

Agenda Item: File ID17-889 (1-B)

Date: 6/15/2017

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FRESNO CITY COUNCIL

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Supplemental Information Packet

Agenda Related Item(s) – File ID17-889 (1-B)

Contents of Supplement: 2 Documents received during the Meeting

Item(s)

Actions pertaining to the San Joaquin River Conservancy Eaton Trail Extension Project (Council District 2):

1. RESOLUTION – Adopting the 62nd Amendment to Annual Appropriations Resolution (AAR) No. 2016-118 to appropriate \$97,000 in Measure "C" Trails funding for costs related to the Eaton Trail Extension Project.
2. Approve a professional services agreement with AECOM, Inc., in substantially the form attached, in the amount of \$71,785 with a \$7,000 contingency, and to authorize the Public Works Director to execute the agreement on behalf of the City.

Supplemental Information:

Any agenda related public documents received and distributed to a majority of the City Council after the Agenda Packet is printed are included in Supplemental Packets. Supplemental Packets are produced as needed. The Supplemental Packet is available for public inspection in the City Clerk's Office, 2600 Fresno Street, during normal business hours (main location pursuant to the Brown Act, G.C. 54957.5(2). In addition, Supplemental Packets are available for public review at the City Council meeting in the City Council Chambers, 2600 Fresno Street. Supplemental Packets are also available on-line on the City Clerk's website.

Americans with Disabilities Act (ADA):

The meeting room is accessible to the physically disabled, and the services of a translator can be made available. Requests for additional accommodations for the disabled, sign language interpreters, assistive listening devices, or translators should be made one week prior to the meeting. Please call City Clerk's Office at 621-7650. Please keep the doorways, aisles and wheelchair seating areas open and accessible. If you need assistance with seating because of a disability, please see Security.

2000 Fresno County General Plan Policy Document: Its Structure, Implementation & Revision

Structure

1. Every county and city general plan contains a policy document that serves as a guide for future land use development.
2. On the whole, general plan policy documents should be "updated" every 15 to 25 years.
3. Fresno County's Policy Document is 17 years old. It was adopted in 2000 and has not been updated since that time.
4. The Policy Document was designed with a 20-year life, so it should be updated sometime around 2020.
5. The Policy Document is divided into seven sections called elements.
 - Economic Development Element
 - Agriculture & Land Use Element
 - Transportation & Circulation Element
 - Open Space & Conservation Element
 - Public Facilities & Services Element
 - Health & Safety Element
 - Housing Element (This fact sheet does not include information about the County's Housing Element.)
6. The first six elements address 46 topics, and because each topic has one goal, there are 46 goals.
7. To achieve these 46 goals, the County adopted 604 "policy" statements, which are a mixture of guidelines and tasks.
8. To implement these 604 policies, the Policy Document contains 121 implementation programs.
9. The description of each of the 121 implementation programs contains the word "shall," which makes implementation an unequivocal, mandatory directive.
10. To further ensure that the 121 implementation programs are effectively executed, the Policy Document assigns each program to one or more departments and then provides a recommended target date for completion.
11. At the time the Policy Document was adopted in 2000, the County acknowledged that some adverse impacts were unavoidable, among them impacts to transportation infrastructure, biological resources, air quality & water resources.
12. Nonetheless, to provide some measure of protection, the County adopted 303 mitigation measures, which were incorporated into the Policy Document as individual policies, so about half of the 604 policies are CEQA mitigation measures.
13. The General Plan was said to be environmentally "self-mitigating" because, by law, the programs and policies in its Policy Document, including those that serve as CEQA mitigation measures, would have to be implemented.
14. The Policy Document embraces an economic development strategy designed to lift county residents out of poverty.
15. The Policy Document contains language codifying the state requirement to annually report the progress made toward achieving the goals described in the Policy Document.
16. The Policy Document contains a requirement that it be reviewed (and revised as necessary) every five years.
17. The Policy Document also requires that the goals and targets of its economic development strategy be evaluated every five years.

Implementation

18. An annual report was prepared for 2001/2002, but no others until 2014. The 2014, 2015 and 2016 reports are vacuous.
19. The required five-year evaluations of the goals and targets in the County's economic development strategy were never prepared.
20. The first 5-year review of the Policy Document was begun in 2005 and, after 12 years, is not yet completed.
21. According to a League of Women Voters of Fresno study published September 1, 2016, as of 2016, the County was able to demonstrate successful implementation of only 47 of 121 implementation programs (39%).
22. Based on a search of County records, during the past 17 years, the County has never monitored the CEQA mitigation measures incorporated to the Policy Document in 2000.

Revision

23. The "5-year revision" of the Policy Document was initiated in 2005. According to the County, the revision is not an "update" of the Policy Document.
24. The County has released five draft revisions of the Policy Document – in August 2010, July 2012, January 2013, March 2014 and September 2014.
25. According to a League of Women Voters of Fresno study published February 23, 2013, the January 2013 draft revision of the Policy Document significantly revised or deleted 102 of 604 policies (17%), with the greatest percentage of change in the Economic Development Element – 31 of 50 policies or 62%.
26. According to a League of Women Voters of Fresno study published February 23, 2013, the January 2013 draft revision of the Policy Document significantly revised or deleted 62 of 121 implementation programs (51%), with the greatest percentage of change also occurring in the Economic Development Element – 13 of 18 programs or 72%.
27. These proposed changes to policies and implementation programs will impact the County's ability to protect and conserve agricultural lands, especially in water-poor areas.
28. The proposed revision includes the elimination of an "independent" institution to evaluate the success of the County's Economic Development Strategy and it makes future 5-year reviews of the Policy Document optional.
29. The County is hoping the 5-year revision begun in 2005 will extend the life of the Policy Document to 2040. There is no proposal to update the Policy Document between now and 2040.
30. Sometime this summer, the County will release its sixth proposed revision of the Policy Document.
31. In conjunction with the release of its sixth proposed revision of the Policy Document, the County will release a proposed update of its General Plan Background Report.
32. In conjunction with the release of its sixth proposed revision of the Policy Document, the County will release a proposed update of its Zoning Ordinance.
33. In the summer of 2016, the County eliminated from its website any information about the pending revision, and a year later, there is still no indication on the County's website that the County is engaged in a revision of its General Plan Policy Document.

revision / Policy (Goals) - sixth
Background - no input
Zoning ord. - no input
- community plans -
no update - U.C. Davis - 4-year process
no web info

equity

-
- vision statement
 - spending priorities
 -

get the word out?

website
- major conference -

quick

Internal Dynamic

Example: **Groundwater Supply**

Implementation Program OS-A.B

The County shall establish and maintain a centralized water resource database for surface and groundwater that includes the water budget, groundwater monitoring data, and the groundwater recharge site inventory. (TF: 2002)

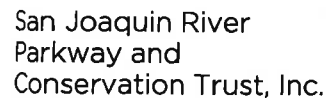
41 Land Use Plans

Background Report

Environmental
Impact Report

Policy Document





San Joaquin River
Parkway and
Conservation Trust, Inc.

June 15, 2017

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Executive Director

Fresno City Council
2600 Fresno Street
Room 2133
Fresno, CA 93721

Re: Consent Agenda Item B1

Dear Councilmembers:

I'm concerned about the lack of accurate information made available both to you and to the public regarding the scope of the agreement contemplated in Item 1B.

The Scope of Services attached to the agreement contains information that is not consistent with the City's proposal to the Conservancy at the May 3 and June 7, 2017 meetings. These include:

1. Statement that the City will be the lead agency for recirculation of the Draft EIR
2. Statement that the City will be drafting a new project description for the DEIR
3. Statement that previous comments submitted on the DEIR will not be considered or receive responses

Also, the agenda item suggests that the City will be designing or constructing a portion of the Lewis S. Eaton Trail at River West Fresno, and therefore warrants the use of Measure C Trail Funds.

The proposal at hand is actually environmental review of an entrance road that was determined to be impractical and therefore not fully evaluated in the Draft EIR. I have attached the previous study conducted by Blair, Church and Flynn for your reference. I direct your attention to page 24, Site Selection. The second sentence of the paragraph reads, "A combination of Site 2 and Site 3 would be the preferred location since it would

17-889

1B

6/15/17

Rec'd 2:10



CREATING AND PROTECTING THE SAN JOAQUIN RIVER PARKWAY

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be the most economical, have the smallest impact on existing waste, and it has a low probability of being delayed by overseeing agencies."

Just to be clear – the environmental review that is proposed is not for the recommended site above, but instead for the site listed as Site 1, Route 2 in the Blair, Church & Flynn Study. About Site 1 the study states the following:

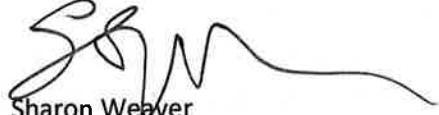
The issues involved with Site 1 include being within the 100 year flood zone, acquiring access to the site, and site grading. It is recommended to stay away from building an access road within route 1 since landfills tend to settle over time, landfill fires are a possibility as seen in the 1990s, the existing landfill face slopes may be a safety issue for incoming and outgoing traffic, and there is an increased risk of discovering undesirable landfill materials during construction. Route 2 will require a substantial amount of fill to accommodate the construction of a 24 foot wide road along the existing bluff slope adjoined to Spano Park which increased the construction cost considerably. Net soil increase is not allowed in the flood zone creating construction challenges for both routes since the site is known to be comprised of C&D waste which may be difficult to grade. The estimated cost for design and construction of Site 1 Route 1 and Site 1 Route 2 are \$2,348,000 and \$2,587,000 respectively.

The agenda item as written suggests more questions than answers, such as, is the City planning to construct and maintain this road? Is it customary for the City to conduct engineering studies and environmental review processes on land that it does not own? Does the City's interest in funding this project imply that the City will also be willing to construct, operate, and maintain the project? And if not, then why is the City choosing to fund this study?

It appears that the City staff and consultant have not had adequate time to accurately prepare the matter for your review, and I encourage you to postpone a decision on this matter until you receive more accurate and thorough information for your consideration.

Thank you for your consideration of these comments.

Sincerely,



Sharon Weaver
Executive Director

Attachment



Palm Bluffs River Access Feasibility Study Report

City of Fresno, California
Department of Public Works

May 2015

**Blair,
Church
& Flynn**

CONSULTING ENGINEERS

451 Clovis Ave., Suite 200
Clovis, California 93612
Tel (559) 326-1400
Fax (559) 326-1500
www.bcfengr.com

Palm Bluffs River Access Feasibility Study Report

May 2015

Prepared for:



City of Fresno, California
Department of Public Works

Prepared by:

Blair,
Church
& Flynn

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Appendix C	Map of Existing Parcels
Appendix D	Access Road and Parking Lot Site Alternatives

**CHAPTER 1
INTRODUCTION**

1.1 Project Background

The City plans to design and construct a 2 lane road with shoulders from the existing North Palm Avenue cul-de-sac, near the top of the riverside bluff, to a parking lot area near the river and below the riverside bluff. A study was conducted to develop and evaluate alternative access configurations, and to formulate recommendations as to the preferred alternative.

The planning firm PlaceWorks (formerly The Planning Center) is currently preparing the San Joaquin River Parkway Master Plan Update for the San Joaquin River Conservancy (SJRC). Access facilities at the Palm Bluffs location are included as an element of the current working draft of the master plan update. It is the San Joaquin River Conservancy's preference that access facilities near the river be located outside the limits of the 100 year floodplain.

Much of the land that has now been developed as Palm Bluffs, Park Place, and River Bluff contained buried landfill materials that remain in place to a considerable extent. Special compactive efforts were employed as part of site development, and some new buildings in the area reportedly contain gas detection facilities to monitor for the presence of landfill gasses. The land within the project study area, which may be traversed by the planned access facilities, contains similar landfill materials.

A significant part of the area that could be affected by the access facilities is owned by the Spano family. Much of the undeveloped area west of the North Palm Avenue cul-de-sac and between the river and the Park Place development is referred to colloquially as "The Spano Landfill".

The location of the Project Pipelines is shown on the map in Figure 1.1 and is identified as "Project Location."

1.2 Purpose

The purpose of this report is to document gathered information from the site investigation and survey, present design alternatives, and to provide recommendations for review.

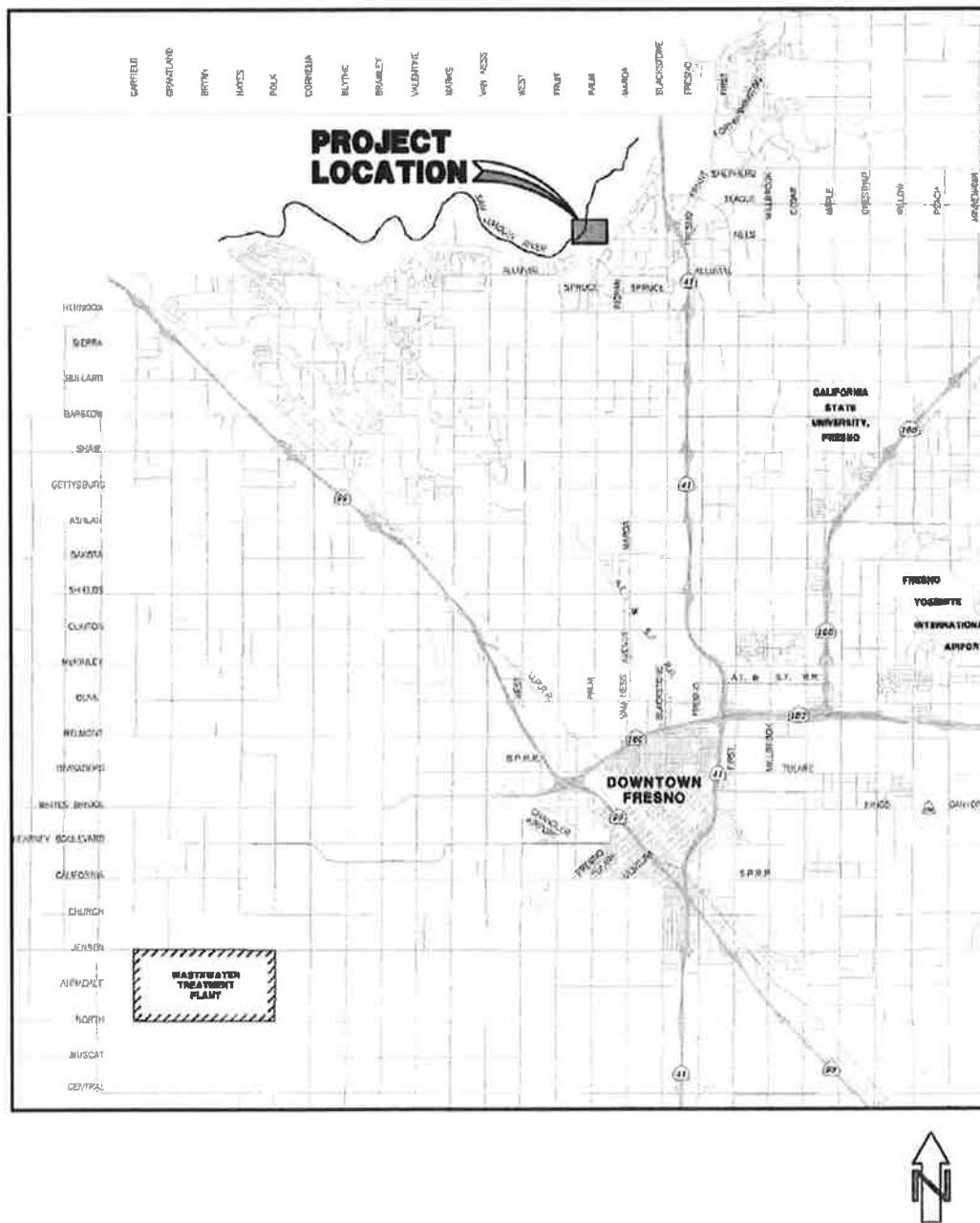


Figure 1.1 Location Map

CHAPTER 2 EXISTING UTILITIES AND SITE SURVEY

2.1 Existing Utilities

Letters were sent out to various utility owners and agencies on 5 January 2015 to determine all existing utilities within the project limits. A summary of the utility responses received from the utility owners and agencies as of the date of this report is shown in Table 2.1.

Table 2.1 Existing Utility Information

Utility Owner	Response Received?	Utilities in Area?
AC Square (Comcast)	N	—
AT&T California	Y	Y
AT&T Inquiries	Y	N
CVIN	Y	N
City of Fresno	N	—
Fresno Irrigation District	Y	N
FMFCD	Y	Y
Kinder Morgan	Y	N
Level 3 Communications	N	—
MCI Network Services	Y	N
PG&E	Y	Y
Qwest Communications	N	—
Sprint	Y	N
Time Warner Telecom	N	—

2.1.1 AT&T Utility

AT&T was contacted regarding their services going through the Spano Landfill. According to AT&T, a copper wire was installed for a new sports complex near the landfill site in the 1960s. The sports complex plan was eliminated and it is unclear whether the copper line still exists today. The AT&T line on the Site Plan, available in Appendix A, shows the possible location of the copper cable.

2.1.2 Overhead Electrical

On the southwest side of the project study area, overhead high voltage electrical lines are present. The electrical lines travel in a northwest direction over the site and all high voltage

tower structures are located outside the original project study area. The high voltage overhead electrical lines can be seen on the Site Map in Appendix A.

2.2 Ground Survey and Aerial Photography

Topographic field surveys were conducted using GPS equipment, in order to provide a level of detail adequate to define surface landforms in support of the study efforts. Field surveys are supplemented by aerial photographic coverage obtained from a 2008 aerial survey conducted by the City of Fresno.

2.3 Geotechnical Investigation

A geotechnical report was not included in the scope of work for this project. It will be necessary to conduct geotechnical investigations on site in order to define the subsurface conditions prior to final design.

CHAPTER 3 EXISTING CONDITIONS & DESIGN REQUIREMENTS

3.1 Fresno County Department of Public Health

During the initial record search, the Fresno County Department of Public Health (FCDPH) was contacted and was able to provide numerous reports and documentation regarding the closed Spano Landfill. A site walk was also performed with two representatives of the FCDPH to discuss the landfill limits and general history of the site. Private consultants were not contacted for the record review since their work is not publically available.

3.2 100 Year Flood Limits

The 100 year flood limits were obtained using digital Flood Insurance Rate Maps (FIRMs) for Fresno and Madera Counties which are available through the Federal Emergency Management Agency (FEMA). Anything within the 100 year flood zone is susceptible to inundation by a rain event that has a 1% probability of occurring each year. The base flood elevation changes within the project boundary from an elevation of approximately 265.5' to 265.8' from west to east respectively using the NGVD 29 datum. Base flood elevations shown in the FIRMs were changed from the NAVD 88 datum to the NGVD 29 datum because it is primarily used by the City of Fresno. All FIRMs associated with the project are available in Appendix B of this report.

3.3 Parcel Lines

Parcel linework that is shown on the Site Map in Appendix A was obtained from City of Fresno GIS data. The land owner name and Assessor's Parcel Number (APN) for parcels within the project study limits are available in Table 3.1. A map showing the existing parcels is available in Appendix C of this report.

Table 3.1 APN & Owner

APN	Owner
402-030-63S	SOB ENTERPRISES
402-030-67S	SOB ENTERPRISES
405-340-18S	SOB ENTERPRISES
405-340-19S	SOB ENTERPRISES
405-340-17S	SOB ENTERPRISES
402-030-64S	SOB ENTERPRISES
402-030-43	SOB ENTERPRISES
402-030-70	NEW GENERATION GROUP L P
405-530-85	PARK PLACE HOLDINGS LP
402-030-52ST	FMFCD
402-030-47ST	CITY OF FRESNO

APN	Owner
405-340-04	C&A FARMS LLC "RICHTER SITE"

3.4 Emergency Vehicle Access

In order to provide emergency access to the site, the Fresno Fire Department Development Policies must be followed. According to Section 403.2, "Fire Department Access," the road must be an approved all weather surface, capable of supporting an 80,000 pound vehicle, have a grade of 10% (10H:1V) or less, and have 24 feet of unobstructed width. Lanes that are one way shall be 15 feet in width.

A cul-de-sac turnaround will be necessary for emergency vehicles within the parking lot. Requirements for a turnaround include a 44 foot centerline turning radius and a 20 feet clear driving width.

3.5 Limits of Waste and Site Description

A review of the landfill documents was conducted on all material acquired from the FCDPH. All landfill limit figures that were available were schematically drawn leaving the precise landfill limits unclear. With the combination of report figures and help from FCDPH personnel, the approximate limits of waste are defined on the site map located in Appendix A.

3.5.1 Main Landfill

The approximate landfill waste limits are identified by a blue dashed line on the Site Map available in Appendix A. According to available figures, the landfill terminates at the edge of the San Joaquin River. Content and depth of this waste are generally unknown within the areas of the proposed improvements.

The top of the landfill is flat with multiple mounds of soil that appear to have been deposited after the landfill closure. The landfill gradient from the top of slope to the toe of slope varies from approximately 18% (10H:1.8V) up to 69% (10H:6.9V) as shown in the Site Map located in Appendix A.

There are two roads along the existing landfill. The outermost road appears to coincide with the approximate landfill waste limits and varies in width. The north and south sections of the outermost road is estimated to be 10 feet and 21 feet wide, respectively. The innermost road varies from approximately 8 feet to 13 feet wide throughout the entire site. During the site investigation visit, 2 foot high ground cover vegetation was observed on the landfill.

A subsurface fire was observed in the main landfill in the mid 1990s and was estimated to be 20 feet by 20 feet in plan view. The approximate location can be seen on the Site Map in Appendix A. The fire is no longer believed to exist.

3.5.2 Construction and Demolition Waste

There are two locations located adjacent to the main landfill that is understood to be composed of construction and demolition (C&D) waste. They are located north and southwest of the main landfill with the limits identified on the Site Map by orange dashed lines.

According to the EPA website, C&D waste materials consist of the debris generated during the construction, renovation, and demolition of buildings, roads, and bridges that often contain

bulky, heavy materials, such as concrete, wood, metals, glass, and salvaged building components.

3.5.2.1 Northeast C&D Waste

The approximate northeast C&D waste site limits is surrounded by the San Joaquin River, an existing Fresno Metropolitan Flood Control stormwater basin, and the main landfill. The site is relatively flat with a few trees along the river boundary. During the site investigation visit, low ground cover vegetation existed across the site.

A site investigation was conducted at the northeast C&D waste site on April 4, 2002 by Twining Laboratories with a backhoe. The debris that they observed included concrete, asphalt, brick, rebar, and other similar type of materials just below the ground surface. The report noted that no domestic waste was encountered. The waste was estimated to contain 60 percent soil and 40 percent debris. Groundwater was encountered at approximately 15 feet below ground surface.

3.5.2.2 Southwest C&D Waste

The approximate southwest C&D waste site limits is surrounded by the San Joaquin River, the main landfill, and a parcel known as the "Richter Site". The Richter Site is relatively flat and the northern limits generally coincide with the bluff edge. The C&D site is the bluff face and slopes down at approximately 28% (10H:2.8V) before transitioning to a milder slope down towards the river's edge. During the site investigation visit, 2 foot high ground cover vegetation existed across the site with a few trees at the bottom of the bluff face.

A subsurface fire was observed in the southwest C&D waste site in the mid 1990s. The approximate location can be seen on the Site Map in Appendix A. The fire is no longer believed to exist.

A site investigation was conducted at the southwest C&D waste site on April 4, 2002 by Twining Laboratories with a backhoe. Areas of this waste site were inaccessible according to the survey report. Material retrieved from six excavation pits was estimated to contain 60 percent soil and 40 percent debris. The survey concluded that the site was comprised of 5 to 6 feet of C&D waste and is underlain by domestic waste. Materials observed in the C&D waste included concrete, asphalt, brick, and other similar materials. The depth of the domestic waste was not determined by the survey.

CHAPTER 4 ENVIRONMENTAL AND PERMITS

4.1 General

The following permits and environmental documentation should be considered for the various project alternatives. Contingent upon subsurface conditions demonstrating no contaminants of concern, it is feasible that the projects can be completed with a CEQA Initial Study and Mitigated Negative Declaration.

4.2 Initial Study

In order to satisfy the California Environmental Quality Act (CEQA) review process, an Initial Study must be completed for this project. If tests are conducted and no contamination is found on site, and no other significant environmental impacts are discovered, then the project may be eligible for filing as a Mitigated Negative Declaration. If, however, the Initial Study demonstrates significant environmental impacts that cannot be avoided or mitigated, then a complete EIR may be necessary for the project.

The CEQA was enacted for the purpose of providing decision-makers and the public with information regarding the environmental effect of proposed projects, identifying means of avoiding environmental damage and disclosing the reasons behind a project's approval even if it leads to environmental damage. As the first step in the CEQA process, an Initial Study is necessary to identify significant environmental impacts and to avoid or mitigate those impacts where feasible. The project site is located in an area characterized in part or in whole as a landfill with the potential for methane discharge as the landfill organics decompose. Based upon the careful review of the issues, the discussions on land use, and the known environmental issues in the surrounding area, the project will need to address the issues discussed in the following subsections.

4.2.1 Land Use

Land use review is necessary to ensure consistency with the City of Fresno General Plan.

4.2.2 Traffic

Traffic impacts to the City of Fresno and at the proposed access points should be analyzed to determine all potential changes in traffic.

4.2.3 Air Quality/ Greenhouse Gas

An air quality and greenhouse gas (GHG) emissions technical analysis is necessary to evaluate potential impacts associated with the proposed project in accordance with the San Joaquin Valley Air Pollution Control District. Construction Air Quality and GHG usage calculations should be conducted as well.

4.2.4 Biological Resources

Biological resources documentation review and surveys are necessary to describe the natural communities and biotic habitats, determine the potential for the site to support special status

plant or wildlife species, and determine the presence or absence of regulated trees, special-status plant communities, or jurisdictional waters on the site. Biological resources should be prepared with existing General Plan data, as well as localized studies for potential migratory birds and threatened or endangered species.

4.2.5 Cultural Resources

A cultural resources records search and surveys are necessary to determine whether known cultural resources had been recorded within or adjacent to the landfill project area, assess likelihood of unrecorded cultural resources based on historical references and the distribution of environmental settings of nearby sites, and develop a context for identification and preliminary evaluation of cultural resources.

4.2.6 Geology, Soils and Seismicity

A significant factor influencing project design and construction is the potential for long-term settlement of existing landfill materials and development of landfill gases. A geotechnical investigation will be necessary to explore and evaluate the subsurface conditions on site in order to develop geotechnical engineering recommendations to aid in project design and construction.

4.2.7 Hazardous Materials and Waste

Due to the location, a Phase II environmental evaluation may need to be conducted to satisfy CEQA requirements and determine if hazardous waste is present. This investigation consists of onsite discovery involving geotechnical surface and subsurface soils sampling and testing.

4.2.8 Hydrology and Water Quality

Due to the location of the project site, the hydrology and water quality may produce other environmental impacts that may need to be mitigated. The hydrology and water quality is necessary to analyze the project size and issues relating to surface water, site drainage, potential for Stormwater Pollution Prevention Plan development, site lay down and spill prevention, containment and countermeasures.

4.3 §1600 Lake or Streambed Alteration Agreement (LSAA)

According the California Department of Fish and Wildlife (DFW), an entity must notify the agency prior to work that may substantially divert or obstruct the natural flow of any river, substantially change or use any material from any river, deposit materials that could pass into any river, or adversely affect existing fish or wildlife resources. The DFW will review projects and recommend ways to reduce impacts to the fish and/or wildlife habitat.

It takes thirty days of project review to determine if a LSAA is required. After the initial thirty days, the DFW can take up to sixty additional days to issue a LSAA if one is necessary. LSAA fees vary from \$245 to \$4,912 based upon the total project cost.

4.4 Army Corps Wetland Delineation Survey

Section 404 of the Clean Water Act gives the Army Corps of Engineers jurisdiction over projects that impact wetlands. A wetland is defined in CFR 328.3 as areas that are inundated or

saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

If a site or access road is found to be within wetlands, building within the wetlands may result in mitigation at a to-be-determined ratio through buying mitigation bank credits, building wetland habitat, or restoring wetland habitat at another destination.

A wetland delineation study should be conducted to determine if the proposed alternatives are within wetland areas. Typical surveys investigate the site for hydric soils, hydrophytic vegetation, and examine the site hydrology.

4.5 Army Corps §404 Nationwide Permit

The Army Corps of Engineers issues Nationwide Permits for construction activities where minimal environmental effects are planned in the waters of the United States. A permit is necessary for all areas under the high water mark of a river. A survey of the high water mark should be conducted to determine if a Nationwide Permit is necessary.

The review period for a Nationwide permit is sixty days and there are no fees due with the application. One of the Nationwide Permit requirements is the completion of the Clean Water Act 401 permit discussed in the following subsection. The permit is issued conditionally until the 401 permit is acquired.

4.6 Clean Water Act §401 Permit

The purpose of the 401 permit is to protect water quality, wetlands, and aquatic resources. According to CWA §401, any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates.

The permit takes two weeks to be reviewed but cannot be submitted until CEQA is completed. The price of the permit varies based upon the California Code of Regulations, Title 23, section 2200(a)(3). A fee calculator is available on the State of California website called the "Dredge and Fill Fee Calculator."

4.7 Central Valley Flood Protection Board Encroachment Permit

An encroachment permit application is required to be submitted to the Central Valley Flood Protection Board if a project is located within 300 feet of a designated floodway. The review time for the encroachment permit application is three to six months but does not require an application fee.

4.8 City of Fresno Permit to Build within a Floodplain

The City of Fresno Flood Plain Administrator must review the site plans and ensure that it complies with all City ordinances.

According to City of Fresno ordinance 11-616(g), the Flood Plain Administrator must determine that the following requirement is met for construction below the base flood elevation:

"The volume of space occupied by the proposed fill or structure below the base flood elevation is compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation. All such excavations shall be constructed to drain freely to the watercourse."

This ordinance prohibits a net increase of soil in any location below the base flood elevation by means of importing fill. It is possible to alter the base flood elevation limits by transferring soil below the base flood elevation and submitting a Letter of Map Revision to FEMA once the ground is proven to be above flood levels. The City of Fresno also requires the finished floor of structures to be six inches above the base flood elevation.

Permit review takes approximately two weeks to conduct and will vary in cost based upon the volume of soil that is transferred. The fee schedule varies from \$464 to \$860.

4.9 FEMA Letter of Map Revision (LOMR)

Floodplain maps that are produced by FEMA are used to establish flood plain limits within the City of Fresno. The floodplain lines can be altered if an area is elevated above the base flood elevation. Revisions to the FIRMs are recorded after a LOMR is submitted.

According to the FIRMs, some areas within the "AE" floodway zone must be kept free from encroachment. These areas are designated as the floodway channel of the river and must not be altered because it may increase the height of the base flood elevation. The floodway channel is identified on the Site Map available in Appendix A.

A LOMR can take three to four months to process and does not have an application fee.

4.10 Phase I Assessment

Phase I assessments are conducted to gather information about an area to determine the potential for site contaminants. Phase I site investigations are typically conducted in areas to determine if there is a potential for site contamination. The Evaluations can include a site visit, historical record searches, review of past property uses, interviews with individuals knowledgeable about the site, geology assessment, and hydrology evaluation. It is unlikely that a Phase I investigation will be required within the waste limits of the site since subsurface investigations have already been conducted.

4.11 Phase II Assessment

The central purpose of a Phase II investigation is to evaluate the site for the presence of materials such as hazardous waste, petroleum hydrocarbons, heavy metals, pesticides, or solvents in the subsurface and determine the extents of the contamination. Samples are typically taken from the soil, air, groundwater, and buried material for analysis. Site remediation is not conducted during a Phase II assessment. It is possible that the FCDPH will require a Phase II assessment on site within the waste limits.

4.12 Phase III Remediation

Following a Phase II assessment, cleanup of a site can be accomplished through Phase III remediation if materials of concern are discovered within the waste limits. Remediation measures are formed based upon the findings of the Phase II assessment however additional

subsurface investigations may be necessary to obtain a better understanding of the site. The cost for conducting a Phase III remediation can be extensive and can take a considerable amount of time.

4.13 Post Closure Landfill Plan (PCLP)

The Fresno County Department of Public Health (FCDPH) is the permitting agency for the Spano Landfill. Prior to site construction, a Post Closure Landfill Plan must be completed and submitted to the FCDPH, the Regional Water Quality Control Board, and the California Department of Resources Recycling and Recovery for evaluation and approval. The PLCP identifies conditions that must be met, within the limits of waste, to ensure the protection of human health and the environment.

**CHAPTER 5
SITE ANALYSIS****5.1 General**

The City of Fresno is interested in providing river access, near the Spano Landfill, that provides 24 parking stalls, a public restroom, and site lighting. The restroom will most likely be a pit sanitary facility and will require a water service for hand washing. The water line can be installed within the proposed access road and must have a 3 foot clearance from all landfill waste according to FCDPH. Electrical lines must also be installed to the site unless a solar option is preferred.

Subsequent to the site investigation, four potential locations were selected for evaluation in order to provide convenient public access to the river from the intersection of Palm and Nees Avenues. The layout of the proposed parking lots and access roads are available in Appendix D of this report.

5.2 Site 1

This proposed area is located on the northeast side of the project study area and is believed to consist of C&D waste. There are two available options for access roads to navigate to this site. The first route, designated as Route 1, is believed to be within the waste limits of the main landfill and the second, designated as Route 2, diverts around an existing flood basin.

5.2.1 Flood Zone

The proposed parking lot area is within the 100 year flood zone which conflicts with the design preferences of the SJRC. It is possible to grade the site and raise the area above the base flood elevation but that may prove difficult due to the City of Fresno ordinance which prohibits the net increase of soil within a flood zone. Grading the site will increase the potential of uncovering a larger area of waste and will increase the risk of substantial waste removal.

5.2.2 Site Access Around Existing Landfill (Route 1)

Access to the proposed site is currently achieved by two roads which are referred to as the outermost and innermost roads. In order to provide access to emergency vehicles, the Fresno Fire Department Development Policies must be followed. Both roads can be used for one way traffic to comply with the roadway width requirement of 15 feet.

The outermost road generally follows the approximate waste limits of the main landfill. The roadway narrows to approximately 10 feet in the segment adjacent to the San Joaquin River and is partially within the 100 year flood zone.

The innermost road is generally located halfway up the landfill slope. The roadway width varies between 8 to 13 feet wide and is only within the 100 year flood zone near the end at the termination point. A fire was discovered near the innermost road in the mid 1990s, as shown on the site map in Appendix A. Although the fire is believed to be extinguished, evidence of the subsurface fire should be discovered during the geotechnical investigation.

Both roads will require additional width to accommodate a guard rail and meet emergency vehicle requirements. The existing slopes adjacent to the roadway shoulders vary from approximately 18% (10H:1.8V) up to 69% (10H:6.9V). Slope stability will need to be evaluated

to allow the necessary roadway widening. The substantial slopes adjacent to the existing roadways may not permit considerable roadway expansion in its current configuration and may involve the use of retaining walls. A subsurface investigation of the main landfill will be necessary in the existing roads and require recommendations by a geotechnical engineer.

5.2.3 Site Access Neighboring Spano Park (Route 2)

The existing bluff slope on the north side of Spano Park was analyzed as a possible route to Site 1. The parcel that occupies the slope is owned by the City of Fresno and is bordered by the Spano Landfill, Spano Park, FMFCD Basin DH2, and a FMFCD baffled apron structure. When the park was constructed, the bluff adjacent to the park was clean closed. A clean closed site has all landfill material removed and is replaced with clean fill.

The existing bluff slope has a grade of approximately 54% (10H:5.4V) and the toe terminates at the 100 year flood zone limit. In order to build a road that complies with the Fresno Fire Department Development Policies, outside fill will need to be brought in to expand the existing bluff slope and substantial retaining walls will need to be constructed. Since the City of Fresno Ordinance requires no net increase of fill within a flood zone, the area will need to be graded and a letter of map revision must be filed with FEMA to alter the 100 year flood limits lines.

Cursory road design calculations were conducted and it appears that a 10% (10H:1V) maximum slope, as required by the Fresno Fire Department Development Policies, can be achieved. After the roadway traverses across the bluff slope, it can cross the baffled apron structure through an existing City of Fresno ingress-egress easement. The access road will navigate around the existing flood control basin to Site 1 or an alternate location nearby.

5.2.4 Compliance

Due to the site's proximity to the San Joaquin River, Site 1 will need to be evaluated for wetlands with a wetland delineation study. Site 1 will need California Department of Fish and Wildlife consultation and ultimately will require a §1600 Lake and Streambed Alteration Agreement. Additionally, the site will require Army Corps of Engineers §404 Nationwide permit consultation as well as Clean Water Act §401 approval. An encroachment permit application must also be filed with the Central Valley Flood Protection Board. Permits to develop the site will require review by the City of Fresno to ensure the site complies with all City ordinances. The site must be graded up above the base flood elevation and have a Letter of Map Revision filed with FEMA.

Site 1 access roads are within the footprint of the landfill and therefore will require further environmental investigations along with a post closure landfill plan. There is a potential for a Phase III remediation within the limits of the project.

5.3 Site 2

This proposed area is located on the southwest side of the project study area and is believed to consist of C&D waste underlain by domestic waste. The access road to navigate to this site is believed to coincide with the waste limits of the main landfill.

5.3.1 Flood Zone

The proposed parking lot area is within the 100 year flood zone which conflicts with the design preferences of the SJRC. It is possible to grade the site and raise the area above the base flood

elevation but that may prove difficult due to the City of Fresno ordinance which prohibits the net increase of soil within a flood zone. Grading the site will increase the potential of uncovering larger areas of waste and will increase the risk of substantial waste removal. If the site is elevated above the base flood elevation, a Letter of Map Revision must be filed with FEMA to revise the FIRMs.

5.3.2 Site Access

Access to the site is currently available from the outermost road. The existing road will need to be evaluated for compliance with the Fresno Fire Department Development Policies and can be used for traffic access in both directions.

The existing road generally follows the approximate waste limits of the main landfill and is generally 21 feet wide. A small portion of the road is within the 100 year flood zone where the entrance of the proposed parking lot is being proposed.

A subsurface investigation of the existing road will be necessary and require recommendations by a geotechnical engineer in order to comply with jurisdictional requirements.

5.3.3 Compliance

Due to the site's proximity to the San Joaquin River, Site 2 will need to be evaluated for wetlands with a wetland delineation study. Site 2 requires California Department of Fish and Wildlife consultation and ultimately will require a §1600 Lake and Streambed Alteration Agreement. Additionally, the site may require Army Corps of Engineers §404 Nationwide permit consultation and will need Clean Water Act §401 approval. An encroachment permit application must also be filed with the Central Valley Flood Protection Board. Permits to develop the site will require review by the City of Fresno to ensure the site complies with all City ordinances. The site must be graded up above the base flood elevation and have a Letter of Map Revision filed with FEMA.

Site 2 is within the C&D waste limits underlain by domestic waste. The site will require a Phase II environmental investigation along with a post closure landfill plan. There is a potential for a Phase III remediation within the limits of the site.

5.4 Site 3

This proposed area is located on the southwest side of the project study area and is believed to consist of C&D waste underlain by domestic waste. The access road to navigate to this site is believed to coincide with waste limits of the main landfill.

A fire was discovered near the proposed parking lot area in the mid 1990s, as shown on the site map in Appendix A. Although the fire is believed to be extinguished, evidence of the subsurface fire should be discovered during the geotechnical investigation.

5.4.1 Flood Zone

The proposed parking lot area is outside the 100 year flood zone which complies with the preferred design objective of the SJRC.

5.4.2 Site Access

Access to the site is currently available from the outermost road. The existing road will need to be evaluated for compliance with the Fresno Fire Department Development Policies and can be used for traffic access in both directions.

The existing road generally follows the approximate waste limits of the main landfill and is generally 21 feet wide. A small portion of the road is within the 100 year flood zone but this area can be circumvented during design to avoid the floodway.

A subsurface investigation of the existing road will be necessary and require recommendations by a geotechnical engineer in order to comply with jurisdictional requirements.

5.4.3 Compliance

Due to the site's proximity to the San Joaquin River, Site 3 will need to consider a wetland delineation study. Site 3 requires California Department of Fish and Wildlife consultation and may require a §1600 Lake and Streambed Alteration Agreement. It is unlikely that the site will require Army Corps of Engineers §404 Nationwide permit consultation but will need Clean Water Act §401 approval. An encroachment permit application should be filed with the Central Valley Flood Protection Board although it is possible that the site is not within the floodway. Permits to develop the site will require review by the City of Fresno to ensure the site complies with all City ordinances. Since the site is above the base flood elevation, a Letter of Map Revision will not be necessary.

Site 3 is within the C&D waste limits underlain by domestic waste. The site will require a Phase II environmental investigation along with a post closure landfill plan. There is a potential for a Phase III remediation within the limits of the site.

5.5 Site 4 (Richter)

This proposed area is located on the property formerly known as the "Richter Site" outside of the original project study area. The limits of waste have been defined based upon numerous studies and the maximum waste depth is approximately 35 feet deep. Most of the waste is approximately 5 feet deep across the site according to FCDPH. Efforts have been made to develop the entire parcel with the development of a Post-Closure Land Use Plan which proposes a clean closure of the site. It will be necessary to conduct negotiations with the existing property owner if this site is selected for the proposed river access parking lot.

The bluff slope adjacent to the Richter Site is comprised of C&D waste underlain by domestic waste. Access to the river would require a pedestrian path down the existing bluff. Further studies will need to be conducted to determine the post closure requirements within this area.

5.5.1 Flood Zone

The proposed parking lot area is outside the 100 year flood zone which complies with the preferred design objective of the SJRC.

5.5.2 Site Access

The site is currently undeveloped and would require an access road of approximately 750 feet in length to be constructed from West Alluvial Avenue towards the edge of the bluff. From the

proposed parking lot area, pedestrian trail switchbacks will be required in order to provide access and meet ADA requirements.

Emergency vehicle access would be available from the parking lot at the top of the bluff. If an emergency occurred near the river, emergency teams would not have direct vehicle access to the water front.

5.5.3 Compliance

The Site 4 parking lot is located at the top of the bluff but the access trail down to the river may require a wetland delineation study. It is unlikely that Site 4 will require a §1600 Lake and Streambed Alteration Agreement but the California Department of Fish and Wildlife should be consulted. It is also unlikely that the site will require an Army Corps of Engineers §404 Nationwide permit but the site may require Clean Water Act §401 approval. An encroachment permit application should be filed with the Central Valley Flood Protection Board since the access road may be within the floodway. Permits to develop the site will require review by the City of Fresno to ensure the site complies with all City ordinances. Since the site is above the base flood elevation, a Letter of Map Revision will not be necessary.

The Site 4 access trail is within the C&D waste limits underlain by domestic waste. The site will require a Phase II environmental investigation along with a post closure landfill plan. There is a potential for a Phase III remediation within the limits of the site.

CHAPTER 6

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

The Engineer's Opinions of Probable Construction Cost (OPCC) for construction of the access road and parking lot is shown in Table 6.1 through Table 6.5. The OPCCs assumes that hazardous material is not encountered during construction of the project and site remediation is not necessary. The OPCC also assumes that substantial excavation and waste removal is not necessary within the roadways to accommodate future site utilities.

Table 6.1 Engineer's Opinion of Probable Construction Cost for Site 1 (Route 1)

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Mobilization		lump sum	\$100,000	\$100,000
2	Mediator		lump sum	\$25,000	\$25,000
3	Storm Water Pollution Prevention Plan (SWPPP) and Fugitive Dust Control Plan (FDCP) Preparation		lump sum	\$5,000	\$5,000
4	Storm Water Pollution Prevention		lump sum	\$10,000	\$10,000
5	Dust Control Pollution Prevention		lump sum	\$8,000	\$8,000
6	Worker Protection From Hazardous Materials		lump sum	\$20,000	\$20,000
7	Clearing and Grubbing		lump sum	\$15,000	\$15,000
8	Site Grading and Subgrade Prep		lump sum	\$100,000	\$100,000
9	Aggregate Base, Class 2	5,401	tons	\$40	\$216,040
10	Asphalt Concrete, Type A	520	tons	\$100	\$52,000
11	Concrete Curb and Gutter	630	ln ft	\$20	\$12,600
12	Parking Lot Concrete Sidewalk	4,740	sq ft	\$5	\$23,700
13	Retaining Wall	2,300	ln ft	\$215	\$494,500
14	Striping and Curb Painting		lump sum	\$8,000	\$8,000
15	Restroom Facility		lump sum	\$50,000	\$50,000
16	Water Line	3,300	ln ft	\$25	\$82,500
17	Light Pole	4	ea	\$8,000	\$32,000
18	Landscaping		lump sum	\$15,000	\$15,000
19	Landscaping Irrigation		lump sum	\$10,000	\$10,000
20	90-Day Maintenance Period (Landscaping and Irrigation)		lump sum	\$5,000	\$5,000
21	Contractor's Pollution Liability Insurance		lump sum	\$10,000	\$10,000
22	Supplemental Work		lump sum	\$100,000	\$100,000
23	Misc. Facilities and Operations		lump sum	\$208,660	\$208,660
			Subtotal Amount:		\$1,603,000
			Contingencies (approx. 15%):		\$240,000
			Total Construction Cost:		\$1,843,000

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Engineering & CM Costs		lump sum	\$370,000	\$370,000
2	Permits and Environmental Documentation		lump sum	\$80,000	\$80,000
3	Phase II Environmental Study		lump sum	\$40,000	\$40,000
4	Geotechnical Investigation		lump sum	\$15,000	\$15,000
Total Design Cost:					\$505,000
TOTAL PROJECT COST:					\$2,348,000

Table 6.2 Engineer's Opinion of Probable Construction Cost for Site 1 Route 2)

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Mobilization	lump sum		\$110,000	\$110,000
2	Mediator	lump sum		\$25,000	\$25,000
3	Storm Water Pollution Prevention Plan (SWPPP) and Fugitive Dust Control Plan (FDCP) Preparation	lump sum		\$5,000	\$5,000
4	Storm Water Pollution Prevention	lump sum		\$10,000	\$10,000
5	Dust Control Pollution Prevention	lump sum		\$8,000	\$8,000
6	Worker Protection From Hazardous Materials	lump sum		\$20,000	\$20,000
7	Clearing and Grubbing	lump sum		\$15,000	\$15,000
8	Site Grading and Subgrade Prep	lump sum		\$60,000	\$60,000
9	Aggregate Base, Class 2	3,439	tons	\$40	\$137,560
10	Asphalt Concrete, Type A	520	tons	\$100	\$52,000
11	Concrete Curb and Gutter	630	ln ft	\$20	\$12,600
12	Parking Lot Concrete Sidewalk	4,740	sq ft	\$5	\$23,700
13	Compacted Slope Fill	21,000	cu yd	\$30	\$630,000
14	Slope Hydroseeding	5,000	sq yd	\$3	\$15,000
15	Retaining Wall	640	ln ft	\$215	\$137,600
16	Striping and Curb Painting	lump sum		\$6,000	\$6,000
17	Restroom Facility	lump sum		\$50,000	\$50,000
18	Water Line	2,200	ln ft	\$25	\$55,000
19	Light Pole	4	ea	\$8,000	\$32,000
20	Landscaping	lump sum		\$15,000	\$15,000
21	Landscaping Irrigation	lump sum		\$10,000	\$10,000
22	90-Day Maintenance Period (Landscaping and Irrigation)	lump sum		\$5,000	\$5,000
23	Contractor's Pollution Liability Insurance	lump sum		\$10,000	\$10,000
24	Supplemental Work	lump sum		\$100,000	\$100,000
25	Misc. Facilities and Operations	lump sum		\$231,540	\$231,540
		Subtotal Amount:			\$1,776,000
		Contingencies (approx. 15%):			\$266,000
		Total Construction Cost:			\$2,042,000
1	Engineering & CM Costs	lump sum		\$410,000	\$410,000
2	Permits and Environmental Documentation	lump sum		\$80,000	\$80,000
3	Phase II Environmental Study	lump sum		\$40,000	\$40,000
4	Geotechnical Investigation	lump sum		\$15,000	\$15,000
		Total Design Cost:			\$545,000
		TOTAL PROJECT COST:			\$2,587,000

Table 6.3 Engineer's Opinion of Probable Construction Cost for Site 2

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Mobilization	lump sum		\$100,000	\$100,000
2	Mediator	lump sum		\$25,000	\$25,000
3	Storm Water Pollution Prevention Plan (SWPPP) and Fugitive Dust Control Plan (FDCP) Preparation	lump sum		\$5,000	\$5,000
4	Storm Water Pollution Prevention	lump sum		\$10,000	\$10,000
5	Dust Control Pollution Prevention	lump sum		\$8,000	\$8,000
6	Worker Protection From Hazardous Materials	lump sum		\$20,000	\$20,000
7	Clearing and Grubbing	lump sum		\$15,000	\$15,000
8	Waste Removal	lump sum		\$300,000	\$300,000
9	Imported Fill	lump sum		\$200,000	\$200,000
10	Site Grading and Subgrade Prep	lump sum		\$60,000	\$60,000
11	Aggregate Base, Class 2	3,199	tons	\$40	\$127,960
12	Asphalt Concrete, Type A	520	tons	\$100	\$52,000
13	Concrete Curb and Gutter	630	ln ft	\$20	\$12,600
14	Parking Lot Concrete Sidewalk	4,740	sq ft	\$5	\$23,700
15	Striping and Curb Painting	lump sum		\$6,000	\$6,000
16	Restroom Facility	lump sum		\$50,000	\$50,000
17	Water Line	1,900	ln ft	\$25	\$47,500
18	Light Pole	4	ea	\$8,000	\$32,000
19	Landscaping	lump sum		\$15,000	\$15,000
20	Landscaping Irrigation	lump sum		\$10,000	\$10,000
21	90-Day Maintenance Period (Landscaping and Irrigation)	lump sum		\$5,000	\$5,000
22	Contractor's Pollution Liability Insurance	lump sum		\$10,000	\$10,000
23	Supplemental Work	lump sum		\$100,000	\$100,000
24	Misc. Facilities and Operations	lump sum		\$185,240	\$185,240
				Subtotal Amount:	\$1,420,000
				Contingencies (approx. 15%):	\$213,000
				Total Construction Cost:	\$1,633,000
1	Engineering & CM Costs	lump sum		\$330,000	\$330,000
2	Permits and Environmental Documentation	lump sum		\$80,000	\$80,000
3	Phase II Environmental Study	lump sum		\$40,000	\$40,000
4	Geotechnical Investigation	lump sum		\$12,000	\$12,000
				Total Design Cost:	\$462,000
				TOTAL PROJECT COST:	\$2,095,000

Table 6.4 Engineer's Opinion of Probable Construction Cost for Site 3

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Mobilization	lump sum		\$150,000	\$150,000
2	Mediator	lump sum		\$25,000	\$25,000
3	Storm Water Pollution Prevention Plan (SWPPP) and Fugitive Dust Control Plan (FDCP) Preparation	lump sum		\$5,000	\$5,000
4	Storm Water Pollution Prevention	lump sum		\$10,000	\$10,000
5	Dust Control Pollution Prevention	lump sum		\$8,000	\$8,000
6	Worker Protection From Hazardous Materials	lump sum		\$20,000	\$20,000
7	Clearing and Grubbing	lump sum		\$15,000	\$15,000
8	Waste Removal	lump sum		\$650,000	\$650,000
9	Import Fill	lump sum		\$450,000	\$450,000
10	Site Grading and Subgrade Prep	lump sum		\$60,000	\$60,000
11	Aggregate Base, Class 2	3,054	tons	\$40	\$122,160
12	Asphalt Concrete, Type A	520	tons	\$100	\$52,000
13	Concrete Curb and Gutter	630	ln ft	\$20	\$12,600
14	Parking Lot Concrete Sidewalk	4,740	sq ft	\$5	\$23,700
15	Retaining Wall	240	ln ft	\$645	\$154,800
16	Striping and Curb Painting	lump sum		\$6,000	\$6,000
17	Restroom Facility	lump sum		\$50,000	\$50,000
18	Water Line	1,800	ln ft	\$25	\$45,000
19	Light Pole	4	ea	\$8,000	\$32,000
20	Landscaping	lump sum		\$15,000	\$15,000
21	Landscaping Irrigation	lump sum		\$10,000	\$10,000
22	90-Day Maintenance Period (Landscaping and Irrigation)	lump sum		\$5,000	\$5,000
23	Contractor's Pollution Liability Insurance	lump sum		\$10,000	\$10,000
24	Supplemental Work	lump sum		\$100,000	\$100,000
25	Misc. Facilities and Operations	lump sum		\$304,740	\$304,740
		Subtotal Amount:			\$2,336,000
		Contingencies (approx. 15%):			\$350,000
		Total Construction Cost:			\$2,686,000
1	Engineering & CM Costs	lump sum		\$540,000	\$540,000
2	Permits and Environmental Documentation	lump sum		\$60,000	\$60,000
3	Phase II Environmental Study	lump sum		\$40,000	\$40,000
4	Geotechnical Investigation	lump sum		\$15,000	\$15,000
		Total Design Cost:			\$655,000
		TOTAL PROJECT COST:			\$3,341,000

Table 6.5 Engineer's Opinion of Probable Construction Cost for Site 4

Item No.	Description	Quantity	Unit	Unit Cost	Extension
1	Mobilization	lump sum		\$150,000	\$150,000
2	Mediator	lump sum		\$25,000	\$25,000
3	Storm Water Pollution Prevention Plan (SWPPP) and Fugitive Dust Control Plan (FDCP) Preparation	lump sum		\$5,000	\$5,000
4	Storm Water Pollution Prevention	lump sum		\$10,000	\$10,000
5	Dust Control Pollution Prevention	lump sum		\$8,000	\$8,000
6	Worker Protection From Hazardous Materials	lump sum		\$10,000	\$10,000
7	Clearing and Grubbing	lump sum		\$15,000	\$15,000
8	Waste Removal	lump sum		\$600,000	\$600,000
9	Import Fill	lump sum		\$415,000	\$415,000
10	Site Grading and Subgrade Prep	lump sum		\$60,000	\$60,000
11	Aggregate Base, Class 2	2,140	tons	\$40	\$85,580
12	Asphalt Concrete, Type A	520	tons	\$100	\$52,000
13	Concrete Curb and Gutter	630	ln ft	\$20	\$12,600
14	Parking Lot Concrete Sidewalk	4,740	sq ft	\$5	\$23,700
15	Striping and Curb Painting	lump sum		\$8,000	\$8,000
16	Pedestrian Trail	8,000	sq ft	\$5	\$43,000
17	Pedestrian Trail Rip-Rap	1,500	cu yd	\$140	\$210,000
18	Restroom Facility	lump sum		\$50,000	\$50,000
	Water Line	350	ln ft	\$25	\$8,750
19	Light Pole	4	ea	\$8,000	\$32,000
20	Landscaping	lump sum		\$15,000	\$15,000
21	Landscaping Irrigation	lump sum		\$10,000	\$10,000
22	90-Day Maintenance Period (Landscaping and Irrigation)	lump sum		\$5,000	\$5,000
23	Contractor's Pollution Liability Insurance	lump sum		\$10,000	\$10,000
24	Supplemental Work	lump sum		\$100,000	\$100,000
25	Misc. Facilities and Operations	lump sum		\$294,370	\$294,370
		Subtotal Amount:			\$2,256,000
		Contingencies (approx. 15%):			\$338,000
		Total Construction Cost:			\$2,594,000
1	Engineering & CM Costs	lump sum		\$520,000	\$520,000
2	Permits and Environmental Documentation	lump sum		\$60,000	\$60,000
3	Phase II Environmental Study	lump sum		\$40,000	\$40,000
4	Geotechnical Investigation	lump sum		\$12,000	\$12,000
		Total Design Cost:			\$632,000
		TOTAL PROJECT COST:			\$3,226,000

**CHAPTER 7
RECOMMENDATIONS****7.1 Site Selection**

The feasibility study investigated four locations near Palm and Nees Avenues to identify a future location for a public road and parking lot that would provide access to the San Joaquin River. A combination of Site 2 and Site 3 would be the preferred location since it would be the most economical, have the smallest impact on existing waste, and it has a low probability of being delayed by overseeing agencies. The area between Site 2 and Site 3 is relatively flat and at the toe of the bluff. Some site grading will be necessary to elevate the future parking lot above the base flood elevation so that the flood lines can be redrawn. The proposed roadway would be in the same location as the existing outmost road which has the potential to limit the amount of site disturbance. The Site 2 and Site 3 combination parking lot provides convenient river access to the public and emergency personnel. The estimated design and construction cost for Site 2 and Site 3 are \$2,095,000 and \$3,341,000 respectively. The cost to develop Site 3 is substantially larger because the proposed parking lot is on top of the existing bluff slope. If the site is located near the bluff slope toe, sizeable waste removal along with extensive retaining walls will not be necessary. The combination site is expected to cost the same amount as what is estimated for Site 2.

The issues involved with Site 1 include being within the 100 year flood zone, acquiring access to the site, and site grading. It is recommended to stay away from building an access road within route 1 since landfills tend to settle over time, landfill fires are a possibility as seen in the 1990s, the existing landfill face slopes may be a safety issue for incoming and outgoing traffic, and there is an increased risk of discovering undesirable landfill materials during construction. Route 2 will require a substantial amount of fill to accommodate the construction of a 24 foot wide road along the existing bluff adjacent to Spano Park which increased the construction cost considerably. Net soil increase is not allowed in the flood zone creating construction challenges for both routes since the site is known to be comprised of C&D waste which may be difficult to grade. The estimated cost for design and construction of Site 1 Route 1 and Site 1 Route 2 are \$2,348,000 and \$2,587,000 respectively.

Site 4 would be an excellent option for the parking lot and access road since the material on the Richter Site has been clearly identified, but convenient access to the river is not achieved easily. An ADA ramp would need to be constructed down the bluff face which does not provided convenience for the public or emergency personnel. The estimated cost to construct the access road and parking lot on Site 4 is \$3,226,000.

APPENDIX A

Site Investigation and Survey Map

APPENDIX B

Flood Insurance Rate Maps

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from coastal drainage sources of great size. The community map repeatedly should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Basic Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Streamer Elevation Information available from the National Water Research Institute's National Flood Insurance Program (NFIP). Users should be aware that BFEs shown on the NFIP represent best estimates while the Flood Insurance Study (FIS) report does accommodate uncertainties associated with the data used to develop the BFEs. Users should also be aware that BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should

[illegible]

boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this broadcast.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

Fixed elevations on this map are referenced to the North American Vertical Datum of 1988. These fixed elevations must be adjusted to structure and ground elevations referenced to the same vertical datum. For information regarding adjustments, see the National Geodetic Vertical Datum of 1988 and the International Geodetic Datum of 1980, both published by the National Geodetic Survey, U.S. Department of Commerce. These documents do not affect the accuracy of the across junction boundaries. These documents do not affect the accuracy of the FDOT.

NOI Information Services
 NOAA, NAD0512
 National Oceanic Survey, 8000-C, RD32
 1311 East-Hall Highway
 Silver Spring, Maryland 20910-6302
 (301) 715-3512

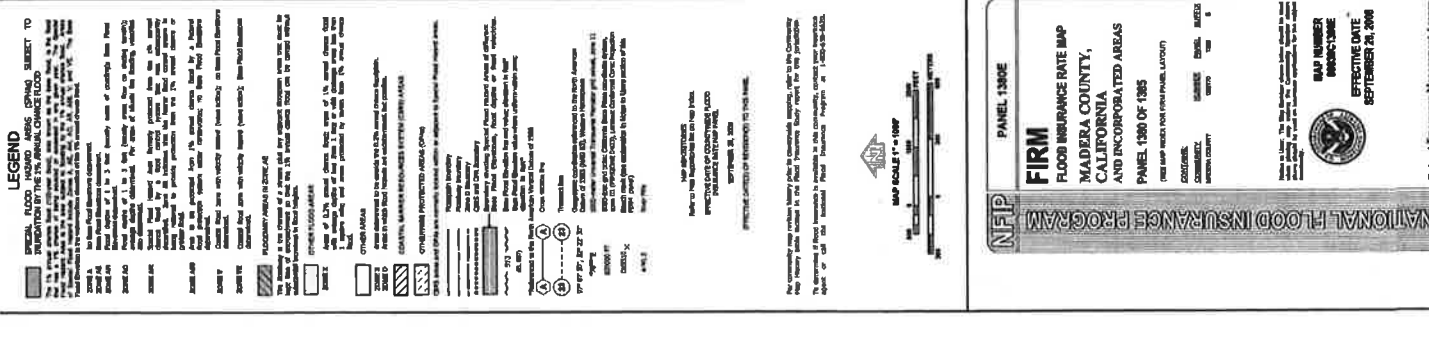
The county's current elevation, topography, and/or location information for beach markers shown on this map, please contact the Information Services Branch at the National Oceanic Survey at (811) 713-3242, or visit their website at <http://www.nps.com/gov/>.

This map reflects main channel and sub-channel cross channel configurations and their slopes known on the previous FIRM for the jurisdiction. The floodproofing and floodway data were transcribed from the previous FIRM. They have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Cross tables in the Flood Insurance Study report (see below) may differ slightly from those in the previous FIRM.

Corporate funds about us: this map are based on the best data available at the time of publication. The information is not intended to be used for legal purposes. We have not been permitted either the right nor the obligation to verify the accuracy of the information submitted. We warrant that the map was published with good faith and without negligence. Community officials is wary: Current corporate site locations.

1. **Addressing the needs of the community.** The FEMA Map Service Center may be able to help you determine if your community is in a flood-prone area. If so, you may be able to take steps to reduce the risk of damage to your property. For example, you may be able to raise your foundation, install flood vents, or install flood barriers.

If you have questions about this map or anything concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAAP (1-877-326-3427) or visit the FEMA website at <http://www.fema.gov>.

[illegible]

APPENDIX C

Map of Existing Parcels

APPENDIX D

Access Road and Parking Lot Site Alternatives







LEGEND:

- PROPOSED ACCESS ROAD AND PARKING LOT
- PARCEL LINE
- FLOODPLAIN BOUNDARY
- FLOODWAY CHANNEL, MUST BE KEPT FREE OF ENCROACHMENT
- APPROXIMATE AREA OF OLD UNDERGROUND FIRE



1"=250'
0 125 250 375 500
SCALE IN FEET

 CONSULTANT Blair, Church & Flynn 1000 N. G Street, Suite 100 Fresno, CA 93703 Tel: 559.233.4400 Fax: 559.233.4401	CITY OF FRESNO	
	PALM BLUFFS RIVER ACCESS SITE 4 ACCESS ROAD AND PARKING LOT	DR. BY: MMB CH. BY: MTC DATE: 05-17-15 SCALE: AS NOTED
	SHEET NO. 5	SHEET NO. 5
	OF 5	OF 5