

RECYCLED WATER DISTRIBUTION SYSTEM, SOUTHWEST QUADRANT

Addendum to the Tiered Mitigated Negative Declaration
State Clearinghouse Number 2014081078

Prepared for
City of Fresno

August 2017



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TABLE OF CONTENTS

Recycled Water Distribution System, Southwest Quadrant Addendum

	<u>Page</u>
1 Background and Purpose of the Addendum	1-1
1.1 Background	1-1
1.2 Purpose of this Addendum	1-1
2 Description of Project Changes	2-1
2.1 Project Overview	2-1
2.2 Proposed Project Changes	2-1
3 Analysis of Potential Environmental Effects	3-1
3.1 Aesthetics	3-1
3.2 Agricultural and Forest Resources	3-1
3.3 Air Quality	3-2
3.4 Biological Resources	3-3
3.5 Cultural Resources	3-4
3.6 Geology, Soils, and Seismicity	3-11
3.7 Greenhouse Gas Emissions	3-11
3.8 Hazards and Hazardous Materials	3-11
3.9 Hydrology and Water Quality	3-12
3.10 Land Use and Land Use Planning	3-13
3.11 Mineral Resources	3-13
3.12 Noise	3-13
3.13 Population and Housing	3-14
3.14 Public Services	3-14
3.15 Recreation	3-14
3.16 Transportation and Traffic	3-15
3.17 Utilities and Service Systems	3-15
4 Conclusion	4-1

List of Figures

Figure 1.	Original and Revised Alignments	2-2
Figure 2.	Recycled Water Pump Station	2-5
Figure 3a.	Revised Alignment within the Original Records Search Radius	3-5
Figure 3b.	Revised Alignment within the Original Records Search Radius	3-6
Figure 3c.	Revised Alignment within the Original Records Search Radius	3-7
Figure 4.	Cultural Original vs. Revised Alignment	3-10

	<u>Page</u>
List of Tables	
Table 1 Construction Emissions (tons per year)	3-3
Appendices	
A. Updated Air Quality Emission Estimates	

SECTION 1

Background and Purpose of the Addendum

1.1 Background

The City of Fresno (City) Recycled Water Distribution System, Southwest Quadrant Tiered Mitigated Negative Declaration (MND) (SCH# 2014081078) was developed to convey tertiary treated recycled water from the Regional Water Reclamation Facility (RWRF) for urban reuse, groundwater recharge, and agricultural reuse as proposed as part of the City's Recycled Water Master Plan (Master Plan).

The City adopted a Recycled Water Master Plan (Master Plan) in April 2013 that identifies potential recycled water use opportunities within the City and its Sphere of Influence (SOI), including Fresno County lands located in or adjacent to the SOI. The Master Plan includes a plan for the installation and operation of treatment, storage and distribution infrastructure to serve the Master Plan area with recycled water. The Master Plan will be implemented in a phased manner based on technical, funding, partnering, and other factors through 2025. The Master Plan informs the City's decision process in selecting recycled water projects that include expansion of the City's recycled water system to reduce the use of percolation ponds that currently handle effluent discharge, to offset potable water use, and to enhance the sustainability of the water supply.

On December 18, 2014, the City Council adopted the Tiered MND and approved the Recycled Water Distribution System, Southwest Quadrant project. The Tiered MND is on file at the City's Planning Department, and can be found at the City of Fresno Development and Resource Management Department, 2600 Fresno Street, Room 3043, Fresno, California 93721-3604. Since certification of the Tiered MND and project approval, refinements have been made to the pump station location and segments of the pipeline route. See Section 2 for a description of proposed refinements.

1.2 Purpose of this Addendum

The CEQA Guidelines (Sections 15162 and 15164) require that a lead agency prepare an addendum to a negative declaration if some changes or additions to the environmental evaluation of a project are necessary but none of the following occurs:

There are no substantial changes in the project which require major revisions to the mitigated negative declaration or a substantial increase in the severity of previously identified significant effects;

1. There are no substantial changes with respect to the circumstances under which the project is undertaken which require major revisions to the negative declaration; or
2. No new information of substantial importance, which could not have been known with the exercise of reasonable diligence at the time of negative declaration adoption, shows any of the following:
 - i. the project will have one or more significant effects not discussed in the negative declaration,
 - ii. the project will result in impacts substantially more severe than those disclosed in the negative declaration,
 - iii. mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt it, or
 - iv. mitigation measures or alternatives that are considerably different from those analyzed in the negative declaration would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt it.

The purpose of this document is to (1) evaluate the new pump station site and refinements to the pipeline route and (2) to provide documentation to support that the proposed refinements would not result in effects that meet the criteria described in CEQA Guidelines Sections 15162 and 15164 and; therefore, an Addendum is appropriate.

SECTION 2

Description of Project Changes

2.1 Project Overview

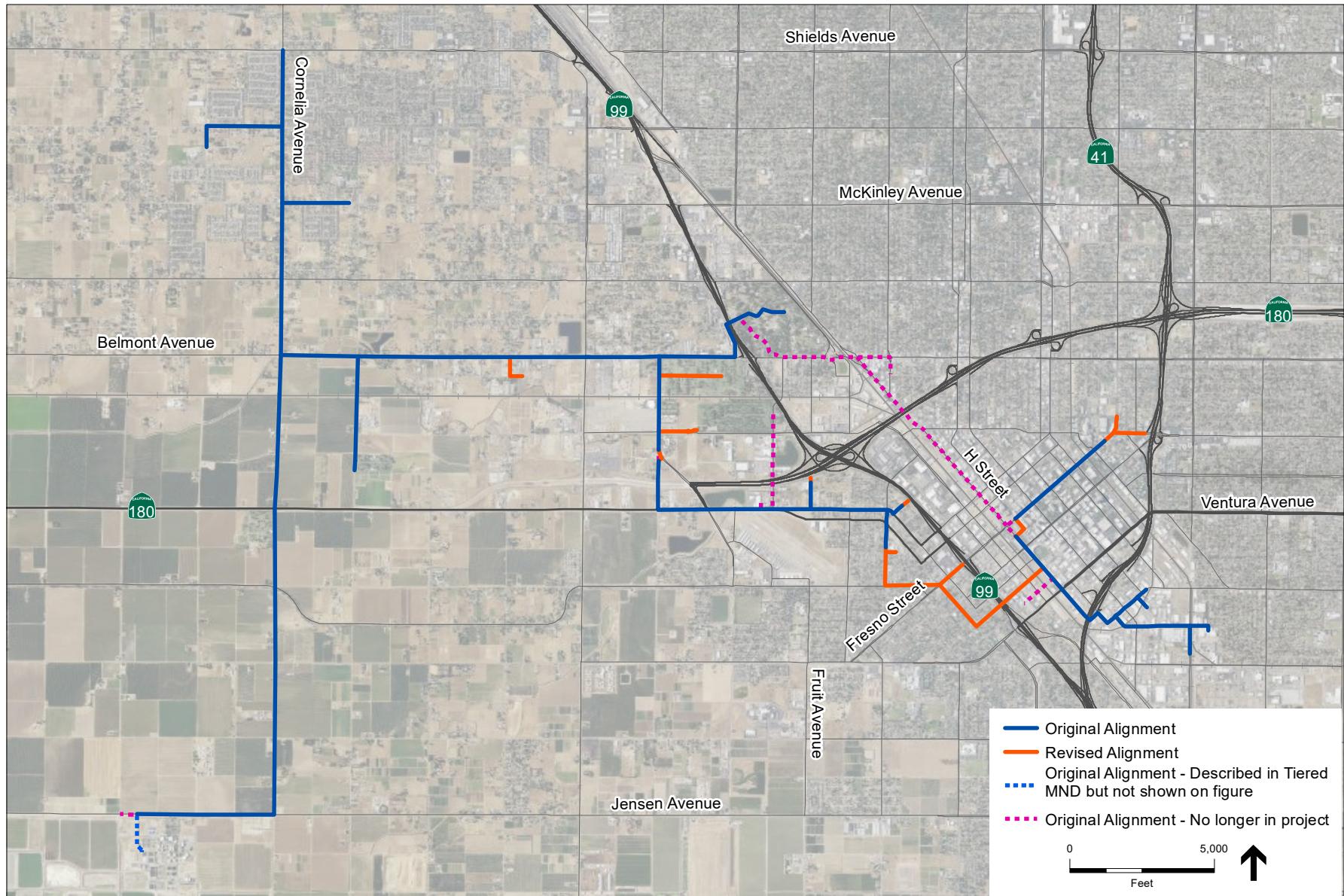
The City proposed to install recycled water distribution pipelines and construct a pump station in the City of Fresno's Southwest Quadrant. The proposed distribution pipelines would convey tertiary treated recycled water from the Regional Water Reclamation Facility (RWRF) for urban reuse, groundwater recharge, and agricultural reuse as proposed as part of the City's Recycled Water Master Plan (Master Plan). The pump station would be connected to the proposed recycled water distribution pipeline segment SW1B located along West Belmont Avenue as shown in **Figure 1**.

2.2 Proposed Project Changes

The City is proposing several changes to the alignment as shown in **Figure 1**. In total, the revised pipeline alignment would result in a reduction of approximately 1,600 feet of pipeline from what was previously analyzed in the Tiered MND. When compared to the original pipeline length analyzed of approximately 22 miles, a decrease of 1,600 feet would result in a 1.38 percent decrease in overall pipeline length. In addition, the pump station would be relocated to a nearby location. The following describes the changes in detail.

The first change the City is proposing to make would involve segment SW1C. The previously approved alignment, after crossing under State Route 99, followed driveways and along the fence line between Storyland and the Chaffee Zoo southeasterly to West Belmont. From there it traveled east along West Belmont and then continued along East Belmont. Then the alignment turned south at the intersection of East Belmont and North Palm Avenue where it continued along North Palm Avenue for a block until terminating at East Franklin Avenue. Instead, the SW1C segment, after crossing under State Route 99, would continue east within Roeding Park for approximately 1,700 feet along West Belmont Avenue before terminating. The remaining portions as previously described would no longer be installed.

Two new segments would be installed along segment SW1C. The first segment would begin at the intersection of North Hughes Avenue and West Franklin Avenue. The alignment would extend east along West Franklin Avenue for approximately 2,200 feet before terminating. The second segment would begin at the intersection of North Hughes Avenue and West Nielsen Avenue. The alignment would extend east along West Nielsen Avenue for approximately 1,000 feet before continuing in an easement adjacent to West Nielsen Avenue for approximately 350 feet before terminating.



SOURCE: USDA, 2016; ESRI, 2012; Blair, Church, and Flynn, 2017; ESA, 2017

Fresno Recycled Water Project . 130412

Figure 1
Original and Addendum Alignments

A short new segment would begin at the intersection of South Trinity Street and East Stanislaus Street. It would extend east along East Stanislaus Street for approximately 350 feet before terminating. The main alignment would now connect to downtown Fresno from the southwest instead of the northeast. The City is proposing a new segment of SW4 that would connect the original SW4 segment and the original SW1C segment. This new segment would begin at the intersection of South Trinity Street and East Stanislaus Street where it would connect to the previously approved SW1C segment. The alignment would travel south along East Trinity Street for approximately 1,200 feet until its intersection with East Kearney Boulevard. The alignment would then turn east and continue along East Kearney Boulevard for approximately 1,900 feet until reaching the three road intersection of East Kearney Boulevard, Fresno Street, and A Street. One segment would extend down Fresno Street for approximately 1,100 feet before terminating. The main alignment would extend southeast along A Street for approximately 1,900 feet until reaching Inyo Street. From the intersection of A Street and Inyo Street, the alignment would follow Inyo Street for approximately 3,100 feet as it extends to the northeast. At the intersection of Inyo Street and H Street, the alignment would follow H Street to the northwest for approximately 1,400 feet until reaching Mariposa Street. The alignment would then follow along Mariposa Street for approximately 400 feet before turning onto Broadway Street for approximately 500 feet. The alignment would then continue along Fresno Street to the northeast as previously analyzed in the Tiered MND for approximately 4,100 feet until the intersection with S Street. Two new segments would extend this segment farther. The first would continue along Fresno Street from the S Street intersection for approximately 1,000 feet before terminating. The second would begin at the intersection of Fresno Street and Divisadero Street and continue east along Divisadero for approximately 1,100 feet.

Small extensions would be added to several of the previously approved segments. Within SW1C, the segment starting at the intersection of West Whitesbridge Avenue and South Fruit Avenue and continuing north along South Fruit Avenue for approximately 900 feet would now extend approximately 160 feet farther north along South Fruit Avenue.

Within SW1C, the segment starting at the intersection of B Street and East Amador and continuing northeast along East Amador Street for approximately 420 feet would now extend approximately 275 feet farther northeast along East Amador Street.

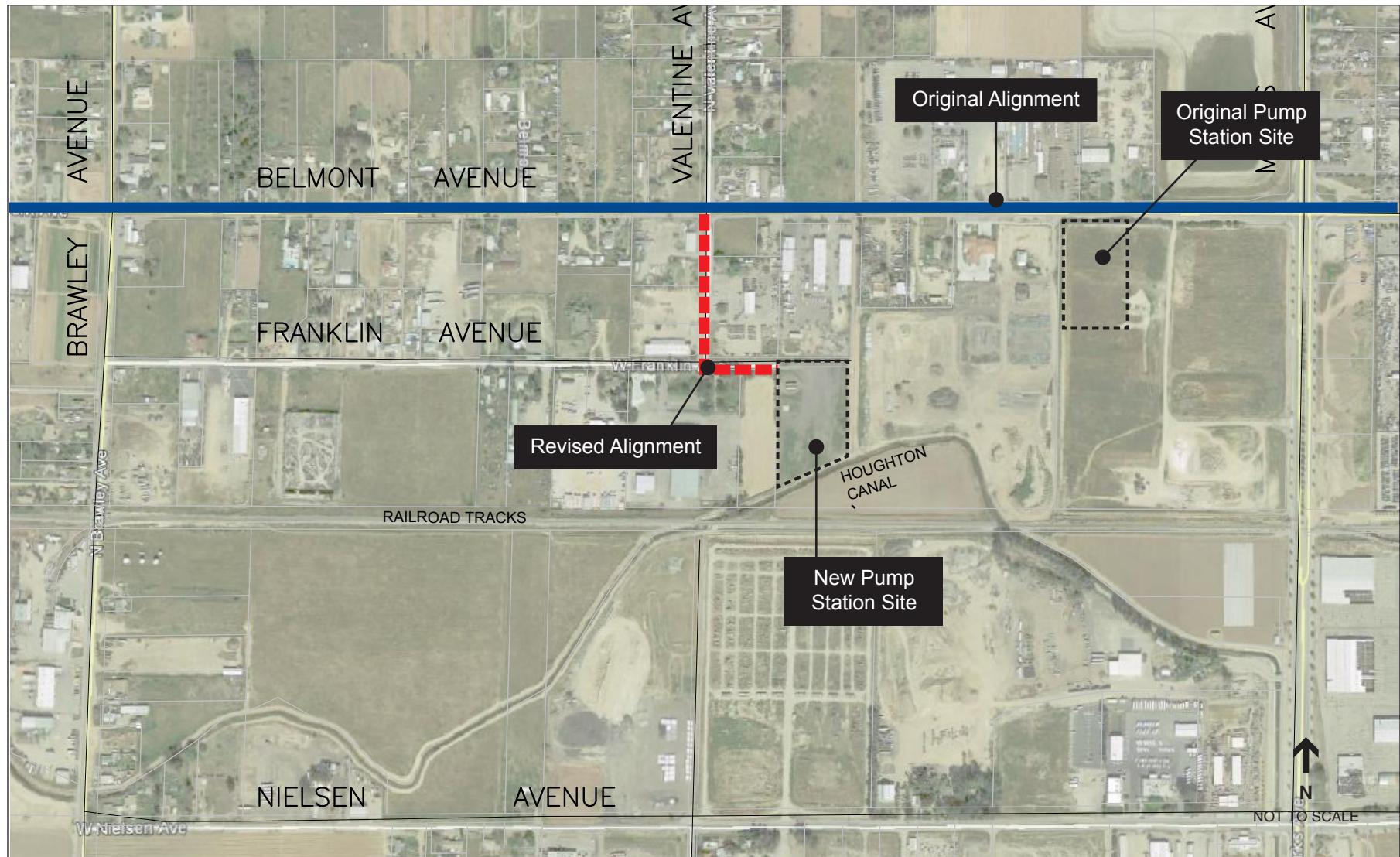
The southwest end of SW1A would be modified slightly. The segment along West Jensen Avenue would now be reduced by 575 feet shorter on the west end. In addition, SW1A extends into the RWRF for approximately 1,450 feet, as shown in **Figure 1**; this segment was described and analyzed in the Tiered MND but the segment was inadvertently left off the project figure in that document.

The SW1C alignment along South Hughes Avenue would be slightly modified. Instead of leaving the right-of-way to continue in a straight alignment at the intersection of South Hughes Avenue and South Roeding Drive, the alignment would now follow the right-of-way through the intersection before continuing along South Hughes Avenue.

Several previously approved segments would no longer be included as part of the project. The biggest of these would be an approximately 8,300 foot portion of segment SW4. This segment began at the intersection of East Belmont Avenue and North Weber Avenue where it extended southeast along North Weber before continuing along H Street before terminating at the intersection of H Street and Mariposa Street. From this intersection, the alignment would continue along H Street as previously analyzed in the Tiered MND. A second segment from SW4 no longer included in the project began at the intersection of H Street and Mono Street. It extended approximately 1,300 feet to the southwest along Mono Street before terminating. Lastly, a segment on SW1C that began at the intersection of West Whitesbridge and South Teilman Avenue and continued north along South Teilman Avenue for approximately 3,300 feet would no longer be part of the project.

The City is also proposing to move the pump station location to the parcel immediately west of the parcel previously analyzed. Accordingly, the City is proposing to refine segment SW1B of the recycled water distribution pipeline to install approximately 800 additional feet of pipeline within Valentine Avenue and Franklin Avenue, connecting the new pump station site with Segment SW1B (**Figure 2**).

Construction of the pump station at the new site and installation of the pipelines along the refined alignments would be consistent with the construction considerations described in Chapter 1, Project Description, of the Tiered MND pages 1-8 through 1-11.



SOURCE: Blair, Church & Flynn 2014; ESA 2015

Fresno Recycled Water Distribution System . 130412

Figure 2
Recycled Water Pump Station

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SECTION 3

Analysis of Potential Environmental Effects

Because project operations would remain unchanged, the focus of the analysis in this Addendum is on the proposed construction of the pump station at the new site and installation of the pipeline along the refined routes. Therefore, impacts related to project operations are not discussed further in this addendum.

3.1 Aesthetics

Section 2.1 of the Tiered MND analyzed impacts to the aesthetics of the project area, and found that construction activities could degrade the existing visual character or quality of the project area. Installation of the pipelines and pump station would require the use of heavy equipment, excavation and grading, and storage of materials on-site, which could result in temporary changes to the visual character of the surrounding areas. Implementation of Master Plan Environmental Impact Report (EIR) Mitigation Measures 4.11.2a-c and Master Plan EIR Mitigation Measure 4.11.3 would reduce impacts from construction activities by requiring areas disturbed during construction to be restored to pre-existing conditions; landscaping to be appropriately applied and maintained; exterior coatings to be applied to the pump station as needed to blend in with the surrounding landscape and minimize glare, and shielding of lighting.

The pipelines as part of the refined routes would be installed primarily within existing road right-of-ways and would be located underground following installation. The pump station would be constructed as described in the Tiered MND and the new site has a similar visual character to that of the original site. In addition, the proposed revisions would be required to comply with Master Plan EIR Mitigation Measures 4.11.2a-c and Master Plan EIR Mitigation Measure 4.11.3. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.2 Agricultural and Forest Resources

Section 2.2 of the Tiered MND analyzed impacts to agricultural and forest resources, and concluded that installation of the proposed pipelines and construction of the pump station would not result in a significant conversion of farmland or forest resources, because the pipelines would be installed underground primarily in existing road right-of-ways, and the pump station would not be located on land designated for agricultural or forest use. Installation of the pipeline along the refined routes would also primarily occur in an existing road right-of-ways. The pump station at the new site would not be located on land designated as Important Farmland, under a Williamson

Act Contract or zoned as either forest or timberland. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.3 Air Quality

Section 2.3 of the Tiered MND analyzed air quality impacts and concluded that installation of the pipelines and construction of the pump station would not exceed the San Joaquin Valley Air Pollution Control District (SJVAPCD) significance thresholds of ROG, NOx, CO, SO_x, PM₁₀ and PM_{2.5}. However, since the San Joaquin Valley Air Basin was at the time designated as non-attainment with respect to ozone, PM₁₀, and PM_{2.5}, the Tiered MND recommended that the Project implement Master Plan EIR Mitigation Measures 4.7.1a to 4.7.1c to minimize potential construction related air emissions to reduce the impact to a less than significant level. The revised pipeline alignment would result in a reduction of approximately 1,600 feet of pipeline from what was previously analyzed in the Tiered MND. When compared to the original pipeline length analyzed of approximately 22 miles, a decrease of 1,600 feet would result in a 1.38 percent decrease in pipeline length. The Proposed construction activities would be the same as those identified in the Tiered MND, except that they would begin two years later, have a different construction schedule and occur along a slightly shorter pipeline alignment.

Construction emissions for the Proposed construction activities were modeled using the California Emission Estimator Model (CalEEMod, version 2016.3.1) and are shown in **Table 1**. As shown in Table 1, the revised project's annual construction emissions of ROG, NOx, CO, SO_x, PM₁₀ and PM_{2.5} would remain below the San Joaquin Valley Air Pollution Control District (SJVAPCD) significance thresholds. The reduction in construction emissions of ROG, NOx and CO is a result of cleaner off-road equipment in the year 2017 as compared to construction year 2015. Additional assumptions and information are included in **Appendix A**.

Since there would be no significant increase in operational vehicle trips as result of the revised construction activities, operational criteria pollutant emissions are not expected to be significantly greater than those provided in Section 2.3 of the Tiered MND.

As shown in Table 1, construction-related emissions would remain below the SJVAPCD significance thresholds. The installation of the pipelines and construction of the pump station would not result in a significant increase in construction emissions over what was previously analyzed. Although construction emissions would remain below the SJVAPCD significance thresholds, due to the non-attainment status of the air basin with respect to ozone, PM₁₀, and PM_{2.5}, it is still recommended that the Project implement a set of Standard Mitigation Measures as best management practices regardless of the significance determination, through implementation of Master Plan EIR Mitigation Measures 4.7-1a to 4.7-1c, to minimize potential construction related air emissions. Therefore, construction of the refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

TABLE 1
CONSTRUCTION EMISSIONS
(TONS PER YEAR)

Category	Year	ROG (tpy) ¹	NOx (tpy) ¹	CO (tpy) ¹	SOx (tpy) ¹	PM ₁₀ (tpy) ¹	PM _{2.5} (tpy) ¹
Section 2.3 of the Tiered MND	2015	0.9	9.7	6.4	N/A ²	1.0	0.7
IS/MND Addendum	2017	0.8	8.4	5.5	5.5	1.1	0.8
	2018	0.9	8.6	6.3	6.3	1.1	0.8
Percent Increase		0% to -11%	-11% to -13%	-14% to -2%	N/A ²	10%	14%
SJVAPCD Significance Thresholds		10	10	100	100	15	15
Tiered MND Exceeds SMAQMD Significance Thresholds?		No	No	No	No	No	No
Proposed Construction Activities Exceeds SJVAPCD Significance Thresholds?		No	No	No	No	No	No
Change in Impact Significance?		No	No	No	No	No	No

tpy = tons per year

1. Operational emissions for summertime and annual emissions were made using CalEEMod 2016.3.1. See Appendix A for details.

2. Construction emissions of SOx were not estimated in Section 2.3 of the Tiered MND.

Source: ESA, 2017

3.4 Biological Resources

Section 2.4 of the Tiered MND analyzes impacts to biological resources and concludes that installation of the pipelines and pump station could result in significant impacts to special-status species and their habitats, seasonal movement for migratory wildlife species, protected trees, and jurisdictional waters of the United States. As identified within the Tiered MND, all of these impacts associated with the revised alignment would be reduced to less than significant with implementation of Master Plan EIR Mitigation Measures 4.5.2, 4.5.4a, 4.5.4b, 4.5.8, and 4.5.10, and Tiered MND Mitigation Measures BIO-1 and BIO-2.

Portions of the revised alignment had not been previously surveyed for biological resources. An Environmental Science Associates (ESA) biologist conducted field reconnaissance surveys of the revised alignment on March 8, April 17, and June 29, 2017, which include multiple new sections of pipeline. The surveys identified no additional sensitive biological resources within the revised alignment.

Based on observations made during the biologist's reconnaissance surveys, the pipeline alignment mostly follows paved roads in urban residential or commercial and industrial areas, with the exception of the ruderal field north of the intersection of Inyo Street and G Street in Downtown Fresno. Numerous ground squirrel (*Otospermophilus beecheyi*) burrows and burrow complexes

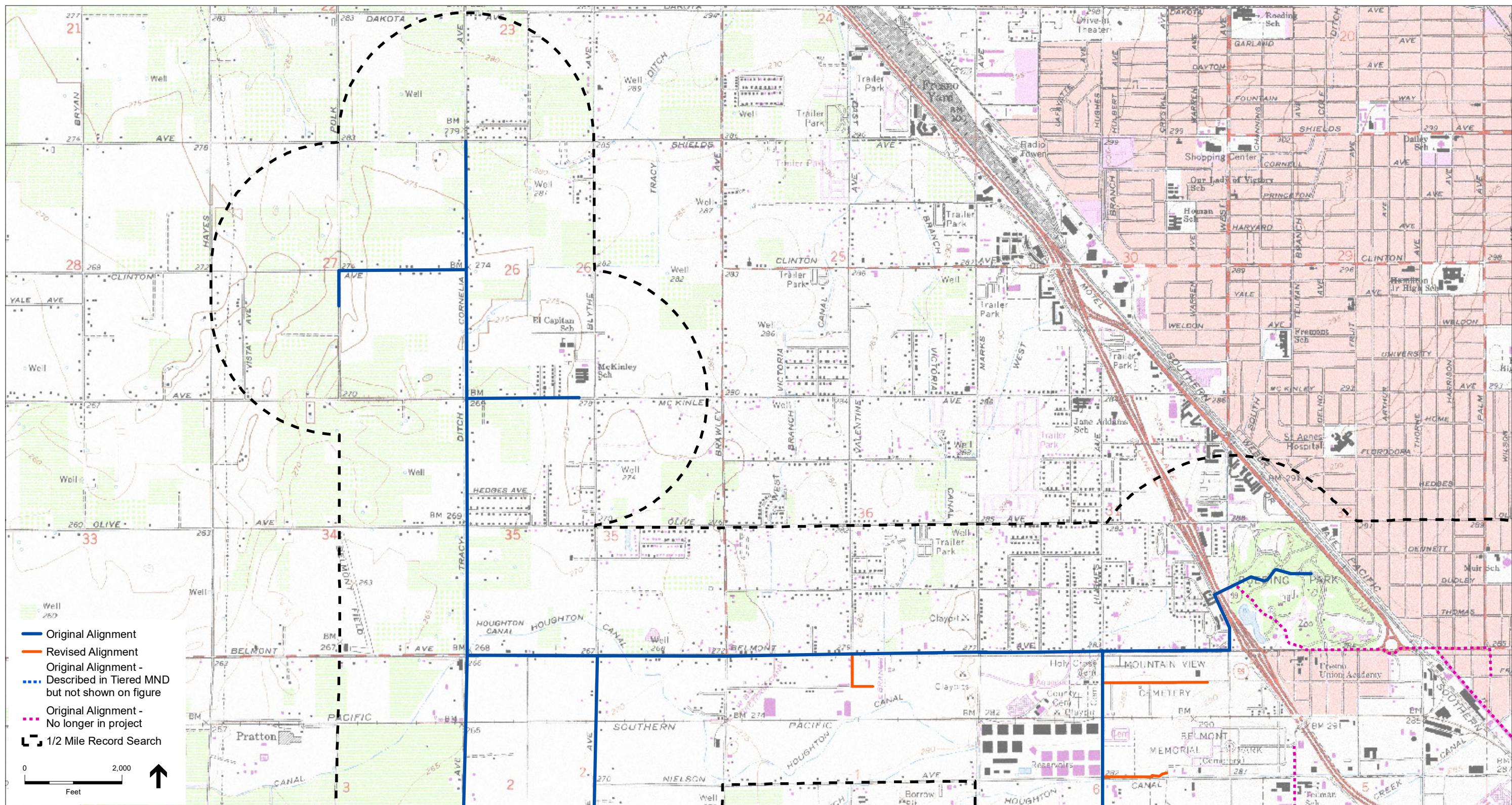
were observed in the ruderal field which may potentially provide habitat for special-status burrowing animals including burrowing owl (*Athene cunicularia*) and San Joaquin kit fox (*Vulpes macrotis mutica*). No burrowing owl or San Joaquin kit fox individuals or signs of their presence were observed in the ruderal field. If the species or active dens or burrows are present in the ruderal field during construction, disturbance associated with these activities could temporarily result in elimination of areas essential for seasonal movement as well as harm to individuals if present during construction activities. Implementation of Master Plan EIR Mitigation Measures 4.5.2, 4.5.4a, and 4.5.4b would reduce potential impacts to burrowing owl and San Joaquin kit fox to a less than significant level by implementing preconstruction surveys, buffer zones around dens, worker education, and other measures as specified therein.

Nesting birds and bats have the potential to nest or roost underneath a bridge that crosses West Nielsen Avenue over a canal and within the trees along the revised alignment. A colony of cliff swallows (*Petrochelidon pyrrhonota*) was observed flying in and out from underneath the bridge, which may contain active nests. If passerine birds and raptors protected by the Migratory Bird Treaty Act are nesting in the Project's vicinity, construction activities could cause nest abandonment or loss of reproductive potential. Other potential impacts to these species during Project construction include the potential for harm to individual birds, if present, and the loss of suitable nesting and foraging habitat. Therefore, the Project could have a potentially significant impact on nesting birds. Implementation of Master Plan EIR Mitigation Measure 4.5.2 would reduce potential impacts to nesting birds to a less than significant level by completing preconstruction surveys, avoiding nesting birds, and establishing buffer zones as warranted; the buffer zone may vary depending on species and site specific conditions as approved by the California Department of Fish and Wildlife. Therefore, the revised project would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.5 Cultural Resources

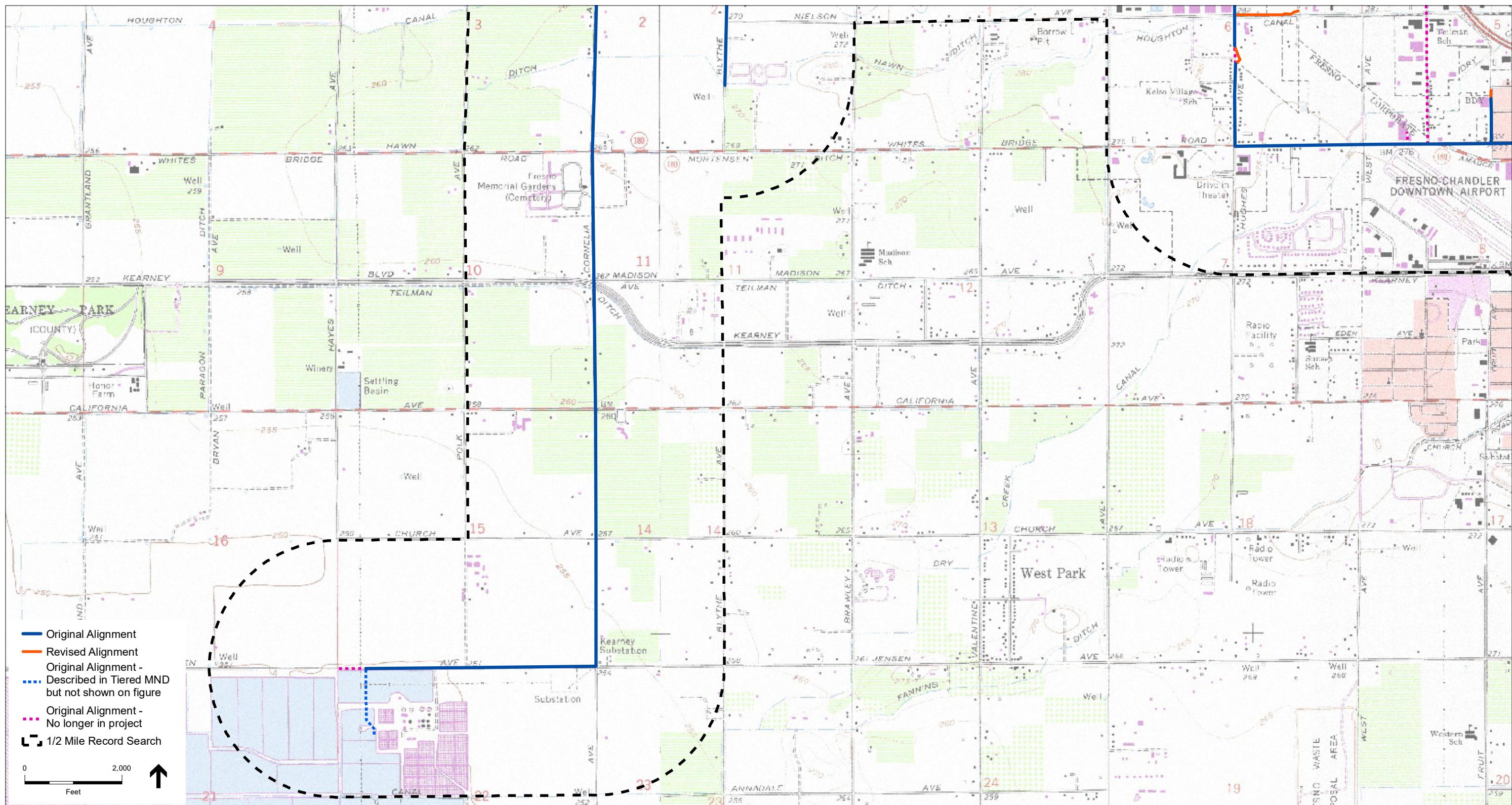
Section 2.5 of the Tiered MND noted that potentially significant impacts to cultural resources during the construction phase would be limited to unidentified prehistoric or historic subsurface cultural resources. Master Plan EIR Mitigation Measures 4.12.2b and 4.12.2c include implementation of a construction worker training program and measures to protect the unexpected discovery of subsurface resources during construction. Master Plan EIR Mitigation Measures 4.12.4a and 4.12.4b provide for review of discovered paleontological resources by a qualified paleontologist, and implementation of a resource monitoring and mitigation program, as relevant. Master Plan EIR Mitigation Measure 4.12.3 would require contact with the County coroner and the Native American Heritage Commission as warranted. Implementation of these mitigation measures would reduce impacts to previously unidentified archeological resources to a less-than-significant level.

The new pump station site and accompanying refined pipeline route are located within the ½ mile buffer area considered in the records search performed for the Tiered MND (**Figures 3a-c**): ESA



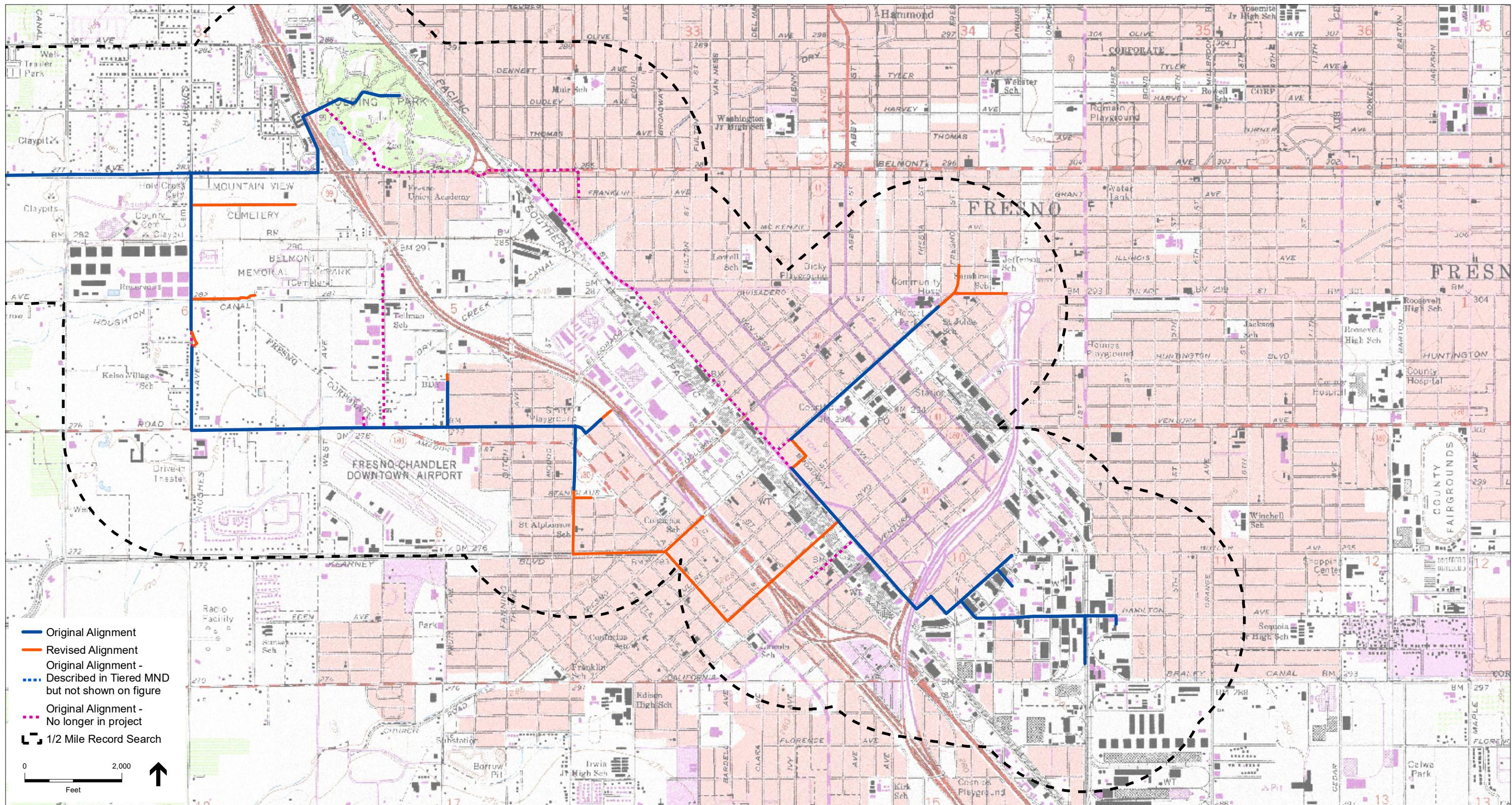
SOURCE: USGS, 1965-1982; ESRI, 2012; Blair, Church, and Flynn, 2017; ESA, 2017

- Fresno Recycled Water Plan
Figure 3a
Project Location



SOURCE: USGS, 1965-1982; ESRI, 2012; Blair, Church, and Flynn, 2017; ESA, 2017

- Fresno Recycled Water Plan
Figure 3b
Project Location



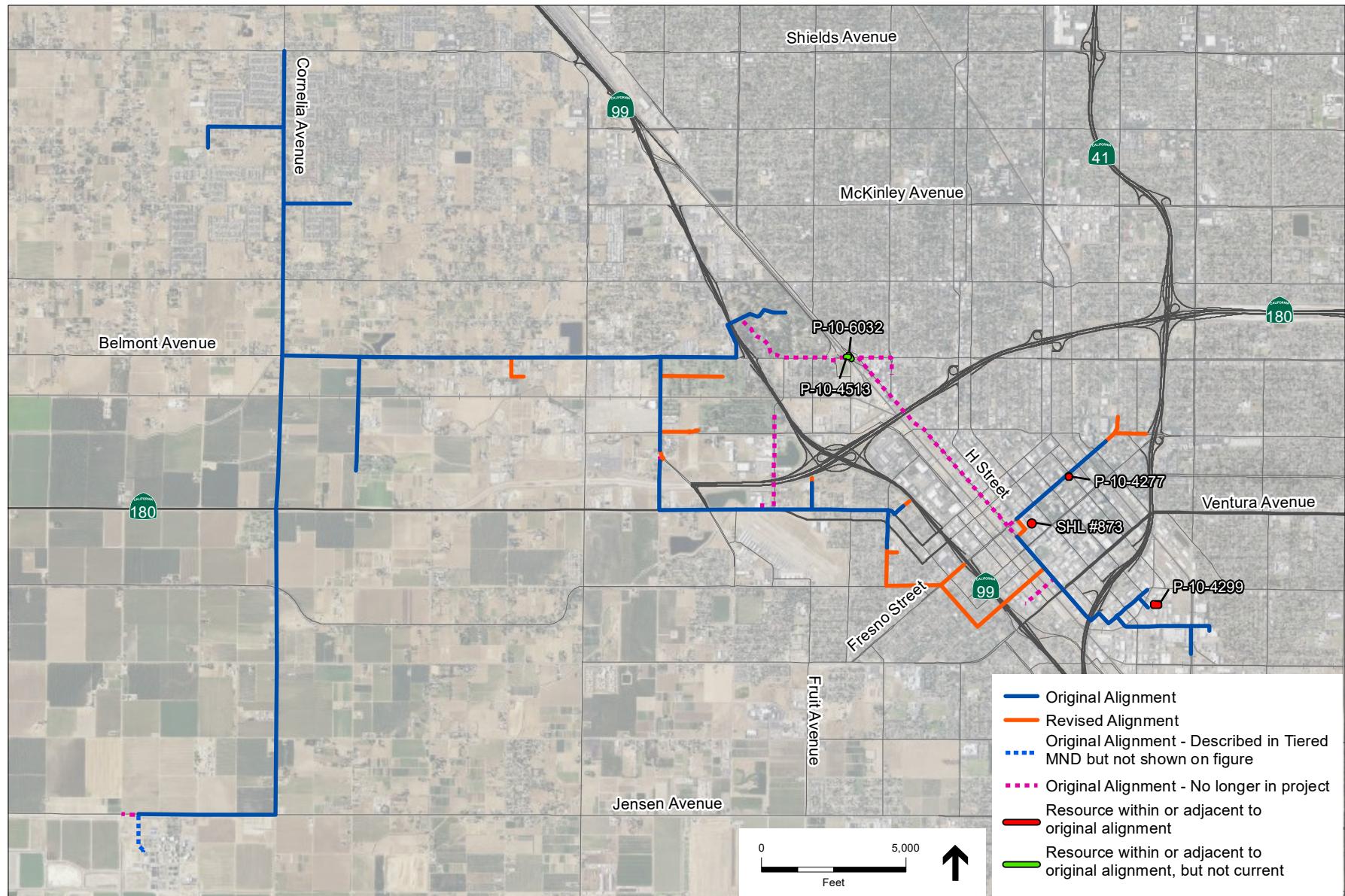
SOURCE: USGS, 1965-1982; ESRI, 2012; Blair, Church, and Flynn, 2017; ESA, 2017

- Fresno Recycled Water Plan
Figure 3c
Project Location

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conducted a records search for this project at the San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System at California State University Bakersfield on October 21, 2013 (RS# 13-429) and September 23, 2014 (RS# 14-333), which indicated no documented resources within or adjacent to the proposed refined pump station site and accompanying refined pipeline routes. Additionally, an ESA archaeologist conducted a pedestrian field survey of the new pump station site on September 15, 2015. The field survey identified no prehistoric resources within the new pump station site, and documented a segment of the Houghton Canal adjacent to the project area at the southernmost end of the new pump station site.

The five previously documented historic period structures recommended eligible within or adjacent to the project area of potential effect (APE) were re-identified. Of these five resources, two (P-10-6032, the Weber Avenue Overcrossing; and P-10-4513, Belmont Avenue Subway) no longer intersect the APE. Houghton Canal was also identified within the project APE as being older than 50 years, and therefore potentially eligible for listing in the California and National Registers. ESA's evaluation of the Houghton Canal recommended the resource as ineligible for listing in the California and National Registers, as it lacks significant association with historic events or people (Criteria 1/A and 2/B), architectural distinction (Criterion 3/C), or potential to yield information important in history (Criterion 4/D). Additionally, the canal has been significantly modified since its original nineteenth century construction, including changes to its alignment, widening, and physical alterations, resulting in significant, existing changes to its physical integrity. No additional cultural resources were identified within the refined alignments during the course of archival review. ESA cultural resources specialists determined that construction of the pump station at the new site, and the refined pipeline routes, would not result in direct or indirect impacts to these resources that would hinder their ability to convey their historic significance. Subsequently, construction of the pump station at the new site and refined pipeline routes would result in no anticipated impacts to historical resources. Construction of the pump station at the new site and refined pipeline routes are not anticipated to encounter subsurface resources, paleontological resources or human remains, but would be required to comply with Master Plan EIR Mitigation Measures 4.12.2b and 4.12.2c, Master Plan EIR Mitigation Measures 4.12.4a and 4.12.4b; and Master Plan EIR Mitigation Measure 4.12.3. In the unlikely event resources are discovered during construction, implementation of these mitigation measures would ensure that the proper procedures are followed should the unexpected discovery of subsurface resources, paleontological resources, or human remains occur. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.



SOURCE: USDA, 2016; ESRI, 2012; Blair, Church, and Flynn, 2017; ESA, 2017

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Figure 4
Cultural Resources within the
Original and Addendum Alignments

3.6 Geology, Soils, and Seismicity

Section 2.6 of the Tiered MND analyzed potential impacts to geology and soils and concluded that pipelines could be subject to damage resulting from a seismic event or unstable soil conditions. Implementation of Master Plan EIR Mitigation Measures 4.3.1a-c and Tiered MND Mitigation Measure GEO-1 would reduce the impacts to a less-than-significant level by providing for the preparation of a soil and geotechnical engineering study for the project, a Phase 1 and if necessary Phase 2 site assessment(s), and adherence to pipeline design guidelines provided by the American Water Works Association. Construction of the pump station at the new site and refined pipeline routes would be similar to the approved Project except that potential geology, soils, and seismicity impacts would occur in different locations. The revised project would also result in the installation of buried pipelines and a new pump station. Although located in a different location than the approved project, these relocated elements would be required to comply with Master Plan EIR Mitigation Measures 4.3.1a-c, which would be adequate to mitigate potential significant geology and soils impacts. Therefore, the revised project would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.7 Greenhouse Gas Emissions

Section 2.7 of the Tiered MND analyzed greenhouse gas emissions and climate change impacts and concluded that there would be less-than-significant impacts due to greenhouse gas emissions and climate change. The revised pipeline alignment would result in a reduction of approximately 1,600 feet of pipeline from what was previously analyzed in the Tiered MND. When compared to the original pipeline length analyzed of approximately 22 miles, a decrease of 1,600 feet would result in a 1.38 percent decrease in pipeline length. Construction activities along the revised pipeline alignment would be similar to those described for pipelines under the Tiered MND. Therefore, the reduced pipeline length would result in a similar generation of greenhouse gas emissions. The construction of the pump station at the new site would not result in an increase in greenhouse gas emissions over what was previously analyzed in the Tiered MND because the construction techniques would be the same as the approved project but in a different location. Greenhouse gas emissions of the project are not near any significance thresholds; therefore, minor increases anticipated under the revised project would not result in a significant impact or require additional mitigation. Therefore, construction of the pump station at the new site and the refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.8 Hazards and Hazardous Materials

Section 2.8 of the Tiered MND analyzed impacts related to hazards and hazardous materials, and concluded that the installation of proposed pipelines and pump station could result in an accidental discovery and/or release of hazardous materials, interference with emergency vehicle access, and wildfire. Implementation of Master Plan EIR Mitigation Measures 4.6.1a and 4.6.1b,

and 4.9.1a-c, Tiered MND Mitigation Measure GEO-1 and Tiered MND Mitigation Measure HM-1 would require coordination with appropriate local governments and emergency providers, require a Phase 1 and if necessary Phase 2 site assessment(s), and ensure fire risk reducing measures.

The new pump station site and refined pipeline routes do not have a history of hazardous material use and no new hazardous materials sites were discovered during an updated online search of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The new pump station site and refined pipeline routes would result in similar impacts from accidental discovery and/or release of hazardous materials, interference with emergency vehicle access, and wildfire. Construction of the pump station at the new site and refined pipeline routes would be required to comply with Master Plan EIR Mitigation Measures 4.6.1a and 4.6.1b, Master Plan EIR Mitigation Measures 4.9.1a-c, Tiered MND Mitigation Measure GEO-1 and Tiered MND Mitigation Measure HM-1. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.9 Hydrology and Water Quality

Section 2.9 of the Tiered MND analyzed impacts to hydrology and water quality and concluded that installation of the pipelines and pump station could result in significant impacts to water quality. Adherence to Best Management Practices (BMPs) as part of obtaining a National Pollutant Discharge Elimination System (NPDES) General Construction Permit would reduce impacts from waterborne pollutants entering natural waters to less-than-significant. BMPs may include, but would not be limited to:

- Physical barriers to prevent erosion and sedimentation including setbacks and buffers, rooftop and impervious surface disconnection, rain gardens and cisterns, and other installations;
- Construction and maintenance of sedimentation basins;
- Limitations on construction work during storm events;
- Use of swales, mechanical, or chemical means of stormwater treatment during construction, including vegetated swales, bioretention cells, chemical treatments, and mechanical stormwater filters; and
- Implementation of spill control, sediment control, and pollution control plans and training.

The specific BMPs to be implemented would be determined prior to issuance of the NPDES General Permit, in coordination with the Central Valley Regional Water Quality Control Board.

The construction of the pump station at the new site and refined pipeline routes would also be installed underground and would occur primarily in existing road right-of-ways and constructed in the same manner as previously analyzed. During construction, the new pump station site and refined pipeline routes would also be required to comply with the conditions of the NPDES

General Construction Permit, including applicable BMPs, which would ensure that potential water quality impacts would be minimized. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.10 Land Use and Land Use Planning

Section 2.10 of the Tiered MND analyzed impacts to land use planning and concluded that installation of the pipelines and pump station could result in significant impacts to an applicable land use plan because the approved pump station site was included within the solid waste disposal site boundary for inert wastes. Tiered MND Mitigation Measure LU-1 required an amendment of the solid waste disposal site boundary before purchasing the original pump station site, which is no longer necessary for the new pump station site. The new pump station site does not have a history of hazardous waste and no hazardous materials sites were found on the property. In addition, the new pump station site would be located in an area designated as industrial by the City of Fresno General Plan. The pipelines would be buried underground following construction and would not result in a change to existing or planned land uses and the pump station would be consistent with the industrial land use designation. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.11 Mineral Resources

Section 2.11 of the Tiered MND analyzed impacts to mineral resources and concluded that no impact to mineral resources would occur. Installation of the pipeline along the refined routes would also occur primarily in existing road right-of-ways and construction of the pump station at the new site would not be located over any mineral resource area, preventing future resource excavation. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.12 Noise

Section 2.12 of the Tiered MND analyzed noise impacts and concluded that there would be significant temporary increases in noise and ground-borne vibration levels associated with installation of the pipelines and pump station. Implementation of Master Plan EIR Mitigation Measures 4.8.1 and 4.8.2 impose measures to reduce noise levels when activities occur adjacent to sensitive receptors. Construction of the pump station at the new site and the refined pipeline routes would result in the same noise and vibration levels as those associated with the approved pump station and pipeline routes, but in different locations. Construction of the pump station at the new site and refined pipeline routes would be required to comply with Master Plan EIR

Mitigation Measures 4.8.1 and 4.8.2 which would be adequate to mitigate significant noise and vibration impacts. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.13 Population and Housing

Section 2.13 of the Tiered MND analyzed impacts to population and housing and concluded that there would be less-than-significant impacts to growth and no impact to displacement of housing or people. Recycled water distributed under the Project would be used to offset demand that would otherwise be met using groundwater or imported surface water supplies. Construction of the pump station at the new site and refined pipeline routes would not change the amount of recycled water distributed or result in displacement of existing homes or substantial numbers of people. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.14 Public Services

Section 2.14 of the Tiered MND analyzed impacts to public services and concluded that there would be no generation of new population growth, increase of staff to operate and maintain facilities or increase the demand for public services. Construction of the pump station at the new site and refined pipeline routes would distribute the same amount of recycled water distributed and therefore not generate new population growth above existing assumed levels. In addition, the operation and maintenance of the pump station at the new site and refined pipeline routes would not require the City to hire additional staff to operate and maintain facilities because the pipeline would result in a minimal increase in overall pipeline length and the pump station would be the same as described in the approved Tiered MND but in a different location. Thus, construction of the pump station at the new site and refined pipeline routes would not increase the demand for the kinds of public services that would support new residents, such as schools, parks, fire, police, or other public facilities. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.15 Recreation

Section 2.15 of the Tiered MND analyzed impacts to recreation and concluded that there would be temporary interference with access to portions of the Rotary Storyland and Playland Park and Roeding Park. Access would be restored following completion of construction activities, and therefore would not result in a significant impact. The new pump station is not located near any recreation facilities. The revised pipeline would also result in temporary interference with access to portions of the Rotary Storyland and Playland Park and Roeding Park, although in a different location than the approved project. However, interference with access would be temporary and

limited to the construction period. Access would be restored following completion of construction activities, and therefore would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.16 Transportation and Traffic

Section 2.16 of the Tiered MND analyzed impacts to transportation and concluded that installation of the pipelines and pump station could result in significant impacts due to vehicle trips generated by construction workers and construction vehicles on area roadways and reduced travel lanes, potential traffic safety hazards, and impediments to emergency vehicle access. Implementation of Master Plan EIR Mitigation Measure 4.6.1a and 4.6.1b would reduce these impacts to less than significant by requiring development and implementation of a traffic management plan, obtaining necessary road encroachment permits, and coordination with local governments, agencies, and departments. Construction of the pump station at the new site and the refined pipeline routes would result in the impacts to transportation as those associated with the approved pump station and pipeline routes, but in different locations. Construction of the pump station at the new site and refined pipeline routes would be required to comply with Master Plan EIR Mitigation Measure 4.6.1a and 4.6.1b which would be adequate to mitigate significant transportation impacts. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

3.17 Utilities and Service Systems

Section 2.17 of the Tiered MND analyzed impacts to utilities and service systems and concluded that impacts would be less-than-significant. The increase in impervious surfaces would be minimal and limited to the pump station site. The quantity of solid waste is expected to be minimal and local landfills have adequate capacity. Construction of the pump station at the new site and refined pipeline routes would be similar to the approved Project except that the facilities would occur in different locations. The revised project would also result in the installation of buried pipelines and a new pump station, although located in a difference location than the approved Project. When compared to the original pipeline length analyzed of approximately 22 miles, a decrease of approximately 6 miles would result in a 27 percent decrease in pipeline length and would result in decrease in the quantity of solid waste from construction. The new pump station site and refined pipeline routes would result in a similar amount of impervious surfaces and a decrease in waste as previously analyzed. The refined pipeline alignments would be installed underground and would occur primarily in existing road right-of-ways. Therefore, construction of the pump station at the new site and refined pipeline routes would not result in new significant impacts or a substantial increase in the severity of impacts over those identified and evaluated in the Tiered MND and Master Plan EIR.

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SECTION 4

Conclusion

On the basis of the evaluation presented in Section 3, the proposed refinements to the pump station site and pipeline routes would not trigger any of the conditions, listed in Section 1.2 of this Addendum, requiring preparation of a subsequent or supplemental MND. All mitigation measures from the Tiered MND apply to the proposed refinements to the pump station site and pipeline routes except Tiered MND Mitigation Measure LU-1, as described above in Section 3, Analysis of Potential Environmental Effects. This Addendum satisfies the requirements of CEQA Guidelines Sections 15162 and 15164. Under CEQA, modifications that are not substantial, but represent minor changes or additions may be presented in an addendum and does not require circulation. However, this document will be circulated as a requirement of the Clean Water State Revolving Fund (SRF) Policy. The City of Fresno is seeking funding from the Clean Water SRF program for this Project. This document will be made part of the administrative record and will be transmitted to the lead agency decision-making body along with the certified Tiered MND to provide clarification regarding proposed refinements outlined above and to comply with CEQA Guidelines Section 15164.

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Appendix A

Updated Air Quality Emission Estimates

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

Fresno Pipeline/Pump Station Project Construction

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	48.00	Acre	48.00	2,090,880.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Assumed acreage would increase by 3.76 percent.

Construction Phase - Assumed construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Assumed construction equipment

Off-road Equipment - Assumed construction equipment

Grading - Assumed 48 Acres disturbed

Trips and VMT - Number and length of trips provided by project engineer

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	75.00	173.00
tblConstructionPhase	NumDays	55.00	209.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	8/31/2017	5/1/2018
tblConstructionPhase	PhaseEndDate	8/31/2017	5/1/2018
tblConstructionPhase	PhaseEndDate	8/31/2017	6/1/2018
tblConstructionPhase	PhaseStartDate	9/1/2017	10/1/2017
tblGrading	AcresOfGrading	432.50	48.00
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblOffRoadEquipment	UsageHours	8.00	9.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripLength	20.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	150.00
tblTripsAndVMT	VendorTripLength	7.30	57.30
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripLength	10.80	30.80
tblTripsAndVMT	WorkerTripLength	10.80	30.80

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

tblTripsAndVMT	WorkerTripNumber	30.00	27.00
tblTripsAndVMT	WorkerTripNumber	35.00	31.00

2.0 Emissions Summary

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	tons/yr										MT/yr						
2017	0.8384	8.4494	5.5349	9.7900e-003	0.6614	0.4717	1.1331	0.3207	0.4343	0.7550	0.0000	910.6283	910.6283	0.2192	0.0000	916.1092	
2018	0.8679	8.6142	6.3338	0.0116	0.6813	0.4627	1.1440	0.3260	0.4260	0.7520	0.0000	1,060.2244	1,060.2244	0.2637	0.0000	1,066.8180	
Maximum	0.8679	8.6142	6.3338	0.0116	0.6813	0.4717	1.1440	0.3260	0.4343	0.7550	0.0000	1,060.2244	1,060.2244	0.2637	0.0000	1,066.8180	

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.8384	8.4494	5.5349	9.7900e-003	0.6614	0.4717	1.1331	0.3207	0.4343	0.7550	0.0000	910.6275	910.6275	0.2192	0.0000	916.1084
2018	0.8679	8.6142	6.3338	0.0116	0.6813	0.4627	1.1440	0.3260	0.4260	0.7520	0.0000	1,060.2234	1,060.2234	0.2637	0.0000	1,066.8170
Maximum	0.8679	8.6142	6.3338	0.0116	0.6813	0.4717	1.1440	0.3260	0.4343	0.7550	0.0000	1,060.2234	1,060.2234	0.2637	0.0000	1,066.8170

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2017	11-30-2017	6.7996	6.7996
2	12-1-2017	2-28-2018	6.8591	6.8591
3	3-1-2018	5-31-2018	5.1434	5.1434
4	6-1-2018	8-31-2018	0.0220	0.0220
		Highest	6.8591	6.8591

2.2 Overall OperationalUnmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr												MT/yr			
Area	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1788	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Waste					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Water					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.1788	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	9/1/2017	5/1/2018	5	173	
2	Trenching	Trenching	9/1/2017	5/1/2018	6	208	
3	Paving	Paving	10/1/2017	6/1/2018	6	209	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 48****Acres of Paving: 48****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	5	9.00	130	0.42
Paving	Paving Equipment	4	8.00	132	0.36
Paving	Rollers	5	9.00	80	0.38
Grading	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	8	10.00	97	0.37
Trenching	Trenchers	4	10.00	78	0.50
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	2	8.00	367	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	12	27.00	16.00	150.00	30.80	57.30	40.00	LD_Mix	HDT_Mix	HHDT
Paving	14	31.00	6.00	0.00	30.80	7.30	40.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.2 Grading - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.5464	0.0000	0.5464	0.2891	0.0000	0.2891	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2472	2.9214	1.6677	2.6700e-003		0.1321	0.1321		0.1216	0.1216	0.0000	247.5073	247.5073	0.0758	0.0000	249.4032	
Total	0.2472	2.9214	1.6677	2.6700e-003	0.5464	0.1321	0.6785	0.2891	0.1216	0.4106	0.0000	247.5073	247.5073	0.0758	0.0000	249.4032	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.5500e-003	0.0392	7.7000e-003	7.0000e-005	1.7100e-003	3.7000e-004	2.0800e-003	4.9000e-004	3.6000e-004	8.5000e-004	0.0000	7.1065	7.1065	9.5000e-004	0.0000	7.1302	
Worker	5.0600e-003	3.5400e-003	0.0350	7.0000e-005	6.8800e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8700e-003	0.0000	6.4865	6.4865	2.4000e-004	0.0000	6.4924	
Total	6.6100e-003	0.0427	0.0427	1.4000e-004	8.5900e-003	4.2000e-004	9.0000e-003	2.3200e-003	4.1000e-004	2.7200e-003	0.0000	13.5930	13.5930	1.1900e-003	0.0000	13.6226	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.2 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.5464	0.0000	0.5464	0.2891	0.0000	0.2891	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2472	2.9214	1.6677	2.6700e-003		0.1321	0.1321		0.1216	0.1216	0.0000	247.5070	247.5070	0.0758	0.0000	249.4029	
Total	0.2472	2.9214	1.6677	2.6700e-003	0.5464	0.1321	0.6785	0.2891	0.1216	0.4106	0.0000	247.5070	247.5070	0.0758	0.0000	249.4029	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.5500e-003	0.0392	7.7000e-003	7.0000e-005	1.7100e-003	3.7000e-004	2.0800e-003	4.9000e-004	3.6000e-004	8.5000e-004	0.0000	7.1065	7.1065	9.5000e-004	0.0000	7.1302	
Worker	5.0600e-003	3.5400e-003	0.0350	7.0000e-005	6.8800e-003	5.0000e-005	6.9200e-003	1.8300e-003	5.0000e-005	1.8700e-003	0.0000	6.4865	6.4865	2.4000e-004	0.0000	6.4924	
Total	6.6100e-003	0.0427	0.0427	1.4000e-004	8.5900e-003	4.2000e-004	9.0000e-003	2.3200e-003	4.1000e-004	2.7200e-003	0.0000	13.5930	13.5930	1.1900e-003	0.0000	13.6226	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.2 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.5464	0.0000	0.5464	0.2891	0.0000	0.2891	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2214	2.5892	1.5264	2.7000e-003		0.1146	0.1146		0.1054	0.1054	0.0000	246.4210	246.4210	0.0767	0.0000	248.3388	
Total	0.2214	2.5892	1.5264	2.7000e-003	0.5464	0.1146	0.6609	0.2891	0.1054	0.3945	0.0000	246.4210	246.4210	0.0767	0.0000	248.3388	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.3500e-003	0.0373	6.7500e-003	8.0000e-005	1.7300e-003	3.0000e-004	2.0300e-003	5.0000e-004	2.9000e-004	7.9000e-004	0.0000	7.1616	7.1616	9.1000e-004	0.0000	7.1844	
Worker	4.5500e-003	3.1000e-003	0.0308	7.0000e-005	6.9600e-003	5.0000e-005	7.0000e-003	1.8500e-003	4.0000e-005	1.8900e-003	0.0000	6.4022	6.4022	2.1000e-004	0.0000	6.4075	
Total	5.9000e-003	0.0404	0.0375	1.5000e-004	8.6900e-003	3.5000e-004	9.0300e-003	2.3500e-003	3.3000e-004	2.6800e-003	0.0000	13.5638	13.5638	1.1200e-003	0.0000	13.5919	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.2 Grading - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.5464	0.0000	0.5464	0.2891	0.0000	0.2891	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.2214	2.5892	1.5264	2.7000e-003		0.1146	0.1146		0.1054	0.1054	0.0000	246.4207	246.4207	0.0767	0.0000	248.3385	
Total	0.2214	2.5892	1.5264	2.7000e-003	0.5464	0.1146	0.6609	0.2891	0.1054	0.3945	0.0000	246.4207	246.4207	0.0767	0.0000	248.3385	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.3500e-003	0.0373	6.7500e-003	8.0000e-005	1.7300e-003	3.0000e-004	2.0300e-003	5.0000e-004	2.9000e-004	7.9000e-004	0.0000	7.1616	7.1616	9.1000e-004	0.0000	7.1844	
Worker	4.5500e-003	3.1000e-003	0.0308	7.0000e-005	6.9600e-003	5.0000e-005	7.0000e-003	1.8500e-003	4.0000e-005	1.8900e-003	0.0000	6.4022	6.4022	2.1000e-004	0.0000	6.4075	
Total	5.9000e-003	0.0404	0.0375	1.5000e-004	8.6900e-003	3.5000e-004	9.0300e-003	2.3500e-003	3.3000e-004	2.6800e-003	0.0000	13.5638	13.5638	1.1200e-003	0.0000	13.5919	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.3 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3009	2.7772	1.9545	2.4900e-003		0.2126	0.2126		0.1956	0.1956	0.0000	231.5802	231.5802	0.0710	0.0000	233.3541
Total	0.3009	2.7772	1.9545	2.4900e-003		0.2126	0.2126		0.1956	0.1956	0.0000	231.5802	231.5802	0.0710	0.0000	233.3541

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.9000e-004	0.0216	3.0100e-003	6.0000e-005	2.2400e-003	1.4000e-004	2.3800e-003	5.9000e-004	1.3000e-004	7.2000e-004	0.0000	5.4347	5.4347	3.0000e-004	0.0000	5.4422
Vendor	0.0277	0.5576	0.1109	1.5000e-003	0.0431	8.8500e-003	0.0520	0.0124	8.4600e-003	0.0209	0.0000	142.9739	142.9739	4.5200e-003	0.0000	143.0870
Worker	0.0190	0.0150	0.1416	3.3000e-004	0.0320	2.1000e-004	0.0322	8.5000e-003	1.9000e-004	8.6900e-003	0.0000	29.6241	29.6241	1.0000e-003	0.0000	29.6492
Total	0.0473	0.5941	0.2556	1.8900e-003	0.0774	9.2000e-003	0.0865	0.0215	8.7800e-003	0.0303	0.0000	178.0328	178.0328	5.8200e-003	0.0000	178.1783

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.3 Trenching - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3009	2.7772	1.9545	2.4900e-003		0.2126	0.2126		0.1956	0.1956	0.0000	231.5799	231.5799	0.0710	0.0000	233.3538
Total	0.3009	2.7772	1.9545	2.4900e-003		0.2126	0.2126		0.1956	0.1956	0.0000	231.5799	231.5799	0.0710	0.0000	233.3538

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.9000e-004	0.0216	3.0100e-003	6.0000e-005	2.2400e-003	1.4000e-004	2.3800e-003	5.9000e-004	1.3000e-004	7.2000e-004	0.0000	5.4347	5.4347	3.0000e-004	0.0000	5.4422
Vendor	0.0277	0.5576	0.1109	1.5000e-003	0.0431	8.8500e-003	0.0520	0.0124	8.4600e-003	0.0209	0.0000	142.9739	142.9739	4.5200e-003	0.0000	143.0870
Worker	0.0190	0.0150	0.1416	3.3000e-004	0.0320	2.1000e-004	0.0322	8.5000e-003	1.9000e-004	8.6900e-003	0.0000	29.6241	29.6241	1.0000e-003	0.0000	29.6492
Total	0.0473	0.5941	0.2556	1.8900e-003	0.0774	9.2000e-003	0.0865	0.0215	8.7800e-003	0.0303	0.0000	178.0328	178.0328	5.8200e-003	0.0000	178.1783

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.3 Trenching - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.2561	2.4253	1.9045	2.4900e-003		0.1774	0.1774		0.1632	0.1632	0.0000	227.6480	227.6480	0.0709	0.0000	229.4198
Total	0.2561	2.4253	1.9045	2.4900e-003		0.1774	0.1774		0.1632	0.1632	0.0000	227.6480	227.6480	0.0709	0.0000	229.4198

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	5.9000e-004	0.0198	2.7100e-003	6.0000e-005	2.2400e-003	9.0000e-005	2.3400e-003	5.9000e-004	9.0000e-005	6.8000e-004	0.0000	5.3813	5.3813	2.8000e-004	0.0000	5.3883
Vendor	0.0238	0.5070	0.0962	1.4900e-003	0.0431	7.1300e-003	0.0503	0.0124	6.8200e-003	0.0193	0.0000	141.9251	141.9251	4.2000e-003	0.0000	142.0301
Worker	0.0168	0.0130	0.1229	3.2000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	28.9025	28.9025	8.8000e-004	0.0000	28.9244
Total	0.0412	0.5397	0.2217	1.8700e-003	0.0774	7.4200e-003	0.0848	0.0215	7.0900e-003	0.0286	0.0000	176.2089	176.2089	5.3600e-003	0.0000	176.3429

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.3 Trenching - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Off-Road	0.2561	2.4253	1.9045	2.4900e-003		0.1774	0.1774		0.1632	0.1632	0.0000	227.6478	227.6478	0.0709	0.0000	229.4195
Total	0.2561	2.4253	1.9045	2.4900e-003		0.1774	0.1774		0.1632	0.1632	0.0000	227.6478	227.6478	0.0709	0.0000	229.4195

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr														MT/yr	
Hauling	5.9000e-004	0.0198	2.7100e-003	6.0000e-005	2.2400e-003	9.0000e-005	2.3400e-003	5.9000e-004	9.0000e-005	6.8000e-004	0.0000	5.3813	5.3813	2.8000e-004	0.0000	5.3883
Vendor	0.0238	0.5070	0.0962	1.4900e-003	0.0431	7.1300e-003	0.0503	0.0124	6.8200e-003	0.0193	0.0000	141.9251	141.9251	4.2000e-003	0.0000	142.0301
Worker	0.0168	0.0130	0.1229	3.2000e-004	0.0320	2.0000e-004	0.0322	8.5000e-003	1.8000e-004	8.6800e-003	0.0000	28.9025	28.9025	8.8000e-004	0.0000	28.9244
Total	0.0412	0.5397	0.2217	1.8700e-003	0.0774	7.4200e-003	0.0848	0.0215	7.0900e-003	0.0286	0.0000	176.2089	176.2089	5.3600e-003	0.0000	176.3429

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.4 Paving - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1951	2.0655	1.4856	2.2400e-003			0.1168	0.1168		0.1075	0.1075	0.0000	207.9600	207.9600	0.0637	0.0000	209.5530
Paving	0.0235						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2186	2.0655	1.4856	2.2400e-003			0.1168	0.1168		0.1075	0.1075	0.0000	207.9600	207.9600	0.0637	0.0000	209.5530

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.4000e-003	0.0355	6.9900e-003	7.0000e-005	1.5500e-005	3.4000e-004	1.8900e-003	4.5000e-004	3.2000e-004	7.7000e-004	0.0000	6.4454	6.4454	8.6000e-004	0.0000	6.4669	
Worker	0.0163	0.0129	0.1219	2.8000e-004	0.0275	1.8000e-004	0.0277	7.3200e-003	1.6000e-004	7.4800e-003	0.0000	25.5097	25.5097	8.6000e-004	0.0000	25.5312	
Total	0.0177	0.0484	0.1289	3.5000e-004	0.0291	5.2000e-004	0.0296	7.7700e-003	4.8000e-004	8.2500e-003	0.0000	31.9551	31.9551	1.7200e-003	0.0000	31.9981	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.4 Paving - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.1951	2.0655	1.4856	2.2400e-003			0.1168	0.1168		0.1075	0.1075	0.0000	207.9597	207.9597	0.0637	0.0000	209.5527
Paving	0.0235						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2186	2.0655	1.4856	2.2400e-003			0.1168	0.1168		0.1075	0.1075	0.0000	207.9597	207.9597	0.0637	0.0000	209.5527

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	1.4000e-003	0.0355	6.9900e-003	7.0000e-005	1.5500e-003	3.4000e-004	1.8900e-003	4.5000e-004	3.2000e-004	7.7000e-004	0.0000	6.4454	6.4454	8.6000e-004	0.0000	6.4669	
Worker	0.0163	0.0129	0.1219	2.8000e-004	0.0275	1.8000e-004	0.0277	7.3200e-003	1.6000e-004	7.4800e-003	0.0000	25.5097	25.5097	8.6000e-004	0.0000	25.5312	
Total	0.0177	0.0484	0.1289	3.5000e-004	0.0291	5.2000e-004	0.0296	7.7700e-003	4.8000e-004	8.2500e-003	0.0000	31.9551	31.9551	1.7200e-003	0.0000	31.9981	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.4 Paving - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.2775	2.9447	2.4558	3.7700e-003		0.1623	0.1623		0.1493	0.1493	0.0000	343.7996	343.7996	0.1070	0.0000	346.4754	
Paving	0.0394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	0.3169	2.9447	2.4558	3.7700e-003		0.1623	0.1623		0.1493	0.1493	0.0000	343.7996	343.7996	0.1070	0.0000	346.4754	

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	2.0300e-003	0.0562	0.0102	1.1000e-004	2.6000e-003	4.6000e-004	3.0600e-003	7.5000e-004	4.4000e-004	1.1900e-003	0.0000	10.7835	10.7835	1.3800e-003	0.0000	10.8179	
Worker	0.0243	0.0187	0.1777	4.6000e-004	0.0463	2.9000e-004	0.0466	0.0123	2.7000e-004	0.0126	0.0000	41.7995	41.7995	1.2700e-003	0.0000	41.8313	
Total	0.0264	0.0749	0.1879	5.7000e-004	0.0489	7.5000e-004	0.0496	0.0130	7.1000e-004	0.0138	0.0000	52.5831	52.5831	2.6500e-003	0.0000	52.6492	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

3.4 Paving - 2018**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.2775	2.9447	2.4558	3.7700e-003			0.1623	0.1623		0.1493	0.1493	0.0000	343.7992	343.7992	0.1070	0.0000	346.4750
Paving	0.0394						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3169	2.9447	2.4558	3.7700e-003			0.1623	0.1623		0.1493	0.1493	0.0000	343.7992	343.7992	0.1070	0.0000	346.4750

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	2.0300e-003	0.0562	0.0102	1.1000e-004	2.6000e-003	4.6000e-004	3.0600e-003	7.5000e-004	4.4000e-004	1.1900e-003	0.0000	10.7835	10.7835	1.3800e-003	0.0000	10.8179	
Worker	0.0243	0.0187	0.1777	4.6000e-004	0.0463	2.9000e-004	0.0466	0.0123	2.7000e-004	0.0126	0.0000	41.7995	41.7995	1.2700e-003	0.0000	41.8313	
Total	0.0264	0.0749	0.1879	5.7000e-004	0.0489	7.5000e-004	0.0496	0.0130	7.1000e-004	0.0138	0.0000	52.5831	52.5831	2.6500e-003	0.0000	52.6492	

4.0 Operational Detail - Mobile

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00	-	-	-	-
Total	0.00	0.00	0.00	-	-	-	-

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.475203	0.033904	0.168176	0.133649	0.019863	0.005290	0.031901	0.120662	0.002374	0.001757	0.005377	0.001134	0.000710

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

Mitigated

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	
Unmitigated	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0436					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	
Total	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0436					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	
Total	0.1788	0.0000	4.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004	

7.0 Water Detail**7.1 Mitigation Measures Water**

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

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

7.2 Water by Land Use**Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

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

Fresno Pipeline/Pump Station Project Construction - Fresno County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
