed Project.

### **State**

Per the California Streets and Highway Code, Caltrans has jurisdiction over State highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, includes work within Tucker Road/SR 202 (at its intersection with Red Apple Avenue/West Tehachapi Boulevard), which is under the jurisdiction of Caltrans. Under the California Streets and Highway Code, Chapter 3, The Care and Protection of State Highways, Caltrans requires that an encroachment permit be obtained from their Permits Division prior to starting construction work within this right-of-way (Legal Info 2016). An encroachment permit grants “permissive authority” for the permittee to enter State right-of-way to construct approved facilities, which include public utilities. This permit specifies the rights and responsibilities for a contractor doing the work, including allowable methods of construction, inspection, and limitations to schedule. As part of that permit, a temporary traffic control plan for proposed detouring of traffic is required to be submitted by the contractor to Caltrans for review and approval (Caltrans 2015).



## Local

### Greater Tehachapi Area Specific and Community Plan (GTASCP)

The GTASCP Circulation Element (Chapter 4) identifies the general location and extent of existing and proposed major highways, transportation routes, and other alternative transportation modes. The Circulation Element establishes goals, policies, and implementation measures intended to help accomplish local objectives and circulation within the GTA. Both Options A and B require work within the limits of the GTASCP. Goals, policies, and implementation measures established in the GTASCP Circulation Element that apply to the proposed Project include those listed below.

#### Chapter 4: Circulation

##### 4.3.1 General Circulation and Roadways

###### *Goals*

Goal CIR.2      Maintain a LOS C or better on roadways within the identified TIF areas within the GTA and LOS D for all areas outside of the TIF areas.

###### *Implementation Measures*

Measure 1      All new discretionary development proposals shall consult with the County of Kern Public Works Department, Building and Development Division to determine the need for a Traffic Impact Analysis. Any required analysis shall identify the appropriate circulation/street improvements to be implemented by the project to maintain appropriate levels of service standard on facilities serving the project and surrounding area.

### County of Kern Public Works Department, Building and Development Division and Kern County General Plan

Both Options A and B require work within roads under the jurisdiction of the County of Kern Public Works Department, Building and Development Division and within the limits of the Kern County General Plan. Kern County requires that an encroachment permit be obtained from the County of Kern Public Works Department, Building and Development Division prior to starting construction work within these ROW. This permit specifies the rights and responsibilities for a contractor doing the work, including allowable methods of construction, inspection, and limitations to schedule. As part of that permit, a temporary traffic control plan is required to be submitted by the contractor for any proposed detouring of traffic.

The goals, policies, and implementation measures in the Kern County General Plan Circulation Element (Chapter 2) that apply to the proposed Project are provided below. The Kern County General Plan contains additional goals, policies, and implementation measures that are more general in scope and nature than those of the GTASCP, and those that apply to Project implementation are listed below.

## **Chapter 2: Circulation**

### 2.3.3 Highway Plan

#### *Goals*

Goal 5            Maintain a minimum LOS D.

#### *Implementation Measures*

Measure B      Project development shall comply with the requirements of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards.

### 2.5.1 Trucks and Highways

#### *Goals*

Goal 1            Provide for Kern County's heavy truck transportation in the safest way possible.

Goal 2            Reduce potential overweight trucks.

Goal 3            Use State Highway System improvements to prevent truck traffic in neighborhoods.

#### *Policies*

Policy 1          Caltrans should be made aware of heavy truck activity on Kern County's roads.

## **Kern County Regional Transportation Plan/Sustainable Communities Strategy and Congestion Management Program**

The Kern COG is a Federally designated Metropolitan Planning Organization and a State-designated Regional Transportation Planning Agency. As such, preparing a Regional Transportation Plan is one of Kern COG's primary statutory responsibilities under Federal and State law. The 2014 Regional Transportation Plan (Kern COG 2014) establishes regional transportation goals, policies, and actions that are intended to guide development of the planned multimodal transportation systems in Kern County. The Regional Transportation Plan provides for effective coordination between local, regional, State and Federal agencies. Pursuant to California's Sustainable Communities and Climate Protection Act, or SB 375, the 2014 Kern Regional Transportation Plan includes a Sustainable Communities Strategy that reduces GHG emissions from passenger vehicles and light-duty trucks by 5 percent per capita by 2020 and 10 percent per capita by 2035, as compared to 2005.

The Kern COG is also the Congestion Management Agency, responsible for assuring the County and its cities are following the County's Congestion Management Program (CMP) as included in the Regional Transportation Plan. The CMP is designed to ensure that a balanced transportation system is developed, relating population and traffic growth, land use decisions, performance standards, and air quality improvements. The CMP consists of six elements: land use impact analysis, multimodal performance standards, regional traffic model, transportation demand management, capital improvement program, and a deficiency plan (Kern COG 2014).

## Kern County Bicycle Facilities Plan

The Kern COG adopted the Kern County Bicycle Facilities Plan in October 2001. This plan outlines the constructed and planned bicycle transportation facilities throughout Kern County and serves as a guide to developing facilities in an orderly and timely fashion (Kern COG 2001). The Kern County Bicycle Facilities Plan includes the following proposed bicycle routes, which may occur within, or adjacent to portions of, the Project area roadways:

- Tucker Road from Highline Road to Tehachapi Boulevard
- Tehachapi Boulevard from Tucker Road to Tehachapi-Willow Springs Road
- Red Apple Avenue from Westwood Boulevard to Tucker Road

### 4.9.4 Impacts and Mitigation Measures

This section includes the traffic and transportation impact analysis of the proposed Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate significant impacts accompany each impact discussion where applicable.

#### Methodology

LOS is a quantitative measure of quality of service of a specific mode of transportation. The Kern County General Plan and GTASCP divide highway quality of service into six letter grades, “A” through “F”, with “A” being the least congested and “F” being the most congested. A quantitative measure of traffic conditions is tied to the quality of service described in Table 4.9-2.

**Table 4.9-2 Level of Service Characteristics for Roadways**

Level of Service	Description
A	Free Flow. No approach phase is fully used by traffic and no vehicle waits longer than one red indication. Insignificant delays.
B	Stable Operation. An occasional approach phase is fully used. Many drivers begin to feel somewhat restricted within platoons of vehicles. Minimal delays.
C	Stable Operation. Major approach phase may become fully used. Most drivers feel somewhat restricted. Acceptable delays.
D	Approaching Unstable. Drivers may have to wait through more than one red signal cycle. Queues develop but dissipate rapidly, without excessive delays.
E	Unstable Operation. Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. Significant delays.
F	Forced Flow. Represents jammed conditions. Intersection operates below capacity with several delays; may block upstream intersections.

Sources: Transportation Research Board 2000 and Kern COG 2014.

Roadway segment AADT volumes are used as a performance measure and indicator of LOS and operating conditions. AADT is a measure of the total traffic volume for the year divided by 365 days. This estimate for daily trips is then adjusted to account for seasonal influence, weekly variation, and other variables. AADT capacities published in the 2012 State of Florida Department of Transportation Quality/Level of Service Handbook (Florida Tables) are referenced and utilized to analyze roadway segment operations. As is the case of the proposed Project, the Florida Tables are commonly used on projects where a traffic study is not required. LOS classes for different route configurations are described in Table 4.9-3.

**Table 4.9-3 Daily Volumes for Roadway Levels of Service**

Number of Lanes	Type	Median	LOS Classes					
			A	B	C	D	E	F
2	Highway (Rural)	Undivided	<4,700	4,700	8,400	14,300	28,600	57,200
4	State Signalized Arterial (Urbanized)	Divided	<25,000	25,000	37,900	39,800	66,000	130,000

Source: State of Florida Department of Transportation 2010 (Tables 1 and 3).

Existing traffic volumes for roadways in the Project area were obtained from the Kern County COG Traffic Count Database (Kern COG 2000 and 2015). Data are available for two intersections within the Project limits. To estimate traffic volume from the available collection date to 2016 levels, a one percent annual increase was assumed. Table 4.9-4 shows the projected traffic data.

**Table 4.9-4 Existing and Projected Traffic Volumes**

Route	Intersection	Collected Volume (AADT)	Collection Date (Year)	Projected Volume (2016)
Tucker Road/SR 202	Red Apple Avenue/West Tehachapi Boulevard	11,050	2000	12,957
Westwood Boulevard	Woodford Tehachapi Road	4,694	2015	4,741

Source: Kern COG 2000 and Kern COG 2015.

## Thresholds of Significance

As described in the IS/NOP prepared for the proposed Project, which is based on the Appendix G Environmental Checklist Form of the CEQA Guidelines, the proposed Project would potentially result in a significant adverse effect on traffic and transportation if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to

intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency or adopted county threshold for designated roads or highways;
  - Metropolitan Bakersfield General Plan LOS C
  - Kern County General Plan LOS D
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards as a result of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and/or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

As determined through the IS/NOP process (refer to Appendix A), the proposed Project would not result in significant adverse impacts associated with the Metropolitan Bakersfield General Plan or air traffic patterns; therefore, these items from the list above are not evaluated further in this section.

## Project Impacts

**Impact 4.9-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

The effectiveness of vehicular circulation system performance is evaluated using LOS. The GTASCP requires that roads in the GTA, which includes the Project area, operate at LOS C or better.

Both Option A and Option B require construction within public street rights-of-way, including installation or replacement of pipelines, manholes, vaults, and other underground structures. This work and future maintenance activities may require temporary partial (i.e., one lane) or complete shutdown of existing streets. Vehicle traffic will also be temporarily increased due to materials and workers accessing the work area. No permanent changes to existing roadways are proposed; therefore, potential transportation and traffic impacts would be limited to periods when construction and maintenance are occurring. Roadways that would be affected by construction activities include the internal streets of the Golden Highlands Community (i.e., Emerald Mountain Drive), White Pine Drive, Woodford Tehachapi Road, Westwood Boulevard, Red Apple Avenue, and the intersection of Tucker Road and Red Apple Road/West Tehachapi Boulevard.

Option A, Continued Operations of the Golden Hills WWTP and System, would result in 10 round trips per day by construction workers commuting to the job and four by various construction

vehicle trips, for a total of 14 project-related round trips (or 28 one-way trips). Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, would result in a maximum of 15 round trips per day (or 30 one-way trips), five by construction workers commuting to the job and 10 by various construction vehicles. For this analysis, the total number of one-way trips during construction activities is added to the existing traffic volume of each of the existing routes for which data were publicly available. The projected traffic volumes on the identified Project area roadways were then compared to the LOS standards listed in Table 4.9-3 above to determine if construction of the Project would adversely affect LOS. The results of this analysis are shown in Table 4.9-5 below.

**Table 4.9-5 2016 Traffic Volumes with the Project**

Route	Intersection	No. of Lanes	LOS C Upper Limit <sup>2</sup>	Daily Volume 2016 w/o Project (AADT)	2016 LOS w/o Project	Daily Volume 2016 w/ Project Option A (AADT)	2016 LOS w/ Project Option A	2016 LOS w/ Project Option B	2016 LOS w/ Project Option B
Tucker Road/SR 202	Red Apple Avenue /West Tehachapi Boulevard	4-lane, Divided	37,900	12,957	A	12,985	A	12,987	A
Westwood Boulevard	Woodford Tehachapi Road	2-lane, Undivided	8,400	4,741	B	4,769	B	4,771	B

As shown in Table 4.9-5, the LOS on Tucker Road/SR 202 and Westwood Boulevard would not change as a result of construction activities with either Option A or Option B. In addition, the identified Project area roadways would operate above the GTASCP policy standard of LOS C with Project construction activities. Therefore, the proposed Project would result in a less than significant impact related to LOS and applicable traffic and transportation policies.

With regard to policies and performance criteria for pedestrian and bicycle paths and public transit, the Project work areas would not result in permanent changes to such facilities or modes of transportation. Temporary Project impacts to pedestrian and bicycle paths and public transit modes are addressed in the Project Impact 4.9-5 discussion, below.

**Impact 4.9-2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency or adopted county threshold for designated roads or highways.**

Within the Project region, SR 58 and SR 14 are included in the CMP system. In addition, SR 202 is included in the CMP system of Kern County (Kern COG 2014). Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, would require construction within the intersection of Red Apple Avenue/West Tehachapi Boulevard and Tucker Road/SR 202 to

connect the Golden Hills WWTP to the City of Tehachapi WWTP. However, as described above, the proposed Project would not permanently alter roadway design or operation, and during the construction phase, acceptable LOS would be maintained. Therefore, the Project would result in less than significant impact to the applicable CMP and associated standards.

**Impact 4.9-3: Substantially increase hazards as a result of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

The Project entails the replacement or construction of pipelines and associated wastewater infrastructure in area roadway rights-of-way, as well as the delivery of construction materials, equipment and vehicles to the Project area, which may include oversized loads. Therefore, the Project has the potential to increase roadway hazards to pedestrians, motorists, and bicyclists due to reduced lane width, detours, and the presence and operation of construction equipment, in addition to reduced visibility. This increase in roadway hazards represents a potentially significant impact without mitigation.

The Project is required to obtain encroachment permits. Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, involves construction within Tucker Road/SR 202 and would require an encroachment permit from Caltrans, whereas Option A, Continued Operations of the Golden Hills WWTP and System, does not. Both Option A and B require an encroachment permit from the County of Kern Public Works Department, Building and Development Division. The requirements to obtain encroachment permits are included as Mitigation Measure 4.9-1. In addition, construction traffic control plans are typically required as part of encroachment permits. Such plans address all phases or stages of construction and make provisions for pedestrians, bicyclists, and motorists. Mitigation Measure 4.9-2 requires that the GHCS D prepare and adhere to a traffic control plan, which has been reviewed and approved by Caltrans and the County of Kern Public Works Department, Building and Development Division.

Following construction, Project area roadways would be returned to their preexisting condition. Therefore, the Project includes no changes to area roadways that would result in permanent hazards.

### **Mitigation Measures**

**MM 4.9-1** Prior to the issuance of building permits, the implementing agency shall obtain all applicable permits from the California Department of Transportation, County of Kern Public Works Department, Building and Development Division, and other applicable agencies pertaining to vehicle sizes, weights, roadway encroachment, and travel routes needed for construction activities. At a minimum, the implementing agency shall obtain an encroachment permit from the County of Kern Public Works Department, Building and Development Division for Option A and Option B, as applicable, for construction activities occurring in roads under their jurisdiction, as well as obtain an encroachment permit from the California Department of Transportation for Option B, Conveyance of Wastewater to the City of Tehachapi for Treatment, for

construction activities occurring in SR 202. The implementing agency shall adhere to all conditions of said permits throughout implementation of the Project.

**MM 4.9-2**

Prior to the issuance of building permits, the implementing agency shall prepare and submit a Construction Traffic Control Plan to the County of Kern Public Works Department, Building and Development Division and to the California Department of Transportation for review and approval. The Construction Traffic Control Plan must be prepared in accordance with both the 2014 California Department of Transportation Manual on Uniform Traffic Control Devices and the 2014 Work Area Traffic Control Handbook. The Plan shall include, at a minimum, methods to address the following:

- Designation of a traffic control coordinator, who shall be responsible for responding to local complaints about Project construction effects to traffic. The traffic control coordinator shall be required to implement measures to resolve the complaint, as feasible. Signs shall be posted along the project's construction and operations access routes and shall list the telephone number for the traffic control coordinator. The traffic control coordinator shall also be responsible for coordinating with the Kern County Fire Department, Tehachapi City Fire Department, Kern County Sheriff's Department, California Highway Patrol, and City of Tehachapi Police Department during construction such that these agencies are aware of the location and duration of roadway construction activities and to provide an opportunity for agencies to pre-plan alternate routes in case of an emergency. Similarly, the traffic control coordinator shall be responsible for coordination with the TUSD bus operators to assure alternate pick-up/drop-off locations are pre-planned for students residing in the Project area, as feasible, and/or to provide sufficient notice to students and parents to make alternate arrangements, if necessary.
- Timing of construction activities and deliveries of equipment and building materials, as well as determining the need for construction work hours and arrival/departure times outside peak traffic periods;
- Temporary closure of travel lanes or disruptions to street segments and intersections during materials delivery and construction activities;
- Distribution of construction traffic flow across alternative routes to access the Project work areas;
- Directing construction traffic with a flag person;
- Placing temporary signage, lighting, and/or traffic control devices (i.e., cones) near work areas and along access routes to indicate the presence of construction activities, equipment, and workers;



- Ensuring regular and emergency access for vehicles in the Project work areas to adjacent residences and businesses; and
- Identification of vehicle safety procedures for entering and exiting site access roads.

#### **Level of Significance after Mitigation**

Following implementation of Mitigation Measures 4.9-1 and 4.9-2, the Project impacts associated with temporary roadway hazards would be reduced to less than significant.

#### **Impact 4.9-4: Result in inadequate emergency access.**

As the Project entails the repair or construction of pipelines and associated wastewater infrastructure in area roadway rights-of-way, as well as the delivery of construction equipment and vehicles to the Project area, it has the potential to interfere with emergency access. During construction of the Project with either Option A or Option B, traffic flows on Project area roadways and access to private property (including residences and businesses) may be temporarily restricted or diverted. This conflict represents a potentially significant impact. Encroachment permits and the construction traffic control plan required by Mitigation Measures 4.9-1 and 4.9-2 provide mechanisms to mitigate the adverse effects related to reduced lane width, detours, and the presence and operation of construction equipment in or along area roadways, including coordination with first responders in the Project area.

Following construction, Project area roadways would be returned to their preexisting condition. Therefore, the Project includes no changes to area roadways that would result in permanent emergency access conflicts.

#### **Mitigation Measures**

Implement Mitigation Measures 4.9-1 and 4.9-2.

#### **Level of Significance after Mitigation**

Following implementation of Mitigation Measures 4.9-1 and 4.9-2, the Project impacts associated with temporary emergency access conflicts would be reduced to less than significant.

#### **Impact 4.9-5: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

While the Project area does not include extensive bicycle or pedestrian networks, roadway shoulders are often used for these purposes. As both Option A or B of the Project require construction activities that occur in roadway rights-of-way, access to bicycle and pedestrian facilities will be reduced temporarily, which represents a potentially significant impact. A construction traffic control plan, as previously discussed, will be required as Mitigation Measure 4.9-2 to address bicycle and pedestrian access and safety, in addition to motorist safety.

TUSD school bus access may be temporarily impacted as a result of Project construction activities as well. Mitigation Measure 4.9-2, the construction traffic control plan, shall require coordination with the TUSD bus operators in order to allow the school district an opportunity to adjust pick-up/drop-off locations, as feasible, and/or provide sufficient notice to students and parents to make alternate arrangements if necessary.

Access to public transit is not expected to be impacted as the current stop location for Kern Regional Transit is located outside the construction work area.

Following construction, Project area roadways would be returned to their preexisting condition. Therefore, the Project includes no changes to area roadways that would result in permanent conflicts with public transit, bicycle, or pedestrian facilities.

### **Mitigation Measures**

As Mitigation Measure 4.9-2 will address impacts to public transit and bicycle and pedestrian facilities, no additional mitigation measures are required.

### **Level of Significance after Mitigation**

Following implementation of Mitigation Measure 4.9-2, the Project impacts associated with public transit and bicycle and pedestrian facilities conflicts would be reduced to less than significant.

## **Cumulative Setting Impacts and Mitigation Measures**

The geographic scope for the consideration of cumulative traffic and transportation impacts includes the immediate Project area roadways as well as the County circulation network on which Project construction vehicles and workers would travel.

According to the Draft EIR prepared for the GTASP (Kern County 2010a), development within the GTA would include the following land uses: residential, commercial, industrial, parks and recreational facilities, educational facilities, and governmental facilities. The GTASP Draft EIR also established the basis for development of 4,780 additional dwelling units with an associated two percent growth rate. This forecasted population increase would result in an increase in cumulative trips and congestion levels of the street system, as well as potentially exceed LOS standards on County roads and State highways. Build-out of the GTASCP, which includes the Project area, would result in three roadway segments that exceed acceptable Kern County LOS C criteria:

- Tehachapi Willow Springs Road South of Highline Road;
- State Route 202 West of Tucker Road; and
- State Route 202 North of East Valley Boulevard.

The GTASCP therefore includes measures to reduce traffic and congestion, such as increasing roadway capacity. Where applicable, Project applicants are required to pay transportation fees

that are used to fund roadway improvements. Nevertheless, the Draft EIR for the GTASP determined that, due to the uncertainty of the timing, funding, and/or implementation of necessary roadway improvements, the GTASP's contribution to cumulative traffic and transportation impacts would be significant and unavoidable.

Traffic and transportation impacts of the Project would be temporary and are limited to the Project construction period. Following implementation of Mitigation Measures 4.9-1 and 4.9-2, the Project would not result in significant traffic and transportation impacts. The Project would also comply with Kern County, GTASCP, and City of Tehachapi policies that pertain to circulation. Although Project traffic and transportation impacts would be short term and individually would not be cumulatively considerable, the Project may be cumulatively considerable in combination with related projects should its construction coincide with the construction of the related projects. Mitigation Measure 4.9-2 would address construction timing and routes, as would the traffic control plans required of other projects, to minimize or avoid this potentially significant cumulative impact.

#### **Mitigation Measures**

As Mitigation Measure 4.9-2 will address Project-level impacts during the construction period, no additional mitigation measures are required for the cumulative impact.

#### **Level of Significance after Mitigation**

Following implementation of Mitigation Measure 4.9-2, the Project's contribution to the cumulative traffic and transportation impact would be less than significant.

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## Section 4.10

# Utilities and Service Systems

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### 4.10.1 Introduction

This section presents existing conditions and potential impacts related to utilities associated with implementation of the proposed Project. It also describes the applicable environmental and regulatory settings for the Project.

The Lead Agency determined in the IS/NOP that the proposed Project would result in no impacts or less than significant impacts associated with the majority of utility and service systems. To focus this EIR, those topics are not considered further, and this section focuses on wastewater service systems. Appendix A of this EIR contains a copy of the IS/NOP for additional information regarding these systems.

### 4.10.2 Environmental Setting

Wastewater treatment service is generally provided by two methods, community WWTP or individual or shared septic systems. According to the GTASCP, other communities within the GTA that also provide wastewater treatment services to their residents are Bear Valley Springs and Stallion Springs (Kern County 2010b). The City of Tehachapi operates a large WWTP that serves the City.

Wastewater treatment within the Project area is provided by the GHCSO through the Golden Hills WWTP. However, according to the GTASCP, roughly 90 percent of the existing lots in the community of Golden Hills deal with wastewater by using personal or shared septic systems. The Golden Hills WWTP is permitted as a Class III wastewater treatment facility and is located on a 0.53 acre site at the terminus of the Monroe Lane-Utility Extension, Old Camp Road, in Golden Hills. The Golden Hills Wastewater Treatment System was projected to service approximately 325 connections, but currently has 185 active connections and the capacity for an additional 145 connections, according to the Golden Hills Wastewater System Preliminary Engineering Report/Feasibility Study, which was prepared to evaluate engineering options for improving the system. Monthly service rates for existing single family residential, apartment, and motel connections range between \$80.73 and \$91.29 (AECOM 2014).

The City of Tehachapi WWTP is located at 750 Enterprise Way, between the Union Pacific Railroad ROW and SR-58 on the west side of the City. This WWTP has a capacity of 1.25 mgd, and an average daily flow of 0.85 mgd. The City of Tehachapi has approximately 2,600 sewer service connections, and 35 miles of sanitary sewers that convey wastewater to the WWTP. The WWTP underwent upgrades in 1992 and therefore has the potential to expand to 2.5 mgd, with some improvements to the head works structure, control building, electrical service and yard piping, according to the City of Tehachapi General Plan (City of Tehachapi 2012).

## 4.10.3 Regulatory Setting

The Federal, State and local regulations that apply to the proposed Project and the wastewater service system are discussed in the sections below.

### Federal

#### Clean Water Act

The CCWA was originally enacted in 1948 as the Federal Water Pollution Control Act, but it was expanded substantially in 1972 and renamed the CWA (33 U.S.C. §1251 et seq.). The CWA regulates discharges of pollutants into waters of the United States and quality standards for surface waters. Under the CWA, the EPA also implements pollution control programs, through the NPDES program, for example. The EPA uses the NPDES program to regulate discharges of pollutants from municipal and industrial wastewater treatment plants, sewer collection systems, and stormwater discharges from industrial facilities and municipalities (EPA 2016a and 2016b).

### State

#### Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB and the nine RWQCBs to adopt water quality standards to protect State waters. Those standards include the identification of beneficial uses, narrative and numerical water quality criteria, and implementation procedures. Water quality standards for the proposed Project area are contained in the Tulare Lake Basin Plan, which was adopted in 2004. This plan sets numeric and/or narrative water quality criteria controlling the discharge of wastes to the State's waters and land.

Under the Porter-Cologne Act, the regional RWQCBs also regulate the "discharge of waste" to "waters of the state." Parties proposing to discharge waste that could affect waters of the State must file a ROWD with the appropriate regional board. The RWQCB then responds to the ROWD discharge by issuing WDRs in a public hearing, or by waiving WDRs (with or without conditions) for that proposed discharge. The current wastewater service system is subject to WDR R4-81-22.

### Local

#### Kern County General Plan

Chapter 1.4 of the Kern County General Plan (Land Use, Open Space, and Conservation Element, Public Services and Utilities) and Chapter 1.10.1 (General Provisions for Public Services and Facilities) include provisions that reflect the County's interest in facilitating reliable and cost-effective utilities and public services to residents and businesses, as described below.

### 1.4 Public Services and Utilities

#### *Goals*

- Goal 1 Kern County residents and businesses should receive adequate and cost effective public services and facilities. The County will compare new urban development proposals and land use changes to the required public services and facilities needed for the proposed project.
- Goal 3 Distribute the cost of new services or facilities equitably among the beneficiaries.
- Goal 4 Provide coordination between public entities to ensure infrastructure standards and equitable financial support.
- Goal 6 Provide a healthful and sanitary means of collecting, treating, and disposing of sewage and refuse for the residents and industries of Kern County.
- Goal 7 Facilitate the provision of reliable and cost effective utility services to residents of Kern County.
- Goal 11 Reduce residential contamination of groundwater by encouraging sanitary sewer systems.

#### *Policies*

- Policy 2 The efficient and cost-effective delivery of public services and facilities will be promoted by designating areas for urban development which occur within or adjacent to areas with adequate public service and facility capacity.
- a. Ensure that water quality standards are met for existing users and future development
  - b. Ensure that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth.
  - c. Encourage the utilization of wastewater treatment facilities which provide for the reuse of wastewater.
  - d. Encourage the conversion of private sewer systems (septic tanks) to public systems.
  - e. Ensure that adequate collection, treatment, and disposal facilities are constructed concurrently with planned growth.
  - f. Ensure that appropriate funding mechanisms are in place to fund the needed improvements which result from development and subsequent growth.

### 1.10.1 General Provisions for Public Services and Facilities

#### *Policies*

- Policy 9 New development should pay its pro rata share of the local cost of expansions in services, facilities, and infrastructure which it generates and upon which it is dependent.

- Policy 12 All methods of sewage disposal and water supply shall meet the requirements of the Kern County Public Health Services Department, Environmental Health Division and the RWQCB. The Kern County Public Health Services Department, Environmental Health Division shall periodically review and modify, as necessary, its requirements for sewage disposal and water supply, and shall comply with any new standards adopted by the State for implementation of Government Code Division 7 of the Water Code, Chapter 4.5 (Section 13290-13291.7) (AB 885)(2000).
- Policy 14 The County will explore financing and methods of installation of public sewage systems, which will be encouraged both in areas of existing urban density served by septic systems and in existing communities experiencing repeated septic failures.

### **Greater Tehachapi Area Specific and Community Plan**

The Project lies within the GTASCP area, for which the County has provided specific goals, policies, and implementation measures to guide development. Chapter 3.3.1 of the GTASP (Water Resources) includes policies that reflect the County's interest in preserving water quality and providing reliable and effective wastewater services in the GTA, as described below.

#### 3.3.1 Water Resources

##### *Policies*

- Policy COS.2 Ensure that water quality standards are maintained for existing users and future development and that water-related infrastructure is provided in an efficient and cost-effective manner.
- Policy COS.14 Encourage utilization of wastewater treatment facilities which provide for the reuse of wastewater and require the highest possible quality of wastewater treatment to increase the potential use of recycled water for existing and future needs to the GTA.
- Policy COS.17 The County shall coordinate with the City of Tehachapi, Tehachapi Cummings County Water District and other water purveyors within the GTA to pursue funding to support infrastructure improvements.

### **City of Tehachapi General Plan**

Options B-1 and B-2 of the Project would convey wastewater to the City of Tehachapi for treatment, and the utility connection point would be located at the intersection of Red Apple Avenue/West Tehachapi Boulevard and Tucker Road/SR 202, which is located adjacent to the City of Tehachapi boundary. Chapter 2.1F of the City of Tehachapi General Plan (Sustainable Infrastructure Element) includes a specific Policy (S1 23B) that the City shall provide adequate sanitary sewer capacity per minimum 8-inch lines and 4-inch laterals.



## 4.10.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to the proposed wastewater service systems for the proposed Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

### Methodology

The evaluation of utility and service system impacts is based on AECOM's 2014 Final PER/FS, professional judgement, analysis of Kern County's land use policies, and significance criteria based on the Appendix G Environmental Checklist Form of the CEQA Guidelines, which the County has deemed appropriate for this EIR.

### Thresholds of Significance

The Appendix G Environmental Checklist Form of the CEQA Guidelines was utilized to determine whether the Project could potentially have a significant adverse impact on utility and service systems for those issues not eliminated in the IS/NOP. The Project would result in a significant adverse impact on utilities and service systems if it would:

- 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;

The following analysis addresses whether the proposed Project would 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.

### Project Impacts

**Impact 4.10-1: 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.**

#### Option A - Continued Operations of the Golden Hills WWTP

Current monthly rates from the existing system connections do not cover the operations and maintenance fees of the system, but improvements to the system are necessary. Implementation of Option A would entail upgrades to the existing Golden Hills Wastewater Treatment Collection System, rehabilitation of the WWTP, and replacement of the Woodford Tehachapi Road lift station with a gravity pipeline. According to the PER/FS (AECOM 2014), service rates for those with existing connections would increase to approximately \$176 per month (from an existing \$80.73 to \$91.29) under Option A with the GHCSO remaining as the Plant and System operator (AECOM 2014).

Currently, the Golden Hills WWTP treats 0.03 mgd of sewage. Under Option A, the Golden Hills WWTP would be rehabilitated to receive and treat the current treatment loads, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads, according to the WWTP's rated capacity. This represents an increase in sewage treatment of 0.07 mgd. Option A does not propose new expansion of the Golden Hills WWTP and Wastewater Treatment System but rather would provide maintenance and operational improvements to enable the WWTP and System to function as originally intended and to provide a long-term solution to improving sewer service to existing customers (both active and pre-paid standby) within the Golden Hills community. The environmental impacts associated with the implementation of Option A are evaluated in the remaining sections of Chapter 4 of this EIR. However, in summary, Option A would result in less than significant impacts associated with aesthetics, land use and planning, greenhouse gas emissions, and noise. Option A would result in potentially significant Impacts to transportation and traffic, hydrology and water quality, cultural resources, biological resources, and air quality, but these impacts would be reduced to less than significant with the implementation of mitigation measures.

Option B-1 - Conveyance of Wastewater to the City of Tehachapi for Treatment with a Woodford Tehachapi Property Lift Station and Option B-2 - Conveyance of Wastewater to the City of Tehachapi for Treatment with a Lift Station at the Former Golden Hills WWTP Site

Implementation of either Option B-1 or B-2 entails the general upgrades to the Golden Hills Wastewater Treatment Collection System that are required of Option A (including replacement of the Woodford Tehachapi Road lift station with a gravity pipeline), as well as installation of a lift station at either the Woodford Tehachapi Property (B-1) or at the former Golden Hills WWTP (B-2), construction an additional approximately 3,300 linear feet of sewer force main (B-2), construction of a force main and gravity pipeline to the City of Tehachapi WWTP, decommissioning of the Golden Hills WWTP, and abandonment of the sewer collection line to the Golden Hills WWTP and effluent line to Tom Sawyer Lake. Under both Option B-1 and B-2, effluent treatment and disposal would be conducted by the City of Tehachapi.

As previously stated, the Golden Hills WWTP currently treats 0.03 mgd of sewage. During 2013, the total City of Tehachapi effluent was approximately 0.94 mgd. The total rated capacity of the Tehachapi WWTP is 1.25 mgd. As the combined treated amount of sewage at the Tehachapi WWTP would be 0.97 mgd with the Project, the permitted treatment and disposal capacity for the Tehachapi WWTP would not be exceeded under either Option B-1 or B-2.

Although the City of Tehachapi would conduct effluent treatment and disposal under Option B-1, future governance of sewer service (including operation and maintenance of existing and future sewer infrastructure) remains undecided. The three potential governance options evaluated in the Final PER, in addition to the monthly service rates required by each governance option, include:

- The Kern County governance option: allows for no GHCSO control since the service would be managed by a County Service Area, and includes a monthly service rate of \$108.

- The GHCSO governance option: allows for local control of the collection system and maintains a direct relationship between the customers and GHCSO, and includes a monthly service rate of \$95.
- The City of Tehachapi governance option: moves all control from the collection system through treatment to the City of Tehachapi, and includes a monthly service rate of between \$60 and \$80.

Under Option B-2, these same three options would hold, but the rates are anticipated to increase by an additional \$3 as compared to Option B-1, based on differences in construction, maintenance, and other costs.

The environmental impacts associated with the implementation of Options B-1 and B-2 are evaluated in the remaining sections of Chapter 4 of this EIR. However, in summary, Option B-1 would result in less than significant impacts associated with land use and planning, greenhouse gas emissions, and noise. Option B-1 would result in potentially significant Impacts to transportation and traffic, hydrology and water quality, cultural resources, biological resources, and air quality, but these would be reduced to less than significant with the implementation of mitigation measures. A significant and unavoidable impact would result from Option B-1 associated with the proposed lift station location in the Woodford Tehachapi property.

Option B-2 would result in less than significant impacts associated with aesthetics, land use and planning, greenhouse gas emissions, and noise. Option B-2 would result in potentially significant impacts to transportation and traffic, hydrology and water quality, cultural resources, biological resources, and air quality, which would be reduced to less than significant with the implementation of mitigation measures.

### **Mitigation Measures**

No mitigation measures beyond those identified in the remaining sections of this Chapter 4 analysis are required to reduce the wastewater service system impacts of the proposed Project.

### **Level of Significance after Mitigation**

Impacts would be less than significant.

### **Cumulative Setting Impacts and Mitigation Measures**

The Project under either Option A, Option B-1, or Option B-2 would provide for repaired and improved sewer service to the Golden Hills community and serve existing and previously planned residential and commercial customers in the Golden Hills community. As such, the Project would not induce new unplanned residential or commercial development. As the Project is a Wastewater System Improvement Project, it does not represent a land use that, when combined with cumulative development in the Project area (such as residential, commercial, or industrial proposals), would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, the Project would result in a

less than significant cumulatively considerable utility and service systems impact. The cumulative environmental impacts associated with implementation of the proposed Project are evaluated in the remaining sections of Chapter 4 of this EIR. However, in summary, the Project would result in less than significant cumulative impacts or cumulative impacts that are less than significant following the implementation of mitigation measures. The Project would not result in significant and unavoidable cumulative impacts.

**Mitigation Measures**

No mitigation measures beyond those identified in the remaining sections of this Chapter 4 analysis are required to reduce the wastewater service system impacts of the proposed Project.

**Level of Significance after Mitigation**

Impacts would be less than significant.

# Consequences of Project Implementation

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## 5.1 Environmental Effects Found To Be Less than Significant

In accordance with Section 15128 of the CEQA Guidelines, an EIR is required to include a statement that indicates the reasons that various possible effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. As provided in the CEQA Guidelines, these effects are described in the IS (Appendix A). Issues that were found to have no impact or less-than-significant impacts in the IS/NOP are not addressed further in this EIR.

In addition, the GHCSO solicited public comments on the scope of the proposed Project through the IS/NOP and a public scoping meeting. The contents of this EIR are based on the analysis provided in the IS and public and agency input received during the IS/NOP review period and scoping meeting. Based on the findings of the IS/NOP, the comments received on the IS/NOP and at the scoping meeting, and further study included in this EIR, the direct and indirect impacts of the proposed Project (not including cumulative impacts) that would have no impact, would be less than significant, or that would be reduced to less-than-significant levels following the implementation of mitigation measures are related to the following issue or resource areas:

- Aesthetics (Option A and Option B-2)
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing (including Socioeconomics and Environmental Justice)
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

## 5.2 Significant Environmental Effects that Cannot Be Avoided

In accordance with Section 15126.2(b) of the CEQA Guidelines, an EIR is required to describe the significant impacts of a project, including those that are unavoidable (i.e., those impacts for which there is no feasible mitigation or those that remain significant after mitigation is applied).

Chapter 4 of this EIR discusses the potentially significant impacts of the proposed Project, as well as the associated mitigation measures. In summary, however, the environmental impact that was determined to be significant and unavoidable is the Aesthetics impact related to scenic vistas and Option B-1, Conveyance of Wastewater to the City of Tehachapi for Treatment via a New Lift Station on the Woodford Tehachapi Property.

Option B-1 would include installation of a lift station and a sewer force main to the City of Tehachapi WWTP through a pipeline connection at Tucker Road and Red Apple Avenue. A new lift station would be constructed south and east of Tom Sawyer Lake and east of Supply Lake, and gravel would be added to the surface of an existing dirt road that extends from Woodford Tehachapi Road, south of Tom Sawyer Lake, and east to Supply Lake. Fencing would surround the lift station, overflow basin, and associated equipment, which would obstruct scenic views from nearby homes and unofficial recreational uses (such as Tom Sawyer Lake and dirt paths within the Woodford Tehachapi Property). Following implementation of Mitigation Measures 4.1-1 and 4.1-2 (lift station design/architectural treatments and vegetative screening), the existing views toward the proposed lift station and within the Woodford Tehachapi Property would be substantially improved. However, the overall scenic vista impacts associated with operation of the Option B-1 lift station would remain significant and unavoidable.

## 5.3 Significant Irreversible Impacts

Section 15126.2(c) of the CEQA Guidelines requires that an EIR discuss the significant irreversible environmental changes that would occur with implementation of a project and that cannot be avoided. An irreversible impact is an impact that uses nonrenewable resources during the initial and continued phases of a project. Irreversible impacts may also result from damage caused by environmental accidents associated with a project. Irrecoverable commitments of resources are also required to be evaluated, in order to ensure that such consumption is justified.

The proposed Project would result in the irreversible and irretrievable commitment of nonrenewable resources, as it would consume oil, gas, and other nonrenewable resources. However, assuming these commitments occur in accordance with the adopted goals, policies, and implementation measures of the GTASCP and Kern County General Plan, as a matter of public policy, such commitments are determined to be acceptable. The GTASCP and Kern County

General Plan ensure that the irreversible and irretrievable environmental changes associated with these commitments will be minimized.

## 5.4 Significant Cumulative Impacts

In accordance with Section 15130 of the CEQA Guidelines, an EIR is required to address the cumulative impacts of a project when its incremental effect is cumulatively considerable. A cumulative impact “is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” Chapter 3, Project Description, of this EIR provides a list of related projects that were considered as the basis for the cumulative impact analyses provided in Chapter 4, Environmental Analysis. The proposed Project was determined to result in a significant cumulative impact to Traffic and Transportation (during the construction period).

## 5.5 Growth Inducement

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR discuss the growth-inducing impacts of a project. A project is considered to be growth-inducing if it could directly or indirectly foster economic or population growth, or the construction of additional housing, in the surrounding environment. Growth-inducing projects also include those that would remove obstacles to population growth.

As described in Chapter 3, Project Description, the Golden Hills Wastewater Treatment System was projected to service approximately 325 connections, but it currently has 185 active connections and the capacity for an additional 145 connections. As development of the Golden Hills community was not completed as expected, the anticipated flow to the Golden Hills WWTP was never realized. Limited development resulted in extremely low wastewater flow into the Golden Hills WWTP, which as a consequence, often did not operate as expected. The plant has a rated capacity of 100,000 gpd (or 0.10 mgd) when all components are operational. However, currently approximately 30,000 gpd (0.03 mgd) of tertiary-treated effluent is processed at the plant and is discharged into Tom Sawyer Lake.

The proposed Project presents three options as potential solutions to operating and maintaining the wastewater system for the existing residences and owners of vacant lots who expect to be able to build. Option A would include the rehabilitation and continued operation of the Golden Hills WWTP, with an opportunity to provide treatment for up to 0.10 mgd of future sewage effluent loads according to the plant’s rated capacity. Options B-1 and B-2 would include installation of a lift station and force main pipeline to the City of Tehachapi WWTP for effluent treatment and disposal.

The treated effluent amount would increase from 0.03 mgd to 0.10 mgd with the proposed Project, which was the system's original rated capacity. As a consequence, the proposed Project would expand wastewater service beyond the existing conditions.

However, the proposed Project would be providing wastewater service to existing customers and standby customers, rather than to new, or unplanned, customers. Furthermore, ultimately, growth in the Project area must occur in accordance with the GTASCP. According to the Draft EIR prepared for the GTASP (Kern County 2010a), "CEQA associates development of new utilities and other infrastructure and public services with growth inducement. To minimize this impact, the GTASP focuses development on existing communities and surrounding areas, while limiting residential or urban development on the majority of the GTA's land." The GTASCP supersedes (and consolidates) several prior planning documents, including the Golden Hills Specific Plan. The GTASCP lowered the new development cap in the GTA from 44,300 units under previous land use designations, to 4,780 units. As such, the GTASCP has already limited induced growth in the Project area by setting forth land use designations, policies, and implementation measures that reduce overall growth in the region, while also accommodating adequate housing, jobs, and public services. As described in Section 4.7, Land Use and Planning, of this EIR, the proposed Project would be consistent with the GTASCP.

Therefore, for the reasons specified above, the growth inducing impact of the proposed Project is less than significant.

## 5.6 Energy Conservation

The CEQA Statute (PRC Section 21100[b][3]) requires that an EIR consider the potentially significant energy implications of a project to the extent they are relevant and apply to the project. The Statute emphasizes avoiding or reducing inefficient, wasteful, and unnecessary energy consumption. According to the CEQA Guidelines (Appendix F), the goal of energy conservation implies the wise and efficient use of energy, and the means by which to achieve this goal includes:

- 1) Decreasing overall per capita energy consumption;
- 2) Decreasing reliance of fossil fuels such as coal, natural gas, and oil; and
- 3) Increasing reliance on renewable energy sources.

Chapter 3, Project Description, and Sections 4.2 and 4.5, Air Quality and Greenhouse Gas Emissions (and associated Appendices B and E), as well as Section 4.9, Traffic and Transportation, of this EIR describe the energy consuming processes, equipment, and vehicles that would be necessary to develop and operate the Project. As discussed in Section 5.3 above, the proposed Project would result in the irreversible and irretrievable commitment of nonrenewable resources, such as oil and gas. However, the proposed Project would also replace and/or upgrade 30-year-old aged infrastructure, which would improve energy efficiency. For



example, the current 75-kilowatt Golden Hills WWTP generator would be replaced at the WWTP under Option A or at the lift station under Options B-1 or B-2.

The Project's consumption of resources would occur in compliance with applicable Federal, State, and local regulations and building codes to assure that energy and natural resources are conserved to the maximum extent feasible. Therefore, the proposed Project would not result in a significant increase in energy inefficiency or consumption, and additional mitigation measures beyond those already identified in Chapter 4 of this EIR are not required.

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### 6.1 Introduction and Overview

Section 15126.6(a) of the CEQA Guidelines requires an evaluation of “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” Additional CEQA Guidelines provisions for the analysis of alternatives include the following:

- Section 15126.6(b) states that the discussion of alternatives is intended to “focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these would impede to some degree the attainment of the project objectives, or would be more costly.”
- Section 15126.6(c) mandates the discussion of the range of alternatives to be evaluated, requiring that “the EIR should briefly describe the rationale for selecting the alternatives to be discussed.”
- Section 15126.6(d) requires that an EIR include sufficient information about the alternatives to allow meaningful analysis and comparison to the proposed project. The significant effects of the alternative shall be discussed, but in less detail than those of the proposed project.
- Section 15126.6(e) requires that the specific alternative of “no project” shall be evaluated along with its impact. The “no project” analysis shall discuss the existing conditions at the time the NOP was published, or in the absence of a NOP, at the time the environmental analysis is commenced.
- Section 15126.6(f) states that the evaluation of alternatives is governed by the “rule of reason,” requiring evaluation of only those alternatives “necessary to permit a reasoned choice.”
  - **Section 15126.6(f)(1)** states that the factors that may be considered when addressing the feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise access an alternative site.
  - **Section 15126.6(f)(2)** states that only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR.
  - **Section 15126.6(f)(3)** states that an EIR is not required to consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

This chapter sets forth the significant impacts of the proposed Project, objectives of the proposed Project, describes alternatives that were considered but rejected from further consideration, and describes the alternatives selected for analysis and compares their environmental impacts to each other and to the proposed Project.

## 6.2 Significant Impacts of the Project

The section describes the significant and unavoidable impact of the proposed Project as well as summarizes the other impacts of the proposed Project.

### Aesthetics

The environmental impact that was determined to be significant and unavoidable is the Aesthetics impact related to scenic vistas and Option B-1, Conveyance of Wastewater to the City of Tehachapi for Treatment via a New Lift Station on the Woodford Tehachapi Property. With Option B-1, a new lift station would be constructed south and east of Tom Sawyer Lake and east of Supply Lake. Additionally, gravel would be added to the surface of an existing dirt road that extends from Woodford Tehachapi Road, south of Tom Sawyer Lake, and east to Supply Lake. Fencing would surround the lift station, overflow basin, and associated equipment, which would obstruct scenic views from nearby homes and unofficial recreational uses (such as Tom Sawyer Lake and dirt paths within the Woodford Tehachapi Property). Following implementation of Mitigation Measures 4.1-1 and 4.1-2 (lift station design/architectural treatments and vegetative screening), the existing views toward the proposed lift station and within the Woodford Tehachapi Property would be substantially improved. However, the overall scenic vista impacts associated with operation of the Option B-1 lift station would remain significant and unavoidable.

### Other Impacts of the Project

Chapter 4 of this EIR discusses the impacts of the proposed Project, as well as the associated mitigation measures. Impacts of the proposed Project in the resource areas of Aesthetics (Option A and Option B-2), Air Quality, Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Noise, Traffic and Transportation, and Utilities were found to be less than significant or less than significant following the implementation of mitigation measures. The consideration of alternatives that would further reduce these resource impacts is not required by CEQA. Therefore, the alternatives analysis in this chapter focuses on alternatives that would avoid the aesthetics, or scenic vista, impact associated with development of Option B-1. If one of the alternatives identified in Section 6.5 below would cause a significant impact or adverse impact of greater magnitude on another resource, these impacts are disclosed; however, impacts to the remaining resources evaluated in this EIR are not discussed further in this section.

## 6.3 Project Objectives

The GHCS D has defined the following two objectives for the Project:

- Assure sewer service to the residences and businesses served by the GHSC development continues and that it is of adequate capacity, safe, and sanitary in its operation.
- Have a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## 6.4 Alternatives Eliminated from Further Consideration

Section 15126.6(c) of the CEQA Guidelines requires an EIR to “...identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” “Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.” As required by the CEQA Guidelines, Section 15126.6(c), this section presents alternatives to the Project that were considered during the planning process but that have been rejected from further analysis, as they were shown to be infeasible and/or do not meet Project objectives.

### Septic Systems Alternative

In September 2013, the Kern County Engineering, Surveying, and Permit Services Department and Waste Management Department prepared the *Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers* (Kern County Engineering, Surveying, and Permit Services Department et al. 2013) to identify and recommend cost effective sewer service options for the customers of the Golden Hills WWTP. Septic system use was considered among the options of the 2013 study. Specifically, the analysis investigated eliminating use of the Golden Hills WWTP and replacing it with the following septic system alternatives:

- A community septic system to serve the Golden Highlands gated common interest home development;
- Individual parcel conventional septic systems for the single-family homes located mostly east of Woodford Tehachapi Road;
- Shared community septic system for a group of lots;
- Individual residential wastewater modular treatment systems for the single-family homes located mostly east of Woodford Tehachapi Road; and/or
- A larger community septic system with gravity tertiary filters to serve all WWTP customers.

This group of septic system alternatives was eliminated from consideration in the 2013 study and this EIR for the reasons identified below.

- Properly installed septic systems that can be successfully used in this area are hampered by local hydrologic, geologic and topographic conditions, which resulted in the original plan to install a regional wastewater treatment plant for the service area of the GHSC.
- Current customers lot sizes (and vacant properties) of the Golden Hills WWTP may not be able to accommodate an individual on-site septic system or wastewater treatment system due to unavailable space for the associated drain field area. Approximately 71% of the Plant's residential sewer connections are located in the Golden Highlands development, and the parcels lack the adequate space necessary for an individual residential conventional septic system installation. In addition, potential drain field areas include high groundwater and poor soil permeability/percolation.
- County staff was unable to find a suitable location within the Golden Highlands for a community septic system.
- The individual residential wastewater treatment system does not have locally based vendors that can provide maintenance and support services.
- Individual conventional septic systems for the WWTP's existing 40 single-family homes located outside the Golden Highlands and engineered mound systems for the apartment complex and hotel would cost \$1,400,000 and \$40,000, respectively, which would be distributed across the customer base. An individual wastewater treatment system installation that addresses a worst-case scenario of additional land being required for each of the 40 single-family dwellings located mostly east of Woodford Tehachapi Road would cost \$1,520,000 and be distributed across the customer base.
- Locating a larger community septic system with gravity tertiary filters to serve all WWTP customers would present a challenge due to unsatisfactory hydrologic soil conditions; a requirement for an additional lift station since some of the existing collection system gravity flows to the WWTP and it is unlikely to find a site at a lower elevation; and a need to purchase additional land (7 to 10 acres) at a cost of \$1.6 million to \$2 million that would be distributed across the customer base. In addition, the new siting of a larger community septic system would also encounter challenges that encompass property and easement acquisitions, utility proximity, housing and business displacement constraints, and buffer maintenance. County staff also anticipated that the RWQCB would not approve downgrading of an operating WWTP for replacement with a community septic system and large leach field, in an attempt to obtain treated wastewater quality comparable to a functioning WWTP. Similarly, County staff anticipated that the ability to obtain grant funds to convert an existing advanced tertiary WWTP to an upgraded community septic system would be challenging.

In summary, the shared community septic system for the Golden Highlands would cost \$2,200,000 to develop, \$40,000 annually to operate and maintain, and require a reserve fund of \$500,000, all of which amounts to \$169 per month per developed parcel connection. The individual conventional septic system installation would cost \$1,400,000 to develop and \$120

annually to operate and maintain, which would cost \$222 per month per developed parcel connection. The engineered mound systems for both the apartment complex and hotel would cost \$20,000 each to develop and \$121 per developed parcel per month. The individual wastewater treatment installation that includes required land for 40 single-family homes would cost \$1,520,000 to develop and \$230 per month per developed parcel connection.

The Septic Systems Alternative would either not serve all of the WWTP customers, would be expensive to purchase and/or to maintain, would not have vendors available in the area to service and maintain it, and/or would not be likely to receive RWQCB approval or grant funding. Therefore, it would not meet the Project objectives and it is rejected from further analysis in this EIR.

## Packaged Treatment Plant Alternative

The *Analysis of Continued Sewer Services Options for the Golden Hills Wastewater Treatment Plant Customers* (Kern County Engineering, Surveying, and Permit Services Department et al. 2013) also investigated the possibility of replacing the Golden Hills WWTP with a smaller, conventional packaged treatment plant. A new, smaller sized conventional packaged treatment plant was considered due to the fact that County staff anticipated short term development in the Golden Hills area was improbable. The new, smaller-sized conventional package plant would be more efficient to handle the lower average daily flow rate (25,000 to 30,000 gpd) and would have a reduced rated capacity of 50,000 gpd (as compared to the Golden Hills WWTP rated capacity of 100,000 gpd). The existing WWTP would be demolished to erect a new smaller sized packaged plant within the existing footprint. One of the existing emergency retention basins would be retained for the new plant.

The cost to develop the packaged wastewater plant would be \$3,300,000 (\$78 per month per connection). In addition, County staff determined that the annual cost of operation and maintenance of the new plant would be lower with all new components (\$239,600, or \$119 per month per connection) but would eventually rise over time, whether the new plant operations occurred under private or public ownership. Further, establishing a plant reserve fund of \$2,000,000 (an additional \$48 per month per connection) would also be included in the packaged plant costs to plan for future potential major maintenance plant projects. In addition, the cost to demolish the existing WWTP would be \$200,000 (\$5 per month, based on 255 connections). All costs would be distributed among the customer base and would amount to \$250 per month per developed parcel connection.

Replacement of the existing WWTP with a new, smaller conventional packaged treatment plant would substantially escalate the capital expenditures and would not result in enough reduction in operational expense to justify the initial capital cost investment for WWTP replacement. Therefore, this alternative is rejected from further analysis in this EIR, as it would not meet the Project objectives.

## 6.5 Alternatives Analyzed in this EIR

The following four alternatives have been selected for detailed analysis per CEQA Guidelines, Section 15126.6. The No Project Alternative specifically responds to Section 15126.6(e) of the CEQA Guidelines, while Alternatives A, B, and C respond to the CEQA Guidelines mandate to consider alternatives that would avoid or substantially lessen the significant effects of the Project and that would feasibly attain most of the basic Project objectives (Section 15126.6[a]). Table 6-1 compares the significant and unavoidable impact of the proposed Project with the alternatives. The following alternatives are considered in this analysis:

- No Project Alternative
- Alternative A – Energy Independent Continued Operation of the Golden Hills WWTP
- Alternative B – Energy Independent Force Main to the City of Tehachapi WWTP
- Alternative C – Underground Lift Station for the Force Main to the City of Tehachapi WWTP

**Table 6-1 Comparison of Alternatives**

<b>Environmental Resource</b>	<b>Proposed Project</b>	<b>No Project Alternative</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>
Aesthetics: Degradation of views within a scenic vista	Significant and Unavoidable (Option B-1)	Less Severe/No Impact	Less Severe/Less than Significant Impact	More Severe/Significant and Unavoidable	Less Severe/Less than Significant Impact

### No Project Alternative

Under the No Project Alternative, neither Options A, B-1, or B-2 would be implemented, and existing conditions at the Golden Hills WWTP would continue in the immediate future. Wastewater generated in the service area would continue to be conveyed to the Golden Hills WWTP for treatment, and treated effluent would be discharged to Tom Sawyer Lake. Such operations would continue under a privately owned and operated collection, treatment, and disposal system, and services associated with collection (the existing lift station, sewer mains, WWTP, and effluent line) would also continue under the GHSC Receiver.

### Aesthetics

The significant and unavoidable impact identified for Option B-1 of the proposed Project would be avoided under the No Project Alternative, as no new development would occur within the



Woodford Tehachapi Property that would obstruct the views of residents or recreational users. The No Project Alternative would result in no impact to Aesthetics.

## **Conclusion and Relationship to Project Objectives**

According to the Golden Hills Wastewater System PER/FS, the RWQCB has relaxed its efforts of enforcement actions due to positive actions taken with the Golden Hills WWTP and system by the Receiver and Kern County. However, under the No Project Alternative, failure to meet waste discharge requirements under the existing permit is possible, if financial support from Kern County is discontinued or outstanding debts become due and payable. For example, there is money owed for taxes to the Receiver, SWRCB, and others, and as of the date of the PER/FS (November 21, 2014), the reserve fund was inadequate to cover emergencies.

According to the PER/FS, under Receivership, positive progress has been made to satisfy RWQCB requirements. However, due to the current rate structure and under receivership, not all of the required operations and maintenance repairs (to the collection system, WWTP, and Tom Sawyer Lake) have been financially addressed in a pro-active manner. Under the No Project Alternative, the system deficiencies coupled with an inadequate income or reserve fund would eventually result in increased debt accumulation and deferred maintenance that would ultimately result in higher rates to the customers.

Although the No Project Alternative would avoid the significant and unavoidable impact of Option B-1 of the proposed Project, it would not meet the basic Project objectives, as it would not provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Alternative A – Energy Independent Continued Operation of the Golden Hills WWTP**

Option A of the proposed Project entails repairs to the Golden Hills Wastewater Treatment System and rehabilitation and upgrades to the WWTP. Alternative A would provide the same repairs and upgrades as Option A; however, it would also include the installation of a photovoltaic solar power generating system that would support the electrical demand of the WWTP and make it an energy independent system. The solar panels would be placed atop the building structure portion of the WWTP and/or the property immediately surrounding the WWTP.

### **Aesthetics**

Option A would not result in significant and unavoidable impacts, including to aesthetics, as the aboveground portions of Option A are located at the existing WWTP site, which is already developed and removed topographically from residents and recreational users of the Woodford Tehachapi Property. Similarly, the inclusion of solar panels in this area would be incremental

when compared to the existing development and would not result in a significant aesthetics impact.

### **Other Impacts of the Alternative**

Alternative A would reduce the energy demand of the proposed Project, which would be consistent with Kern County goals for energy use and the utilization of renewable resources. However, Alternative A would potentially result in impacts to air quality, biological resources, cultural resources, GHG emissions, and hydrology and water quality as result of ground disturbance and construction activities. These impacts are not anticipated to be substantially different than those of the proposed Project and would be less than significant or less than significant with similar mitigation measures as those applied to the proposed Project. In addition, during operations, Alternative A would require water for panel washing and would also require additional vehicle trips for workers to provide maintenance services on the solar power system. While these would not be anticipated to be significant, they do represent impacts not associated with Option A of the proposed Project.

### **Conclusion and Relationship to Project Objectives**

As is the case with Option A, Alternative A would not result in significant and unavoidable impacts. It would add incremental impacts to water supply and traffic and transportation. Alternative A would also provide an energy independent solar power system for the WWTP. However, it is as yet to be determined how much roof space and/or land would be required to provide the necessary amount of solar panels to meet the WWTP's power demand. In addition, the cost to develop the solar power system is not known at this time, as is how much of that cost would be distributed among the customers in their monthly rates. Therefore, it would be speculative to assume that Alternative A would meet the basic Project objectives, as it is unknown whether it would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Alternative B – Energy Independent Force Main to the City of Tehachapi WWTP**

Option B-1 of the proposed Project entails repairs to the Golden Hills Wastewater Treatment System and conveyance of the effluent to the City of Tehachapi WWTP via force main for treatment and disposal. Option B-1 would result in the decommissioning of the Golden Hills WWTP and the placement of a lift station in the Woodford Tehachapi Property, east of Supply Lake and north of Brite Creek. Option B-2 would include similar components; however, it would locate the lift station at the former Golden Hills WWTP site following its decommissioning and would include additional new force main pipeline installation in the Brite Creek vicinity. Alternative B would entail the same changes to the wastewater system as Options B-1 or B-2; however, it would also include the installation of a photovoltaic solar power generating system that would support the electrical demand of the lift station and make it an energy independent

system. The solar panels would be placed on land immediately adjacent to the lift station, either in the Woodford Tehachapi Property or the former Golden Hills WWTP site.

## **Aesthetics**

Option B-1 would result in a significant and unavoidable impact to aesthetics, specifically related to obstructing the views of nearby residents and recreational users within the scenic vista of the Woodford Tehachapi Property. The inclusion of solar panels in this area would increase the severity of this significant and unavoidable aesthetics impact when compared to Option B-1 alone.

Option B-2 would not result in a significant and unavoidable aesthetics impact, as the WWTP is already developed and removed topographically from residents and recreational users of the Woodford Tehachapi Property. Similarly, the inclusion of solar panels in this area for Alternative B would be incremental when compared to the existing development and would not result in a significant aesthetics impact

## **Other Impacts of the Alternative**

Alternative B would reduce the energy demand of the proposed Project, which would be consistent with Kern County goals for energy use and the utilization of renewable resources. However, Alternative B would potentially result in impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, and hydrology and water quality as result of ground disturbance and construction activities. These impacts are not anticipated to be substantially different than those of the proposed Project and would be less than significant or less than significant with similar mitigation measures as those applied to the proposed Project. In addition, during operations, Alternative B would require water for panel washing and would also require additional vehicle trips for workers to provide maintenance services on the solar power system. While these would not be anticipated to be significant, they do represent impacts not associated with Option B-1 of the proposed Project.

## **Conclusion and Relationship to Project Objectives**

As is the case with Option B-1, Alternative B would result in a significant and unavoidable aesthetics impact, and to a greater degree, if the lift station is located in the Woodford Tehachapi Property. Alternative B would also add incremental impacts to water supply and traffic and transportation regardless of the lift station location. However, Alternative B would also provide an energy independent solar power system for the lift station. It is as yet to be determined how much land would be required to provide the necessary amount of solar panels to meet the lift station's power demand. In addition, the cost of the solar power system to develop and that would be distributed among the customers in their monthly rates is unknown. Therefore, it would be speculative to assume that Alternative B would meet the basic Project objectives, as it is unknown whether it would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## **Alternative C – Underground Option B-1 Lift Station for the Force Main to the City of Tehachapi WWTP**

In addition to locating the pumps associated with the lift station for Option B-1 underground, Alternative C would be developed underground. To achieve this, the lift station pumps, generator, and controls would be constructed below ground in the Woodford Tehachapi property, just east of Supply Lake and North of Brite Creek. The underground lift station of Alternative C would need to be located further north than the Option B-1 lift station to assure it is not located within the floodplain. If this is not feasible, the existing ground surface would first need to be raised, and then the enclosure for the underground lift station would be constructed. This would result in the appearance of a mound that has a higher elevation than the existing surface. At grade manholes would be installed for access to the underground lift station enclosure. Sump pumps may also be required to be installed to remove leakage and discharge overflow above the high water level.

### **Aesthetics**

The significant and unavoidable impact identified for Option B-1 of the proposed Project would be substantially reduced with Alternative C. As compared to Option B-1, Alternative C would locate all components of the lift station underground, with the exception of manhole covers. Following construction, the surface of the raised mound would be revegetated with similar plant species as currently occur in the Woodford Tehachapi Property. The existing Woodford Tehachapi property consists of slightly varied rolling topography; therefore, the mound that surrounds the underground lift station is considered to be consistent with the visual character of the landscape, especially following revegetation.

### **Other Impacts of the Alternative**

Alternative C would potentially result in impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, and hydrology and water quality as result of ground disturbance and construction activities. However, these impacts are not anticipated to be substantially different than those of the proposed Project and would be less than significant or less than significant with similar mitigation measures as those applied to the proposed Project.

### **Conclusion and Relationship to Project Objectives**

Alternative C would lessen the severity of the significant and unavoidable impact of Option B-1 of the proposed Project to aesthetics (obstructing the scenic vista of the Woodford Tehachapi Property). However, it is as yet to be determined whether Alternative C could be sited in an area outside the floodplain and absent of other hydrologic constraints, such as high groundwater levels, that would interfere with the operation and maintenance of a completely underground lift station and its mechanical and electrical components. As such, it would be speculative to assume that Alternative C would meet the basic Project objectives, as it is unknown whether it

would provide a system that is environmentally sound, affordable, financially sustainable and in compliance with all legal requirements.

## 6.6 Environmentally Superior Alternative

Per CEQA Guidelines 15126.6(e)(2), the EIR is required to identify the Environmentally Superior Alternative, and in the event that the No Project Alternative is the Environmentally Superior Alternative, the Draft EIR must instead identify the environmentally superior alternative from among the remaining alternatives. As shown in Table 6-1 and described in Section 6.5 above, the Environmentally Superior Alternative is Alternative A, an energy independent version of Option A.

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# Chapter 7

## Response to Comments

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This Chapter will be included as part of the Final EIR.

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## Chapter 8

# Organizations and Persons Contacted

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The following organizations and persons were contacted during preparation of the EIR.

### 8.1 State Agencies

#### **State Water Resources Control Board, Division of Financial Assistance**

Mr. Ahmad Kashkoli  
Ms. Diane Conkle

#### **Native American Heritage Commission**

Mr. Dave Singleton

### 8.2 Local Agencies

#### **Kern County Planning and Community Development Department**

Ms. Lorelei H. Oviatt, AICP, Director  
Mr. Craig Murphy, Division Chief  
Mr. Ross Fehrman, Planner II

#### **Kern County Public Works Department**

Mr. Greg Fenton, Director  
Mr. Al Annan, Engineering Manager

#### **City of Tehachapi**

Mr. Jay Schlosser, Development Services Manager

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# Chapter 9

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#### Golden Hills Community Services District

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#### Kern County Planning and Community Development Department

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# Chapter 10

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# Chapter 11

## Acronyms and Abbreviations

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°F	degree Fahrenheit
AADT	annual average daily trip
AB	Assembly Bill
AB 2588	Air Toxics “Hot Spots” Information and Assessment Act of 1987
AEC	Area of Essential Connectivity
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effect
ARB	California Air Resource Board
BACT	best available control technology
bgs	below ground surface
BLM	Bureau of Land Management
BMP	Best Management Practices
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCAP	climate change action plan
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council of Environmental Quality
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH <sub>4</sub>	methane
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CSC	California species of special concern
CWA	Clean Water Act
dB	Decibel
dB Ldn	decibel Day/Night Average Sound Level
dB L <sub>max</sub>	maximum sound level measured during a noise event or period of time
dBA	A-weighted decibel
dBA L <sub>eq</sub>	Average hourly noise levels
DWR	Department of Water Resources
EIR	Environmental Impact Report
EKAPCD	Eastern Kern Air Pollution Control District
EPA	United States Environmental Protection District
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency

FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHCS D	Golden Hills Community Service District
GHG	greenhouse gas
GHSC	Golden Hills Sanitation Company
gpd	gallons per day
GTA	Greater Tehachapi Area
GTASCP	Greater Tehachapi Area Specific and Community Plan
GTASP	Greater Tehachapi Area Specific Plan
GWP	global warming potential
HAP	hazardous air pollutants
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbon
HRA	health risk assessment
HUD	Department of Housing and Urban Development
in/sec	inches per second
IOU	investor-owned utility
IS	Initial Study
KERN COG	Kern County of Governments
KOP	Key Observation Point
KVA	Kilovolt amps
LOS	Level of Service
Ma	million years ago
MACT	maximum available control technology

MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
mg/l	milligrams per liter
mgd	millions gallons per day
MOA	Military Operating Area
MPO	Metropolitan Planning Organization
MT	metric tons
N <sub>2</sub> O	nitrous oxide
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NESHAP	National Emission Standard for Hazardous Air Pollutants
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	Nitrogen Dioxide
NOP	Notice of Preparation
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PER/FS	Preliminary Engineering Report/Feasibility Study



PFC	perfluorocarbon
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in diameter
ppm	parts per million
ppv	peak particle velocity
PRC	California Public Resources Code
ROG	reactive organic gases
ROW	Rights-of-Way
ROWD	Report of Waste Discharge
RPF	Registered Professional Forester
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF <sub>6</sub>	sulfur hexafluoride
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO <sub>2</sub>	Sulfur Dioxide
SR	State Route
SRF	State Revolving Fund
SSJVIC	Southern San Joaquin Valley Information Center
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TAC	toxic air contaminants

TCP	Traffic Control Plan
TDS	total dissolved solids
TIF	Transportation Impact Fee
tpy	tons per year
TUSD	Tehachapi Unified School District
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife
VOC	volatile organic compounds
WDR	Waste Discharge Requirement
WEAP	Worker Environmental Awareness Program
WWTP	Wastewater Treatment Plant
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter