DRAFT
RIVERBEND PARK
AND
TRAIL
MASTER PLAN

City of Lompoc
December 2004
Prepared by the City of Lompoc

With assistance from Jones & Stokes
# Master Plan Table of Contents

## Volume I

### Introduction
- Location.................................................................................................................................1
- Project Background................................................................................................................1
- River Values........................................................................................................................2
- Purpose and Scope................................................................................................................2

### Master Plan Area Description
- Past Land Uses......................................................................................................................3
- Open Space / Flood Plain
  - Agriculture..........................................................................................................................3
  - Diatomaceous Earth Processing.........................................................................................3
  - Historic Dump Site.............................................................................................................3
  - Road Crossing......................................................................................................................4
  - Shooting Range...................................................................................................................4
  - Sand and Gravel Mining.......................................................................................................4
  - Off-Highway Vehicle (ORV) Use..........................................................................................4
- Existing Land Uses................................................................................................................4
  - Riverbend Park....................................................................................................................4
  - Open Space..........................................................................................................................4
- Adjacent Land Uses...............................................................................................................5
  - Land Use Jurisdiction and Designation..............................................................................5

### Opportunities and Constraints
- Opportunities.......................................................................................................................6
- Constraints.............................................................................................................................6

### General Plan Consistency
- Parks and Recreation Element.............................................................................................7
- Resource Management Element.............................................................................................7
- Safety Element.......................................................................................................................7
- Circulation Element...............................................................................................................8
- Urban Design Element...........................................................................................................8

### Master Plan Phase 1 North Riverbend Park - Project Elements
- North Park Playing Fields.......................................................................................................8
- Planting and Irrigation............................................................................................................9
- Other North Park Amenities...................................................................................................9
- Access and Parking...............................................................................................................9
- Restroom Facilities...............................................................................................................9
- Park Host Facility..................................................................................................................10
- Bike Trail Extension..............................................................................................................10
- Kiosk....................................................................................................................................10
Master Plan Phase 2 – Santa Ynez River Multi-Use Bike Trail Project Elements ..................................................12
Santa Ynez River Bike Trail .................................................................................................................................12
  Trail Specifications and Construction Area ...........................................................................................................12
    Active Use Trail ..................................................................................................................................................12
    Shoulders ........................................................................................................................................................12
    Connecting Ramps .............................................................................................................................................12
    Class II Bikeway Segment .................................................................................................................................12
    Construction Area ..........................................................................................................................................12

  Segment One – Riverside Open Space (Riverbend Park to Seventh Street) .........................................................13
    Central Avenue Access ..................................................................................................................................13
    Roundabout ....................................................................................................................................................13
    Rest Area ......................................................................................................................................................13

  Segment Two – Riverside Drive (Seventh Street to College Avenue) ..................................................................13
  Additional Bike Trail Improvements ....................................................................................................................14
  Signage ................................................................................................................................................................14
  Trail Maintenance and Monitoring ....................................................................................................................14
    Vegetation Trimming .......................................................................................................................................14
    Trail Integrity ...................................................................................................................................................14
    ORV Control ..................................................................................................................................................15
      Bollards ........................................................................................................................................................15
      Post and Cable Fencing .................................................................................................................................15
    Native Plantings and Habitat Enhancement ....................................................................................................15
      Propagation ..................................................................................................................................................15
      Planting and Habitat Enhancement .................................................................................................................16
      Irrigation ........................................................................................................................................................16
      Invasive Species ...........................................................................................................................................17
    Hours of Operation .........................................................................................................................................17

Master Plan Phase 3 – South Riverbend Park Project Elements .................................................................................18
  South Park Playing Fields ..................................................................................................................................18
  Planting and Irrigation .......................................................................................................................................18
  Other South Park Amenities ...............................................................................................................................18
    Access and Parking .........................................................................................................................................18
    Restroom Facilities .........................................................................................................................................19
  Hours of Operation ............................................................................................................................................19
  Flood Protection and Emergency Removal Plan ..................................................................................................19
  Agricultural Compatibility .................................................................................................................................19
  Lighting ............................................................................................................................................................19
List of Figures

Figure 1-1 – Vicinity Map ........................................................................................................... Following Page (FP) 2
Figure 1-2 – Master Plan Area .................................................................................................. FP 2
Figure 1-3 – City of Lompoc’s Land Use Element Map ........................................................... FP 5
Figure 1-4 – Proposed Riverbend Park Expansion Map ........................................................... FP 9
Figure 1-5 – Proposed Bike Trail Location Map ..................................................................... FP 12
Figure 1-6 – Map of Potential Habitat Enhancement Areas ...................................................... FP 15
List of Photos (Following Page 19)

Photo 1 – View of agricultural fields to the west of Riverbend Park.

Photo 2 – View of proposed site of North Park fields.

Photo 3 – Existing Riverbend Community Park Entry Sign.

Photo 4 – Existing Riverbend Park parking area.

Photo 5 – View of the proposed South Park field location.

Photo 6 – View of the proposed South Park fields looking east toward the Santa Ynez River. PG&E Electric pole to be relocated can be seen at center left.

Photo 7 – Existing Babe Ruth field at Riverbend Park.

Photo 8 – Existing PG&E electric pole to be relocated.

Photo 9 – View of Canfield Avenue and existing trees at top of slope above Riverbend Park.

Photo 10 – View of dirt road from McLaughlin Road, at the beginning of the Bike Trail extension around the perimeter of Riverbend Park.

Photo 11 – Area where the proposed Bike Trail is to begin, looking south from McLaughlin Road.

Photo 12 – Looking south from the intersection of Calvert Avenue and Riverside Drive at the proposed access that is to connect to the Central Avenue segment of the Bike Trail.

Photo 13 – Looking east from Central Avenue along the alignment of the proposed Bike Trail.

Photo 14 – Looking north along the Bike Trail alignment. The alignment is proposed to be located between the two Cottonwood Trees and then continue on in a straight line to the existing dirt road beyond.

Photo 15 – View looking south along the Riverside Drive segment of the Bike Trail.

Photo 16 – View to the east and River Park from the Riverside Drive segment of the Bike Trail.

Photo 17 – View looking southeast from Riverside Drive along the Bike Trail alignment.

Photo 18 – View looking northeast from the end of the Bike Trail at College Avenue and Riverside Drive.
RIVERBEND PARK AND TRAIL MASTER PLAN

Introduction

Location

The Master Plan project area is located in the Lompoc Valley, in and adjacent to the City of Lompoc, in Santa Barbara County. Lompoc is located along Highway One in Santa Barbara County, approximately 45 miles north of Santa Barbara. With a population of 42,103 people, Lompoc is compactly developed. The main portion of the City is bordered on the north and east by the Santa Ynez River, on the west by agricultural fields and to the south by the Santa Ynez Mountains (Figure 1-1). Lompoc’s climate is influenced by its proximity to the Pacific Ocean, nine miles west of the City. The Lompoc Valley receives between five and thirty inches of rain a year, primarily between November and April (The 606 Studio 1993), as well as frequent fog throughout the year.

The Santa Ynez River flows through the City, approximately ten river-miles east of where it joins the Pacific Ocean. The river enters Lompoc from the southeast, bends to the north and west, and crosses the original extension of McLaughlin Road near the existing improved portion of Riverbend Park. It then continues westward toward the Santa Ynez Lagoon, finally flowing into the Pacific Ocean. The river is often dry from mid-June through December. During years of low rainfall, additional water is released from Bradbury Dam, from August to December, providing recharge water to the Lompoc valley.

Although it is dry in summer months, the Santa Ynez River provides a winter migratory route for Southern California Steelhead and can reach flows of 34,000 cubic-feet-per-second (c.f.s.) in a 10-year storm and 93,000 c.f.s. in a 50-year storm. The Santa Ynez River is bordered by riparian vegetation, which varies in thickness and quality.

Project Background

In 1998, the City applied for and received a grant from the Coastal Resource Enhancement Fund (CREF) and a Coastal Resources Grant. CREF funds were combined with other City funding sources to purchase ninety (90) acres of California Department of Transportation (Caltrans) property adjacent to the Santa Ynez River, for recreational and habitat use.

The money obtained from the Coastal Resources Grant has been used to develop this Master Plan for use of City property along the Santa Ynez River. The Master Plan will provide for development of a multi-use trail, turf playing fields, parking, educational signage, related recreational features and habitat enhancement. The Riverbend Park improvements will be made with matching funds from the City of Lompoc. The Bike Trail improvements will be constructed with Federal Transportation Equity Act for the Twenty-first Century (TEA-21) funds.
In 2001, the City purchased two agricultural parcels adjacent to Riverbend Park and incorporated them into the Park. This additional property provides the area necessary to increase the number of playing fields and provide additional improvements at Riverbend Park.

River Values

The Master Plan area consists of open recreational space directly adjacent to the urbanized core of the City of Lompoc. Views of a large portion of the Lompoc Valley and Santa Rita Hills are found along the Santa Ynez River’s edge. The Lompoc Valley is located on the Pacific Flyway and the river’s edge provides habitat for birds and opportunities for bird watchers. The river’s edge also provides habitat for wildlife and supports native plant communities. The river and its environs also serve many people, providing an accessible place to view and experience the natural environment.

Purpose and Scope

The Riverbend Park and Trail Master Plan is designed to guide the development of Lompoc’s Riverbend Park and the City’s open space holdings south of the park, along the west side of the river. The environmental impacts of the proposed Plan are evaluated in an associated Environmental Impact Report.

The primary objectives of the proposed Master Plan are to:

- Ensure comprehensive and coordinated planning, management, conservation and enhancement of the City of Lompoc’s property at and south of Riverbend Park, along the Santa Ynez River;
- Encourage stewardship, respect and enjoyment of local river and coastal resources;
- Provide recreational opportunities, including sports fields, and aesthetic benefits along the Santa Ynez River, within the City of Lompoc;
- Protect and enhance native plant communities and wildlife habitat along the Santa Ynez River Corridor, within the City of Lompoc;
- Encourage use and protection of inland watershed areas; and
- Promote environmental awareness of water quality concerns.

Master Plan Area Description

The Riverbend Park and Trail Master Plan includes approximately 49-acres to be developed at Riverbend Park and approximately 2.5 miles of proposed Bike Trail, on property owned by the City of Lompoc. One property over which the Bike Trail extension to Calvert Avenue is planned (APN: 093-051-06) to run is not owned by the City. An easement will be requested to allow construction of the Bike Trail extension, or that extension will be abandoned. Riverbend Park is located at the terminus of McLaughlin Road in Lompoc, Santa Barbara County. The Assessor
Parcel Numbers of the City property at and adjacent to the developed portion of Riverbend Park include: APN: 093-051-01, 02, 03, 04, 05, 07, 08, 09, 19 and 20; 097-270-29 and 44.

Riverbend Park is currently comprised of the existing Babe Ruth ballfield on McLaughlin Avenue, property purchased from Caltrans, and the Dezember property, purchased in 2001 and located to the west of the ball field (7.24 acres) and south of McLaughlin Road (9.83 acres). This area is planned to be improved with flexible use playing fields and related recreational facilities.

South of the McLaughlin Park site is a long strip of contiguous properties that were purchased from Caltrans by the City of Lompoc, totaling approximately 129 acres. The property runs along the west bank of the river, from the intersection of East College Avenue and Riverside Drive on the south, to Riverbend Park on the north. A Class I Bike Trail is proposed for development on these properties. The parcel numbers of the affected properties are as follows: APNs: 093-051-05; 07; 19; 20; 087-011-34; 62; 087-306-06; 099-141-26; and 27.

A minor segment of Class II bikeway is proposed to be developed on 12th Street, between Highway 246 and Laurel Avenue.

The total Master Plan area is approximately 224 acres. The portion of Riverbend Park to be developed is approximately 49 acres in size.

Past Land Uses

Open Space / Flood Plain
The majority of the project site adjacent to the river has remained in open space use, primarily due to its low elevation and potential for flooding. This open space portion of the project area is comprised of a mixture of sandy riverbed and varying concentrations of riparian growth, depending on off-road-vehicle (ORV) use. Flooding is an ongoing threat. The majority of the project site, including upland areas, was flooded in 1969.

Agriculture
Some portions of the project site south and west of the riverbed at McLaughlin Road and between McLaughlin Road and Riverside Drive have historically been used for agricultural production. The Dezember property, now incorporated into Riverbend Park is currently in agricultural production.

Diatomaceous Earth Processing
The southern portion of the project site adjoins property that was in use as a diatomaceous earth processing plant from the early 1950’s until 1998. The site has been dormant since then.

Historic Dump Site
From approximately 1874 through 1940, a portion of the riverbed near McLaughlin Road served as the City dump. This site is a recorded archaeological site, and was found buried between three to four feet below the surface.
Road Crossing
In 1916-1917, the Harris Grade Road from Lompoc to Santa Maria was constructed. This road crossed the Santa Ynez River in an at-grade crossing at McLaughlin Road. In 1995, after it had experienced repeated wash-outs, the crossing was not rebuilt. The expense of the repeated reconstruction and compliance with new regulatory requirements rendered it infeasible to maintain.

Shooting Range
Three acres owned by the City of Lompoc, and incorporated into the current Riverbend Park, was historically used as the police firing range.

Sand and Gravel Mining
During the 1980’s, a sand and gravel mine operated south of McLaughlin Road. The mine was accessed from McLaughlin Road, at what is now Riverbend Park. Mining at this location continued into the 1990’s.

Off-Road Vehicle (ORV) Use
In October 1975, the City of Lompoc designated approximately seven acres of City-owned property as a “motorcycle recreation area.” In this unsupervised setting, ORV use gradually expanded onto private and public property in the Santa Ynez Riverbed, as well as westward and northward of the original site. The City closed the ORV recreation area in August of 1986, due to liability concerns. However, the closure did not end the ORV use of the area (Saito Associates 1990). The City has also allowed the past use of the area for special events such as the mud bog championships, an annual event in the past. (Saito Associates 1990).

Existing Land Uses

Riverbend Park
The currently improved portion of Riverbend Park is approximately 5 acres in size. This site features a Babe Ruth league-sized field and a dirt parking lot. This portion of the Master Plan area is currently used for Babe Ruth and adult baseball. A path around the perimeter of the park is used as an informal walking/running trail. Portions of this perimeter path provide access to the surrounding agricultural fields. To the west and south of this improved parkland are unimproved portions of the park that are currently in agricultural production. Other portions of the Riverbend Park property are located in and adjacent to the bed of the Santa Ynez River and are maintained as open space.

Open Space
The remainder of the Master Plan area extends southward from Riverbend Park along the western bank of the Santa Ynez River to the intersection of College Avenue and Riverside Drive and is unimproved open space. Within this portion of the Master Plan area, there are many established trails, including one main trail and its off-shoots, as well as numerous informal trails. These trails have been used for many years by local residents for observing the natural environment, walking, and running. The riverbank and river may occasionally be used for horseback riding, although the prevalence of ORV use poses a significant deterrent to this type of use. Between Riverbend Park and Riverside Drive, ORV use has created a number of roads and
trails, as well as some large bare dirt areas. The illegal driving of off-road motorcycles, all
terrain vehicles (ATV’s) and monster trucks on existing trails, through habitat areas and over the
riverbank’s edge have reduced the amount of native vegetation and created significant erosion,
sedimentation and bank failure. Paintball competitions, refuse dumping and automobile
abandonment are also unfortunate occurrences in this urban / wildland interface.

Photos (1–18), on the following pages, illustrate the existing conditions at the park and along the
Bike Trail corridor.

Adjacent Land Uses

The properties directly south of Riverbend Park and west of the proposed Bike Trail are
primarily single-family residential. Agricultural land and the Lompoc Airport are located to the
west of Riverbend Park. Portions of the Riverbend Park site are within the 34:1 Approach
Surface and the 7:1 Transitional Surface of the Lompoc Airport. Across the river to the east, the
primary land uses are agriculture and open space. The City’s River Park is located opposite the
southern-most section of the Bike Trail.

Land Use Jurisdiction and Designation

A portion of the proposed Master Plan project site is located within the City limits of Lompoc.
The remainder of the site is located within Santa Barbara County. All property covered by the
Master Plan is owned by the City of Lompoc. Based on 40 Ops. Atty. Gen. 243 (1962.), cities
and counties are mutually exempt from compliance with each other’s building and zoning
ordinances. The City of Lompoc maintains that property owned by the City and located in Santa
Barbara County’s jurisdiction is not subject to County regulations.

The City of Lompoc’s Land Use Element Map (Figure 1-3) designates the City owned portion of
the Master Plan area as Open Space and Community Facility. Over 75% of the project area
currently has a Park Overlay. The whole Master Plan area is located within the City’s Urban
Limit Line, while portions of the Master Plan area south of Central Avenue include property
outside the City’s designated Sphere of Influence.

As a part of the Master Plan adoption, a General Plan Amendment will be processed to change
the land use designation of properties within the Park and Trail areas owned by the City of
Lompoc, to the Community Facility land use designation.

The City of Lompoc’s Zoning Map shows the portion of the Master Plan area within the City of
Lompoc as Open Space and 7-R-1 (Single-family Residential, 7,000 square foot minimum).
Riverbend Park and areas to the south are identified as being subject to an Airport Approach
Zone Overlay (Figure 1-4).

As a part of the Master Plan adoption, a Zone Change will be processed to change the zoning on
properties within the Park and Trail areas that are owned by the City of Lompoc and are within
the City limits, to the Public Facilities (PF) Zone.
Opportunities and Constraints

The proposed project area offers numerous opportunities in development of the Riverbend Park and Trail. The site is also constrained in several ways that affect the location and type of proposed improvements. The following is a summary of the opportunities and constraints associated with the proposed Master Plan area.

Opportunities

- Riverbend Park has a significant amount of agricultural area for expansion of the developed portion of the Park.
- The river provides an attractive setting with natural amenities for active and passive recreation.
- The project site is near populated areas, making it accessible to potential users, without intruding on nearby residents.
- The Master Plan area is located so that connections to existing bike lanes can be made from the proposed multi-use trail.
- Water is available for irrigation of the ball field turf.
- The Bike Trail can incorporate an existing, wide dirt road that is devoid of vegetation, minimizing impacts on existing vegetation and wildlife.
- Two major visual resources in Lompoc, the Santa Ynez River and the Santa Rita Hills, can be seen from Riverbend Park and the Bike Trail alignment.
- The majority of the Bike Trail alignment is not densely vegetated, providing safety through visibility.
- Sufficient land area exists to provide additional parking at Riverbend Park.
- The improvement of Riverbend Park and the multi-use Bike Trail could serve to discourage illegal activity, including dumping along the riverbed, due to increased public scrutiny and legitimate use of the area.

Constraints

- The Riverbend Park expansion site is currently in agriculture and the development of the Park will convert this property to other uses.
- Much of Riverbend Park is located in the Regulatory Floodway of the Santa Ynez River, precluding the location of permanent structures.
- The Riverbend Park expansion site is located within the primary recharge area of the Lompoc Aquifer that serves as the community’s water supply.
- The Master Plan area contains sensitive biological habitats that must be protected.
- The project site is located within an airport approach and transition area.
FIGURE 1-3

CITY OF LOMPOC'S LAND USE ELEMENT MAP

LEGEND

- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Neighborhood Commercial
- Office Commercial
- Old Town Commercial
- General Commercial
- Community Facility
- Business Park
- Light Industrial
- General Industrial
- Open Space
- Agriculture
- Proposed Park
- Proposed School

---

- Project Boundary
- City Limits
- Sphere of Influence
- Urban Limit Line
• Special-status wildlife species and plant communities in or adjacent to the project area must be protected, as required under the Endangered Species Act (ESA), California Endangered Species Act (CESA) and Migratory Bird Act (MBA).

• The adjacent riverbed provides habitat and a migration route for the Southern California Steelhead, and a migration route for the Arroyo Chub, which are species protected under the Endangered Species Act (ESA).

• The McLaughlin Road dump, a recorded archeological site, is located in the project area.

• Agricultural production west of the Riverbend Park site is expected to involve the application of various agricultural chemicals, such as herbicides and pesticides, on a year-round basis.

• Existing major utility lines cross through the center of the Park south of McLaughlin Road, requiring relocation, prior to development of this area.

**General Plan Consistency**

**Parks and Recreation Element**

The Master Plan is consistent with the Parks and Recreation Element of the City of Lompoc General Plan, Goal 1, Policy 1.2 which states “The City shall provide adequate park sites throughout the City, especially in the northwest and northeast portions of the City, as well as other future growth areas.” The Plan is also consistent with Goal 1, Policy 1.5 which states that “The City shall encourage establishment of off-road bicycling…trails extending…along the Santa Ynez River.” In addition, the Master Plan is consistent with the circulation element of the City of Lompoc’s General Plan and the City of Lompoc’s Local Coastal Program. The Master Plan will provide for playing fields which are convenient to all neighborhoods and specifically addresses a need in the northeast portion of the City. The Master Plan is also consistent with the location of parks on the Park and Recreation Sites Map found in the Parks and Recreation Element of the City’s General Plan.

**Resource Management Element**

The Master Plan is consistent with the City’s General Plan, Resource Management Element, Goal 2, which states that the City shall “Protect natural habitats in recognition of their biological, educational and scientific values. The Master Plan is designed to limit the impact of its planned development on the natural biological communities adjacent to the riverbed.

**Safety Element**

The Master Plan is consistent with the General Plan, Safety Element, Goal 2 “Protect the community from loss of life and property resulting from flooding while maintaining protection of natural resources located in flood hazard areas” because the Master Plan will not allow permanent structures to be placed in the Regulatory Floodway and includes a requirement for an Emergency Removal Plan to address removal of temporary structures located within the
regulatory floodway. The Plan calls for preservation of the existing vegetation and does not propose structural flood control methods. The Plan will also provide safety measures consistent with the Safety Element, Goal 5, “minimizing injury and property damage resulting from landslides…” by directing trail users away from eroding slopes and providing for re-vegetation of eroding or potentially eroding slopes.

Circulation Element

The Master Plan is consistent with the Bikeway Routes Map found in the Circulation Element (Goal 1, Policy 1.1) and the Park and Recreation Sites Map found in the Parks and Recreation Element of the City’s General Plan.

Urban Design Element

The Master Plan is consistent with the Urban Design Element of the City’s General Plan, in that it helps create a visual edge to maintain awareness of the community’s setting in the Lompoc Valley by establishing and maintaining open space buffers along the eastern portion of the Urban Limit Line, and encouraging public use of the area (Urban Design Element, Goal 1, Policy 1.4).

Master Plan Phase 1 - North Riverbend Park Project Elements

The Master Plan development of the Riverbend Park and Trail is easily broken into three areas, the North Park, which is the portion of Riverbend Park north of McLaughlin Road, the South Park, which is the portion of Riverbend Park south of McLaughlin Road and the Trail which extends southward from McLaughlin Road on the eastern edge of the South Park.

North Park Playing Fields

The development of a large turf area to provide the maximum amount of playing field practice area is proposed at Riverbend Park. The proposed Riverbend Park expansion (Figure 1-5) maximizes the site’s potential for practice areas, providing both little league fields and soccer fields. There should not be a conflict between soccer and little league use, as the seasons for these sports occur at different times of the year. During soccer season, six soccer fields will be available for simultaneous practice. During baseball season, little league or softball season, one additional Babe Ruth-size baseball field and four softball/little league fields will be available for simultaneous use. The additional fields will be located west of the existing Babe Ruth baseball field and the proposed parking area.

The temporary playing fields will be delineated by chalk and will utilize portable goal posts, backstops and bleachers. All equipment will be required to be easily portable.

The playing fields will be installed using sod or seed. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population.
Planting and Irrigation

Turf shall be installed on the playing fields using sod or seed. Turf species shall be chosen by the Parks and Urban Forestry Manager and shall be tolerant of drought, sandy soils, full sun exposure, and heavy use.

To provide shade, a few additional trees will be planted adjacent to the playing fields. Trees will be native and will be maintained at maturity so that there are no low branches below 10-feet above grade. This will allow flood flows to pass through the site more easily. Tree species will be selected by the City’s Parks and Urban Forestry Manager or his/her designee to ensure their health and suitability for the site.

Water to irrigate the proposed sports practice fields will be supplied through an existing on-site well or a metered connection to the City’s domestic water supply at McLaughlin Road. All appropriate water conservation measures will be employed. Consideration will be given to the type of irrigation, length and time of day of watering. Appropriate back-flow prevention devices will be required to guard against flood-related impacts to the City’s water service. Municipal water will not be used to irrigate agricultural crops.

Other North Park Amenities

Limited open space for passive recreation will be provided adjacent to the athletic fields, in the improved portion of Riverbend Park. The remainder of the park is to be maintained as natural open space.

Access and Parking
Access to Riverbend Park is from McLaughlin Road. Vehicle parking is currently provided with one unimproved lot. The parking area will be expanded to provide up to 580 parking spaces to accommodate weekday and weekend maximum use. The parking area will be constructed of gravel and base material or other pervious surface. The requirements of the Americans with Disabilities Act (ADA) must be met in all parking areas and walkways.

Vehicular access to the Park will be limited to designated parking lots. The parking lots will be surrounded by post and cable fencing. Barriers will be used to discourage vehicle entry onto the Bike Trail and into other portions of the Master Plan area.

A future bus stop is planned along McLaughlin Road, to be implemented when demand to support the new stop rises due to the availability of additional recreational features and playing fields at Riverbend Park.

Restroom Facilities
Because permanent structures cannot be placed in the regulatory floodway, portable toilets will be provided in the North Park for public use. The toilets will be regularly serviced and will be able to be removed within four hours notice.
Park Host Facility
A full-time, on-site resident park host will be assigned to Riverbend Park. Duties of the Park Host will include providing litter control, reporting illegal and inappropriate activity, performing irrigation maintenance and serving as a basic safety and security presence. The park host may coordinate with volunteer groups who are cleaning the park site or performing other maintenance.

A new paved driveway to the Park Host’s residence will be located south of McLaughlin Road, opposite the existing parking lot entrance for Riverbend Park. The Park Host’s residence is to be located south of McLaughlin Road, west of the Regulatory Floodway. The residence will be a recreational vehicle (RV), capable of being removed at any time to limit flood hazards. All improvements associated with the Park Host facility are to be located outside of the Regulatory Floodway. Construction of the new driveway will require extension of and integration with the existing curb, gutter, and sidewalk along the south side of McLaughlin Road. Any paving or access improvements that must be placed within the Regulatory Floodway shall be placed at or below existing grade to ensure that no impediment to flood flows is created.

Additional improvements associated with the Park Host facility include a concrete pad and metered electrical and water connections to City electric and water lines, located in McLaughlin Road. Utility connections will be flood-proofed, with back-flow prevention provided and shall be designed to comply with any applicable FEMA-rated protection requirements. The RV will have self-contained waste tanks that will either be discharged at a designated off-site disposal station or pumped out by a mobile unit.

Limited lighting is proposed directly adjacent to the Park Host’s residence. This lighting shall be shielded, directed downward and located outside of the Regulatory Floodway.

Bike Trail Extension (A Street to McLaughlin Road)
The Bike Trail extension will begin at the northern-most extension of “A” Street and will follow the existing dirt trail along the perimeter of the north side of Riverbend Park. Once the trail has traversed the northern perimeter of the Park, it will cross McLaughlin Road and connect to Segment 1 of the Trail (Photo 10).

Kiosk
A kiosk will be provided at the entrance to Riverbend Park and the Bike Trail. The kiosk will be designed to securely display regulations, maps, safety information and educational material for park and trail users. The kiosk will be located outside of the Regulatory Floodway.

Hours of Operation
The Park will be open from dawn to dusk, seven days a week.

Flood Protection and Emergency Removal Plan
Riverbend Park, including the Phase I playing fields and a portion of the Phase 3 playing fields, is within the defined Regulatory Floodway. (See Figure 1-5.) The remainder of the Park site is
located within the 100-year flood plain. Therefore, all Park improvements are subject to compliance with the City’s Revised Floodplain Management Ordinance No. 1418 (96), which prohibits the location of permanent structures in the regulatory floodway. Because the Park is located in the Regulatory Floodway and the 100-year flood plain, water connections shall have back-flow assemblies.

An Emergency Removal Plan (ERP) shall be developed as a part of Master Plan implementation. The ERP shall identify each temporary structure located within the Regulatory Floodway and detail how and in what order the structures will be removed from the floodway, in case of flooding. The structures to be removed shall include, but not be limited to: backstops, bleachers, portable toilets, and playing equipment. All structures within the Regulatory Floodway shall be able to be removed within four hours of receipt of notice to implement the Emergency Removal Plan.

The Emergency Removal Plan shall stipulate that in case of flooding, the mainline valve that provides water to Riverbend Park shall be shut-off. This valve is located above the flood level at the intersection of Canfield Drive, “A” Street and McLaughlin Road. Electrical lines shall also be de-energized at a point corresponding roughly with McLaughlin Road and Canfield Drive, whenever the water rises. In case of a flood, the lines shall be de-energized and the transformers located within the floodway removed.

Agricultural Compatibility

Signs shall be placed at the entrances to the Park advising Park users of the potential for pesticide drift to impact the project site from adjacent agricultural operations.

The City of Lompoc Parks and Recreation Department will coordinate with the Agricultural Commissioner’s Office and adjacent agricultural operations to attempt to limit the amount of time that organized sports are scheduled to use the playing fields at the same time the agricultural fields are being treated with pesticides or herbicides. This coordination is not expected to be problematic, as applications of pesticides or herbicides generally occur overnight or in the early morning hours.

Lighting

Lighting in and around Riverbend Park is not planned because permanent structures such as lights would not be permitted in the floodway and because the proposed playing fields are adjacent to riparian open space where there is the potential for lighting to disturb nesting birds and animals. In addition, portions of the Riverbend Park site are within the 34:1 Approach Surface and the 7:1 Transitional Surface of the Lompoc Airport and/or are visible from adjacent residences. Lighting of the fields or Park improvements at Riverbend Park could interfere with airport operations or impact nearby residences. Lighting of the fields would also contribute to light pollution in the night sky in a location which is on the edge of the developed portion of the City.
Master Plan Phase 2 – Santa Ynez River Multi-Use Bike Trail

Project Elements

Santa Ynez River Bike Trail

The Santa Ynez River Multi-Use Bike Trail will run along the Santa Ynez River, beginning at the intersection of East College Avenue and Riverside Drive. From this point the Trail will extend the length of the bluff along Riverside Drive, ultimately finishing at McLaughlin Avenue. The trail will be eight-feet wide and paved for bicycle and pedestrian use. There will be two-foot gravel shoulders on each side of the trail for use by runners and pedestrians. See Figure 1-6 for the location of the trail.

A small segment of Bikeway (Class II) is to be improved within the existing 12th Street right-of-way, between Highway 246 and Laurel Avenue, as a part of the Bike Trail project. This segment will connect with the Class II bikeway along Highway One, south of Highway 246.

The multi-use Bike Trail will be constructed using Federal Highway Administration (FHWA) Transportation Equity Act for the 21st Century (TEA-21) funds.

Trail Specifications and Construction Area

Active Use Trail - The Bike Trail will be a continuous Class I trail, eight feet wide, and paved with asphalt concrete. The cross section of the paved trail will consist of a minimum of two inches of asphalt placed over four inches of compacted aggregate base. The trail will be constructed by compacting the existing sub-grade of the trail bed, spreading and compacting an additional four inches of aggregate base, and placing two inches of asphalt concrete paving over the base. This design will provide sufficient load-bearing capacity for both recreational trail use and occasional use by maintenance or emergency equipment.

Shoulders - A two-foot wide compacted aggregate base shoulder will be placed on both sides of the paving to provide a walking and jogging course, as well as a load-bearing surface and backing for the asphalt. With two-foot shoulders, the Bike Trail will be 12-feet in width.

Connecting Ramps - All ramps at access points to the Bike Trail should have a minimum paved width of eight feet. The paved access ramp shoulders should be as wide as possible to provide a safe recovery area off the pavement edge. All ramps should meet the maximum slope criteria stipulated in the ADA and the State of California’s Title 24.

Class II Bikeway Segment – This minor segment will provide a three-foot wide, striped bikeway along 12th Street.

Construction Area - Because the existing dirt road is so wide, virtually no trimming or pruning of vegetation will be required to construct the Bike Trail. A clear construction area of approximately 20-feet is expected to be needed. This width is present, without interference by trees or shrubs, all along the existing dirt road. If additional width is necessary for construction along any portion of the Bike Trail, the construction area may be expanded with the prior
PROPOSED BIKE TRAIL LOCATION

FIGURE 1-5

CLASS I BIKE TRAIL

CLASS II BIKE TRAIL

CLASS III BIKE TRAIL
approval of the biological monitor and the City’s Project Manager. In one location of Segment 1 of the trail, a single branch of a tree in Riverbend Park may need to be trimmed to ensure adequate clearance. A Streambed Alteration Agreement will be applied for if trimming of any branches of riparian vegetation, three inches in diameter or greater, is required. Additional disturbance of non-native scrub and grassland is expected to be necessary to provide a staging area in the vicinity of the Central Avenue Extension. Additional staging areas are expected to be needed at Riverbend Park and along Riverside Drive.

Segment One – Riverside Open Space (Riverbend Park to Seventh Street)
From McLaughlin Road the Bike Trail will follow an existing wide dirt road south through riparian forest and then along open upland on the lower terrace between a bluff to the west and the riverbank to the east. The trail will continue to the point at which the existing dirt road climbs a hill to Seventh Street (Photos 10-18). McLaughlin Road will be the primary access point for the trail because of its proximity to Riverbend Park and its parking areas.

Central Avenue Access
A paved access trail segment will extend from the terminus of Central Avenue to the main Bike Trail along the riverbank. This access segment’s alignment will be required to be relocated, once the Central Avenue Extension is constructed. A second access point will extend out from the Bike Trail to Central Avenue and “A” Street and will connect with the intersection of Calvert Avenue and Riverside Drive. These Bike Trail access segments will also be eight feet wide with a two-foot wide compacted aggregate base shoulder.

Roundabout
A Bike Trail roundabout is to be constructed where the Central Avenue Bike Trail extension meets the main Bike Trail. The roundabout is designed to allow bicyclists to make the transition between trails and directions easily and is expected to have a radius of forty feet.

Rest Area
This section of the Bike Trail provides expansive views of the river, riparian and coastal scrub vegetation, the eastern Lompoc Valley and the Santa Rita Hills. A rest area will be located alongside the trail at approximately the midpoint of this segment. The rest area will be comprised of a bench on the west side of the trail and interpretive signage on the east side. The interpretive display will be designed to educate trail users about the natural river and riparian environments, establishing a connection between the river and the community.

Segment Two - Riverside Drive (Seventh Street to College Avenue)
The Bike Trail will run parallel to, and east of, Riverside Drive from Seventh Street to College Avenue. The trail will be located at the top of the bluff, approximately 50 feet west of the top of slope and existing riparian/scrub vegetation (Photos 2-9). Access points to the trail will be located near the intersections of Riverside Drive and Pine Avenue, North Avenue and Seventh Street.

This trail segment has a very open character because of its location atop the bluff. This allows for expansive views of the Santa Ynez River corridor and the Lompoc Valley.
There is an unimproved area of concentrated drainage along Riverside Drive, just north of its intersection with Tangerine Avenue. This drainage will be redirected by extending or replacing the existing drain pipe so that it crosses underneath the Bike Trail. This will help to ensure that the trail will not be undercut by water directed down this drainage.

One hundred and thirty feet of curb will be added on the east side of Seventh Street near the intersection of Riverside Drive. This is an access point to the Bike Trail and the edge of pavement does not currently have a curb.

A concrete swale adjoining Riverside Drive at North Avenue discharges storm water into the River’s channel. The existing concrete drainage swale at North Avenue and Riverside Drive will be crossed with an at-grade crossing of the Bike Trail.

Fifty-five feet of curb will be added on the east side of the intersection of North Avenue and Riverside Drive. This is an access point to the Bike Trail and the edge of pavement does not currently have a curb.

**Additional Bike Trail Improvements**

In addition to the Bike Trail segments, the following improvements are proposed to facilitate bicycle travel in Lompoc. A Class III bike route (signs only) will be added on North Avenue from Riverside Drive to Seventh Street, and on Seventh Street from North Avenue to College Avenue.

**Signage**

Signs will be placed by Trail access points identifying the recreation corridor as the Santa Ynez River Multi-Use Bike-Trail. In addition, prescriptive and prohibitive signs will be developed such as “Environmentally Sensitive Area”, “Stay On Trail”, “No Litter”, “No Motorized Vehicles”, and other regulatory or cautionary signage. Educational signs and displays interpreting the natural history of the area will also be provided. All signage will be discreet, but regulatory and cautionary signs will be large enough to be visible to bike-trail users traveling up to 15 mph.

**Trail Maintenance and Monitoring**

**Vegetation Trimming**

Occasional trimming of live vegetation may be required to maintain safe widths and clearances along the Bike Trail. A Streambed Alteration Agreement will be applied for if trimming of any branches of riparian vegetation, three inches in diameter or greater, is required.

**Trail Integrity**

Because much of the trail is located within a floodplain, high-flow events may deposit mud on paved surfaces or compromise the integrity of the trail, sub-grade or shoulders. Trail integrity and storm damage shall be evaluated each spring and as necessary following each high-flow event. If erosion is a concern, erosion control measures shall be put in place each year, in areas of concern, prior to winter rains.
ORV Control
The existing illegal ORV use is not consistent with the uses encouraged by a Bike Trail. Therefore, in an effort to discourage ORV use of the area, exclusionary devices will be installed at Bike Trail entrances. These will include heavy post-and-cable fencing and/or strongly anchored bollards. Post-and-cable fencing and bollards serve different functions in targeting different types of ORVs. Post-and-cable fencing can be effective at limiting and directing motorcycle traffic, but is easily breached by larger four-wheel drive vehicles. Conversely, bollards show little effectiveness in excluding motorcycles, but can be effective in deterring use by four-wheel drive vehicles. With both post-and-cable fencing and bollards, concrete footings are recommended.

Access controls for ORVs are not 100% effective. Monster Trucks are difficult to exclude using any means. However, some ORV use can be deterred with the use of bollards and cable fencing. The following standards are guidelines for access control devices.

Bollards
Bollards should be constructed of a minimum eight-inch diameter steel pipe, filled with concrete and capped. The pipe should be set in a concrete footing, with a minimum size of approximately one cubic yard. The minimum clear distance between bollards should be four feet to provide safe access for trail users, and bollards should have a minimum height of 42 inches above the ground surface. The bollard layout and design should further consider allowance for emergency and maintenance vehicle access. Therefore, fixed bollards should have a minimum clearance of eight feet. Removable bollards (between fixed bollards) should have locking mechanisms that are concealed from bolt cutters or gunshot and keys shall be provided to the police and fire departments.

Post-and-Cable Fencing
Posts may be metal or wood, with a minimum diameter of eight inches. Posts shall be set in concrete. Multiple cables shall be used, as single-cable fences have a potential for head or neck injury to children who may run into the cable. The cables should be fastened with concealed hardware, or otherwise secured, to prevent easy disassembly or theft.

Native Plantings and Habitat Enhancement
In areas where plants have been damaged or are sparse, particularly along the east side of the Bike Trail and where erosion is occurring because of a lack of vegetative cover, additional native plantings are proposed. These plantings are expected to be achieved, not as mitigation for the project, but as a beneficial restoration of the native habitat. Planting will be done in the fall, but will not be a one time effort. It is expected that small areas will be planted in successive years, as time and resources allow. The following sections establish some guidelines for the proposed planting. Figure 1-7 identifies areas that would benefit from habitat enhancement.

Propagation
Whenever possible, plants and seeds used shall be obtained, from local sources. Preferred plant material shall be derived from cuttings, materials salvaged from disturbed areas, and/or seeds obtained from randomly selected native trees and shrubs occurring locally within the same drainage.
Any tree or shrub stock which cannot be grown from cuttings or seeds shall be obtained from a native plant nursery, be ant free and shall not be inoculated to prevent heart rot.

**Planting and Habitat Enhancement**

Native landscaping will be provided in areas where vegetation has been disturbed and in areas of highly erodible soils and slopes. Any necessary permits shall be obtained prior to implementation of erosion control measures. All plants will be randomly spaced in naturally clumped patterns. Any planting proposed will be accomplished after the first wetting rains, between October 1 and February 1 of each year.

Plants shall be native, appropriate to the habitat type in which they are to be planted and shall occur naturally in Santa Barbara County. Appropriate native species for revegetation of disturbed areas and bank stabilization include, but are not limited to:

- Coyote brush (*Baccharis pilularis*)
- Blue Elderberry (*Sambucus mexicana*)
- Chamise (*Adenostema fasciculata*)
- La Purisima manzanita (*Arctostaphylos purisima*)
- Shagbark manzanita (*Arctostaphylos rudis*)
- Buckwheat (*Eriogonum spp.*)
- California poppy (*Eschscholzia californica*)
- California Coffeeberry (*Rhamnus californicus*)
- Blue-blossomed California lilac (*Ceanothus thyrsiflorus*)
- Bush poppy (*Dendromecon rigida*)
- Toyon (*Heteromeles arbutifolia*)
- Coast live oak (*Quercus agrifolia*)
- Huckleberry (*Vaccinium ovatum*)
- Salal (*Gaultheria shallon*)
- Southern California black walnut (*Juglans californica*)
- California Bay (*Umbellularia californica*)
- California sycamore (*Platanus racemosa*)
- Red Willow (*Salix laevigata*)
- Arroyo Willow (*Salix lasiolepis*)
- Narrow-leaved Willow (*Salix exigua*)
- Silk Tassel Bush (*Garrya elliptica*)
- Chaparral pea (*Pickeringia Montana*)

**Irrigation**

Native plants shall be irrigated for the first three years after planting. If they have not been properly established during that time period, they shall be irrigated for an additional two years.

Irrigation shall be provided when natural moisture conditions are inadequate to ensure survival of plants. Irrigation shall be provided for a period of at least two years from planting. Irrigation shall be phased out.
Invasive Species
Noxious plants (tree tobacco, castor bean, giant cane, etc.) will be removed from the Master Plan area. Plant material will be disposed of in a manner and a location which prevents its re-establishment. Removal shall be done at least twice annually during the spring/summer season, as needed.

Invasive species shall be removed by hand or by hand-operated power tools rather than by chemical means. Where control of non-native vegetation is required within the bed, bank, or channel of the stream, and the use of herbicides is necessary, herbicides such as Rodeo (Glyphosate), shall be used. If surfactants are required, non-ionic chemicals such as Agri-Dex shall be used. All chemicals shall be applied in accordance with State and Federal law. No herbicides shall be used where Threatened or Endangered Species occur. No herbicides shall be used when wind velocities are above five miles per hour.

Hours of Operation
The Bike Trail will be open from dawn to dusk, seven days a week.
Master Plan Phase 3 – South Riverbend Park Project Elements

South Park Playing Fields

The agricultural property south of McLaughlin Road will be developed in a combination of recreational uses. The eastern portion of this field is within the Regulatory Floodway, and as such, permanent structures cannot be located there. In this area, open recreational turfs large enough for four little league practice fields, alternating with four soccer fields, is proposed. Cut-outs for little league fields and softball fields are not proposed, so as to maximize the playing field options.

Just as in the North Park, all structures within the Regulatory Floodway shall be temporary and shall be identified and addressed in the Emergency Removal Plan for the Park. The temporary playing fields will be delineated by chalk and will utilize portable goal posts, backstops and bleachers. All equipment will be required to be easily portable. If playing fields are developed outside the Regulatory Floodway, permanent structures may be used, consistent with the requirements of the City’s Flood Ordinance.

Planting and Irrigation

The playing fields will be installed using sod or seed. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population. Water to irrigate the proposed sports fields will be supplied through an existing on-site well or a metered connection to the City’s domestic water supply at McLaughlin Road. All appropriate water conservation measures will be employed. Consideration will be given to the type of irrigation, length and time of day of watering. Appropriate back-flow prevention devices will be required to guard against flood-related impacts to the City’s water service. Municipal water will not be used for agricultural irrigation.

Other South Park Amenities

The western portion of the property, located outside of the Regulatory Floodway can be developed with traditional improved-park amenities. Permanent structures may be placed in this area in compliance with the City’s Flood Ordinance. Four tennis courts are proposed for this area. Other amenities that could be considered in the future are a concession stand, drinking fountains, a basketball court, open recreational area, a tot lot, community garden or picnic area. The determination regarding the exact mix and location of recreational facilities on the western portion of this property will be made at the time this Phase of the Riverbend Park Master Plan is developed. For the purposes of environmental review, four tennis courts, a restroom and parking are evaluated. Other park-supportive uses may be considered for development in this area.

Access and Parking

Access to the South Park will be from McLaughlin Road. The parking area in the South Park will provide two connected lots with a maximum of 312 parking spaces to accommodate weekday and weekend maximum use. The parking area will be constructed of gravel and base material or other pervious surface. The requirements of the Americans with Disabilities Act (ADA) will be met in all parking areas and walkways.
Vehicular access to the Park will be limited to designated parking lots. The parking lots will be surrounded by post and cable fencing. Barriers will be used to discourage vehicle entry onto the Bike Trail and into other portions of the Master Plan area.

Restroom Facilities
Permanent restroom facilities are planned to be located on the western side of the South Park, outside of the Regulatory Floodway, consistent with the requirements of the City’s Flood Ordinance.

Hours of Operation
The South Park will be open from dawn to dusk, seven days a week.

Flood Protection and Emergency Removal Plan
A portion of the Phase 3 playing fields are within the defined Regulatory Floodway (See Figure 1-5). The remainder of the South Park site is located within the 100-year flood plain. Therefore, all Park improvements are subject to compliance with the City’s Revised Floodplain Management Ordinance No. 1418 (96). The portion of the South Park area that is within the Regulatory Floodway shall be addressed in the Emergency Removal Plan (ERP) described in Phase 1 (North Park) above.

Agricultural Compatibility
Signs shall be placed at the entrances to the Park advising Park users of the potential for pesticide drift to impact the project site from adjacent agricultural operations.

Lighting
Lighting is not proposed for the southern portion of Riverbend Park, with the exception of the previously mentioned screened exterior lighting at the Park Host’s residence.
Photo 1—View, looking northwest, of agricultural fields west of Riverbend Park, with La Purisima Highlands in the background.

Photo 2—View, looking northwest, of proposed site of North Park fields, with La Purisima Highlands in the background.
Photo 3—Existing Riverbend Community Park Entry Sign.

Photo 4—Existing Riverbend Park parking area, looking north.
Photo 5—View of the proposed South Park field location, looking north.

Photo 6—View of the proposed South Park fields looking east toward the Santa Ynez River. PG&E Electric pole to be relocated can be seen at center left.
Photo 7—(Above) Existing Babe Ruth field at Riverbend Park.

Photo 8—(At left) Existing PG&E electric poles in South Park, to be relocated.
Photo 9—View of Canfield Avenue and existing trees at top of slope above the South Park at Riverbend Park. (Looking west)

Photo 10—View of dirt road, looking north from McLaughlin Road, at the beginning of the Bike Trail extension around the perimeter of Riverbend Park.
Photo 11—Area where the proposed Bike Trail is to begin, looking south from McLaughlin Road.

Photo 12—Looking south from the intersection of Calvert Ave. and Riverside Dr. at the access that is proposed to connect to the Central Avenue segment of the Bike Trail.
Photo 13— (At Left )
Looking east from Central Avenue along the alignment of the proposed Bike Trail.

Photo 14— (Below)
Looking north along the Bike Trail alignment. The alignment is proposed to be located between the two Cottonwood trees and then to continue on in a straight line to the existing dirt road beyond.
Photo 15—View looking south along the Riverside Drive segment of the Bike Trail alignment.

Photo 16—View to the east of River Park, from the Riverside Drive segment of the Bike Trail.
Photo 17—View looking southeast from Riverside Dr., along the Bike Trail alignment.

Photo 18—View looking northeast from the end of the Bike Trail at College Avenue and Riverside Drive.
RIVERBEND PARK
AND
BIKE TRAIL
MASTER PLAN
AND
ENVIRONMENTAL IMPACT REPORT
December 2004

City of Lompoc
Prepared by the City of Lompoc

With assistance from:

Applied Earthworks Inc.
Associated Transportation Engineers
Jones & Stokes
Kathleen Whitney – Biological Consultant
Penfield and Smith
Rincon Consultants, Inc.
Thomas Olson Biological Consulting
Wieland Associates, Inc.
# ENVIRONMENTAL IMPACT REPORT

## TABLE OF CONTENTS

### Volume I

I. Table of Contents......................................................................................................................... i

II. List of Figures .......................................................................................................................... iii

III. List of Tables........................................................................................................................... iv

1.0 Executive Summary ........................................................................................................... 1

2.0 Project Description .............................................................................................................. 4

3.0 Environmental Analysis – Potentially Significant Impacts ............................................... 18

3.1 Agricultural Resources .................................................................................................... 18

3.2 Biological Resources ....................................................................................................... 23

3.3 Cultural Resources .......................................................................................................... 64

3.4 Noise ............................................................................................................................ 73

3.5 Transportation / Traffic ............................................................................................... 84

3.6 Air Quality .................................................................................................................... 99

3.7 Hydrology and Water Quality ..................................................................................... 108

3.8 Geology and Soils ......................................................................................................... 119

3.9 Land Use and Planning ................................................................................................. 125

3.10 Public Services .............................................................................................................. 134

3.11 Hazards and Hazardous Materials ............................................................................. 137

3.12 Utilities and Service Systems ....................................................................................... 145

3.13 Aesthetics ..................................................................................................................... 152

3.14 Population and Housing .............................................................................................. 158

3.15 Recreation ..................................................................................................................... 160
3.16 Growth Inducing Impacts .............................................................162

4.0 Significant and Unavoidable Environmental Impacts and Significant Irreversible Environmental Impacts ..............................................................................................................164

5.0 Environmental Analysis - Less than Significant Impacts ........................................166

5.1 Mineral Resources ........................................................................166

6.0 Cumulative Impacts ...........................................................................169

7.0 Alternatives ......................................................................................177

- No Project Alternative ........................................................................177
- Lesser Project Alternative ..................................................................177
- Reduced Field Alternative ................................................................178
- Ken Adam Park Alternative ..............................................................179
- Environmentally Superior Alternative ............................................180

8.0 Mitigation and Monitoring Program ...................................................182

9.0 List of EIR Preparers ..........................................................................183

10.0 List of Individuals and Organizations Consulted ...................................184

APPENDICES – Volume II

Appendix A - Notice of Preparation
Appendix B - Responses to Notice of Preparation
Appendix C - Land Evaluation and Site Assessment (LESA) Model Analysis
Appendix D - County Agricultural Thresholds of Significance
Appendix E - URBEMIS 2002 Analysis
Appendix F - Protocol-level Survey For Southwestern Willow Flycatcher and Least Bell’s Vireo
Appendix G - Protocol-level Survey For Red-legged Frog
Appendix H - Focused Rare Plant Surveys for Black-flowered Figwort
Appendix I - Extended Phase 1 Archaeological Survey
Appendix J - Cultural Resources Inventory
Appendix K - Riverbend Park Flooding Analysis
Appendix L - Environmental Noise Study
Appendix M - Traffic and Circulation Study
Appendix N - Biological Definitions
Appendix O - Citywide Operational Best Management Practices for Storm Water
Appendix P - Preliminary Environmental Study Form – Caltrans/FHWA
Appendix Q - Sensitive Species and Wetland Assessment
List of Figures

Figure 1-1 – Vicinity Map....................................................... Master Plan (MP) – Following Page (FP) 2
Figure 1-2 – Master Plan Area..................................................................................................MP – FP 2
Figure 1-3 – City of Lompoc’s Land Use Element Map ........................................................MP – FP 5
Figure 1-4 – Proposed Riverbend Park Expansion Map.......................................................MP – FP 9
Figure 1-5 – Proposed Bike Trail Location Map ..................................................................MP – FP 12
Figure 1-6 – Potential Habitat Enhancement Areas............................................................MP – FP 15
Figure 1-7 – Preliminary Locations for Temporary Construction Fencing .........................FP 57
Figure 1-8 – Common Noise Sources and Levels .................................................................75
Figure 1-9 – Noise Level of Various Urbanized Environments.............................................76
Figure 1-10 – Proposed Recharge Basins...........................................................................FP 113
Figure 1-11 – Lompoc Municipal Airport Approach Zone Overlay....................................FP 127
<table>
<thead>
<tr>
<th>Table Number</th>
<th>Description</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1.0-1</td>
<td>Summary of Project Specific Impacts</td>
<td>Following Page (FP) 3</td>
</tr>
<tr>
<td>Table 3.2-1</td>
<td>Riverbend Park and Trail Master Plan Observed Plant List</td>
<td>FP 24</td>
</tr>
<tr>
<td>Table 3.2–2</td>
<td>Special-Status Plant Species with Potential to Occur in the Project Region</td>
<td>FP 24</td>
</tr>
<tr>
<td>Table 3.2–3</td>
<td>Special-Status Wildlife Species with Potential to Occur in the Project Region</td>
<td>FP 24</td>
</tr>
<tr>
<td>Table 3.2–4</td>
<td>Holland Nomenclature (1986)</td>
<td>28</td>
</tr>
<tr>
<td>Table 3.2–5</td>
<td>Potentially Affected Fish Species Occurring in the Santa Ynez River Watershed</td>
<td>FP 41</td>
</tr>
<tr>
<td>Table 3.2-6</td>
<td>Expected Occurrence of Steelhead by Life Stage in the Santa Ynez River Watershed</td>
<td>.43</td>
</tr>
<tr>
<td>Table 3.3–1</td>
<td>Datable Artifacts Recovered from CA-SBA-1767H</td>
<td>70</td>
</tr>
<tr>
<td>Table 3.4–1</td>
<td>City of Lompoc General Plan Noise Element Standards</td>
<td>73</td>
</tr>
<tr>
<td>Table 3.4–2</td>
<td>Summary of Noise Measurements</td>
<td>77</td>
</tr>
<tr>
<td>Table 3.4–3</td>
<td>Existing Traffic Noise Levels</td>
<td>77</td>
</tr>
<tr>
<td>Table 3.4–4</td>
<td>Construction Equipment Noise Levels</td>
<td>79</td>
</tr>
<tr>
<td>Table 3.4–5</td>
<td>Analysis of Estimated Construction Noise Levels during Phase I (North Park)</td>
<td>79</td>
</tr>
<tr>
<td>Table 3.4–6</td>
<td>Analysis of Estimated Construction Noise Levels during Phase III (South Park)</td>
<td>.80</td>
</tr>
<tr>
<td>Table 3.4–7</td>
<td>Analysis of Estimated Construction Noise Levels during Phase II (Trail)</td>
<td>.80</td>
</tr>
<tr>
<td>Table 3.4–8</td>
<td>Analysis of Estimated Traffic Noise Levels, Phases I – III</td>
<td>.81</td>
</tr>
<tr>
<td>Table 3.4–9</td>
<td>Analysis of Estimated Park Activity Noise Levels, Phases I – III</td>
<td>.82</td>
</tr>
<tr>
<td>Table 3.5–1</td>
<td>Roadway Level of Service</td>
<td>.86</td>
</tr>
<tr>
<td>Table 3.5–2</td>
<td>Daily Capacity Estimates by Roadway Type</td>
<td>.86</td>
</tr>
<tr>
<td>Table 3.5–3</td>
<td>Intersection Level of Service Criteria</td>
<td>.87</td>
</tr>
<tr>
<td>Table 3.5–4</td>
<td>Existing (2004) Roadway Operations</td>
<td>.88</td>
</tr>
<tr>
<td>Table 3.5–5</td>
<td>Existing (2004) Intersection Operations</td>
<td>.88</td>
</tr>
</tbody>
</table>
List of Tables Continued

Table 3.5–6  Master Plan Trip Generation Estimates .................................................................90
Table 3.5–7  Project Trip Distribution .........................................................................................91
Table 3.5–8  2006 + Phases I & II Roadway Operations ...........................................................92
Table 3.5–9  2006 & 2006 + Phases I & II .................................................................................92
Table 3.5–10 2015 + Phases I – III Roadway Operations ..........................................................93
Table 3.5–11 2015 & 2015 + Phases I – III Intersection Operations ........................................94
Table 3.5–12 Master Plan Peak Parking Demand Estimates .......................................................95
Table 3.5–13 CMP Intersection Impacts .....................................................................................96
Table 3.5–14 CMP Highway Segment Impacts .........................................................................97
Table 3.5–15 CMP Analysis ........................................................................................................97
Table 3.6–1  Ambient Air Quality Standards ..............................................................................FP 100
Table 3.6–2 Construction Emission Estimates (Tons per year / unmitigated)
City of Lompoc Riverbend Park and Trail ..............................................................................103
Table 3.6–3 Operational Emissions Estimate
(unmitigated and mitigated, pounds / day) ..............................................................................104
Table 3.7–1  Peak-Flow Estimates of the Santa Ynez River .......................................................110
Table 3.7–2  Project Flood Data Estimates .................................................................................111
Table 6.0–1 Analysis of Estimated Cumulative Traffic Noise Levels, Phases I-III ...............171
Table 6.0–2 2015 + Phases I-III Roadway Operations .............................................................173
Table 6.0–3 2015 & 2015 + Phases I – III Intersection Operations ..........................................174
Table 7.0–1 Comparison of Alternatives .................................................................................181
1.0 EXECUTIVE SUMMARY

Project Location

The proposed project is located within the City of Lompoc, County of Santa Barbara, at the terminus of McLaughlin Road at Riverbend Park. The project area also extends along the west side of the Santa Ynez River, from McLaughlin Road to the intersection of College Avenue and Riverside Drive. The portion of Riverbend Park to be developed is approximately 49 acres in size. The proposed Bike Trail is approximately 2.5 miles long. With the exception of one parcel (APN: 093-051-06), the whole of the project area is owned by the City of Lompoc and is currently within Riverbend Park, or is unimproved open space with a Park Overlay. The one parcel not owned by the City is proposed to be crossed by the Bike Trail extension to Calvert Avenue. An easement is proposed to allow this extension of the Bike Trail to be constructed. A portion of Riverbend Park is actively farmed. The proposed Bike Trail is to be developed over an existing dirt road and adjoining paths to Central Avenue and Calvert Avenue.

The Assessor’s Parcel Numbers on which park improvements are to be made are: 093-051-02, 03, 05, 07, 08, 09 and 19; 097-270-29 and 44. The Assessor Parcel Numbers on which trail construction is planned are 93-051-07, 93-051-05, 93-051-19, 20; 87-011-34, 87-011-62, 87-306-06, 99-141-27, and 99-141-26. Additional perimeter parcels within the Master Plan area include 093-051-01, 04, 20; 087-011-61; and 087-306-05.

Project Objectives

The project is intended to provide additional recreational activities at Riverbend Park, multiple-use playing fields, a caretaker’s residence, restroom facilities, tennis courts or basketball courts and parking. Turf-only fields are proposed in both the North and South Park sites. These fields are intended to provide, on an alternating basis, ten soccer practice fields, eight little league practice fields and one softball sized practice field, or open turf for other sports play practice areas for sports such as football. The project is also intended to provide a Bike Trail that will extend from Riverbend Park, along the west edge of the river, south to College Avenue. In addition, a small segment of Class II bikeway is planned to be designated from the intersection of 12th Street and Laurel Avenue to Ocean Avenue. This will provide a designated travel-way for bicycles on this busy street.

Project Alternatives

A range of alternatives to the proposed project is required to be evaluated under the California Environmental Quality Act, to ensure that full consideration of options and opportunities has been given before a final decision on the project is made. Alternatives are evaluated based on their ability to meet the project objectives, lessen the potential for environmental impacts, and be feasible. Feasibility can include an evaluation of property ownership or control, economic viability, availability of infrastructure, jurisdictional boundaries and general plan consistency. Four alternatives to the proposed project have been identified and evaluated. These include:
Alternative 1 – The No Project Alternative

Alternative 2 - The Lesser Project Alternative - North Park Playing Fields Only

Alternative 3 – The Reduced Project Alternative – Reduced South Park Fields

Alternative 4 – The Ken Adam Park Alternative Project Site

Summary of Environmental Impacts and Mitigation Measures

Table 1.0-1 presents a summary of the project’s potential impacts and identifies mitigation measures that are recommended to address those impacts. The listing of environmental effects, mitigation measures and alternatives constitutes the required identification of issues to be resolved and areas of controversy. For some impacts, there were no feasible mitigation measures that would adequately reduce potential effects of the project to a level of insignificance. Three types of impacts are identified, Significant and Unavoidable, Potentially Significant and Less Than Significant.

- **Significant and Unavoidable** impacts are those for which feasible mitigation that would lessen impacts to a level of insignificance is not available. In these cases, specific economic, social, technical or other consideration makes mitigation of the potential impact through specific measures or adoption of a project alternative, infeasible. If a decision is made to approve the proposed project, a Statement of Overriding Considerations needs to be adopted for any Significant and Unavoidable impacts, pursuant to Section 15093(b) of the State CEQA Guidelines.

- **Potentially Significant** impacts are those for which feasible mitigation measures have been identified that will, when implemented, reduce the level of the related project impact to less than significant. Findings must be made for each Potentially Significant impact, stating that changes or alterations to the project, such as adoption of the recommended mitigation measures, have been required to avoid or substantially lessen the impacts pursuant to CEQA guidelines, Section 15091(a)(1).

- **Less than Significant** impacts are those which will have either no impact or a very minor impact and do not require the application of mitigation measures.

Classes of Impacts

Impacts are also classified using a numerical system as follows:

**Class I.** Class I impacts are significant and unavoidable. To approve a project resulting in Class I impacts, the CEQA Guidelines require decision makers to make findings of overriding consideration that "... specific legal, technological, economic, social, or other considerations make infeasible the mitigation measures or alternatives identified in the EIR..."

**Class II.** Class II impacts are significant but can be mitigated to a level of insignificance by measures identified in this EIR and the project description. When approving a project with Class
II impacts, the decision-makers must make findings that changes or alternatives to the project have been incorporated that reduce the impacts to a less than significant level.

**Class III.** Class III impacts are adverse but not significant.

**Class IV.** Beneficial impacts.

**Significant and Unavoidable Impacts**

The following impacts have been identified as significant and unavoidable impacts of project construction and operation, which cannot be adequately mitigated or avoided to result in a less than significant impact, through the use of feasible mitigation measures:

**Agricultural Resources:** Conversion of Prime Agricultural Land

**Hydrology and Water Resources:** Reduction in the area available for recharge basins to increase long-term water availability in the Lompoc Valley.

**Noise:** Noise impacts from Traffic along “A” Street, north of Central Avenue.

**Potential for Elimination or Reduction of Impacts Through Alternatives**

The No Project Alternative would avoid the Significant and Unavoidable Class I impacts to Agricultural Resources, Hydrology and Water Resources and Noise, but would not achieve the project’s goals.

Ken Adam Park Alternative would avoid the Significant and Unavoidable Class I impacts to Agricultural Resources, Hydrology and Water Resources and Noise, but would preclude development of other City facilities on the unconstrained and undeveloped Ken Adam Park land and would result in a potentially significant adverse impact on Police and Fire services.

The Lesser Project Alternative would reduce the Significant and Unavoidable Class I impacts on Agricultural Resources and would eliminate the Significant and Unavoidable Class I Noise impacts of the project, while achieving some of the project objectives.

The Reduced Project Alternative would eliminate the Significant and Unavoidable Class I Noise impacts of the proposed project, while achieving a substantial portion of the project’s objectives.
Table 1.0-1
Summary of Project Specific Impacts

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Mitigation Measures</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRICULTURAL RESOURCES</td>
<td>I. The proposed project will result in a conversion of agricultural land to urban uses.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
<tr>
<td></td>
<td>There are no feasible mitigation measures that can reduce this impact to a level of insignificance.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
<tr>
<td>HYDROLOGY AND WATER QUALITY</td>
<td>I. The construction of the playing fields on the North Park site will result in a reduction in the available area for recharge basins.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
<tr>
<td></td>
<td>There are no feasible mitigation measures that can reduce this impact to a level of insignificance.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
<tr>
<td></td>
<td>II. The impervious parking areas could result in a reduction in infiltration to the groundwater table.</td>
<td>CLASS II Potentially Significant Impact requiring mitigation</td>
</tr>
<tr>
<td></td>
<td>H-1 The parking areas shall be constructed of gravel and road base or other approved construction material and shall be pervious.</td>
<td>CLASS II Potentially Significant Impact requiring mitigation</td>
</tr>
<tr>
<td></td>
<td>III. Construction activities can result in dust, sedimentation, chemical spills and other pollutants that can adversely affect water quality.</td>
<td>CLASS II Potentially Significant Impact requiring mitigation</td>
</tr>
<tr>
<td></td>
<td>H-2: The City shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for the proposed project and file a Notice of Intent with the Regional Water Quality Control Board. The SWPPP shall include Best Management Practices for Erosion Control, Hazardous Materials and Chemical handling, staging, storage, fueling, spill clean-up, maintenance of vehicles, concrete work and paving. The Best Management Practices</td>
<td>CLASS II Potentially Significant Impact requiring mitigation</td>
</tr>
</tbody>
</table>
| IV. The proposed project could result in an increase in the base flood elevation. | approved for City operations (Appendix O) shall be incorporated into the requirements of the SWPPP, as well as the following provisions:  

a. Prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses;  

b. Clean up spills immediately according to the spill prevention and response plan, and immediately notify The California Department of Fish and Game (CDFG) and the Regional Water Quality Control Board (RWQCB) of any spills and clean-up measures taken;  

c. Provide staging and storage areas to keep equipment, materials, fuels, lubricants, solvents, and other possible contaminants protected, contained and away from watercourses; and  

d. The SWPPP shall include a map of the project site, showing sensitive areas such as storm channels and drains and appropriate erosion control and water quality protection measures. The map and plan shall be submitted for approval by the City Public Works and Community Development Departments, prior to construction.  

H-3 Once the project, or each phase, has been completed, a qualified professional engineer shall certify that there is no increase in the base flood elevation, due to project construction in the Regulatory Floodway, per Section 1024.3.F of the Floodplain Management Ordinance.  

H-4 No permanent structures shall be placed within the Regulatory Floodway.  

| V. Permanent structures could increase in the base flood elevation or create barriers to trap debris. | CLASS II Potentially Significant Impact requiring mitigation  

| H-3 | CLASS II Potentially Significant Impact requiring mitigation  

| H-4 | CLASS II Potentially Significant Impact requiring mitigation  

| | | |
| | | |
### VI. Temporary structures could be dislodged by floodwaters and form barriers to flow or trap debris.

**H-5** An Emergency Removal Plan identifying all temporary structures to be located within the Regulatory Floodway and stipulating that they must be removed within four hours of notification of flood hazard shall be prepared. The Plan shall also identify the methods by which these items will be removed and transported to higher ground above the area of flood hazard.

### VII. If electrical lines are not de-energized during projected periods of high water, there may be a potential for live wires to be exposed.

**H-6** In case of flooding, the electrical lines shall be de-energized by the Electric Division of the City’s Utility Department, at a point above the 100-year flood level to prevent a short circuit of the electrical system and the potential for exposed live wires.

### VIII. Water lines could be contaminated during flood conditions if they do not have backflow assemblages and shut-off valves.

**H-7a** All water connections in Riverbend Park shall have backflow assemblies.

**H-7b** The main line water valve to Riverbend Park shall have a shut-off located above the anticipated 100-year flood level.

### IX. Flood conditions pose a hazard to the public.

**H-8** During flood threat conditions, the park shall be evacuated and closed to the public.

<table>
<thead>
<tr>
<th><strong>NOISE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> Projected weekend operational noise will exceed the General Plan threshold of 60 CNEL on “A” Street, north of Central Avenue, with a value of 60.5 CNEL.</td>
</tr>
<tr>
<td>There are no feasible mitigation measures that would reduce this impact to a level of insignificance. Usual mitigation involves the construction of six-foot high block walls to reduce noise on adjacent properties. There are existing six-foot high block walls on either side of “A” Street and the City’s Zoning Ordinance does not permit walls higher than six feet.</td>
</tr>
<tr>
<td><strong>CLASS I</strong> Significant and Unavoidable</td>
</tr>
</tbody>
</table>

| **H-5** An Emergency Removal Plan identifying all temporary structures to be located within the Regulatory Floodway and stipulating that they must be removed within four hours of notification of flood hazard shall be prepared. The Plan shall also identify the methods by which these items will be removed and transported to higher ground above the area of flood hazard. |
| **CLASS II** Potentially Significant Impact requiring mitigation |

| **H-6** In case of flooding, the electrical lines shall be de-energized by the Electric Division of the City’s Utility Department, at a point above the 100-year flood level to prevent a short circuit of the electrical system and the potential for exposed live wires. |
| **CLASS II** Potentially Significant Impact requiring mitigation |

| **H-7a** All water connections in Riverbend Park shall have backflow assemblies. |
| **CLASS II** Potentially Significant Impact requiring mitigation |

| **H-7b** The main line water valve to Riverbend Park shall have a shut-off located above the anticipated 100-year flood level. |
| **CLASS II** Potentially Significant Impact requiring mitigation |

<p>| <strong>H-8</strong> During flood threat conditions, the park shall be evacuated and closed to the public. |
| <strong>CLASS II</strong> Potentially Significant Impact requiring mitigation |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>II.</strong> Construction noise may cause a disruption or nuisance for residents in homes adjacent to the south.</td>
<td><strong>N-1</strong></td>
<td>Noisy construction activities shall be scheduled for periods, such as from 7 a.m. to 6 p.m. on weekdays and 8 a.m. to 6 p.m. on Saturdays, when loud noises would have the least impact on adjacent residents or other sensitive receptors.</td>
</tr>
<tr>
<td></td>
<td><strong>N-2</strong></td>
<td>A construction schedule shall be developed that minimizes potential cumulative construction noise impacts and accommodates particularly noise-sensitive periods for nearby land uses.</td>
</tr>
<tr>
<td></td>
<td><strong>N-3</strong></td>
<td>Where feasible, temporary solid noise barriers shall be constructed between source and sensitive receptors to reduce off-site propagation of construction noise.</td>
</tr>
<tr>
<td></td>
<td><strong>N-4</strong></td>
<td>Internal combustion engines used for construction purposes shall be equipped with a properly operating muffler of a type recommended by the manufacturer. Impact tools shall be shielded per manufacturer’s specifications.</td>
</tr>
<tr>
<td><strong>CLASS II</strong></td>
<td>Potentially Significant Impact requiring mitigation</td>
<td></td>
</tr>
</tbody>
</table>

### POPULATION AND HOUSING

There may be a substantial adverse effect on humans as a result of:

I. The conversion of agricultural land from farming to urban uses resulting in a lack of farmland for food production in the state and country.

There are no mitigation measures that can adequately address this impact, reducing it to a level of insignificance. **CLASS I Significant and Unavoidable**
II. The reduction in area for recharge basins may impact the future availability of water for human use.

III. There may be a significant noise impact on humans whose residences adjoin “A” Street north of Central Avenue.

<table>
<thead>
<tr>
<th>LAND USE AND PLANNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. A Land Use compatibility impact may result from the location of playing fields adjacent to active agricultural operations.</td>
</tr>
<tr>
<td>LU-1: The Parks and Recreation Department shall coordinate with the Agricultural Commissioner’s office and the property owner to the west, to limit play on the fields when applications of pesticides are known to be occurring on the property to the west.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECREATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposed project will result in:</td>
</tr>
<tr>
<td>I. Agricultural resource impacts;</td>
</tr>
<tr>
<td>II. Noise impacts; and</td>
</tr>
<tr>
<td>III. Adverse impacts on</td>
</tr>
<tr>
<td>There are no mitigation measures which can adequately address these impacts, reducing them to a level of insignificance. (Refer to above sections for rationale.)</td>
</tr>
</tbody>
</table>

CLASS I Significant and Unavoidable
future water availability.

<table>
<thead>
<tr>
<th>BIOLOGICAL RESOURCES</th>
<th>CLASS II Potentially Significant Impact requiring mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Avian Species of Special Concern may be impacted by construction activity that occurs too close to an active nest and disturbs the birds.</td>
<td><strong>B-1:</strong> A pre-construction survey for nesting birds shall be conducted by a qualified wildlife biologist, if Bike Trail construction or PGE line relocation is planned to occur between February 1 and August 31. Special emphasis shall be placed on the potential occurrence of nests of southwestern willow flycatchers, white-tailed kites, Cooper’s hawks, yellow-breasted chats, and California yellow warblers. If no active nests, or indications resulting in a strong suspicion of a nest location, are found during the survey, no further protection measures will be required. If active nests are found, the biological monitor shall prepare a nest avoidance plan designed to avoid impacts to known or suspected nests. Whether a buffer distance is established shall depend on the distance of the nest from construction activities and the type of activities that are to take place. No construction activities shall occur within an established buffer until young have fledged or the species is no longer attempting to nest. Construction activities shall be allowed outside the established buffer zone. No further protection measures shall be required once young have fledged, or after August 31.</td>
</tr>
</tbody>
</table>
| II. Activities of contractors and subcontractors may disturb or injure in some way Special Status Species. | **B-2:** The project proponent or its contractors shall conduct environmental awareness training of construction crews before project initiation. The education program shall include a brief review of the special-status plant and wildlife species that occur, or could potentially occur, in the project area, including their life history and habitat requirements, identification of the portions of the project areas in which they may occur and their legal status and protection under the federal Endangered Species Act of 1973 (16 USC 1536), the California Endangered Species Act of 1970 and 1984 and the California Environmental Quality Act of 1970 and their }
amendments. The program shall also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation. The crew foreman shall be responsible for ensuring that crew members adhere to the guidelines and restrictions. Education programs will be conducted for new personnel as they are brought onto the job during the construction period. Restrictions and guidelines that must be followed by construction personnel include:

- Project-related vehicles will observe the posted speed limit on hard-surfaced roads and a 10 mph speed limit on unpaved roads during travel in the project area.
- Off-road travel shall be restricted to the designated construction areas and the 20-foot wide Bike Trail corridor, in any segment where it is required. Wider width construction corridors can be designated with the prior approval of both the biological monitor and the City’s Project Manager.
- Night-time construction adjacent to the Santa Ynez River shall not be permitted.
- All food-related trash shall be disposed of in closed containers and removed from the project area at least once a week during the construction period. Construction personnel shall not feed or otherwise attract wildlife to the project area.
- No pets or firearms shall be allowed in the project area.
- No rodenticides or herbicides shall be applied in the project area during construction activities, except as directed by the biological monitor to eradicate noxious vegetation.
- Any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped, shall immediately report the incident to the biological monitor. The monitor shall immediately notify the project proponent, who shall provide verbal notification, as appropriate, to the USFWS Endangered Species Office in Ventura, California, and to the local CDFG contact within three working days. The project proponent shall provide written notification of the incident to USFWS and CDFG within five working days.
### III. Special Status Wildlife
Species that live on or in the ground could potentially be harmed by construction activity.

**B-3:** Immediately prior to ground-disturbing activities, a qualified wildlife biologist shall survey all construction areas with natural vegetation for the presence of California horned lizards, silvery legless lizards, and American badger dens. Although expected to occur on rare occasions only, the monitor shall also survey for the presence of California red-legged frogs, southwestern pond turtles, and two-striped garter snakes. If California horned lizards or silvery legless lizards are found, those individual animals shall be relocated to similar habitat away from construction activities. If California red-legged frogs, southwestern pond turtles, or two-striped garter snakes are found, construction activities shall not begin until appropriate resource agency representatives have been consulted and permission to continue work is granted.

### IV. Staging activities could disturb nests of Avian Species of Special Concern or damage riparian plants.

**B-4:** Staging shall be located as far as possible from the river’s bank, and a minimum of 200 feet away from the edge of the riparian vegetation adjoining the Santa Ynez River.

**B-5:** If night-time security lighting is required, it shall be directed downward and away from the river and riparian vegetation.

### V. Night lighting of the project area and/or staging area could adversely impact wildlife species.

**B-6:** Any noxious vegetation identified by the biological monitor shall be removed from the work area. Noxious vegetation shall be disposed of in a manner and at a location that will prevent its re-establishment. Whenever possible, noxious species will be removed by hand or by hand-operated power tools, rather than by chemical means. Where control of noxious vegetation is required and chemical use is necessary, only those herbicides, such as Rodeo (Glyphosate) that are approved for aquatic use shall be used.
<p>| VII. Construction activity and equipment could damage habitats and impact Species of Special Concern. | B-7: The City and its contractors shall minimize the likelihood of removal or disturbance of sensitive biological resources adjacent to the construction area by installing orange construction barrier fencing (and sedimentation fencing in some cases) around the construction areas. Sensitive resources that occur within and adjacent to the construction area include the sensitive natural plant communities and riparian forest along the Santa Ynez River. It is anticipated that if the contractor wishes to work in sequential order, up to one mile of fencing would need to be installed on the river side of the project site and then relocated when the next segment is begun. If alternating portions of the Bike Trail site are to be worked on at one time, up to three miles of construction fencing is anticipated to be required. This fencing shall be installed on the river side of the Bike Trail and on the City side of the Bike Trail. The fencing shall be installed on the City side of the Bike Trail, in areas where riparian vegetation and/or trees border both sides of the trail alignment (See Figure 1-6). Prior to construction, the contractor shall work with the project engineer/site supervisor and a qualified wildlife biologist to identify the exact locations where barrier fencing is necessary. The protected areas shall be designated as an “environmentally sensitive areas”. The fencing shall be installed, prior to the initiation of construction activities and shall be maintained throughout the construction period, in any given segment. Periodic site inspections of the barrier fencing shall be made by the biological monitor. The following paragraphs shall be provided in the construction specifications for environmentally sensitive areas: |
| | “The contractor’s attention is directed to the designation of “Environmentally Sensitive Areas” and to local, state and federal regulations that pertain to the resources in these areas. These areas are protected and no entry by the contractor for any purpose will be allowed. The contractor shall take measures to ensure that the contractor’s work force does not enter or disturb these areas, including giving written notice to his employees and subcontractors.” |
| | “Temporary construction fences around Environmentally Sensitive Areas shall be installed as the first order of work. Temporary fences shall be furnished, constructed, maintained, and later removed, by the contractor, as directed by the |
| | CLASS II Potentially Significant Impact requiring mitigation |
| | |</p>
<table>
<thead>
<tr>
<th>VIII. Construction activity could damage native habitat, riparian habitat or impact Species of Special Concern.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX. Construction activity could result in erosion or sedimentation that could be carried into the river, increasing siltation and harming Special Status fish and other aquatic species.</td>
</tr>
</tbody>
</table>

---

| B-8: | A qualified biologist shall periodically monitor construction activities for compliance with the project’s mitigation measures. The biological monitor shall assist construction personnel, as needed, to comply with all project implementation restrictions and guidelines. Furthermore, the biological monitor shall be responsible for ensuring that the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources are maintained in good repair. |

| B-9: | The City shall develop a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices to prevent soil erosion and sedimentation to protect aquatic wildlife species and prevent toxic materials spills during the construction phases of site development. These BMPs may become part of a SWPPP and/or erosion control plan. The BMPs shall require that the contractor and/or project proponent: |
| | ▪ Establish strict on-site handling rules to keep construction and maintenance materials from entering the river; |
| | ▪ Immediately clean up all spills and notify agencies of any spills and clean-up procedures; |
| | ▪ Locate staging and storage areas for equipment, materials, fuels, lubricants, solvents, and other possible contaminants outside the river’s normal high-water area; |
| | ▪ Remove vehicles from the river’s normal high-water area before refueling and lubricating; and |
| | ▪ Develop an erosion control plan to control potential erosion during construction and in the early post-construction phase of the site. |

---

CLASS II Potentially Significant Impact requiring mitigation

CLASS II Potentially Significant Impact requiring mitigation
X. Construction activity may result in the introduction of noxious plant species to the project area. These species can interfere with the growth of plant species necessary as habitat and a source of food for wildlife.

B-10: To avoid the introduction or spread of noxious weeds into previously uninfested areas, the City or its contractors, with the assistance of the biological monitor, will implement the following measures:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weed infestations;
- Conduct a follow-up inventory of the construction area to verify that construction activities have not resulted in the introduction of new noxious weed infestations; and
- If new noxious weed infestations are located during the follow-up inventory, the appropriate resource agency will be contacted to determine the appropriate species-specific treatment methods for removal and the noxious vegetation will be removed.

XI. Trimming of riparian shrubs can impact fish and wildlife by reducing cover and habitat values.

B-11: The contractor shall limit trimming of riparian shrubs and trees to that necessary to construct the Bike Trail and allow construction equipment and materials necessary access to the construction area. An estimated 20-foot wide construction area has been designated for the Bike Trail construction. If additional area for construction is needed in any portion of the Bike Trail alignment, the construction area may be expanded with the agreement of both the biological monitor and the City's project manager. Any necessary tree trimming shall be conducted or supervised by an International Society of Arboriculture-certified arborist, to avoid permanent damage to riparian trees along all trails and access roads within the project site.

B-12: A mitigation plan to address any trimming of trees or natural vegetation removal that occurred during construction shall be prepared and implemented for each phase of construction, once it is completed. The plan shall utilize native plant species to replace plants trimmed or removed from areas of riparian scrub, riparian

CLASS II Potentially Significant Impact requiring mitigation
forest, coastal scrub, alluvial plain, and other natural plant communities. The plan will include the following provisions:

- Any riparian scrub or riparian forest that is disturbed will be replaced at a 3:1 ratio, based on acres of habitat permanently disturbed; and
- Any elderberry shrubs and willows removed during construction will be replaced at a 5:1 ratio.
- Any cottonwoods removed or significantly damaged shall be replaced at a 5:1 ratio.
- Locations for replanting shall be carefully selected by a revegetation specialist to maximize the likelihood of success. The areas used in planting shall be accessible by water truck to facilitate irrigation during the dry season of the first two years post-planting. The revegetated areas will be monitored annually by a revegetation specialist to document survival rate and growth. Success criteria shall be established in the plan, including percent of contained plants and/or cuttings surviving the first and second years, percent groundcover provided by the plantings, and height of plants after the first and second growing seasons. Success criteria for willows, cottonwoods and scrub species shall be as follows, unless reasonable substantiation is provided as to why an alternate criteria will be as effective or more effective in ensuring plant survival.

<table>
<thead>
<tr>
<th>Species</th>
<th>Size at Planting</th>
<th>Planting Centers</th>
<th>Height at 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow</td>
<td>1 gallon</td>
<td>8 ft.</td>
<td>10 ft.</td>
</tr>
<tr>
<td>Cottonwood</td>
<td>1 gallon</td>
<td>20 ft.</td>
<td>7 ft.</td>
</tr>
<tr>
<td>Scrub species</td>
<td>1 gallon</td>
<td>5 ft.</td>
<td>2 ft.</td>
</tr>
</tbody>
</table>

A re-vegetation report shall be prepared after each annual monitoring survey. The report shall include a determination as to whether the success criteria have been met and what percentage of the plants in any given category have met the success criteria. If success criteria have not been met, remedial actions, such as replanting shall be required.
<table>
<thead>
<tr>
<th><strong>CULTURAL RESOURCES</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> Artifacts, known to exist on and around the project site, may be unearthed by grading activities for the proposed Bike Trail.</td>
<td>C-1</td>
<td>If archaeological artifacts are unearthed or exposed during demolition or construction, work shall stop in the area of the discovery until the artifacts and the site are evaluated by an experienced Archaeologist. An appropriate plan for the preservation of the artifacts from the site shall be prepared and its implementation overseen by an experienced Archaeologist.</td>
</tr>
<tr>
<td><strong>II.</strong> It is possible that human remains may be unearthed. If this occurs, proper legal channels must be followed.</td>
<td>C-2</td>
<td>If human remains are discovered during construction, the County Coroner, and the Native American Heritage Commission shall be notified and their recommendations and requirements adhered to, prior to continuation of construction activity.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TRANSPORTATION / TRAFFIC</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> There will be congestion impacts to the intersection of “H” and Central Avenue.</td>
<td>T-1:</td>
<td>When a separate right-turn lane on the northbound approach to the “H” and Central intersection is constructed, the project shall contribute its “fair share” of the improvements, either 10%, if the improvements are in place by 2006 or 33%, if the improvements are not in place by 2006.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AIR QUALITY</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> Construction activities can be expected to raise dust and potentially create an air quality nuisance.</td>
<td>AQ-1</td>
<td>Dust (PM$_{10}$) - A dust abatement program shall be prepared by the applicant. The program shall be reviewed and approved by the City Engineer, Senior Environmental Coordinator, and City Planner, prior to issuance of grading permits. The dust abatement program shall include the following dust control measures:</td>
</tr>
<tr>
<td></td>
<td>a.</td>
<td>The construction contractor shall designate a person or persons to monitor and oversee the implementation of a comprehensive dust control program and to increase watering, as necessary, to prevent transport of dust off-site. Their duties</td>
</tr>
</tbody>
</table>
shall include holiday and weekend periods when work may not be in progress. The name and 24/7 contact information for the person responsible for dust control shall be provided to the Air Pollution Control District and the Lompoc Community Development Department, prior to issuance of grading permits.

b. The construction area and ground disturbance shall be limited to the minimum necessary to construct the project. For the Bike Trail, the construction area has been estimated to be a 20-foot wide area along the Bike Trail. If additional area is necessary to construct portions of the Bike Trail, or for staging activities, the construction area can be expanded with the prior approval of both the biological monitor and the City’s project manager.

c. During construction, water trucks or sprinkler systems shall be used to prevent dust from leaving the site. At a minimum, this should include wetting down the construction site, especially during excavation and other ground-preparing operations, and cleaning all equipment in the mid- to late- morning and after work is completed for the day. Increased watering frequency shall occur, whenever the wind speed exceeds 15 mph.

d. The amount of area disturbed at any one time shall be limited to 15 acres.

e. Stockpiled soil shall be watered, covered, or treated with soil binders to prevent blowing dust.

f. Any material transported to or from the site by truck shall be covered with a tarp from its point of origin, or have adequate freeboard to prevent blowing or spillage.

g. Construction workers shall maintain speeds under 10 mph in all vehicles or equipment. Signs shall be posted on the job site that limit vehicle speeds on unpaved roads and over disturbed soils to 10 miles per hour during construction.
II. Construction activity may result in adverse impacts to air quality due to emissions from vehicles and paving activities.

| h. | A minimum depth of eight (8) inches of gravel and/or mud grates shall be placed at all roadway entrances, extending 25-feet from the edge of pavement, to prevent tracking of dirt and mud onto public roads. |
| i. | After grading, earthmoving, or excavation is completed, disturbed areas shall be watered, adequately revegetated, or covered with soil binders until the area is paved or otherwise developed, so that dust will not be generated. Binders should be refreshed according to manufacturer specifications or when the crust is broken. |
| j. | Streets and alleys surrounding the project shall be kept clean and free of dirt. Dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter through vehicle movement over those surfaces. Washing of streets and pavement is not permitted. |
| k. | Dust control requirements shall be provided as a note on a separate informational sheet on project grading and building plans and in plan specifications developed for the project. |

| AQ-2: | If dust is not adequately controlled on-site, the City shall shut down work on the project until adequate dust control is provided. |
| AQ-3: | Key provisions of dust control requirements shall be shown on grading and construction plans. |
| AQ-4: | Only APCD approved paint and asphalt shall be used. |
| AQ-5: | Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated “clean” diesel engines) shall be used, whenever feasible. |
| AQ-6: | The engine size of construction equipment shall be the minimum practical size. |

CLASS III
Less Than Significant Impact with recommended mitigation
| AQ-7: | The number of pieces of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time. |
| AQ-8: | Construction equipment shall be maintained in-tune, per the manufacturer’s specifications. |
| AQ-9: | Construction equipment operating on-site shall be equipped with two or four degree engine timing retard or pre-combustion chamber engines. |
| AQ-10: | Catalytic converters shall be installed on gasoline-powered equipment, if feasible. |
| AQ-11: | Diesel catalytic converters, diesel oxidation catalysts and diesel particulate fibers as certified and/or verified by EPA or the California Air Resources Board shall be installed, if available. |
| AQ-12: | Diesel powered equipment shall be replaced by electric equipment, whenever feasible. |
| AQ-13: | Construction worker trips should be minimized by encouraging carpooling and by making food available on-site during the lunch break. |
| AQ-14: | Temporary traffic control shall be provided (e.g., flag person) to avoid unnecessary delays to traffic, during construction activities which interrupt normal traffic flow. |

III. Riverbend Park operations could result in air quality impacts due to vehicle emissions.

Modeled Air Emissions do not exceed applicable requirements. No operational mitigation measures are needed or proposed.

CLASS III
Less Than Significant Impact
## GEOLOGY AND SOILS

| Structures associated with the proposed project are subject to seismic forces and the potential for related liquefaction hazard. |
| I. Structures associated with the proposed project are subject to seismic forces and the potential for related liquefaction hazard. |
| GS-1: All project facilities shall comply with the most recent adopted City and State building codes to mitigate the potential risk of seismic impacts. |
| GS-2: A Storm Water Pollution Prevention Plan shall be prepared, incorporating the City of Lompoc’s Storm Water Best Management Practices and addressing the potential for erosion and sedimentation due to construction. |
| CLASS II Potentially Significant Impact requiring mitigation |

## PUBLIC SERVICES

| No potentially significant impacts to public services were identified. |
| PS –1: No mitigation measures are required. The impacts of the proposed project on public services are less than significant. |
| CLASS III Less Than Significant Impact |

## HAZARDS AND HAZARDOUS MATERIALS

| Public use of the fields may conflict with agricultural spraying times on the adjacent property to the west. |
| I. Public use of the fields may conflict with agricultural spraying times on the adjacent property to the west. |
| HM-1: The City Parks Department shall designate a staff person to act as a liaison between the City, the County Agricultural Commissioner, and the agricultural operator of the Dezember property and operator(s) of the fields to the west. This staff person will work with the Agricultural Commissioner and the adjacent landowner(s), operator(s) to identify discernable times of pesticide application in fields adjacent to or within Riverbend Park. |
| CLASS II Potentially Significant Impact requiring mitigation |
II. Past use of the agricultural property at Riverbend Park could have resulted in residual soil contamination from well or agricultural operations.

III. If the well on the South Park property is not used and improperly abandoned, it could pose a hazard.

IV. River bank erosion along the Bike Trail could compromise users safety.

V. Vegetation growth over time may pose a hazard by protruding over the Bike Trail or limiting sight distance.

VI. High flow storms and wind may damage or deposit debris on the Bike Trail, making it unsafe.

<table>
<thead>
<tr>
<th>HM-2</th>
<th>Any contaminated soil identified on-site shall be removed or remediated, as required by law.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM-3</td>
<td>The well located on the South Park site shall be properly abandoned, in accordance with all applicable regulations, if it is not to be used to serve the project.</td>
</tr>
<tr>
<td>HM-4</td>
<td>Erosion control measures shall be implemented along the river bank as necessary to stabilize the slopes and prevent erosion that could threaten the Bike Trail and its users.</td>
</tr>
<tr>
<td>HM-5</td>
<td>Periodic pruning of vegetation adjacent to the trail shall be conducted to ensure vertical clearance, safety from horizontal projections and adequate sight distance around turns. Vegetation hazards along the Bike Trail shall be monitored at least twice a year.</td>
</tr>
<tr>
<td>HM-6</td>
<td>The Bike Trail shall be monitored annually, and after high flow storms. The Trail shall be repaired as needed to ensure that it is not damaged and the safety of the trail is not compromised by debris deposited during storms.</td>
</tr>
</tbody>
</table>

CLASS II Potentially Significant Impact requiring mitigation
## UTILITIES AND SERVICE SYSTEMS

| I. The existing PG&E lines that will be relocated must be relocated between May and November to minimize impacts to the City’s electric distribution system. | U-1 | The existing PG&E utility lines shall be relocated, either along the north side of McLaughlin Road or at the south side of the South Park portion of Riverbend Park. Relocation shall take place between May and November. | CLASS II Potentially Significant Impact requiring mitigation |

## AESTHETICS

<p>| I. PG&amp;E pole has the potential to impact views from homes on Canfield Drive. | A-1: | If the PG&amp;E poles are relocated to the south side of the South Park, they shall be placed to minimize impacts on views from homes along Canfield Drive. Poles shall not be placed directly in front of homes. Efforts shall be made to locate the poles opposite property lines and where they may naturally and safely be screened by existing vegetation. | CLASS II Potentially Significant Impact requiring mitigation |
| | A-2: | Where necessary, trees and/or shrubs shall be planted, as needed, at the bottom and/or top of the south slope of the bluff adjacent to Riverbend Park, to soften the view of the poles from Canfield Drive. Species planted shall have a height at maturity that will maintain a 15-foot clearance from the poles. | |
| II. Lighting at Riverbend Park could adversely impact homes on Canfield Drive. | A-3: | No lighting of the playing fields at Riverbend Park shall be permitted. | |
| | A-4: | The exterior light(s) installed at the Caretaker’s residence shall be of low intensity, a maximum of eight feet in height, screened and directed downward. | |</p>
<table>
<thead>
<tr>
<th>MINERAL RESOURCES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Because the project will not impact the riverbed, no mineral resources (sand or gravel) will be impacted by the project.</td>
<td>No mitigation measures are necessary.</td>
<td>CLASS III Less Than Significant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CUMULATIVE IMPACTS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. The conversion of prime agricultural land to urbanized uses.</td>
<td>No mitigation measures are available to reduce this impact to a less than significant level.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
<tr>
<td>I. The increase in dB to 60.5 dB CNEL on the segment of “A” Street north of Central Avenue.</td>
<td>No mitigation measures are available to reduce this impact to a less than significant level.</td>
<td>CLASS I Significant and Unavoidable</td>
</tr>
</tbody>
</table>
2.0 PROJECT DESCRIPTION

Introduction

This Environmental Impact Report has been prepared to evaluate the potential impacts of the proposed Riverbend Park and Trail Master Plan. The EIR is expected to be used in the decision-making process by the Santa Barbara County Airport Land Use Commission (ALUC) (decision on compliance with ALUC requirements), City of Lompoc Parks and Recreation Department (Recommendation on the Master Plan, General Plan Amendment and Zone Change) to the City Council, City of Lompoc Planning Commission (Certification of the EIR, Decision on the Master Plan and Recommendation to the City Council on the General Plan Amendment and Zone Change) and City of Lompoc City Council (Certification of the EIR, Action on the General Plan Amendment and Zone Change and Implementation of the Master Plan, if it is approved). In addition, the California Department of Fish and Game is expected to use this EIR in its decision-making process for any required Streambed Alteration Agreement(s). A separate Categorical Exclusion with Technical Appendices is being prepared for the National Environmental Policy Act (NEPA) review for the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans). These agencies, as well as the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) are expected to review this document in evaluating the proposed project’s compliance with federal environmental and Endangered Species Act regulations.

The lead agency for the project is the City of Lompoc, 100 Civic Center Plaza, Lompoc, CA 93436. Mailing address: P.O. Box 8001, Lompoc, CA 93438-8001. The project contact is Stacy Lawson, Senior Environmental Coordinator, who can be reached at 805-875-8275.

Location

The Riverbend Park and Trail Master Plan is designed to guide the development of Lompoc’s Riverbend Park and the City’s open space holdings south of the park, along the west side of the Santa Ynez River. Riverbend Park is located at the northernmost terminus of McLaughlin Road, in Lompoc, Santa Barbara County, California. Access to the Park is from McLaughlin Road.

The Riverbend Park development area is comprised of an existing Babe Ruth ballfield on McLaughlin Avenue, property purchased from Caltrans and the Dezember property, purchased in 2001, located to the west of the existing ball field (7.24 acres) and south of McLaughlin Road (9.83 acres). Riverbend Park includes portions of the following parcel numbers: APNs: 093-051-02, 03, 05, 07, 08, 09 and 19; 097-270-29 and 44. Assessor parcels APN: 093-051-01, 04, and 20 are also owned by the City and are located on the perimeter of the park. Parcel APN: 093-051-06 is privately owned and an easement is proposed to allow a Bike Trail extension to connect with Calvert Avenue.

South of the Riverbend Park site, is a long strip of City-owned contiguous properties totaling approximately 76.44 acres. This land extends southward along the west bank of the Santa Ynez River, from McLaughlin Road to the intersection of East College Avenue and Riverside Drive.
The parcel numbers of the affected properties are as follows: APNs: 093-051-05, 07; 093-051-19, 20; 087-011-34, 62; 087-306-06; 099-141-26; and 099-141-27.

The total Master Plan area is approximately 224 acres in size. The portion of Riverbend Park to be developed is approximately 49 acres in size.

**Project Objectives**

The primary objectives of the proposed Master Plan are to:

- Ensure comprehensive and coordinated planning, management, conservation and enhancement of the City of Lompoc’s property at and south of Riverbend Park, along the Santa Ynez River;
- Encourage stewardship, respect and enjoyment of local river and coastal resources;
- Provide recreational opportunities, including all-turf sports fields (Ten soccer and nine baseball/softball fields) and aesthetic benefits along the Santa Ynez River, within the City of Lompoc;
- Protect and enhance native plant communities and wildlife habitat along the Santa Ynez River Corridor, within the City of Lompoc;
- Encourage use and protection of inland watershed areas; and
- Promote environmental awareness of water quality concerns.

**Master Plan Area Description**

The Riverbend Park and Trail Master Plan includes approximately 49-acres to be developed at Riverbend Park and approximately 2.5 miles of proposed Bike Trail, on property owned by the City of Lompoc. Riverbend Park is located at the terminus of McLaughlin Road in Lompoc, Santa Barbara County. The Assessor Parcel Numbers of City property at and adjacent to Riverbend Park include: APN: 093-051-01, 02, 03, 04, 05, 07, 08, 09, 19 and 20; 097-270-29 and 44.

Riverbend Park is currently comprised of the existing Babe Ruth ballfield on McLaughlin Avenue, property purchased from Caltrans, and the Dezember property, purchased in 2001 and located to the west of the ball field (7.24 acres) and south of McLaughlin Road (9.83 acres). This area is planned to be improved with flexible use playing fields and related recreational facilities.

South of the McLaughlin Park site is a long strip of contiguous properties that run along the west bank of the river, from the intersection of East College Avenue and Riverside Drive on the south, to Riverbend Park on the north. A Class I Bike Trail is proposed for development on these properties. The parcel numbers of the affected properties are as follows: APNs: 093-051-05, 07, 19, 20; 087-011-34; 62; 087-306-06; 099-141-26; and 27. Parcel 093-051-06 is privately owned. An easement to allow a connection from the Bike Trail to Calvert Avenue is proposed.
A minor segment of Class II bikeway is proposed to be developed on 12th Street, between Highway 246 and Laurel Avenue. A Class III bike lane (signs only) is proposed to be located on North Avenue from Riverside Drive to 7th Street and on 7th Street from North Avenue to College Avenue.

**Master Plan Phase 1 - North Riverbend Park Project Elements**

The Master Plan development of the Riverbend Park and Trail is easily broken into three areas, the North Park, which is the portion of Riverbend Park north of McLaughlin Road, the South Park, which is the portion of Riverbend Park south of McLaughlin Road and the Trail which extends southward from McLaughlin Road on the eastern edge of the South Park.

**North Park Playing Fields**

The development of a large turf area to provide the maximum amount of playing field practice area is proposed at Riverbend Park. Cut-outs for little league fields and softball fields are not proposed, so as to maximize the playing field options. The proposed Riverbend Park expansion (Figure 1-4) maximizes the site’s potential for practice areas, providing both little league practice fields and soccer fields. There should not be a conflict between soccer and little league use, as the seasons for these sports occur at different times of the year. During soccer season, six soccer fields will be available for simultaneous practice. During baseball season, little league or softball season, one additional Babe Ruth-size baseball practice field and four softball/little league sized practice fields will be available for simultaneous use. The additional fields will be located west of the existing Babe Ruth baseball field and the proposed parking area.

The temporary playing fields will be delineated by chalk and will utilize portable goal posts, backstops and bleachers. All equipment will be required to be easily portable.

The playing fields will be installed using sod or seed. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population.

**Planting and Irrigation**

Turf shall be installed on the playing fields using sod or seed. Turf species shall be chosen by the Parks and Urban Forestry Manager and shall be tolerant of drought, sandy soils, full sun exposure, and heavy use.

To provide shade, a few additional trees will be planted adjacent to the playing fields. Trees will be native and will be maintained at maturity so that there are no low branches below 10-feet above grade. This will allow flood flows to pass through the site more easily. Tree species will be selected by the City’s Parks and Urban Forestry Manager or her designee to ensure their health and suitability for the site.

Water to irrigate the proposed sports practice fields will be supplied through an existing on-site well or a metered connection to the City’s domestic water supply at McLaughlin Road. All appropriate water conservation measures will be employed. Consideration will be given to the type of irrigation, length and time of day of watering. Appropriate back-flow prevention devices
will be required to guard against flood-related impacts to the City’s water service. Municipal water will not be used to irrigate agricultural crops.

Other North Park Amenities

Limited open space for passive recreation will be provided adjacent to the athletic fields, in the improved portion of Riverbend Park. The remainder of the park is to be maintained as natural open space.

Access and Parking
Access to Riverbend Park is from McLaughlin Road. Vehicle parking is currently provided with one unimproved lot. The parking area will be expanded to provide a total of 580 parking spaces to accommodate weekday and weekend maximum use. The parking area will be constructed of gravel and base material or other pervious surface. The requirements of the Americans with Disabilities Act (ADA) must be met in all parking areas and walkways.

Vehicular access to the Park will be limited to designated parking lots. The parking lots will be surrounded by post and cable fencing. Barriers will be used to discourage vehicle entry onto the Bike Trail and into other portions of the Master Plan area.

A future bus stop is planned along McLaughlin Road, to be implemented when demand to support the new stop rises due to the availability of additional recreational features and playing fields at Riverbend Park.

Restroom Facilities
Because permanent structures cannot be placed in the regulatory floodway, portable toilets will be provided in the North Park for public use. The toilets will be regularly serviced and will be able to be removed within four hours notice.

Park Host Facility
A full-time, on-site resident park host will be assigned to Riverbend Park. Duties of the Park Host will include providing litter control, reporting illegal and inappropriate activity, performing irrigation maintenance and serving as a basic safety and security presence. The park host may coordinate with volunteer groups who are cleaning the park site or performing other maintenance.

A new paved driveway to the Park Host’s residence will be located south of McLaughlin Road, opposite the existing parking lot entrance for Riverbend Park. The Park Host’s residence is to be located south of McLaughlin Road, west of the Regulatory Floodway. The residence will be a recreational vehicle (RV), capable of being removed at any time to limit flood hazards. All improvements associated with the Park Host facility are to be located outside of the Regulatory Floodway. Construction of the new driveway will require extension of and integration with the existing curb, gutter, and sidewalk along the south side of McLaughlin Road. Any paving or access improvements that must be placed within the Regulatory Floodway shall be placed at or below existing grade to ensure that no impediment to flood flows is created.
Additional improvements associated with the Park Host facility include a concrete pad and metered electrical and water connections to City electric and water lines, located in McLaughlin Road. Utility connections will be flood-proofed, with back-flow prevention provided and shall be designed to comply with any applicable FEMA-rated protection requirements. The RV will have self-contained waste tanks that will either be discharged at a designated off-site disposal station or pumped out by a mobile unit.

Limited lighting is proposed directly adjacent to the Park Host’s residence. This lighting shall be shielded, directed downward and located outside of the Regulatory Floodway.

**Bike Trail Extension (A Street to McLaughlin Road)**

The Bike Trail extension will begin at the northern-most extension of “A” Street and will follow the existing dirt trail along the perimeter of the north side of Riverbend Park. Once the trail has traversed the northern perimeter of the Park, it will cross McLaughlin Road and connect to Segment 1 of the Trail (Photo 10).

**Kiosk**

A kiosk will be provided at the entrance to Riverbend Park and the Bike Trail. The kiosk will be designed to securely display regulations, maps, safety information and educational material for park and trail users. The kiosk will be located outside of the Regulatory Floodway.

**Hours of Operation**

The Park will be open from dawn to dusk, seven days a week.

**Flood Protection and Emergency Removal Plan**

Riverbend Park, including the Phase I playing fields and a portion of the Phase 3 playing fields, is within the defined Regulatory Floodway. (See Figure 1-5.) The remainder of the Park site is located within the 100-year flood plain. All Park improvements are subject to compliance with the City’s Revised Floodplain Management Ordinance No. 1418 (96), which prohibits the location of permanent structures in the regulatory floodway. Because the Park is located in the Regulatory Floodway and the 100-year flood plain, water connections shall have back-flow assemblies.

An Emergency Removal Plan (ERP) shall be developed as a part of Master Plan implementation. The ERP shall identify each temporary structure located within the Regulatory Floodway and detail how, and in what order, the structures will be removed from the floodway, in case of flooding. The structures to be removed shall include, but not be limited to: backstops, bleachers, portable toilets, and playing equipment. All structures within the Regulatory Floodway shall be able to be removed within four hours of receipt of notice to implement the ERP.

The Emergency Removal Plan shall stipulate that in case of flooding, the mainline valve that provides water to Riverbend Park shall be shut-off. This valve is located above the flood level at the intersection of Canfield Drive, “A” Street and McLaughlin Road. Electrical lines shall also be de-energized at a point corresponding roughly with McLaughlin Road and Canfield Drive,
whenever the water rises. In case of a flood, the lines shall be de-energized and the transformers located within the floodway removed.

Agricultural Compatibility

Signs shall be placed at the entrances to the Park advising Park users of the potential for pesticide drift to impact the project site from adjacent agricultural operations.

The City of Lompoc Parks and Recreation Department will coordinate with the Agricultural Commissioner’s Office and adjacent agricultural operations to attempt to limit the amount of time that organized sports are scheduled to use the playing fields at the same time the agricultural fields are being treated with pesticides or herbicides. This coordination is not expected to be problematic, as applications of pesticides or herbicides generally occur overnight or in the early morning hours.

Lighting

Lighting in and around Riverbend Park is not planned because permanent structures such as lights would not be permitted in the floodway and because the proposed playing fields are adjacent to riparian open space where there is the potential for lighting to disturb nesting birds and animals. In addition, portions of the Riverbend Park site are within the 34:1 Approach Surface and the 7:1 Transitional Surface of the Lompoc Airport and/or are visible from adjacent residences. Lighting of the fields or Park improvements at Riverbend Park could interfere with airport operations or impact nearby residences. Lighting of the fields would also contribute to light pollution in the night sky in a location which is on the edge of the developed portion of the City.

Master Plan Phase 2 – Santa Ynez River Multi-use Bike Trail

Project Elements

Santa Ynez River Bike Trail

The Santa Ynez River Multi-use Bike Trail will run along the Santa Ynez River, beginning at the intersection of East College Avenue and Riverside Drive. From this point the Trail will extend the length of the bluff along Riverside Drive, ultimately finishing at McLaughlin Avenue. The trail will be eight-feet wide and paved for bicycle and pedestrian use. There will be two-foot gravel shoulders on each side of the trail for use by runners and pedestrians. See Figure 1-6 for the location of the trail.

A small segment of Bikeway (Class II) is to be improved within the existing 12th Street right-of-way, between Highway 246 and Laurel Avenue, as a part of the Bike Trail project. This segment will connect with the Class II bikeway along Highway One, south of Highway 246.

The multi-use Bike Trail will be constructed using Federal Highway Administration (FHWA) Transportation Equity Act for the 21st Century (TEA-21) funds. The proposed Bike Trail project
is expected to qualify for a Categorical Exclusion with Required Technical Studies, based on the Preliminary Environmental Study for the project (Appendix P). Therefore, a joint EIR/EIS has not been prepared.

**Trail Specifications and Construction Area**

**Active Use Trail** - The Bike Trail will be a continuous Class I trail, eight feet wide, and paved with asphalt concrete. The cross section of the paved trail will consist of a minimum of two inches of asphalt placed over four inches of compacted aggregate base. The trail will be constructed by compacting the existing sub-grade of the trail bed, spreading and compacting an additional four inches of aggregate base, and placing two inches of asphalt concrete paving over the base. This design will provide sufficient load-bearing capacity for both recreational trail use and occasional use by maintenance or emergency equipment.

**Shoulders** - A two-foot wide compacted aggregate base shoulder will be placed on both sides of the paving to provide a walking and jogging course, as well as a load-bearing surface and backing for the asphalt. With two-foot shoulders, the Bike Trail will be 12-feet in width.

**Connecting Ramps** - All ramps at access points to the Bike Trail should have a minimum paved width of eight feet. The paved access ramp shoulders should be as wide as possible to provide a safe recovery area off the pavement edge. All ramps should meet the maximum slope criteria stipulated in the ADA and the State of California’s Title 24.

**Class II Bikeway Segment** – This minor segment will provide a three-foot wide, striped bikeway along 12th Street.

**Construction Area** - Because the existing dirt road is so wide, virtually no trimming or pruning of vegetation will be required to construct the Bike Trail. A clear construction area of approximately 20-feet is expected to be needed. This width is present, without interference by trees or shrubs, all along the existing dirt road. If additional width is necessary for construction along any portion of the Bike Trail, the construction area may be expanded with the prior approval of the biological monitor and the City’s Project Manager. In one location of Segment 1 of the trail, a single branch of a tree in Riverbend Park may need to be trimmed to ensure adequate clearance. A Streambed Alteration Agreement will be applied for if trimming of any branches of riparian vegetation, three inches in diameter or greater, is required. Additional disturbance of non-native scrub and grassland is expected to be necessary to provide a staging area in the vicinity of the Central Avenue Extension. Additional staging areas are expected to be needed at Riverbend Park and along Riverside Drive.

**Segment One – Riverside Open Space (Riverbend Park to Seventh Street)**

From McLaughlin Road the Bike Trail will follow an existing wide dirt road south through riparian forest and then along open upland on the lower terrace between a bluff to the west and the riverbank to the east. The trail will continue to the point at which the existing dirt road climbs a hill to Seventh Street (Photos 10-18). McLaughlin Road will be the primary access point for the trail because of its proximity to Riverbend Park and its parking areas.
Central Avenue Access
A paved access trail segment will extend from the terminus of Central Avenue to the main Bike Trail along the riverbank. This access segment’s alignment will be required to be relocated, once the Central Avenue Extension is constructed. A second access point will extend out from the Bike Trail to Central Avenue and “A” Street and will connect with the intersection of Calvert Avenue and Riverside Drive. These Bike Trail access segments will also be eight feet wide with a two-foot wide compacted aggregate base shoulder.

Roundabout
A Bike Trail roundabout is to be constructed where the Central Avenue Bike Trail extension meets the main Bike Trail. The roundabout is designed to allow bicyclists to make the transition between trails and directions easily and is expected to have a radius of forty feet.

Rest Area
This section of the Bike Trail provides expansive views of the river, riparian and coastal scrub vegetation, the eastern Lompoc Valley and the Santa Rita Hills. A rest area will be located alongside the trail at approximately the midpoint of this segment. The rest area will be comprised of a bench on the west side of the trail and interpretive signage on the east side. The interpretive display will be designed to educate trail users about the natural river and riparian environments, establishing a connection between the river and the community.

Segment Two - Riverside Drive (Seventh Street to College Avenue)

The Bike Trail will run parallel to, and east of, Riverside Drive from Seventh Street to College Avenue. The trail will be located at the top of the bluff, approximately 50 feet west of the top of slope and existing riparian/scrub vegetation (Photos 2-9). Access points to the trail will be located near the intersections of Riverside Drive and Pine Avenue, North Avenue and Seventh Street.

This trail segment has a very open character because of its location atop the bluff. This allows for expansive views of the Santa Ynez River corridor and the Lompoc Valley.

There is an unimproved area of concentrated drainage along Riverside Drive, just north of its intersection with Tangerine Avenue. This drainage will be redirected by extending or replacing the existing drain pipe so that it crosses underneath the Bike Trail. This will help to ensure that the trail will not be undercut by water directed down this drainage.
One hundred and thirty feet of curb will be added on the east side of Seventh Street near the intersection of Riverside Drive. This is an access point to the Bike Trail and the edge of pavement does not currently have a curb.

A concrete swale adjoining Riverside Drive at North Avenue discharges storm water into the River’s channel. The existing concrete drainage swale at North Avenue and Riverside Drive will be crossed with an at-grade crossing of the Bike Trail.
Fifty-five feet of curb will be added on the east side of the intersection of North Avenue and Riverside Drive. This is an access point to the Bike Trail and the edge of pavement does not currently have a curb.

**Additional Bike Trail Improvements**

In addition to the Bike Trail segments, the following improvements are proposed to facilitate bicycle travel in Lompoc. A Class III bike route (signs only) will be added on North Avenue from Riverside Drive to Seventh Street, and on Seventh Street from North Avenue to College Avenue.

**Signage**

Signs will be placed by Trail access points identifying the recreation corridor as the Santa Ynez River Multi-use Bike-Trail. In addition, prescriptive and prohibitive signs will be developed such as “Environmentally Sensitive Area”, “Stay On Trail”, “No Litter”, “No Motorized Vehicles”, and other regulatory or cautionary signage. Educational signs and displays interpreting the natural history of the area will also be provided. All signage will be discreet, but regulatory and cautionary signs will be large enough to be visible to bike-trail users traveling up to 15 mph.

**Trail Maintenance and Monitoring**

**Vegetation Trimming**

Occasional trimming of live vegetation may be required to maintain safe widths and clearances along the Bike Trail. A Streambed Alteration Agreement will be applied for if trimming of any branches of riparian vegetation, three inches in diameter or greater, is required.

**Trail Integrity**

Because much of the trail is located within a floodplain, high-flow events may deposit mud on paved surfaces or compromise the integrity of the trail, sub-grade or shoulders. Trail integrity and storm damage shall be evaluated each spring and as necessary following each high-flow event. If erosion is a concern, erosion control measures shall be put in place each year, in areas of concern, prior to winter rains.

**ORV Control**

The existing illegal ORV use is not consistent with the uses encouraged by a Bike Trail. Therefore, in an effort to discourage ORV use of the area, exclusionary devices will be installed at Bike Trail entrances. These will include heavy post-and-cable fencing and/or strongly anchored bollards. Post-and-cable fencing and bollards serve different functions in targeting different types of ORVs. Post-and-cable fencing can be effective at limiting and directing motorcycle traffic, but is easily breached by larger four-wheel drive vehicles. Conversely, bollards show little effectiveness in excluding motorcycles, but can be effective in deterring use by four-wheel drive vehicles. With both post-and-cable fencing and bollards, concrete footings are recommended.
Access controls for ORVs are not 100% effective. Monster Trucks are difficult to exclude using any means. However, some ORV use can be deterred with the use of bollards and cable fencing. The following standards are guidelines for access control devices.

Bollards
Bollards should be constructed of a minimum eight-inch diameter steel pipe, filled with concrete and capped. The pipe should be set in a concrete footing, with a minimum size of approximately one cubic yard. The minimum clear distance between bollards should be four feet to provide safe access for trail users, and bollards should have a minimum height of 42 inches above the ground surface. The bollard layout and design should further consider allowance for emergency and maintenance vehicle access. Therefore, fixed bollards should have a minimum clearance of eight feet. Removable bollards (between fixed bollards) should have locking mechanisms that are concealed from bolt cutters or gunshot and keys shall be provided to the police and fire departments.

Post-and-Cable Fencing
Posts may be metal or wood, with a minimum diameter of eight inches. Posts shall be set in concrete. Multiple cables shall be used, as single-cable fences have a potential for head or neck injury to children who may run into the cable. The cables should be fastened with concealed hardware, or otherwise secured, to prevent easy disassembly or theft.

Native Plantings and Habitat Enhancement
In areas where plants have been damaged or are sparse, particularly along the east side of the Bike Trail and where erosion is occurring because of a lack of vegetative cover, additional native plantings are proposed. These plantings are expected to be achieved, not as mitigation for the project, but as a beneficial restoration of the native habitat. Planting will be done in the fall, but will not be a one time effort. It is expected that small areas will be planted in successive years, as time and resources allow. The following sections establish some guidelines for the proposed planting. Figure 1-7 identifies areas that would benefit from habitat enhancement.

Propagation
Whenever possible, plants and seeds used shall be obtained, from local sources. Preferred plant material shall be derived from cuttings, materials salvaged from disturbed areas, and/or seeds obtained from randomly selected native trees and shrubs occurring locally within the same drainage.

Any tree or shrub stock which cannot be grown from cuttings or seeds shall be obtained from a native plant nursery, be ant free and shall not be innoculated to prevent heart rot.

Planting and Habitat Enhancement
Native landscaping will be provided in areas where vegetation has been disturbed and in areas of highly erodible soils and slopes. Any necessary permits shall be obtained prior to implementation of erosion control measures. All plants will be randomly spaced in naturally clumped patterns. Any planting proposed will be accomplished after the first wetting rains, between October 1 and February 1 of each year.
Plants shall be native, appropriate to the habitat type in which they are to be planted and shall occur naturally in Santa Barbara County. Appropriate native species for revegetation of disturbed areas and bank stabilization include, but are not limited to:

- Coyote brush (*Baccharis pilularis*)
- Blue Elderberry (*Sambucus mexicana*)
- Chamise (*Adenostema fasciculata*)
- La Purisima manzanita (*Arctostaphylos purisima*)
- Shagbark manzanita (*Arctostaphylos rudis*)
- Buckwheat (*Eriogonum* spp.)
- California poppy (*Eschscholzia californica*)
- California Coffeeflower (*Rahmnus californicus*)
- Blue-blossomed California lilac (*Ceanothus thyrsiflorus*)
- Bush poppy (*Dendromecon rigida*)
- Toyon (*Heteromeles arbutifolia*)
- Coast live oak (*Quercus agrifolia*)
- Huckleberry (*Vaccinium ovatum*)
- Salal (*Gaultheria shallon*)
- Southern California black walnut (*Juglans californica*)
- California Bay (*Umbellularia californica*)
- California sycamore (*Platanus racemosa*)
- Red Willow (*Salix laevigata*)
- Arroyo Willow (*Salix lasiolepis*)
- Narrow-leaved Willow (*Salix exigua*)
- Silk Tassel Bush (*Garrya elliptica*)
- Chaparral pea (*Pickeringia Montana*)

**Irrigation**

Native plants shall be irrigated for the first three years after planting. If they have not been properly established during that time period, they shall be irrigated for an additional two years.

Irrigation shall be provided when natural moisture conditions are inadequate to ensure survival of plants. Irrigation shall be provided for a period of at least two years from planting. Irrigation shall be phased out.

**Invasive Species**

Noxious plants (tree tobacco, castor bean, giant cane, etc.) will be removed from the Master Plan area. Plant material will be disposed of in a manner and a location which prevents its re-establishment. Removal shall be done at least twice annually during the spring/summer season, as needed.

Invasive species shall be removed by hand or by hand-operated power tools rather than by chemical means. Where control of non-native vegetation is required within the bed, bank, or channel of the stream, and the use of herbicides is necessary, herbicides such as Rodeo (Glyphosate), shall be used. If surfactants are required, non-ionic chemicals such as Agri-Dex shall be used. All chemicals shall be applied in accordance with State and Federal law. No
herbicides shall be used where Threatened or Endangered Species occur. No herbicides shall be used when wind velocities are above five miles per hour.

**Hours of Operation**
The Bike Trail will be open from dawn to dusk, seven days a week.
Master Plan Phase 3 – South Riverbend Park Project Elements

South Park Playing Fields

The agricultural property south of McLaughlin Road will be developed in a combination of recreational uses. The eastern portion of this field is within the Regulatory Floodway, and as such, permanent structures cannot be located there. In this area, open recreational turf large enough for four little league fields, alternating with four soccer fields, is proposed. Cut-outs for little league fields and softball fields are not proposed, so as to maximize the playing field options.

Just as in the North Park, all structures within the Regulatory Floodway shall be temporary and shall be identified and addressed in the Emergency Removal Plan for the Park. The temporary playing fields will be delineated by chalk and will utilize portable goal posts, backstops and bleachers. All equipment will be required to be easily portable. If playing fields are developed outside the Regulatory Floodway, permanent structures may be used, consistent with the requirements of the City’s Flood Ordinance.

Planting and Irrigation

The playing fields will be installed using sod or seed. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population. Water to irrigate the proposed sports fields will be supplied through an existing on-site well or a metered connection to the City’s domestic water supply at McLaughlin Road. All appropriate water conservation measures will be employed. Consideration will be given to the type of irrigation, length and time of day of watering. Appropriate back-flow prevention devices will be required to guard against flood-related impacts to the City’s water service. Municipal water will not be used for agricultural irrigation.

Other South Park Amenities

The western portion of the property, located outside of the Regulatory Floodway can be developed with traditional improved-park amenities. Permanent structures may be placed in this area in compliance with the City’s Flood Ordinance. Four tennis courts are proposed for this area. Other amenities that could be considered in the future are a concession stand, drinking fountains, a basketball court, open recreational area, a tot lot, community garden or picnic area. The determination regarding the exact mix and location of recreational facilities on the western portion of this property will be made at the time this Phase of the Riverbend Park Master Plan is developed. For the purposes of environmental review, four tennis courts, a restroom and parking are evaluated. Other park-supportive uses may be considered for development in this area.

Access and Parking

Access to the South Park will be from McLaughlin Road. The parking area in the South Park will provide two connected lots with a maximum of 312 parking spaces to accommodate weekday and weekend maximum use. The parking area will be constructed of gravel and base material or other pervious surface. The requirements of the Americans with Disabilities Act (ADA) will be met in all parking areas and walkways.
Vehicular access to the Park will be limited to designated parking lots. The parking lots will be surrounded by post and cable fencing. Barriers will be used to discourage vehicle entry onto the Bike Trail and into other portions of the Master Plan area.

**Restroom Facilities**
Permanent restroom facilities are planned to be located on the western side of the South Park, outside of the Regulatory Floodway, consistent with the requirements of the City’s Flood Ordinance.

**Hours of Operation**
The South Park will be open from dawn to dusk, seven days a week.

**Flood Protection and Emergency Removal Plan**
A portion of the Phase 3 playing fields are within the defined Regulatory Floodway (See Figure 1-5). The remainder of the South Park site is located within the 100-year flood plain. Therefore, all Park improvements are subject to compliance with the City’s Revised Floodplain Management Ordinance No. 1418 (96). The portion of the South Park area that is within the Regulatory Floodway shall be addressed in the Emergency Removal Plan (ERP) described in Phase 1 (North Park) above.

**Agricultural Compatibility**
Signs shall be placed at the entrances to the Park advising Park users of the potential for pesticide drift to impact the project site from adjacent agricultural operations.

**Lighting**
Lighting is not proposed for the southern portion of Riverbend Park, with the exception of the previously mentioned screened exterior lighting at the Park Host’s residence.
ENVIRONMENTAL ANALYSIS

3.0  Potentially Significant Impacts

3.1  Agricultural Resources

Regional Setting

Lompoc is a somewhat isolated rural community of approximately four square miles in size. Agricultural fields adjoin the City of Lompoc to the north, west and east, with rangeland, dairy land and vineyards in the hills surrounding the Lompoc Valley. Lompoc has always had a strong agricultural base. Although the crops grown in the valley have changed over the years from primarily flower seed production to the addition of truck crops such as asparagus, artichokes, broccoli, celery, kale and strawberries, agriculture continues to be an important part of valley life. Much of the Lompoc Valley qualifies as Prime Farmland or Prime Agricultural land.

Project Setting

The proposed project site is located along the Santa Ynez River as it extends north from Robinson Bridge State Route 246 to where the river turns westward at McLaughlin Road. Approximately 17 acres of Riverbend Park is currently in agricultural production. The land in question is within the alluvial plain of the Santa Ynez River and specifically is within the floodplain and regulatory floodway of the River. This agricultural land is located both north and south of McLaughlin Road, adjacent to the existing baseball field and is leased to a local farmer. The land is used to grow truck crops and for dry farming. This agricultural land is proposed to be occupied by turf to be used for playing fields and parking in the North Park and turf for playing fields, tennis courts, a restroom, a caretaker’s residence and parking in the South Park.

Thresholds of Significance

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract.

c. Involve other changes in the existing environment which, due to their location or nature could result in conversion of Farmland to non-agricultural use.
Project Impacts and Significance – Phases 1 & 3

As discussed above, 17 acres of Riverbend Park is currently in agricultural production, which will be directly affected by the project. These 17 acres are designated “Prime Farmland” on the Important Farmland Map produced by the California Department of Conservation, Division of Land Resource Protection, under its Farmland Mapping and Monitoring Program. Prime farmland is defined as “land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops...This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields” (Patch pers. comm.).

The soils in this agricultural portion of the project site are comprised of soils classified as Class II, Class III and Class V through VIII. Class II soils are classified as prime agricultural land. The Class II prime agricultural land is found south of McLaughlin Road and to some extent, directly north of McLaughlin Road. Above that point Class III soils are prevalent. East of these soil classifications, soil with values of V through VIII are found.

The proposed project will result in the conversion of prime agricultural land to non-agricultural use (playing fields). In addition, the proposed project will result in some reduction of agricultural productivity through the conversion of agricultural uses to urban uses. Agricultural land within the state and local area is an important economic resource. According to the California Department of Food and Agriculture, the gross value of Santa Barbara County agricultural production in 2002 was more than $775,000,000. The Farmland Mapping and Monitoring Program (FMMP), part of the Department of Conservations (DOC’s) Division of Land Resource Protection, documents land-use conversion on 45.8 million acres of California’s private and public land every two years. During the period from 2000 to 2002, the most recent Farmland Mapping and Monitoring Program results indicate that 1754.62 acres of prime soils in Santa Barbara County were converted from agricultural use. The conversion of prime agricultural land to other uses is a significant concern in Santa Barbara County.

Phases 1, 2 and 3
The proposed project is expected to result in a potentially significant adverse effect on farmland of statewide and local importance. There are currently two methods that the City of Lompoc uses to evaluate the significance of the impact of a proposed project on farmland of statewide or local importance.

The California Agricultural LESA Model
The Land Evaluation and Site Assessment (LESA) is a point-based approach for rating the relative importance of agricultural land resources based upon specific measurable features. The California LESA Model was developed to provide lead agencies with a methodology to ensure that potentially significant effects of agricultural land conversions are quantitatively and consistently considered in evaluating agricultural resources in the environmental review process.

The California Agricultural LESA Model evaluates measures of soil resource quality, a given project’s size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined,
resulting in a single numeric score. The project score serves as the basis for the determination of the potential significance of a project’s impact on agricultural resources under CEQA.

Using the LESA model, the total LESA score for the whole project site was determined to be 53.49 (Appendix C). This was derived from a Land Evaluation Score of 31.74 and a Site Assessment score of 21.75. Since the project LESA score is between 40 and 59 points, and both the Land Evaluation and Site Assessment Scores are over 20, the impact of the project on agricultural lands is considered to be significant.

**Santa Barbara County Agricultural Land Value Threshold Determination.**
The second method of determining the significance of agricultural conversion is the method used in the past by the City of Lompoc. This method utilizes a weighting system and was developed by Santa Barbara County and is detailed in their document County of Santa Barbara Environmental Thresholds and Guidelines Manual (1995). The weighted point system assigns relative values to particular characteristics of a site’s agricultural productivity. If the points total 60 or more, the proposed project would be considered to result in a potentially significant impact. The weighted scoring system is based on the nine criteria identified below. The agricultural conversion analysis is provided in Appendix D.

**Parcel Size.** Large parcel size is an important indicator for agricultural suitability. The proposed project would affect 17 acres of agricultural land. This is considered relatively small on its own, but may be viable with the combination of other adjacent parcels. This would warrant a score of 7 to 8 based on the county’s scoring system. Because the acreage is closer to the low end of the category (10 acres to less than 40 acres), a score of 7 is assigned to this criterion.

**Soil Classification.** This criterion is based on soil capability classes from the U.S. Soil Conservation Service soil surveys. According to the U.S. Soil Conservation Service, the project area contains Metz loamy sand (Class III, S-4), which is characterized by a coarse texture with excessive gravel; and Mocho sandy loam (Class II, W-1), which is characterized by erosion hazards and water in the soil that may interfere with plant growth or cultivation (Patch pers. comm.). Based on these soil classification characteristics, Class II soils would receive a score of 11 to 13, and Class III soils would receive a score of 8 to 10. Because the site contains both types of soils, a conservative score of 11 is assigned to this criterion.

**Water Availability.** Water availability is a critical component of agricultural suitability and productivity. The project site has a water supply available from an existing groundwater well that has provided water for cultivation in the past. This would warrant a score of 15, the highest value within the range of potential scores.

**Agricultural Suitability.** Agricultural suitability is based on several factors, including soil classification, water availability, slope, and environmental constraints. The project site currently produces multiple yields of field and truck crops. The property is flat, floods infrequently, is comprised of prime agricultural soils and has an existing water supply for irrigation. This criterion was assigned a score of 10, which is in the highest scoring category for this criterion (8 to 10).
Existing and Historic Land Use. The project site is currently in active agricultural production and has been so for more than 10 years. Therefore, the highest score of 5 is assigned for this criterion.

General Plan Designation. The project site is currently designated as Open Space with a Park overlay in the City’s General Plan. Given the standard of existing open space or recreation designation, a score of 4 is warranted and has been assigned to this criterion.

Adjacent Land Uses. Adjacent land uses can play an important role in the continuing suitability of agricultural uses. The project site adjoins agricultural and open-space uses on three sides. Residential uses are located to the south, but are buffered from the agricultural use, as they are located on a bluff that is approximately fifteen feet high. A score of 7 to 8 would be warranted for parcels where a parcel is “partially surrounded by agricultural/open space with some urban uses adjacent, in a region with adequate agricultural support uses” The Lompoc area continues to have a strong agricultural influence, and adequate agricultural support is available in the area. Therefore a score of 8 is assigned to this criterion.

Agricultural Preserve Potential. The project site comprises 17 acres of prime agricultural land that is not currently within an agricultural preserve. Generally, to qualify for agricultural preserve, a parcel needs to be 40 acres or larger. Although the project site could not qualify on its own, the parcel lies adjacent to other agricultural lands that when combined could potentially qualify for an agricultural preserve. Thus, because of these characteristics of the property, a score of 4 is assigned to this criterion.

Combined Farming Operations. The affected property is located adjacent to other agricultural lands and is located within an agricultural community. The property is currently being farmed by a local farmer as a small part of a large combined farming operation. Because of this, the property was assigned a score of 1 since it comprises a small component of a large combined farming operation.

As shown in Appendix D, the agricultural suitability system results in a weighted score of 65. This is above the threshold of significance of 60. Therefore, conversion of the 17-acre agricultural property to park use is considered potentially significant.

Agricultural Conversion
Both of these methods for evaluating impacts on agricultural property identify the project impact as potentially significant and significant respectively, the project is considered to have a significant impact on agricultural resources.

Williamson Act
The California Land Conservation Act (Williamson Act) offers owners of agricultural land reduced property tax rates in exchange for a 10-year commitment to maintain the land in agricultural use. No Williamson Act contracts exist for the properties that comprise Riverbend Park. Therefore, there will be no conflict with agricultural preserve programs.
**Other Changes**
The proposed project does not involve changes in the existing environment which, due to their location or nature could result in conversion of Farmland to non-agricultural use. The proposed construction of public sports fields is unlikely to be growth inducing. In addition the project area and adjacent properties are located within a flood plain and floodway and are unable to be easily developed into urban uses.

**Mitigation Measures**
There are no feasible mitigation measures to reduce the impact of the proposed agricultural conversion.

**Unavoidable Significant Impacts**
There will be a significant and unavoidable loss of agricultural land as a result of the proposed project.
3.2 Biological Resources

Regional Setting

The project area is located in the Lompoc Valley, adjacent to the Santa Ynez River, approximately 11 miles east of the Pacific Ocean. The region is characterized by warm, dry summer and fall seasons and cool, wet winter and spring seasons. Daytime high temperatures from June through October average 71°F to 78°F (22°C to 26°C). High temperatures only occasionally exceed 90°F (32°C), due to coastal influence, especially the frequent marine layer conditions (solid, low-lying cloud cover) that persist until late morning or early afternoon. The proximity of Lompoc to the Pacific Ocean also influences winter temperatures. Overnight low temperatures from November through April average between 40°F and 45°F (4°C to 7°C). Temperatures below freezing (32°F = 0°C) are uncommon. Precipitation totals can vary widely from year to year. The long-term average is approximately 15 to 17 inches (38 to 43 centimeters), with most falling during the months of November through April.

Plant communities in the region include primarily uplands, as well as riparian and wetland communities in a limited number of locations, such as along the Santa Ynez River. Predominant upland communities include non-native annual grassland, Oak Savanna, Coastal Sage Scrub, and Chaparral. One particular category of chaparral, known as Burton Mesa Chaparral, is a sensitive community of limited distribution, and with many endemic plant species. Within the region, much of the non-native grassland and oak savanna types have been converted to cultivated agriculture.

Riparian communities associated with the Santa Ynez River provide habitat for a number of sensitive wildlife species, including the California red-legged frog (*Rana aurora draytonii*), southwestern willow flycatcher (*Empidonax traillii extimus*) and yellow warbler (*Dendroica petechia*). Habitat for these sensitive species occurs well upstream of the project area (Buellton and points upstream) and downstream of the project area (near to and downstream of the Floradale Avenue Bridge). Much of the river channel is dry for most of the year and is used by wildlife species as a migratory and local travel corridor. Such species include Neotropical migrant birds, several species of amphibians and reptiles, and medium- to large-sized mammals, including coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*).

The Santa Ynez River is a dominant biological feature of the region. In addition to providing habitat and a travel corridor for amphibians, reptiles, birds, and mammals, it serves as a migratory corridor for southern steelhead (*Oncorhynchus mykiss*) and other fish species during years with adequate flows. The Santa Ynez River watershed has experienced long-term wet and dry periods, and the resident and migratory fish species have persisted through them. During wet periods, habitat values are high in the mainstem of the Santa Ynez River and its tributaries (Santa Ynez River Technical Advisory Committee [SYRTAC] 1999). During the annual dry season, habitat conditions tend to be poor because there is a lack of surface water throughout the Lompoc reach of the river by June or July of each year. Flowing water generally does not resume until significant rainfall in January or February. Yearly hydrological data reports for the Santa Ynez...
River near Lompoc indicate that water temperatures often exceed 68°F (20°C), with a yearly average of 70°F (21°C) (U.S. Geological Survey 1997).

Historically, steelhead used the mainstem of the lower Santa Ynez River as a migration corridor for passage to more favorable spawning and year-round rearing areas in the upper mainstem and its tributaries (SYRTAC 1999; Shapovalov 1944). Bradbury Dam was constructed as part of the Cachuma Project between 1950 and 1956, limiting steelhead access to the upper Santa Ynez River and its tributaries. Although not as consistently as in the past, steelhead continue to utilize the river in this manner, migrating upstream to spawn primarily in Hilton Creek.

Water temperature, substrate composition, canopy cover, and habitat types in the mainstem of the Santa Ynez River downstream of Bradbury Dam change significantly as the river flows toward the ocean. Streamflow rises and falls in response to precipitation levels and is susceptible to seasonal fluctuations, with higher flows from winter storms and generally no flow during the summer months.

Water temperatures within the lower Santa Ynez River, similar to air temperatures, follow a general seasonal pattern. Because water levels are relatively low, water temperatures are predominately affected by air temperatures, increasing during spring and summer and decreasing during fall and winter SYRTAC 1999). Summer water temperatures are at the upper range for sustaining steelhead populations. Although there are some areas of localized cool-water upwelling that could provide summer refuge for steelhead, water temperatures often exceed 68°F (20°C) as a daily average and 77°F (25°C) as a daily maximum during July and August (SYRTAC 1999). Substrate close to the dam is dominated by cobbles; however, as it continues downstream towards Lompoc, the channel becomes braided with sand or smaller gravel substrates. Canopy cover generally decreases as the river moves downstream towards Lompoc. Canopy cover increases near to and downstream of the Floradale Avenue Bridge, due to releases of treated effluent from the City of Lompoc Regional Wastewater Treatment Plant.

Pools, particularly deep pools, provide habitat for juvenile steelhead and resident species such as largemouth bass and other sunfish (species within the family Centrarchidae). Stratification and the upwelling of cool water occurs in some moderate to deep pools in tributaries of the Santa Ynez River, creating important cool-water refuges for steelhead during the warmest summer months. Pools decline in relative abundance and in depth as the Santa Ynez River moves downstream. Streamflow during the summer is often minimal, becoming intermittent and then nonexistent, between the State Route (SR) 246 Bridge (also referred to as the Robinson Bridge) and the Lompoc Regional Wastewater Treatment Plant (SYRTAC 1999). Water releases are made from Cachuma Reservoir (upstream of the project area) in most years to recharge groundwater basins. These releases are usually made in August or September and are intended to percolate into the groundwater basins and to provide water supply to the areas between Bradbury Dam and Lompoc (SYRTAC 1999).

**Project Setting**

The proposed project area includes the western portion of the Santa Ynez River and floodplain terraces from just north of State Route 246 to Riverbend Park. Vegetation and land use in the area is dominated by ruderal, riparian, and agricultural habitats bordering the river. Substantial
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DICOTYLEDONES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Anacardiaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Toxicodendron diversilobum</em></td>
<td>Poison-oak</td>
</tr>
<tr>
<td><strong>Apiaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Conium maculatum</em></td>
<td>Poison-hemlock</td>
</tr>
<tr>
<td><em>Foeniculum vulgare</em></td>
<td>Sweet fennel</td>
</tr>
<tr>
<td><strong>Asclepiadaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Asclepias californica</em></td>
<td>California milkweed</td>
</tr>
<tr>
<td><strong>Asteraceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Ambrosia psilostachya</em></td>
<td>Western ragweed</td>
</tr>
<tr>
<td><em>Artemisia californica</em></td>
<td>California sagebrush</td>
</tr>
<tr>
<td><em>Artemisia douglasiana</em></td>
<td>Mugwort</td>
</tr>
<tr>
<td><em>Baccharis pilularis</em></td>
<td>Coyote brush</td>
</tr>
<tr>
<td><em>Baccharis salicifolia</em></td>
<td>Mulefat</td>
</tr>
<tr>
<td><em>Centaurea melitensis</em></td>
<td>Tocalote</td>
</tr>
<tr>
<td><em>Conyza canadensis</em></td>
<td>Horseweed</td>
</tr>
<tr>
<td><em>Helianthus annuus</em></td>
<td>Common sunflower</td>
</tr>
<tr>
<td><em>Heterotheca grandiflora</em></td>
<td>Telegraph weed</td>
</tr>
<tr>
<td><em>Sonchus asper</em></td>
<td>Prickly sow-thistle</td>
</tr>
<tr>
<td><em>Taraxacum officinale</em></td>
<td>Common dandelion</td>
</tr>
<tr>
<td><em>Xanthium strumarium</em></td>
<td>Cocklebur</td>
</tr>
<tr>
<td><strong>Brassicaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Brassica nigra</em></td>
<td>Black mustard</td>
</tr>
<tr>
<td><em>Hirschfeldia incana</em></td>
<td>Mediterranean mustard</td>
</tr>
<tr>
<td><strong>Caprifoliaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Sambucus mexicana</em></td>
<td>Blue elderberry</td>
</tr>
<tr>
<td><strong>Chenopodiaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Atriplex lentiformis</em></td>
<td>Quail bush</td>
</tr>
<tr>
<td><strong>Caryophyllaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Stellaria media</em></td>
<td>Common chickweed</td>
</tr>
<tr>
<td><strong>Euphorbiaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Eremocarpus setigerus</em></td>
<td>Doveweed</td>
</tr>
<tr>
<td><strong>Fabaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Melilotus albus</em></td>
<td>White sweet-clover</td>
</tr>
<tr>
<td><strong>Fagaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Quercus agrifolia</em></td>
<td>Coast live-oak</td>
</tr>
<tr>
<td><strong>Geraniaceae</strong></td>
<td></td>
</tr>
<tr>
<td><em>Erodium botrys</em></td>
<td>Broad-lobed filaree</td>
</tr>
<tr>
<td><em>Erodium cicutarium</em></td>
<td>Red-stemmed filaree</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Hydrophyllaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Eriodictyon trichocalyx</td>
<td>Smooth-leaved yerba santa</td>
</tr>
<tr>
<td><strong>Lamiaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Marrubium vulgare</td>
<td>Horehound</td>
</tr>
<tr>
<td>Salvia mellifera</td>
<td>Black sage</td>
</tr>
<tr>
<td><strong>Myrtaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Eucalyptus globulus</td>
<td>Blue gum</td>
</tr>
<tr>
<td><strong>Plantaginaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Plantago coronopus</td>
<td>Cut-leaved plantain</td>
</tr>
<tr>
<td>Plantago erecta</td>
<td>California plantain</td>
</tr>
<tr>
<td><strong>Platanaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Platanus racemosa</td>
<td>Western sycamore</td>
</tr>
<tr>
<td><strong>Polygonaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Rumex crispus</td>
<td>Curly dock</td>
</tr>
<tr>
<td><strong>Ranunculaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Clematis lasiantha</td>
<td>Virgins bower</td>
</tr>
<tr>
<td><strong>Rosaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Rubus discolor</td>
<td>Himalayan blackberry</td>
</tr>
<tr>
<td>Rubus ursinus</td>
<td>California blackberry</td>
</tr>
<tr>
<td><strong>Salicaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Populus balsamifera ssp. trichocarpa</td>
<td>Black cottonwood</td>
</tr>
<tr>
<td>Salix exigua</td>
<td>Narrow-leaved willow</td>
</tr>
<tr>
<td>Salix laevigata</td>
<td>Red willow</td>
</tr>
<tr>
<td>Salix lasiolepis</td>
<td>Arroyo willow</td>
</tr>
<tr>
<td><strong>Solanaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Nicotiana glauca</td>
<td>Tree tobacco</td>
</tr>
<tr>
<td><strong>MONOCOTYLEDONES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cyperaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Cyperus sp.</td>
<td>Sedge</td>
</tr>
<tr>
<td><strong>Poaceae</strong></td>
<td></td>
</tr>
<tr>
<td>Arundo donax</td>
<td>Giant reed</td>
</tr>
<tr>
<td>Bromus diandrus</td>
<td>Ripgut brome</td>
</tr>
<tr>
<td>Bromus hordeaceus</td>
<td>Soft chess</td>
</tr>
<tr>
<td>Bromus madritensis ssp. rubens</td>
<td>Red brome</td>
</tr>
<tr>
<td>Cortaderia selloana</td>
<td>Pampas grass</td>
</tr>
<tr>
<td>Cynodon dactylon</td>
<td>Bermuda grass</td>
</tr>
<tr>
<td>Leymus condensatus</td>
<td>Giant wild-rye</td>
</tr>
<tr>
<td>Polypogon monspeliensis</td>
<td>Rabbitsfoot grass</td>
</tr>
<tr>
<td>Scientific and Common Names</td>
<td>Status^</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><em>Arctostaphylos purissima</em></td>
<td>--/--/1B</td>
</tr>
<tr>
<td>La Purisima manzanita</td>
<td></td>
</tr>
<tr>
<td><em>Arctostaphylos rudis</em></td>
<td>--/--/1B</td>
</tr>
<tr>
<td>Sand mesa manzanita</td>
<td></td>
</tr>
<tr>
<td><em>Arctostaphylos tomentosa</em></td>
<td>--/--/1B</td>
</tr>
<tr>
<td>ssp. <em>eastwoodiana</em> Eastwood manzanita</td>
<td></td>
</tr>
<tr>
<td><em>Cordylanthus rigidus</em></td>
<td>--/E/1B</td>
</tr>
<tr>
<td>ssp. <em>littoralis</em> Seaside bird-beak</td>
<td></td>
</tr>
<tr>
<td><em>Dithyreia maritima</em></td>
<td>--/T/1B</td>
</tr>
<tr>
<td>Beach spectaclepod</td>
<td></td>
</tr>
<tr>
<td><em>Eriodictyon capitatum</em></td>
<td>E/R/1B</td>
</tr>
<tr>
<td>Lompoc yerba santa</td>
<td></td>
</tr>
<tr>
<td><em>Horkelia cuneata</em> ssp.</td>
<td>--/--/4</td>
</tr>
<tr>
<td><em>sericea</em> Kellogg horkelia</td>
<td></td>
</tr>
<tr>
<td>Scientific and Common Names</td>
<td>Status</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Monardella frutescens</td>
<td>--/--/1B</td>
</tr>
<tr>
<td>San Luis Obispo monardella</td>
<td></td>
</tr>
<tr>
<td>Mucronea californica</td>
<td>--/--/4</td>
</tr>
<tr>
<td>California spineflower</td>
<td></td>
</tr>
<tr>
<td>Rorippa gambellii</td>
<td>E/T/1B</td>
</tr>
<tr>
<td>Gambel’s water cress</td>
<td></td>
</tr>
<tr>
<td>Scrophularia atrata</td>
<td>--/--/1B</td>
</tr>
<tr>
<td>Black-flowered figwort</td>
<td></td>
</tr>
</tbody>
</table>

**Federal**

E  =  listed as endangered under the federal Endangered Species Act.

-- = no listing.

**State**

E  =  listed as endangered under the California Endangered Species Act.

T  =  listed as threatened under the California Endangered Species Act.

R  =  listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.

-- = no listing.

**California Native Plant Society**

1B  =  List 1B species: rare, threatened, or endangered in California and elsewhere.

4  =  List 4 species: plants of limited distribution.
<table>
<thead>
<tr>
<th>Species</th>
<th>Status*</th>
<th>California Distribution/Local Occurrence</th>
<th>Habitats</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>California tiger salamander <em>Ambystoma californiense</em> (=<em>A. tigrinum</em> C.)</td>
<td>T (Santa Barbara County DPS)/SSC</td>
<td>Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to Santa Barbara County. Distinct population segment (DPS) in Santa Barbara County is listed as threatened. Nearest known population to project area is 4.5 miles to the northeast.</td>
<td>Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.</td>
<td>None; no suitable habitat in the project area.</td>
</tr>
<tr>
<td>California red-legged frog <em>Rana aurora draytonii</em></td>
<td>T/SSC</td>
<td>Found along the coast and coastal mountain ranges of California from Humboldt County to San Diego County and in the Sierra Nevada foothills between 1,000–4,500 feet. Known from the Santa Ynez River, about 4 miles downstream of Riverbend Park and Salsipuedes Creek, about 2 miles upstream of Riverbend Park. Also known from several locations on Vandenberg Air Force Base (VAFB).</td>
<td>Permanent and semipermanent aquatic habitats, such as creeks and ponds, with emergent and submergent vegetation and riparian species along the edges; may estivate in rodent burrows or cracks during dry periods.</td>
<td>Low potential for breeding due to lack of perennial surface water. Presences of intermittent water in riparian areas within 300 feet of Riverbend Park indicates low to moderate potential for migrating and dispersing individuals.</td>
</tr>
<tr>
<td>Western spadefoot <em>Scaphiopus [=Spea] hammondii</em></td>
<td>SC/SSC</td>
<td>Sierra Nevada foothills, Central Valley Coast Ranges, and coastal counties in southern California. Known from locations on VAFB.</td>
<td>Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.</td>
<td>None; no suitable habitat in the project area.</td>
</tr>
<tr>
<td>Arroyo toad <em>Bufo californicus</em></td>
<td>E/SSC</td>
<td>Along the coast and foothills from San Luis Obispo County to San Diego County and inland to San Bernardino County. No records from the vicinity of the project area.</td>
<td>Prefers sandy arroyos and river bottoms with open riparian vegetation in inland valleys and foothills.</td>
<td>None; no suitable habitat in the project area.</td>
</tr>
<tr>
<td>Two-striped garter snake <em>Thamnophis hammondii</em></td>
<td>SC/SSC</td>
<td>Found in the south coast and peninsular ranges west of the San Joaquin Valley from the vicinity of Monterey County to the Mexican border. Known from VAFB.</td>
<td>Riparian areas, wetlands, ponds.</td>
<td>Low; lack of aquatic habitat and surface water throughout the year during most years.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Southwestern pond turtle</td>
<td>SC/SSC</td>
<td>Along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonoran Deserts. Known from several locations on VAFB.</td>
<td>Aquatic habitats, such as ponds, marshes, or streams, with rocky or muddy bottoms and vegetation for cover and food.</td>
<td>Low; aquatic habitat limited to side channel pools during most years. Suitable nesting and overwintering habitat in project area, but limited by lack of perennial surface water.</td>
</tr>
<tr>
<td>California horned lizard</td>
<td>SC/SSC</td>
<td>Sacramento Valley, including foothills, south to southern California; coast ranges south of Sonoma County; below 4,000 feet in northern California. Known from nearby locations, including La Purisima Mission State Historic Park (LPMSHP).</td>
<td>Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant native ant colonies for foraging.</td>
<td>Low to moderate; most of suitable habitat onsite is highly disturbed.</td>
</tr>
<tr>
<td>Silvery legless lizard</td>
<td>SC/SSC</td>
<td>Along the Coast, Transverse, and Peninsular Ranges from Contra Costa County to San Diego County with spotty occurrences in the San Joaquin Valley. Known from several locations, including LPMSHP.</td>
<td>Habitats with loose soil for burrowing or thick duff or leaf litter; often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, coastal scrub, and riparian areas.</td>
<td>Moderate; suitable habitat in undisturbed riparian and coastal scrub areas.</td>
</tr>
<tr>
<td>Coast patch-nosed snake</td>
<td>SC/SSC</td>
<td>Southeastern San Luis Obispo County and southern Kern County south through coastal counties into Baja California. Recently found on Burton Mesa Preserve.</td>
<td>Coastal scrub and mixed chaparral.</td>
<td>Low; limited suitable habitat.</td>
</tr>
<tr>
<td>White-tailed kite</td>
<td>--/FP</td>
<td>Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border. Nesting individuals observed at LPMSHP.</td>
<td>Low foothills or valley areas with valley or live oaks, riparian areas, and marshlands near open grasslands for foraging.</td>
<td>Low to moderate; suitable nest trees and foraging habitat present.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bald eagle <em>Haliaeetus leucocephalus</em></td>
<td>FPD/E</td>
<td>Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin; reintroduced into central coast; winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierras, and east of the Sierra Nevada south of Mono County; range expanding. Regularly winters on reservoirs along upper Santa Ynez River, substantially upstream of the project area.</td>
<td>In western North America, nests and roosts in coniferous forests within 1 mile of a lake, a reservoir, a river, or the ocean. Winters on lakes and rivers.</td>
<td>Low; no suitable foraging habitat. Not expected to nest in the vicinity.</td>
</tr>
<tr>
<td>Northern harrier <em>Circus cyaneus</em></td>
<td>~/SSC</td>
<td>Throughout lowland California; has been recorded in fall at high elevations. An uncommon species at LPMSHP and throughout the Lompoc Valley. Nesting records for VAFB and at the mouth of Santa Ynez River.</td>
<td>Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover.</td>
<td>Low during non-breeding times, not expected to breed in project area; limited amount of nesting habitat and foraging habitat present.</td>
</tr>
<tr>
<td>Sharp-shinned hawk <em>Accipiter striatus</em></td>
<td>~/SSC</td>
<td>Permanent resident on the Sierra Nevada, Cascade, Klamath, and north coast ranges at mid-elevations, as well as along the coast in Marin, San Francisco, San Mateo, Santa Cruz, and Monterey Counties; winters over the rest of the state except very high elevations. Regular visitor at LPMSHP and Lompoc Valley during non-breeding times.</td>
<td>Dense-canopy ponderosa pine or mixed-conifer forest and riparian habitats.</td>
<td>Moderate for foraging during winter and migration. Not expected to nest in the project area.</td>
</tr>
<tr>
<td>Cooper's hawk <em>Accipiter cooperii</em></td>
<td>~/SSC</td>
<td>Throughout California, except high altitudes in the Sierra Nevada; winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range; permanent residents occupy the rest of the state. Regular observations at LPMSHP, including at least one nest in 2004.</td>
<td>Nests primarily in riparian forests dominated by deciduous species; also nests in densely canopied forests from gray pine-oak woodland up to ponderosa pine; forages in open woodlands.</td>
<td>Moderate to high for foraging during winter and migration. Low to moderate for nesting. Suitable nesting habitat is limited.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habits</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>------------------------------------------</td>
<td>--------</td>
<td>----------------------------------------------</td>
</tr>
</tbody>
</table>
| **Ferruginous hawk**  
*Buteo regalis* | SC/SSC  | Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, eastward to the Sierra Nevada foothills and southeastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County. Rare to uncommon in Lompoc Valley during winter and migration. | Open terrain in plains and foothills where ground squirrels and other prey are available. | Low winter and migration. Not expected to nest in the project area. |
| **Golden eagle**  
*Aquila chrysaetos* | ~/SSC, FP | Foothills and mountains throughout California; uncommon nonbreeding visitor to lowlands, such as the Central Valley. Rare to uncommon visitor on VAFB, primarily at mouth of Santa Ynez River and Pt. Sal area. Recent consistent nesting in Oak Mountain area of VAFB. | Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals for prey. | Low during winter; lack of abundant prey populations. Not expected to nest in project area due to lack of suitable, remote nest sites. |
| **Merlin**  
*Falco columbarius* | ~/SSC   | No nesting records in Santa Barbara County. Rare winter visitor in Lompoc area, including ponds and Santa Ynez River mouth. | Forages along coastlines, open grasslands, savannas, and woodlands; often forages near lakes and other wetlands. | Low during winter; not expected to nest in project area. |
| **American peregrine falcon**  
*Falco peregrinus anatum* | delisted/E | Permanent resident on the North and South Coast Ranges; may summer on the Cascade and Klamath Ranges south through the Sierra Nevada to Madera County; winters in the Central Valley south through the Transverse and Peninsular ranges and the plains east of the Cascade Range. Mostly a rare visitor to Lompoc area during fall and winter, however there is a recent nesting record from rocky cliffs on South VAFB. | Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large populations of other bird species. | Low during fall and winter; lack of suitable foraging habitat. Not expected to nest due to lack of suitable nesting sites. |
<table>
<thead>
<tr>
<th>Species</th>
<th>Status*</th>
<th>California Distribution/Local Occurrence</th>
<th>Habitats</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie falcon <em>Falco mexicanus</em></td>
<td>--/SSC</td>
<td>Found as permanent resident on the South Coast, Transverse, Peninsular, and Northern Cascade ranges; the southeastern deserts; Inyo-White Mountains; Modoc, Lassen, and Plumas counties; and the foothills surrounding the Central Valley; winters in the Central Valley, along the coast from Santa Barbara County to San Diego County, and in Marin, Sonoma, Humboldt, Del Norte, and Inyo counties. Rare visitor to Lompoc Valley during winter and migration.</td>
<td>Cliffs or escarpments for nesting; adjacent dry, open terrain or uplands, marshes, and seasonal marshes for foraging.</td>
<td>Low during non-breeding times; lack of suitable foraging habitat. Not expected to nest in project area.</td>
</tr>
<tr>
<td>Mountain plover <em>Charadrius montanus</em></td>
<td>PT/SSC</td>
<td>Does not breed in California; in winter, found in the Central Valley south of Yuba County, along the coast in parts of San Luis Obispo, Santa Barbara, Ventura, and San Diego counties; parts of Imperial, Riverside, Kern, and Los Angeles counties. Known to occur in winter in the Santa Maria Valley and VAFB in limited numbers.</td>
<td>Occupies open plains or rolling hills with short grasses or very sparse vegetation; nearby bodies of water are not needed; may use newly plowed or sprouting grainfields.</td>
<td>None; no suitable habitat present.</td>
</tr>
<tr>
<td>Long-billed curlew <em>Numenius americanus</em></td>
<td>--/SSC</td>
<td>Nests in northeastern California in Modoc, Siskiyou, and Lassen counties; winters along coast or in interior valleys west of Sierra Nevada. Consistently winters in Santa Maria Valley and at northern Santa Barbara County beaches.</td>
<td>Nests at high-elevation grasslands adjacent to lakes or marshes in migration and winter; frequents coastal beaches and mudflats or interior grasslands and agricultural fields.</td>
<td>None; no suitable habitat present.</td>
</tr>
<tr>
<td>Western burrowing owl <em>Athene cunicularia hypugea</em></td>
<td>SC/SSC</td>
<td>Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast. This species regularly winters on VAFB.</td>
<td>Rodent burrows in sparse grassland, desert, and agricultural habitats.</td>
<td>Low; lack of suitable habitat in project area.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>------------------------------------------</td>
<td>----------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Western yellow-billed cuckoo <em>Coccyzus americanus occidentalis</em></td>
<td>--/E</td>
<td>Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado rivers. Now considered only a casual transient in Santa Barbara County.</td>
<td>Wide, dense, riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant.</td>
<td>Low; lack of mature riparian forest.</td>
</tr>
<tr>
<td>Southwestern willow flycatcher <em>Empidonax traillii extimus</em></td>
<td>E/E</td>
<td>Breeds in coastal southern California in the Los Angeles Basin, the San Bernardino/Riverside area, and San Diego County; no longer breeds along the Colorado River and is known to exist only in eight widely disjunct nesting populations. No observations of nesting during surveys for this project. The most recent sightings along the Santa Ynez River have been of migrating individuals that did not breed locally. Locations were: (1) one individual 1,500 feet north of SR 246 Bridge, upstream of the project area (May 2003); and (2) two individuals in the project area (May 2002). Nearest known nesting area is downstream of Floradale Avenue Bridge, about 4 miles downstream of Riverbend Park.</td>
<td>Densely vegetated riparian habitat with streamside associations of cottonwoods and willows.</td>
<td>Low to moderate for non-breeding, migratory individuals. Low for nesting in the project area. Suitable nesting habitat in riparian areas; however, project area typically has no water at the onset or during nesting season. No meadow habitat near riparian areas.</td>
</tr>
<tr>
<td>Bank swallow <em>Riparia riparia</em></td>
<td>--/T</td>
<td>The state’s largest remaining breeding populations are along the Sacramento River from Tehama County to Sacramento County, and along the Feather and lower American rivers in the Owens Valley; nesting areas also include the plains east of the Cascade Range south through Lassen County, northern Siskiyou County, and small populations near the coast from San Francisco County to Monterey County. No recent nesting records in Santa Barbara County. Considered to be rare migrants throughout the county.</td>
<td>Nests in bluffs or banks, usually adjacent to water where the soil consists of sand or sandy loam to allow digging.</td>
<td>Very low during non-breeding times. Not expected to nest in the project area; no suitable nesting habitat.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Loggerhead shrike <em>Lanius ludovicianus</em></td>
<td>~/SSC</td>
<td>Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north to Mendocino County, occurring only in winter. Uncommon year-round resident of northern Santa Barbara County. At least nine sightings on VAFB in the mid-1990s with evidence of nesting.</td>
<td>Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.</td>
<td>Low, especially during nesting season; nesting records in Lompoc area away from VAFB are rare.</td>
</tr>
<tr>
<td>Least Bell's vireo <em>Vireo bellii pusillus</em></td>
<td>E/E</td>
<td>Small populations remain in southern Inyo, southern San Bernardino, Riverside, San Diego, Orange, Los Angeles, Ventura, and Santa Barbara counties. No sightings during surveys for this project, or for surveys in April to July 2003 near the SR246 Bridge. The only extant breeding population is near Gibraltar Reservoir, considerably east of the project area. Other recent sightings include one pair on Salsipuedes Creek and a territorial bird on the Santa Ynez River one mile west of the Highway 101 Bridge in Buellton. Both of those observations were in the 1990s.</td>
<td>Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found in desert canyons using mesquite and arrow weed.</td>
<td>Low; limited amount of quality nesting habitat in the project area.</td>
</tr>
<tr>
<td>California yellow warbler <em>Dendroica petechia brewsteri</em></td>
<td>~/SSC</td>
<td>Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes in the Sierra Nevada; winters along the Colorado River and in parts of Imperial and Riverside Counties; two small permanent populations in San Diego and Santa Barbara counties. Nesting pairs observed along Santa Ynez River in 2003 downstream of the SR 1 Bridge, in the vicinity of the SR 246 Bridge, and in the project area during the reconnaissance survey.</td>
<td>Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders, or in mature chaparral; may also use oaks, conifers, and urban areas near stream courses.</td>
<td>High during winter and migration; moderate to high during breeding season.</td>
</tr>
</tbody>
</table>
### Table 3.2-3. Continued

<table>
<thead>
<tr>
<th>Species</th>
<th>Status*</th>
<th>California Distribution/Local Occurrence</th>
<th>Habitats</th>
<th>Potential for Occurrence in the Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern California rufous-crowned sparrow <em>Aimophila ruficeps canescens</em></td>
<td>SC/SSC</td>
<td>Coastal southern California from Santa Barbara, Ventura, and Los Angeles counties south to the Mexico border. Observed during 2004 breeding season at LPMSHP.</td>
<td>Sparse, low brush on grassy hills and slopes; prefers steep slopes with areas with sparse California sage.</td>
<td>Low. Suitable habitat in the vicinity, but none in the project area.</td>
</tr>
<tr>
<td>Bell's sage sparrow <em>Amphispiza belli belli</em></td>
<td>SC/SSC</td>
<td>Western Sierra foothills from El Dorado County south to Mariposa County, inner Coast Ranges from Shasta County southward, extending to vicinity of coast from Marin County to San Diego County; from southern San Benito County to San Bernardino County; absent from innermost Coast Ranges and desert slopes of San Gabriel and San Bernardino mountains. Known to nest in suitable chaparral habitats at Burton Mesa Preserve, LPMSHP, and VAFB.</td>
<td>Prefers chaparral habitats dominated by chamise.</td>
<td>None; no suitable habitat present on-site.</td>
</tr>
<tr>
<td>Grasshopper sparrow <em>Ammodramus savannarum</em></td>
<td>SC/SSC</td>
<td>Sierra foothills, Coast Ranges, and coastal areas from Mendocino County south to San Diego County. Territorial individuals observed during 2004 breeding season at Burton Mesa Preserve and LPMSHP.</td>
<td>Dry grasslands with scattered shrubs for song perches.</td>
<td>Low; lack of suitable habitat.</td>
</tr>
<tr>
<td>Tricolored blackbird <em>Agelaius tricolor</em></td>
<td>SC/SSC</td>
<td>Largely endemic to California; permanent residents in the Central Valley from Butte County to Kern County; at scattered coastal locations from Marin County south to San Diego County; breeds at scattered locations in Lake, Sonoma, and Solano counties; rare nester in Siskiyou, Modoc, and Lassen counties. Large groups have been observed at VAFB and in Miguelito Canyon. Flocks observed in spring 2004 flying over LPMSHP.</td>
<td>Nests in dense colonies in emergent marsh vegetation, such as tules and cattails or upland sites with blackberries, nettles, thistles, and grainfields; nesting habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony; requires large foraging areas, including marshes, pastures, agricultural wetlands, dairies, and feedlots where abundant insect prey are available.</td>
<td>Low; lack of suitable habitat. Would occur only on rare foraging/traveling events.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Long-legged myotis</td>
<td>SC/--</td>
<td>Mountains throughout California. May occur in the region. Not detected during comprehensive bat surveys conducted at VAFB from 1997 to 1999.</td>
<td>Most common in woodlands and forests above 4,000 feet, but occurs from sea level to 11,000 feet.</td>
<td>Low for foraging; not expected to roost in the project area due to a lack of suitable roosting habitat.</td>
</tr>
<tr>
<td>Yuma myotis</td>
<td>SC/--</td>
<td>Distributed throughout California. Absent only desert areas and highest elevations in the Sierra Nevada. Limited distribution on VAFB. Six day roosts, five night roosts, and one small maternity roost found from 1997-1999. All roost sites on VAFB were either in buildings or on bridges.</td>
<td>Highly associated with water. Forages over open areas, rivers, streams, reservoirs. Roosts in buildings, on bridges, and in crevices.</td>
<td>Moderate for foraging, especially when surface water is present. Low for roosting due to a lack of preferred roost structure.</td>
</tr>
<tr>
<td>Greater western mastiff-bat</td>
<td>SC/SSC</td>
<td>Occurs along the eastern San Joaquin Valley from El Dorado County through Kern County; also found along the South Coast, Peninsular, and Transverse ranges from San Francisco to the Mexico border. Considered to be very rare on VAFB. Not a resident species, but rather an occasional visitor during warm weather.</td>
<td>Roosts and breeds in deep, narrow rock crevices; may also use crevices in trees, buildings, and tunnels; forages in a variety of semiarid to arid habitats.</td>
<td>Very low during foraging; this is a very rare species in the region. Not expected to roost in the project area.</td>
</tr>
<tr>
<td>Pallid bat</td>
<td>--/SSC</td>
<td>Low elevations throughout California. Uses a variety of habitats ranging from deserts to oak and redwood forests. One significant maternity colony occurs in Swordfish Cave on VAFB.</td>
<td>Rocky outcrops, cliffs, bridges, and crevices for roosting; access to open habitats required for foraging.</td>
<td>Low foraging; not expected to roost in the project area due to lack of suitable roosting habitat.</td>
</tr>
<tr>
<td>Pale Townsend's (=western)</td>
<td>SC/SSC</td>
<td>Klamath Mountains, Cascades, Sierra Nevada, Central Valley, Transverse and Peninsular ranges, Great Basin, and the Mojave and Sonoran deserts. During a recent study on VAFB, 16 day roosts found, but no maternity roosts.</td>
<td>Mesic habitats; gleans insects from brush or trees and feeds along habitat edges.</td>
<td>Low foraging; not expected to roost in the project area due to a lack of suitable roosting habitat.</td>
</tr>
<tr>
<td>Species</td>
<td>Status*</td>
<td>California Distribution/Local Occurrence</td>
<td>Habitats</td>
<td>Potential for Occurrence in the Project Area</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>San Diego desert woodrat</td>
<td>SC/SSC</td>
<td>Coastal counties from San Luis Obispo County south into Baja California. Recent sightings, live-trap captures at Burton Mesa Preserve and LPMSHP.</td>
<td>Mixed chaparral and chamise-redshank habitats.</td>
<td>Not expected; no suitable habitat.</td>
</tr>
<tr>
<td><em>Neotoma lepida intermedia</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American badger</td>
<td>~/SSC</td>
<td>Occurs statewide except for the northwestern corner in Del Norte County and parts of Humboldt and Siskiyou counties. Known from more upland locations in the Lompoc area, including the Wye (intersection of SR 1 and Harris Grade Road), LPMSHP, and Burton Mesa Preserve.</td>
<td>Uses open areas with scattered shrubs and trees for cover and loose soil for digging.</td>
<td>Low; lack of suitable habitat. No burrows observed in river channel or on banks during recent surveys at various locations along the Santa Ynez River.</td>
</tr>
<tr>
<td><em>Taxidea taxus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Status definitions:

**Federal**

- **E** = listed as endangered under the federal Endangered Species Act.
- **T** = listed as threatened under the federal Endangered Species Act.
- **PT** = proposed for federal listing as threatened under the federal Endangered Species Act.
- **SC** = species of concern are those species for which existing information indicates listing may be warranted, but for which substantial biological information to support a proposed rule is lacking.
- **DPS** = distinct population segment
- **FPD** = federally proposed for delisting
- **--** = No status definition.

**State**

- **E** = listed as endangered under the California Endangered Species Act.
- **T** = listed as threatened under the California Endangered Species Act.
- **FP** = fully protected under the California Fish and Game Code.
- **SSC** = species of special concern in California.
- **--** = No status definition.
pockets of riparian woodland habitat occur throughout the project area. However, the quality of these areas is compromised by their limited extent and current levels of disturbance from off-highway vehicle activity. The segment of the Santa Ynez River adjacent to the project area shows extensive scarring from off-highway vehicle use. The existing Riverbend Park is bordered by residential development to the south, agricultural land to the west and the river to the north and east (Figure 1-3).

**Methods**

**Review of Data Bases and Files**

Prior to conducting the field surveys, biologists with Jones & Stokes, Rincon Consultants and Thomas Olson Biological Consulting (TOBC) reviewed existing database information to evaluate the location and types of biological resources with potential to occur in the survey area. This information included the California Department of Fish and Game’s (CDFG’s) California Natural Diversity Database (CNDDB) (CDFG 2000), the California Native Plant Society’s (CNPS’s) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2001). The CNDDB information, was reviewed again in 2004 (CDFG 2004), including the U.S. Geological Survey (USGS) 7.5-minute quad in which the project area is located (Lompoc), as well as eight other adjacent quads: Lompoc Hills, Santa Rosa Hills, Los Alamos, Tranquillon Mountain, Sisquoc, Orcutt, Casmalia, and Surf.

In addition to reports prepared for other projects in the vicinity, (see below) existing data files were reviewed. Jones & Stokes reviewed file information for other studies conducted by that firm. Similarly, TOBC reviewed file information of the vicinity and region accumulated from projects conducted by TOBC, Garcia and Associates, and Dames & Moore.

**Literature Review**

Jones & Stokes reviewed the Mitigated Negative Declaration for the Santa Ynez River Bridge Bicycle Path Project (Dames & Moore and Garcia and Associates 1999a), and the City of Lompoc Biological Resources Study (Arthur D. Little 1987). Subsequent to the Jones & Stokes work, additional literature reviews were conducted by Rincon Consultants and TOBC for surveys conducted on and near the Lompoc reach of the Santa Ynez River. Literature resources checked included:

- The Santa Ynez River Bridge Bicycle Path Project, Natural Environment Study (Garcia and Associates 1999b);

- Request for Wetland Determination, Lot 98, City of Lompoc, Santa Barbara County (Garcia and Associates 1999c);

- Biological Resources Report for the V & J Sand Mine, Lompoc, California (Garcia and Associates 2000);

- Addendum to Final Environmental Assessment/Environmental Impact Report, Lompoc Airport Master Plan, Lompoc, California (City of Lompoc 2001);
- Biological Resources Site Assessment Letter of Findings for the Lompoc Bikepath, Allan Hancock Segment, Lompoc, Santa Barbara County, CA (TOBC 2001);
- Fess Parker Lompoc Wine Center, LLC Project. Biological & Wetland Assessment. (Rincon Consultants 2001);

Local and regional field guides and manuals were also reviewed to further evaluate the potential occurrence of both common and sensitive biological resources in the project area (Human, no date: Ferren et al. 1984; Lynch 1993; Lehman 1994; Keil and Holland 1998; Smith 1998; Holmgren and Collins 1999; Pierson et al. 2002).

**Field Surveys**

**Jones & Stokes**

Following the 2001 CNDDB search, Jones & Stokes biologists conducted field surveys of the proposed project area in October 2000 and January 2001. The site visits consisted of the biologists walking throughout the project area, documenting the plant communities present, and searching for the presence and habitat suitability of special-status wildlife species (Table 3.2-1, 3.2-2, and 3.2-3).

Vegetation associations were typed in the field based on the descriptions provided by Holland (1986) and Sawyer and Keeler-Wolf (1995). Vegetation types in the proposed project study area have been categorized into sensitive vegetation types, common vegetation types, and artificial vegetation cover types and are described below.

**Jurisdictional Wetlands and Waters of the United States**

As part of the field surveys, Jones & Stokes wetlands specialists surveyed the site for jurisdictional wetlands using the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory, 1987), which outlines a three-parameter approach, based on the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. The potential existence of jurisdictional Waters of the United States (in addition to the Santa Ynez River) within the project area, was evaluated, based on the standard requiring the presence of an Ordinary High Water Mark (OHWM), as defined in the Wetland Delineation Manual (33 CFR 328.4). The proposed project does not extend to within the OHWM of the Santa Ynez River and therefore does not enter into the Army Corps of Engineer’s jurisdiction. The investigation concluded that the proposed project area does not contain any wetlands and does not include property located within the jurisdictional Waters of the United States.

**Protocol-level Surveys**

Protocol-level surveys for California red-legged frog, least Bell’s vireo, and southwestern willow flycatcher were conducted, based on habitat suitability and conversations with USFWS (Fahey
Surveys for California red-legged frog began with a habitat suitability survey by Jones & Stokes biologists on April 3, 2002. More intensive surveys were conducted by two biologists from the SR 246 Bridge, approximately 1.7 miles = 2.7 kilometers (km) upstream of Riverbend Park, to a location approximately 500 feet (150 meters [m]) downstream of Riverbend Park. The total length of river channel surveyed was about 1.8 miles (2.9 km), a reach of the river that was divided into two sections to facilitate surveys. Daytime surveys of the sections were conducted on April 3, 4, and 6, 2002. Night surveys of the two sections were conducted on April 4, 5, and 7, 2002. The survey was modified from the USFWS (1997) protocol; the surveys were conducted in April, rather than during May through October. The modification to the survey protocol was approved by Bridget Fahey (personal communication, 2002) of the Ventura Field Office of USFWS.

Protocol-level surveys for southwestern willow flycatcher and least Bell’s vireo were conducted concurrently by Jones & Stokes biologists between April 12 and July 16, 2002. The survey area was from “V” Street, approximately 2.2 miles (3.5 km) downstream of the project area to the SR 246 Bridge, approximately 1.7 miles (2.7 km) upstream of the project area. Overall, a nearly 4-mile (3.9 miles = 6.2 km) reach of the Santa Ynez River was surveyed for least Bell’s vireos and southwestern willow flycatchers. Eight surveys were conducted on the following dates in 2002: April 12, April 24, May 6, May 22, June 1, June 13, July 1, and July 16. The first three surveys were specifically for least Bell’s vireo, and the last five surveys were for both species.

**Rincon Consultants**

Rincon Consultants’ botanists conducted surveys for rare plants, with an emphasis on Black-flowered Figwort on May 8 and June 19, 2003. The surveys were conducted on foot along the study area and in adjacent areas that were accessible. Vegetation types and plant species observed were noted. Rare plants were searched for throughout the survey.

**Tom Olson Biological Consulting**

Biologists Tom Olson and Kathleen Whitney reviewed the project site during a reconnaissance-level survey on July 11, 2003. Vegetation types and wildlife habitats were noted during the survey, as were locations of human-caused disturbances. A list of bird species sighted and heard was compiled.

**Botanical Resources**

**Common Plant Communities/Vegetation Types**

During general surveys by Jones & Stokes and rare plant surveys by Rincon Consultants, six plant communities/vegetation types common to the Lompoc region were identified within or adjacent to the project area. Four of the six types are natural vegetation types and are included in Robert F. Holland’s Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), either with the same nomenclature used originally by Jones & Stokes and Rincon Consultants, or with an equivalent community name. The remaining two vegetation types (ruderal and artificial vegetation types) are dominated by human-caused disturbance, and as such, are not included in Holland (1986). The six types are listed below, using Holland’s (1986) equivalent names, as appropriate. For purposes of this document, the Holland name will be used for the four natural communities, while names commonly used by biologists will be used for the two disturbance-dominated vegetation types.
Table 3.2-4 Holland (1986) Nomenclature

<table>
<thead>
<tr>
<th>General</th>
<th>Specific</th>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbaceous communities</td>
<td>Valley &amp; foothill grassland</td>
<td>Non-native grassland</td>
</tr>
<tr>
<td>Riparian</td>
<td>Riparian scrub</td>
<td>Central Coast riparian scrub</td>
</tr>
<tr>
<td>Riparian</td>
<td>Riparian scrub</td>
<td>Mule fat scrub(alluvial plain)</td>
</tr>
<tr>
<td>Scrub and chaparral</td>
<td>Coastal scrub</td>
<td>Central Coast scrub</td>
</tr>
<tr>
<td>N/A*</td>
<td>N/A*</td>
<td>N/A* (Ruderal)</td>
</tr>
<tr>
<td>N/A*</td>
<td>N/A*</td>
<td>N/A* (Artificial veg. types)</td>
</tr>
</tbody>
</table>

* N/A = Not included in Holland (1986)

Central Coast Riparian Scrub

Central Coast riparian scrub is the dominant community within the area of the proposed Riverbend Park and Trail. This community is characterized by a shrubby streamside thicket dominated by coyote brush (*Baccharis pilularis*) in association with red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), and black cottonwood (*Populus balsamifera ssp. trichocarpa*). Canopy cover varies from open to dense. Understory species include California blackberry (*Rubus ursinus*), sweet fennel (*Foeniculum vulgare*), poison hemlock (*Conium maculatum*), and poison-oak (*Toxicodendron diversilobum*).

The Central Coast riparian scrub community is located on and adjacent to a low riverine terrace just above the main Santa Ynez River channel. This community is also found within the river channel but has been affected by substantial scouring activity from flood events in recent years, as well as by human activities, mostly offroad vehicle use. The Central Coast riparian scrub community transitions into southern cottonwood willow riparian forest and Central Coast arroyo willow riparian forest nearer to the river (see descriptions below in the Sensitive Plant Communities section). Both relatively undisturbed and disturbed forms of these communities were observed. Similar to Central Coast riparian scrub, the major source of continuing disturbance appears to be human activities.

Alluvial Plain (Mule Fat Scrub)

This community was referred to by Jones & Stokes as alluvial plain. It is a sparsely vegetated community dominated by willow (*Salix spp.*) shrubs, with mule fat (*Baccharis salicifolia*) as a secondary species. The alluvial plain in the project area is flooded far less frequently than the adjacent channel and primary floodplain terrace. There is no equivalent community in the Holland (1986) nomenclature. However, adjacent to the project area, within the channel and primary floodplain terrace of the Santa Ynez River, the vegetation is similar to Holland’s (1986) mule fat scrub. In these adjacent areas, mule fat is more conspicuous. Water levels vary
considerably during flooding and storm events. Approximately 12 creeks drain the Santa Ynez River watershed below Bradbury Dam. The construction and operation of Bradbury Dam is a significant factor in reducing the magnitude, duration, and frequency of low to moderate flows in the Santa Ynez River, and thus creating conditions conducive to the sparsely vegetated alluvial plain outside of the channel and mule fat scrub in the channel and primary floodplain terrace.

A variety of wildlife species occur in alluvial plain and mule fat scrub types. Common amphibians, including western toad (*Bufo boreas*) and Pacific tree frog (*Pseudacris [= Hyla] regilla*), occur in side channel pools in the alluvial plain. Common bird species, including killdeer (*Charadrius vociferous*) and various waterfowl, may also inhabit the seasonal side channel pools. During winter and high flows, common fish species include mosquitofish (*Gambusia affinis*) and threespine stickleback (*Gasterosteus aculeatus*). The subspecies of threespine stickleback that occurs in the Santa Ynez River is the West Coast or partially armored threespine stickleback (*Gasterosteus aculeatus microcephalus*), which does not have a protected status. The federal- and state-listed endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) is known from some streams on Vandenberg Air Force Base, but has not been found in the Santa Ynez River (Swift, 2004, pers. comm.; Engblom, 2004, pers. comm.). Backswimmers, water striders, and larval forms of mayflies, dragonflies, and damselflies also use the side pools in the alluvial plain.

**Ruderal**

The disturbed sites are characterized by ruderal and weedy species and are associated with land development and other activities (residential, roadways, airport, off-highway vehicles [ORV]). This habitat is found intermittently throughout the project area and is dominated by species that include grasses, black mustard (*Brassica nigra*), wild mustard (*Hirschfeldia incana*), plantain (*Plantago sp.*), and western ragweed (*Ambrosia psilostachya*).

Wildlife diversity in ruderal habitat is limited. Occasional western fence lizards (*Sceloporus occidentalis*) can be found in areas with little vegetation. Some bird species, such as house finch (*Carpodacus mexicanus*), Brewer’s blackbirds (*Euphagus cyanoccephalus*), and lesser and American goldfinches (*Carduelis psaltria, C. tristis*) occasionally forage in this habitat.

**Artificial Vegetation Types**

Artificial vegetation types (also referred to as “cover types”) are human-created landscapes that provide some wildlife habitat value. Artificial cover types located in the project area include agriculture (mostly flower fields) and ornamental landscaping. Few natural plants are found in these cover types. Most are weeds commonly found in agricultural fields, such as annual grasses, mustards, redstem filaree (*Erodium cicutarium*), and plantain. Wildlife species found in such areas are those adapted to intense alterations of habitats, such as house finch, house sparrow (*Passer domesticus*), Brewer’s blackbirds, and Botta’s pocket gopher.

**Non-native Grassland**

Although not well-represented in the project area, non-native grassland occurs in adjacent locations. This vegetation type is characterized by non-native species, such as brome grasses (*Bromus spp.*), wild oats (*Avena sativa*), filarees (*Erodium spp.*), and mustards. In areas where grazing by cattle has not occurred, the ground cover can be high (up to 90 percent or greater). Wildlife species that utilize this community include grasshopper sparrow (*Ammodramus*
savannarum), lark sparrow (*Chondestes grammacus*), western meadowlark (*Sturnella neglecta*), California ground squirrel (*Spermophilus beecheyi*), and California vole (*Microtus californicus*).

**Coastal Scrub**
This vegetation type occurs in some locations at the margins of the riparian zone and alluvial plain. As such, only a limited amount is found within the bounds of the project area, but it is better represented in the vicinity. Coastal scrub is characterized by coyote brush (particularly where disturbance occurs and the community is recovering), California sagebrush (*Artemisia californica*), monkey flower (*Mimulus aurantiacus*), and other shrubs. A variety of wildlife species are found in coastal scrub, especially where there is only limited human-caused disturbance. Common species include western fence lizard, side-blotched lizard (*Uta stansburiana*), western scrub-jay (*Aphelocoma californica*), blue-gray gnatcatcher (*Polioptila caerulea*), California mouse (*Peromyscus californicus*), and brush rabbit (*Sylvilagus bachmani*).

**Sensitive Plant Communities**
Sensitive plant communities are those that are especially diverse, regionally uncommon, considered sensitive as defined by Holland (1986), or regulated by federal or state agencies. Several state and federal laws regulate the management of these areas, such as Section 404 of the CWA and California Fish and Game Code Section 1601. Most sensitive natural communities are given special consideration because they provide important ecological functions. Some communities support a unique or diverse assemblage of plant or wildlife species and are therefore considered sensitive from an ecological standpoint.

The CNDDB search identified four sensitive natural communities in the Lompoc Quadrangle: southern cottonwood willow riparian forest, Central Coast arroyo willow riparian forest, central maritime chaparral and southern willow scrub. The first three were observed in the area adjacent to Riverbend Park and the proposed Bike Trail alignment, during field visits by Jones & Stokes and Rincon Consultants. Southern willow scrub does not occur in the project area. A description of the three sensitive natural communities observed in the project area is provided below.

**Central Maritime Chaparral**
An isolated occurrence of Central Maritime chaparral habitat, a CDFG plant community of special concern, was observed to the east of the Bike Trail alignment. The local type of Central Maritime chaparral is known as Burton Mesa chaparral, a plant community with several rare endemic plants. This area contains several individuals of one of those rare endemics: La Purisima manzanita (*Arctostaphylos purissima*; CNPS List 1B). In addition, this occurrence of Burton Mesa chaparral is comprised of other common plant species characteristic of this type. The location of this isolated habitat is shown on the map included in Rincon Consultants’ report (Appendix H). The Bike Trail alignment has been designed to totally avoid this habitat. As such, construction and operation of the Bike Trail will not result in losses of La Purisima manzanita.

**Southern Cottonwood Willow Riparian Forest**
Southern cottonwood willow riparian forest is characterized by a tall, open to moderately closed, broad-leaved riparian forest dominated by black cottonwood, arroyo willow, and red willow. The understory is dominated by coyote brush. The CNDDB identified the southern cottonwood
willow riparian forest to be present along the Santa Ynez River, west of the SR 246 crossing, south and east of the proposed Bike Trail.

**Central Coast Arroyo Willow Forest**
Central Coast arroyo willow riparian forest is characterized by a deciduous riparian forest dominated by arroyo willow and red willow, with black cottonwood as a significant component. This community is located within the Santa Ynez River channel and immediately adjacent to and west of the SR 1 (“H Street”) bridge. The CNDDB also reports the presence of this community in the project area. Disturbed forms of this community are present as well. Current disturbance factors appear to be flood scouring and ORV traffic. The disturbed areas exhibited many characteristics of the Central Coast riparian scrub community, but willows and black cottonwood are sufficiently dominant to classify the community as Central Coast arroyo willow riparian forest.

**Special-status Plants**
Based on a review of the CNDDB records, previous environmental documents, and information gathered during the January 8, 2001 field visit, 10 special-status plants were identified as having the potential to occur in the project vicinity. Suitable habitat for many of these species was not present in the project area. Only two species, the black-flowered figwort and La Purisima manzanita, occur in habitat types found in the project area (i.e., riparian scrub and Central Maritime chaparral). All the habitat types within the project area have some degree of disturbance and are considered poor quality for the special-status plants listed in Table 3.2-2. Based on this information, the project area was determined to generally have a low potential to support special-status plants.

**Black-flowered Figwort**
Black-flowered figwort currently has no federal or state listing status. However, the California Native Plant Society (CNPS) considers it to be rare and endangered in California and elsewhere (List 1B) (CNPS 2001). Impacts to List 1B species are required to be evaluated for significance pursuant to CEQA. Black-flowered figwort is a perennial herb that grows in Bishop pine forest, chaparral, coastal scrub, and riparian scrub habitats, often on diatomaceous shale. It appears to readily invade disturbed areas and is often observed at scrub margins, in clearings along streams and washes, and along roads. No black-flowered figwort individuals were observed within the proposed project area during Rincon Consultants’ May and June 2003 surveys. Surveys followed accepted protocol developed by CDFG and CNPS. This species is not expected to occur within the Bike Trail alignment.

**La Purisima Manzanita**
La Purisima manzanita currently does not have federal or state listing status. However, it is included on the CNPS List 1B (plants considered rare and endangered in California and elsewhere) (CNPS 2001). Similar to the black-flowered figwort, impacts to this species are to be evaluated pursuant to CEQA. This species is usually found on sandy soils in Central Maritime chaparral (Burton Mesa chaparral), often is associated with other rare endemic manzanitas and other special-status plants. Several individual plants of this species were observed in the one isolated occurrence of Burton Mesa chaparral in the project area. The entire occurrence of Burton Mesa chaparral, including the La Purisima manzanita plants, is east of the Bike Trail.
Construction and operation of the trail will not result in loss of any individual plants of this species.

Wildlife Species and Habitats

Special-status Wildlife Species
Several special-status wildlife species are known to occur in the project region (Table 3.2-3). Each species’ status (i.e., the species’ technical designation under federal and state laws), California distribution, habitats, and potential for occurrence in the project area is described. If no suitable habitat is present for the species and the species has not been recorded in the project area (i.e., CNDDB records, surveys, or other biological reports), then the species is listed as having a “low potential to occur”, or as “not expected to occur”. Of the species evaluated in Table 3.2-3 and surveyed for on October 2 and 3, 2000, many of the species either have distribution areas that do not overlap with the project area, or the species lack suitable habitat in the project area, or the species only occur during winter or brief time periods during migration. Special-status wildlife species that are known to occur or have the potential to occur in the vicinity of the project area, and have some potential to be affected by project activities, are described below.

California Red-legged Frog
The California red-legged frog (*Rana aurora draytonii*) is listed as threatened under the federal Endangered Species Act (ESA) and is also a state Species of Special Concern. The California red-legged frog is endemic to California and Baja California, Mexico, typically occurring from sea level to approximately 1,500 meters. The historic range of the California red-legged frog extended from Redding south to Baja California, Mexico, including the Sierra Nevada and Coast Ranges. Its current range is much reduced, with most remaining populations found in central California along the coast from Marin County south to Ventura County. In contrast to its numbers in other locations in the state, significant numbers of red-legged frogs still occur in the relatively small coastal drainages between Point Reyes (Marin County) and Santa Barbara (Santa Barbara County). The drainages in this region are characterized by more suitable habitat and less frequent occurrence of exotic aquatic predators than elsewhere (Jennings and Hayes 1994).

The California red-legged frog breeds in lowland streams and wetlands, including livestock ponds. California red-legged frogs may also be found in upland habitats near breeding areas and along intermittent drainages connecting wetlands. California red-legged frogs require cold-water-pond habitats such as pools, streams, and ponds with emergent and submergent vegetation (Storer 1925, Stebbins 1972). The highest densities of frogs are found in habitats with deepwater pools (at least 2.5 feet deep) with dense stands of overhanging willows and a fringe of tules or cattails (Hayes and Jennings 1988, Jennings 1988, Jennings and Hayes 1994). Juvenile frogs seem to favor open, shallow aquatic habitats with dense submergent vegetation. Although California red-legged frogs can inhabit either ephemeral or permanent streams or ponds, populations probably cannot be maintained in ephemeral streams in which all surface water disappears (Jennings and Hayes 1994).

Adults are highly aquatic when active but depend less on permanent water bodies than other frog species (Brode and Bury 1984). Adults may take refuge during dry periods in rodent holes or leaf litter in riparian habitats. Although California red-legged frogs typically remain near
streams or ponds, recent studies suggest that they are capable of moving one mile or more in upland habitat or through ephemeral drainages (Bulger 1999).

The United States Fish and Wildlife Service (USFWS) established a final ruling on critical habitat for the California red-legged frog on March 13, 2001. The project area is located within the Santa Ynez River critical habitat unit. This unit is occupied and contains core populations of California red-legged frogs. Core populations occur on the Santa Ynez River from the headwaters to the estuary (USFWS 2001). However, the populations are not continuous along the river, as described below. The critical habitat designation was overturned by a court ruling in 2002, and new critical habitat for this species was re-proposed on April 13, 2004 (USFWS 2004).

No records of California red-legged frogs were found in the project area (CNDDB 2004) and none were observed during field surveys. Historically, California red-legged frogs occupied the entire Santa Ynez River watershed, particularly the lower reaches of the main stem, where poolltype breeding habitat is more extensive. Current populations appear to be mostly restricted to the upper watershed and tributaries in the lower watershed, where flood control and other land use activities have not altered habitat (Garcia and Associates 1999). In 1999, California red-legged frog surveys were conducted upstream and downstream of the “H” Street Bridge for the Santa Ynez River Bridge Bicycle Path Project. California red-legged frogs were not detected during the surveys (Dames & Moore and Garcia and Associates 1999). The closest known red-legged frog population occurs approximately four miles downstream of Riverbend Park (Hunt pers. comm., 2002; Fahey pers. comm., 2002).

Because the project area is relatively close to a known population, and they are believed to occur along the entire river, it is possible for California red-legged frogs to occur in the project area; however, the potential for such occurrence is considered low to moderate and would likely be limited to dispersing individuals, primarily subadults. Water is only present in the Santa Ynez River adjacent to the project area for a few months a year (January – June and possibly August – October due to scheduled releases from Bradbury Dam). Because the project area lacks perennial surface water, it is not expected to support breeding populations of California red-legged frogs. Moreover, suitable habitat is not known to exist in the project area, specifically plunge pools at least two to three feet deep and cover provided by overhanging vegetation, exposed roots and emergent vegetation. This assessment is supported by the lack of observation of these critical elements during several recent survey efforts in the vicinity.

**Southwestern Pond Turtle**

The southwestern pond turtle (*Emys* [*Clemmys*] *marmorata pallida*) is designated as a Species of Special Concern by CDFG and a species of concern by USFWS. Southwestern pond turtles occur along the Central Coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonoran deserts. Southwestern pond turtles appear to be locally abundant in a few areas, and considerably less common over the majority of their range. Southwestern pond turtle numbers have been reduced in excess of 90% from historic levels in significant portions of their range, and many remaining populations are heavily adult biased (Holland 1991, 1994).
Southwestern pond turtles are active year-round, with reduced activity in colder months (October–February). They are a highly aquatic species requiring upland habitats for nesting, overwintering, and movement (Holland 1994). Typical southwestern pond turtle habitat includes slow-moving or stagnant pools at least 3 feet deep and 0.5 feet in diameter with bank cover, such as vegetation, tree roots, or riprap boulders (Rathbun et al. 1991). This species has been observed using pools as shallow as 18 inches in depth (Olson, pers. observations). Suitable aquatic habitat also requires basking sites such as mats of emergent vegetation, submerged mats of aquatic vegetation, and exposed logs, rocks, or mud banks. Suitable upland habitat, for nesting and overwintering, includes areas with exposed south-facing slopes, open-scrub or grassland vegetation, and dense soils (Holland 1991).

No CDFG data base records of southwestern pond turtle were found for the project area (CNDDB 2004) and none were observed during field surveys. Intermittent pools in some reaches of the Santa Ynez River channel appear to be suitable aquatic habitat for this species and the associated upland riparian and scrub habitat may be used for nesting and overwintering. Southwestern pond turtles historically occurred within the entire Santa Ynez River watershed and they are still observed in reaches with perennial water, such as below the Floradale Avenue Bridge. This species is also known from Vandenberg Air Force Base (VAFB) and La Purísima Mission State Historic Park (LPMSHP) (Christopher 1996, Olson, pers. observations). It appears that little or no recruitment is occurring at these locations since individuals observed are typically older adult turtles. The closest known southwestern pond turtle observations to the project area occur approximately 4 miles downstream of Riverbend Park and approximately 2.5 miles upstream of the eastern project boundary (Hunt pers. comm., 2002). The Santa Ynez River in the project area does not have perennial flows. Flows generally occur between January and June of each year. These flows are often limited and shallow in nature. There are no known deep ponds or areas of deep that occur in the riverbed adjacent to the project area. As such, southwestern pond turtles are not expected to be year-round residents and breed in the project area. There is potential for dispersing individuals to use the reach of the Santa Ynez River adjacent to the project area to move between locations of more suitable habitat.

**Silvery Legless Lizard**

The silvery legless lizard (*Anniella pulchra pulchra*) is designated as a Species of Special Concern by CDFG and a species of concern by USFWS. This species is primarily found in the South Coast, Transverse, and Peninsular ranges. Jennings and Hayes (1994) estimate that approximately 20% of the historic range of this species has been converted to unsuitable habitat by urbanization, agriculture, coastal-dune development, and introduction of nonnative vegetation.

Habitats occupied by the silvery legless lizard include beaches, chaparral, pine-oak woodland, and riparian forest on stream terraces. In riparian areas, the species composition is usually composed of sycamores, cottonwoods, or oaks. Legless lizards construct burrows in loose soil with a high sand fraction. They appear to be most active during the morning and evening, when they may rest just beneath the surface of the sunlight-warmed substrate. Legless lizards have also been observed at night when substrate temperatures remain warm for extended intervals. Silvery legless lizards in coastal areas may be active nearly year-round (Jennings and Hayes 1994).
No records of silvery legless lizard were found in the project area (CNDDB 2004) and none were observed during field surveys. Soil types on the lower and higher terraces appear suitable for the species, and support patches of riparian forest, riparian scrub, and alluvial plain habitats. The silvery legless lizard is known from several localities north of the Santa Ynez River on the Burton Mesa and in the Purisima Hills. The habitat at these localities is comprised of Burton Mesa chaparral on ancient aeolian sand deposits (Arthur D. Little 1987; Hunt pers. comm., 2002). This species is also known from LPMSHP (Olson, pers. observations). Although silvery legless lizards have not been reported from the Santa Ynez River floodplain, suitable habitat is present along floodplain terraces containing coarse, sandy soil and riparian scrub vegetation. This species could occur in low numbers in the project area, mostly under shrubs growing in sandy soils.

**California Horned Lizard**

The California horned lizard (*Phrynosoma coronatum frontale*) is designated as a Species of Special Concern by CDFG and a species of concern by USFWS. This species is endemic to California, occurring from Shasta County south along the edges of the Sacramento Valley into much of the South Coast Ranges, San Joaquin Valley, and Sierra Nevada foothills to northern Los Angeles, Santa Barbara and Ventura counties. California horned lizards have disappeared from approximately 35% of their range in northern and central California and current populations are becoming increasingly fragmented because of the loss of habitat from continued development. California horned lizards remain abundant only in localized areas along the South Coast Ranges (e.g., Pinnacles National Monument, San Benito County), and in isolated sections of natural habitat remaining on the valley floor (e.g., Pixley Vernal Pools Preserve, Tulare County) (Jennings and Hayes 1994).

California horned lizards are active aboveground between April and October, with most activity concentrated between April and June. During the winter months this species uses small mammal burrows or burrows into loose soils under surface objects (Zeiner et al. 1988). California horned lizards require habitats with loose, sandy loam and sandy-gravelly soils. They can occur in a variety of habitats supported by these soil types including riparian woodland, riparian scrub, coastal sage scrub, chaparral, and annual grassland (Jennings and Hayes 1994; Garcia and Associates 1999).

No records of California horned lizard were found in the project area (CNDDB 2004) and none were observed during field surveys. Most local CNDDB records for the California Horned Lizard are made from observations on Burton Mesa. Soil types on the lower and higher terraces of the Riverbend Park and Trail site appear suitable for the species, and support patches of riparian forest and riparian scrub habitat. The California horned lizard has been observed recently in the Santa Ynez riverbed adjacent to the project area (Hunt pers. comm., 2002; Olson, pers. observations). Although, California horned lizards were not observed in the Santa Ynez River floodplain during the field surveys, suitable habitat is present in the project area, along floodplain terraces containing coarse, sandy soil and riparian scrub vegetation. This species could occur in the project area in areas with sandy soils and populations of native ants.

**Two-striped Garter Snake**

Two-striped garter snakes are found in a variety of wetland and aquatic habitats, such as ponds, seasonal pools, creeks, and rivers. Habitat for this species has been dwindling, particularly in
coastal areas of California, due to loss of riparian and wetland habitats. They are known from a number of coastal streams in Santa Barbara County (Olson, pers. observations), and from locations on VAFB (Christopher 1996). The project area does not appear to have perennial surface water, thus reducing its suitability as habitat for this species. Two-striped garter snakes are not expected to be residents of the project area, but could potentially use the area as a movement and dispersal corridor between more suitable habitat upstream and downstream.

This species is considered to be Species of Special Concern by CDFG. The CNDDB does not include reported occurrences in the project area (CDFG 2004). No two-striped garter snakes were observed in the project area during surveys for this project.

**White-tailed Kite**

The white-tailed kite is a fully protected species under the California Fish and Game Code. White-tailed kite populations have fluctuated greatly over the past century. Grinnell and Miller (1944) state that this species was common and widespread in valley and foothill territories before 1895 but that, by the 1940s, the species was rare or entirely gone from many areas. From the 1940s through the 1970s, kite populations have increased and their range has extended north into Oregon, south into Central America, and east into Texas (Shuford 1993). However, populations of white-tailed kites have steadily decreased throughout much of California since the late 1970s. Declines have been especially evident in southern California (Garrett and Dunn 1981), along the South Coast (Marantz 1986), and in the San Joaquin Valley (Small 1994). Local populations appear to be relatively healthy along the north and east San Francisco Bay and in the Sacramento-San Joaquin Delta. White-tailed kites are known to nest and roost in several locations in Santa Barbara, as well as in Lompoc (Lehman 1994, Olson, pers. observations).

White-tailed kites inhabit open lowland grassland, riparian woodland, marshes, and scrub areas. Some large shrubs or trees are required for nesting. They depend on small rodents with highly cyclical populations. Communal night roosts are common in winter.

There are no database records of white-tailed kites in the project area (CNDDB 2004). White-tailed kites have been observed in and around the project area however. This species has been observed in recent years, at LPMSHP (Olson, pers. observations), including some observations that indicated nesting (carrying food and nesting material). In August and September of 2001, two white-tailed kites were observed south and east of the project site, along the Santa Ynez River. This species was also observed within the project area in April, May, June and July of 2002, with a total of eight individuals identified during this period. On May 10 and 16, 2003, two after-hatch-year birds were observed south and east of the project site. Then, on July 22, 2003, one after-hatch-year bird was observed with two hatch-year birds, along the Santa Ynez River, just south of the project area. Although white-tailed kites have not been reported nesting in the project vicinity, suitable nesting habitat is present in riparian areas within the project area. Considering the recent observations indicating nesting nearby, there is a moderate potential for this species to nest in the project area and a moderate to high potential for this species to forage in and near the project area.

**Cooper’s Hawk**

The Cooper’s hawk (*Accipiter cooperii*) is considered to be a Species of Special Concern by CDFG. Habitat for this species has been declining statewide due to conversion of riparian and
oak woodlands. In the Lompoc area, the Cooper’s hawk is a regular winter visitor and is known to nest in the area. This species is regularly observed at locations near the project area, such as LPMSHP and the Burton Mesa Chaparral Preserve. Sightings in 2004 included at least one nest at LPMSHP (Olson, pers. observation). Although not a common breeding species, Cooper’s hawks tend to nest in oak trees, especially if the oaks are in or adjacent to riparian zones. Cottonwoods and large willows also provide potential nest sites.

There are no CNDDB records for this species in the project area (CDFG 2004). However, there have been recent observations in and near the project area. Three Cooper’s hawks were observed in the project area during surveys in June and July of 2002. There were two more sightings of non-nesting Cooper’s hawks along the Santa Ynez River just south of the project area in May and July 2003 (TOBC and Whitney 2003). As noted above, at least one pair nested nearby at LPMSHP during spring and early summer 2004 (Olson, pers. observation). Because suitable nesting habitat occurs in the project area and nesting has occurred nearby, there is a moderate potential for this species to nest in the project area. There is a moderate to high potential for Cooper’s hawks to occur in low numbers during winter or migration in the project area.

**Southwestern Willow Flycatcher**

The full species of willow flycatcher (*Empidonax traillii*) is state listed as endangered, and the southwestern subspecies of willow flycatcher (*E. t. extimus*) is federally listed as endangered. The willow flycatcher was once considered a common resident throughout much of its range in California, but has been on the decline during the twentieth century, primarily because of habitat loss and modification. The current breeding range includes southern California, extreme southern Nevada, Arizona, New Mexico, and western Texas, and is only known to breed at about 75 sites, with a total estimated population of between 300 and 500 pairs (Sogge et al. 1997).

Southwestern willow flycatchers typically arrive in California to nest by mid-May, usually concluding by mid-July (Sedgwick 2000). The nest is constructed in a horizontal fork or branch above the ground or water in trees or shrubs, usually with dense vegetation providing a canopy over the nest. Breeding habitat is, “strikingly restricted to thickets of willow (*Salix*), whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes” (Grinnell and Miller 1944). Riparian patches used by breeding southwestern willow flycatchers vary in size and shape, but always have dense vegetation in the interior, and are usually located near standing water (Sogge et al. 1997).

Critical habitat for the southwestern willow flycatcher has been designated by the USFWS, but the project area does not fall within any critical habitat units (Fahey, pers. comm., 2000). The Santa Ynez River is the northern limit for coastal populations of southwestern willow flycatcher. This species was thought to be extirpated as a breeder from Santa Barbara County until a breeding population was discovered on the Santa Ynez River, west of Buellton in 1986 (and approximately 15 miles upstream of the project area). (Lehman 1994). In recent years, there have been observations of willow flycatchers, including the southwestern subspecies, downstream of the project area, as described below.

No records of southwestern willow flycatchers were found in the project area (CNDDDB 2004). Southwestern willow flycatcher surveys were conducted in 1998 for the airport expansion project area (located west of the Riverbend Park and Santa Ynez River trail project sites). No
southwestern willow flycatchers were observed in the airport expansion project area or the 100-year floodplain (Garcia and Associates 1998). In addition, southwestern willow flycatchers were not observed during surveys for the Santa Ynez River bridge bikepath project in late spring 1999 (Garcia and Associates 1999). However, during the early and mid-1990s, several pairs of southwestern willow flycatchers nested along the lower Santa Ynez River, between Floradale Avenue and the sewage treatment plant, nearly four miles downstream of the project area. This area experiences continual flow due to the effluent discharge from the Lompoc Regional Wastewater Reclamation Plant. Nesting southwestern willow flycatchers were not observed during subsequent visits to the area in 1996, 1997, and 1998 (Garcia and Associates, 1999).

Recent sightings of willow flycatchers in and near the project area have been of non-breeding individuals. Jones & Stokes biologists observed two non-breeding individuals on May 22, 2002 in the project area. During surveys conducted by TOBC for a separate project, there was a single observation of a willow flycatcher (that could be identified only to specific level) on May 16, 2003. That observation was just downstream of the SR 246 Bridge, approximately 1.5 miles upstream of Riverbend Park and 0.5 mile upstream of the project area. None of the three individual willow flycatchers were observed during subsequent surveys. The potential for this species to nest in the project area is low due to: (1) the relatively low quality of habitat compared to that occurring in downstream areas; and (2) a lack of surface water in the river throughout the breeding season in most years. The project area is likely used by a low number of migrating willow flycatchers on a rare to uncommon basis.

**Least Bell’s Vireo**

The least Bell’s vireo (*Vireo bellii pusillus*) is a federal and California state-listed species. Historically, the least Bell’s vireo was known to breed from interior northern California near Red Bluff in Tehama County south through the Sacramento and San Joaquin valleys and Sierra Nevada foothills, and in the coastal ranges from Santa Clara County south to the vicinity of San Fernando in Baja California. The bird also occurred in the Owens and Death valleys in Inyo County and at scattered oases and canyons throughout the Mojave Desert (Grinnell and Miller 1944). Currently, its breeding range is limited to southern California, with large populations in Riverside and San Diego counties and smaller populations in Santa Barbara, Ventura, and San Diego counties and in northern Baja California (CDFG 2000). Loss of riparian habitat from livestock grazing, flood control, and urban and agricultural development has reduced the species range. From 1986 until 2000, the population increased from about 300 to 500 pairs (USGS 2001).

The breeding season is mostly mid-April to early June (Baicich 1997). The open-cup nest is constructed of a variety of items, such as pieces of bark, fine grasses, plant down, and horse hair, and is often placed on a slender branch of willow, other shrub, mesquite, or other small tree, usually 2–3 feet, but sometimes 1–10 feet, aboveground. Nests are typically located near dense thickets along water or along dry parts of intermittent streams, and are placed low in dense riparian vegetation with a large degree of vertical strata. This taxon is typically associated with willow, cottonwood, mule fat, wild blackberry, or mesquite in desert localities (AOU 1957; Zeiner et al. 1983).

USFWS established final ruling on critical habitat for the least Bell’s vireo in early 1994. Critical habitat units include areas along the Santa Ynez River in Santa Barbara County; the
Santa Clara River in Ventura and Los Angeles counties; the Santa Ana River in San Bernardino and Riverside counties; and the Santa Margarita, San Luis Rey, San Diego, Sweetwater, and Tijuana rivers and Coyote and Jamul-Dulzura creeks, all in San Diego County. However, the project area does not fall within any designated critical habitat units (Fahey pers. comm., 2002).

No records of least Bell’s vireo were found in the project area (CNDDB 2004) and none were observed during field surveys. Least Bell’s vireos were not observed during surveys for other projects in and near the project area in 1998 and late spring 1999 (Garcia and Associates 1998, 1999). Currently, least Bell’s vireos are known to nest only along the upper Santa Ynez River near Gibraltar Reservoir and Mono Creek. Other than the extant breeding population in the Gibraltar Reservoir area, the only other recent sightings include an early 1990s observation upstream of Salsipuedes Creek (more than two miles upstream of Riverbend Park) and a territorial bird observed for a three-week period about one mile west of Buellton (15 miles upstream of the project area) (Greaves, pers. comm., 2003). This species is not expected to nest in the project area due to the limited quantity and quality of habitat. This conclusion is supported by the lack of least Bell’s vireo sightings during several survey efforts conducted in and near the project area in the past six years. There is potential for the project area to be used for short periods of time by migrating individuals on rare occasions.

**California Yellow Warbler**

The California yellow warbler is designated as a Species of Special Concern by CDFG. Its current breeding range in California includes the Great Basin, Sierra Nevada, Cascade Ranges, Klamath Mountains, Coast Ranges, and the northern Sacramento Valley (Zeiner et al. 1990). The species has been extirpated from substantial areas of its former range in the Central Valley because of habitat loss and cowbird parasitism (Remsen 1978). The species is still common in many mid-elevation areas of the Sierra Nevada (Gaines 1988).

Breeding activity begins in April and ends in August. Yellow warblers typically nest in riparian scrub and riparian forest habitats from lowland riparian areas up to the mixed north-slope forest zone. In the Sierra Nevadas, however, the species frequently uses stands of brush and small trees on drier hillsides away from water (Gaines 1988).

Although yellow warblers commonly nest along the Santa Ynez River basin, no data base records of California yellow warblers were found in the project area (CNDDB 2004). There have been recent sightings of this species in and near the project area. Forty-seven individual yellow warblers were observed during the Jones & Stokes field surveys from April through July 2002. One individual was heard singing during the July 11, 2003 reconnaissance survey. Up to eight singing males were heard in 2003 during morning surveys of the Santa Ynez River riparian zone just downstream of the SR 246 Bridge and two separate yellow warbler nests were identified in this area during June and July of 2003 (TOBC and Whitney 2003). Several pairs were observed in riparian habitat on the nearby LPMSHP in 2004 (Olson, pers. observations).

Although the quality and extent of nesting habitat in the project area is limited compared to habitat downstream, suitable habitat for nesting California yellow warbler is present in the riparian habitat along the Santa Ynez River. There is high potential for this species to nest in riparian habitat in and near the project area. The project area is likely utilized by the species during non-breeding times of the year as well.
Yellow-Breasted Chat
The yellow-breasted chat is a CDFG Species of Special Concern (Comrack 2002). This Neotropical migrant species has an extensive breeding range in the United States and was once a fairly common summer resident in riparian habitat throughout California (Grinnell and Miller 1944). The yellow-breasted chat is associated with dense, shrubby vegetation including early succession riparian habitat (Eckerle and Thompson 2001). Population declines have accompanied loss and degradation of riparian habitat in coastal southern California; in Santa Barbara County, the yellow-breasted chat is now a rare and local breeder (Lehman 1994). Breeding populations of yellow-breasted chats exist along the Santa Ynez River and its tributaries in the Los Padres National Forest east of Gibraltar Reservoir and along Mono and Agua Caliente creeks and in the Barka Slough at Vandenberg Air Force Base.

During the Jones & Stokes protocol-level surveys for Southwestern Willow Flycatcher and Least Bell’s Vireo, a single yellow-breasted chat was observed on June 13, 2002. In 2003, there were four observations of yellow-breasted chats along the Santa Ynez River just south of the project area in May, June and July. It is likely that the yellow-breasted chat bred within the Santa Ynez River Riparian area, just south of the project site, as a territorial male was observed singing on territory in May, June and July and subsequently, an adult bird was observed with a single fledged young, 30 meters upstream of the known territory (TOBC and Whitney 2003). Although a nest was not found, it is likely that this species nested nearby, based on the continued presence of the territorial male and the subsequent observation of an adult with a young near the known territory. There is a moderate potential for this species nesting in the project area and a moderate to high potential for yellow-breasted chats to occur in the project area at some time during the year.

Yuma Myotis
The Yuma myotis (Myotis yumanensis) is a federal species of concern. This is a small bat with relatively large feet and a dull coloration of pale pinkish, or cream buff. Immature individuals are darker, nearly cinnamon buff. The Yuma myotis is primarily an inhabitant of deserts and other arid regions, where it is most commonly encountered foraging in lowland habitats near open water, where it prefers to forage. It feeds on insects and becomes active just after sundown. Its flight is fluttering and erratic. It roosts in caves, abandoned mine tunnels, buildings and under bridges. The Yuma myotis has a relatively poor urine concentrating ability, and is frequently observed drinking.

This species is known to occur in the vicinity of the project area. Pierson et. al (2002) identified six day roosts, five night roosts, and one maternity site (the 13th Street Bridge) on VAFB. Roosting in the project area is unlikely due to a lack of suitable roosting sites. The Yuma myotis has a moderate potential to forage at and near the project area during periods of the year when surface water is present.

American Badger
This species was previously considered a Species of Special Concern by CDFG. Interestingly, it was also listed by CDFG as a game species that could be hunted and trapped. Although not presently on the CDFG lists of Species of Special Concern, it is still considered to be a locally rare species in Santa Barbara County. Throughout its range, habitat (primarily grassland and other open habitats such as oak savanna), is being converted to residential and intensive
agricultural uses. There are no CNDDB records for this species in the project area (CDFG 2004). This species is known from nearby areas including the “Wye” area at SR 1 and Harris Grade Road, and at both LPMSHP and Burton Mesa Chaparral Preserve (Olson, pers. observations).

No badgers or active burrows with potential to be used by badgers were found during surveys for this project. Although there are open areas and banks in which badgers could burrow, the project area is subject to substantial human-caused disturbances (such as ORV use). As such, the potential for this species to occur in the project area is considered to be low.

**Special-Status Fish Species**

The main stem of the Santa Ynez River, its tributaries downstream of the project area, and the Santa Ynez River Estuary provide habitat for a wide variety of resident and migratory fish species (Table 3.2-5). Resident species are those that complete their life cycle within the Santa Ynez River watershed. Migratory species require habitat in geographic locations outside of the Santa Ynez River watershed (i.e., the ocean) to complete their life cycle and may occur in the Santa Ynez River only during portions of their life history. Based on review of databases and studies conducted previously, including an extensive study by the Santa Ynez River Technical Advisory Committee (1999), 23 fish are reported to occur in the Santa Ynez River. Of the fish species that occur in the Santa Ynez River Watershed, 10 are native to the watershed and 13 have been introduced. Most of the introduced species are game or bait fish that were originally planted in Cachuma Reservoir, but have since spread to the rest of the Santa Ynez River watershed (SYRTAC 1999). Many of the game fish, including large-mouth and small-mouth bass, green sunfish, and black bullhead, will prey on steelhead and other native fish species. Overall habitat quality on the project reach of the Santa Ynez River was evaluated based on observation, photographs and verbal descriptions of the river and its riparian habitat.

Special-status fish species that are known to occur, or have the potential to occur, in the Santa Ynez River include the Southern California Steelhead and Arroyo Chub. The arroyo chub is native to other drainages in Southern California, but is introduced in the Santa Ynez River. Despite its introduced status in the Santa Ynez River, CDFG still considers it to be a Species of Special Concern. The pacific lamprey (*Lampetra tridentata*) was petitioned for federal listing as threatened or endangered by a coalition of 10 conservation organizations (Klamath-Siskiyou Wildlands Center, et al. 2003). USFWS has not yet acted upon the petition. Only the Southern California Steelhead and Pacific lamprey are native to the reach of the river near the project boundaries. The partially armored threespine stickleback (*Gasterosteus aculeatus microcephalus*), currently without any special status, is another species native to southern California that can occur in the project area. The other species of concern that are native to the Santa Ynez River, including the tidewater goby, occur in habitats that are restricted to the river’s estuary and upstream of, but in close proximity to, the estuary. Those species of concern that occur only in the river’s estuary will not be affected by the project, due to the distance from the project area to their habitat.

**Pacific Lamprey**

This species, along with three other lamprey species, was petitioned in January 2003 by a coalition of 10 conservation organizations for federal listing as threatened or endangered. The petition was submitted to USFWS for consideration. USFWS has not acted upon the petition.
### Table 3.2-5. Potentially Affected Fish Species Occurring in the Santa Ynez River Watershed

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Migratory Fish</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steelhead*</td>
<td><em>Oncorhynchus mykiss</em></td>
<td>Native</td>
<td>M/T/L</td>
</tr>
<tr>
<td>Pacific lamprey</td>
<td><em>Lampetra tridentata</em></td>
<td>Native</td>
<td>M</td>
</tr>
<tr>
<td><strong>Resident Fish</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threespine stickleback</td>
<td><em>Gasterosteus aculeatus</em></td>
<td>Native</td>
<td>M/T/L</td>
</tr>
<tr>
<td>Prickly sculpin</td>
<td><em>Cottus asper</em></td>
<td>Native</td>
<td>M/T/L</td>
</tr>
<tr>
<td>Tidewater goby*</td>
<td><em>Eucyclogobius newberryi</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Pacific herring</td>
<td><em>Clupea harengus</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Topsmelt</td>
<td><em>Atherinops affinis</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Shiner perch</td>
<td><em>Cymatogaster aggregata</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Staghorn sculpin</td>
<td><em>Leptocottus armatus</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Starry flounder</td>
<td><em>Platichthys stellatus</em></td>
<td>Native</td>
<td>L</td>
</tr>
<tr>
<td>Arroyo chub*</td>
<td><em>Gila orcutti</em></td>
<td>Introduced</td>
<td>M/T/L</td>
</tr>
<tr>
<td>Fathead minnow</td>
<td><em>Pimephales promelas</em></td>
<td>Introduced</td>
<td>M/T</td>
</tr>
<tr>
<td>Mosquitofish</td>
<td><em>Gambusia affinis</em></td>
<td>Introduced</td>
<td>M/T/L</td>
</tr>
<tr>
<td>Smallmouth bass</td>
<td><em>Micropterus dolomieu</em></td>
<td>Introduced</td>
<td>M/L</td>
</tr>
<tr>
<td>Largemouth bass</td>
<td><em>Micropterus salmoides</em></td>
<td>Introduced</td>
<td>M/T</td>
</tr>
<tr>
<td>Bluegill</td>
<td><em>Lepomis macrochirus</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
<tr>
<td>Green sunfish</td>
<td><em>Lepomis cyanellus</em></td>
<td>Introduced</td>
<td>M/T</td>
</tr>
<tr>
<td>Redear sunfish</td>
<td><em>Lepomis microlophus</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
<tr>
<td>Black crappie</td>
<td><em>Pomoxis nigromaculatus</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
<tr>
<td>Channel catfish</td>
<td><em>Ictalurus punctatus</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
<tr>
<td>Black bullhead</td>
<td><em>Ictalurus melas</em></td>
<td>Introduced</td>
<td>M/T</td>
</tr>
<tr>
<td>Carp</td>
<td><em>Cyprinus carpio</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
<tr>
<td>Goldfish</td>
<td><em>Carassius auratus</em></td>
<td>Introduced</td>
<td>M</td>
</tr>
</tbody>
</table>

**Notes:**
- * = special-status fish species.
- M = mainstem of Santa Ynez River below Bradbury Dam.
- T = tributary streams of Santa Ynez River.
- L = Santa Ynez River Lagoon.

**Source:** SYRTAC 1999.
This three toothed lamprey has a round, elongate, flexible cartilaginous body, and skin with no scales. It is very smooth and slimy to the touch. Its mouth is down-turned and adapted for clinging and sucking. The Pacific lamprey is dark bluish gray or dark brown in color, can reach 30 inches in length and weigh over a pound.

The Pacific lamprey is anadromous. Like salmon they are born in freshwater streams, migrate out to the ocean, and return to fresh water as mature adults to spawn. Also like the salmon, lamprey do not feed during their spawning migration. Mating pairs of lamprey construct a nest by digging together using rapid vibrations of their tails and by moving stones using their suction mouths.

In southern and central California, the lamprey enter the fall and winter of years with average or above-average rainfall; spawning takes place the following spring when water temperatures are between 50 and 60 degrees Fahrenheit. They ascend rivers by swimming upstream briefly, then sucking to rocks and resting. Spawning takes place in low gradient sections of water, with gravel and sandy bottoms. Adults die within four days of spawning, after depositing about 10,000 to 100,000 extremely small eggs in their nest. The young hatch in 2-3 weeks and swim to backwater or eddy areas of low stream velocity where sediments are soft and rich in dead plant materials. They quickly burrow into the muddy bottom where they filter the mud and water, eating microscopic plants (mostly diatoms) and animals. The juvenile lamprey will stay burrowed in the mud for four to six years, moving only rarely to new areas. After a two-month metamorphosis, triggered by unknown factors, they emerge as adults averaging 4.5 inches long. Then during high water periods, in late winter or early spring the new adults migrate to the ocean. During its ocean phase of life the Pacific lamprey are scavengers, parasites, or predators on larger prey such as salmon and marine mammals. After two to three years in the ocean they will return to freshwater to spawn.

The first four to six years of the Pacific lampreys life are critical times. Animals that filter water and mud for food are very susceptible to pollutants in the water column and sediments. Lamprey may be impacted by pollutants from urban and agricultural runoff that can concentrate in the sediments. High stream temperatures and lack of stream cover can also reduce the lampreys' food supply.

**Southern California Steelhead**

Southern California steelhead, (*Oncorhynchus mykiss*) considered an Evolutionarily Significant Unit, is federally listed as endangered under the ESA (62 FR 43938, August 18, 1997) and is a state Species of Special Concern. The timing of different life stages of steelhead in the Santa Ynez River watershed is shown in Table 3.2-6. Between January and April, adult steelhead migrate from the ocean to spawn in the upper Santa Ynez River and its tributaries, as far upstream as Bradbury Dam. Adult steelhead may be within the project area during January and February. After spawning, adult steelhead may migrate back to the ocean and return to spawn again in later years, with the potential to occur within the project area during the months of March and April. Steelhead may rear for one to four years in freshwater before migrating to the ocean as smolts, although southern California steelhead tend to migrate after one to two years (SYRTAC 1999). The juvenile migration period is typically February through May, but timing of migration is dependent on streamflows; therefore, migrating juveniles may be within the
project area from January through June (SYRTAC 1999). This is the only fish native to the Santa Ynez River currently with special status that could potentially be affected by the project.

Table 3.4-6 Expected Occurrence of Steelhead by Life Stage in the Santa Ynez River Watershed

<table>
<thead>
<tr>
<th>Life Stage</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult migration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spawning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult migration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juvenile rearing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juvenile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: City of Santa Barbara Water Department 1999.

Thresholds of Significance

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by DFG or USFW;

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by DFG or USFW;

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means;

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

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

f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

g. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal
community, reduce the number or restrict the range of a rare or endangered plant or animal.

Project Impacts and Significance – Phases 1, 2 & 3

Special-Status Species
The proposed project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or the USFWS.

A list of special-status wildlife species with potential to occur in the project region was compiled from CNDDB records (CDFG 2004) and observations made during project-related surveys by Jones & Stokes and TOBC, and file information, including surveys for other projects in the region (Table 3.2-3).

Based on field surveys, habitat suitability, and species distribution, the following special-status wildlife species are not expected to be affected by any of the three phases of the project: California tiger salamander; western spadefoot; arroyo toad; coast patch-nosed snake; bald eagle; golden eagle; mountain plover; long-billed curlew; western burrowing owl; western yellow-billed cuckoo; and bank swallow.

Potential impacts to an additional 16 special-status species are expected to be less than significant because suitable habitat is limited or the species are uncommon to rare non-breeding visitors to the vicinity. These species include: sharp-shinned hawk; ferruginous hawk; merlin; American peregrine falcon; prairie falcon; northern harrier; loggerhead shrike; Southern California rufous-crowned sparrow; Bell’s sage sparrow; grasshopper sparrow; tricolored blackbird; long-legged myotis; greater western mastiff-bat; pallid bat; pale Townsend’s (western) big-eared bat; and San Diego desert woodrat.

The following special-status species have the potential to occur within the project area. (Table 3.2-3)

California Red-legged Frog, Two-striped Garter Snake, Southwestern Pond Turtle
These three aquatic species all require a source of fresh water. Because the Santa Ynez River through the Lompoc reach is only seasonal, flowing only between December or January and April to June in wet years and less time in dry years, it is unlikely that any of these three species will occur and particularly breed in the project area. The project area could be used as a dispersal corridor by one or more of these species.

The California red-legged frog (*Rana aurora draytonii*) is a federal-listed threatened species and a state species of concern. This formerly widespread species has been drastically reduced in numbers and distribution in recent years. In the Lompoc vicinity, this species appears to be absent from the nearby Santa Ynez River, upstream of the Floradale Bridge, but is known to occur downstream of that point. However, they may migrate up to two miles from a water source into upland habitat to hibernate during the dry season. The closest red-legged frogs that have been identified were approximately two miles downstream from the project site, near the Floradale Bridge. Downstream of the City’s Wastewater Reclamation Plant discharge point, the
Santa Ynez River flows year-round, due to the added flow from the Reclamation Plant and Miguelito Creek Channel. Because of the distance to year-round water it is unlikely that there are any red-legged frogs in the project area.

The southwestern pond turtle requires year-round water in ponds or pools in creeks of at least 18 inches in depth. Within this segment of the Lompoc reach of the Santa Ynez River there are no known ponds, or areas of slower water with the requisite depth. While new ponds could form through the winter, it is unlikely that they would remain beyond May or June of any given year. Thus the habitat requirements for the southwestern pond turtle do not appear to be met at or around the project site.

The aquatic two-striped garter snake’s habitat is in or near fresh water. This species is primarily active during the evening and night, but it may forage during the day. This snake feeds on amphibians and their larvae, fishes, earthworms, and leeches. Two-striped garter snakes in California may show seasonal habitat differences. Rathbun et al. (1993) found that in summer snakes occupied streamside sites; in winter, they occupied nearby uplands. The project site does not enjoy a regular water source, necessary for the two-striped garter snake to flourish. As the Santa Ynez River often does not have water for six months or more during the year, this is an unlikely location to find the two-striped garter snake. No two-striped garter snakes have been identified in or around the project area during past surveys in the region.

Phase 1 is not expected to impact any of these species. The construction of playing fields, a caretaker’s residence, gravel parking area and kiosk over regularly tilled land and the Bike Trail extension around the perimeter of the fields, along an existing, packed-dirt trail, will not impact the river channel or the adjacent riparian vegetation. The Bike Trail is to be located at the existing interior edge of the riparian vegetation along the river. Due to the limited disturbance adjacent to the river’s riparian area, the distance from the proposed Bike Trail to the riverbank (approximately 75 – 500 feet) and the infrequent use of the vicinity by these species, direct loss of individuals is not expected. Impacts to upland habitats potentially used by these species will be less than significant in Phase 1, because only one low overhanging branch has been identified to be trimmed, and some ruderal low-growing plants will be removed when the connection between the existing path and McLaughlin Road is widened. Otherwise, no trimming or clearing of riparian vegetation will be required. These three species would be found in the uplands only on rare occasions and the water required to sustain permanent habitat for these species is not present in this reach of the river. Any permanent increase in human activity will be directed away from the river channel. The primary increase in area activity will take place at the playing fields that do not adjoin the riparian river habitat. The existing dirt road, over which the Bike Trail will be aligned, is currently used by the public, therefore, the increase in use is expected to be minimal. Impacts on these species, due to Phase 1 implementation, will be less than significant. A pre-construction survey for these species is recommended in this phase, to ensure there are no impacts.

Phase 2 development will involve minimal trimming of branches, over and along the existing dirt trail and removal of a limited amount of scrub vegetation and an elderberry shrub in a section that will be relocated to direct the trail more gradually down a steep slope. This minor vegetation trimming will be done along the initial portion of the Bike Trail, as it runs south from McLaughlin Road, through a segment of riparian vegetation. Beyond this point, no additional
vegetation trimming is required, with the exception of the removal of a limited amount of scrub vegetation adjacent to two cottonwoods, so that a drainage feature and the trail alignment can be relocated to reduce the grade of the trail and the potential that the trail will be under-cut by flows from an existing storm drain outlet. Due to the limited disturbance within the river’s riparian area, and the fact that the remainder of the Bike Trail construction will be in higher elevation upland scrub, direct loss of individuals of these species is not expected. These three species would be expected to be found in the vicinity or in the project uplands only on rare occasions and the water required to sustain permanent habitat for these species is not generally available on this reach of the river. The increase in human activity associated with this phase would occur directly along the proposed Bike Trail, and will not unduly threaten the riparian and riverine habitat to the east. The impacts to these species due to Phase 2 development will be less than significant. A pre-construction survey for these species is recommended, for this phase, to ensure there are no impacts.

Phase 3 construction will not affect the river channel or areas directly adjacent to the channel. Construction will occur within the existing agricultural field. Relocation of the PGE utility lines may result in limited damage to existing vegetation around the easternmost pole in the agricultural field, but is not expected to impact any of these species. Because of the distance from this phase of the project work to the riparian area adjacent to the river, Phase 3 activities are not expected to impact the California red-legged frog, two-striped garter snake, or southwestern pond turtle. There should be no impact to these species as a result of Phase 3 construction.

**California Horned Lizard**

The California horned lizard, a federal and state species of concern, is active above-ground from April to October. Their preferred habitat includes loose sandy loam and sandy-gravelly soils that support scattered shrubs and/or open canopy. There is potential for this species to occur in the vicinity of the Bike Trail alignment, but very little potential for this species to occur within the agricultural fields of Riverbend Park.

**Silvery Legless Lizard**

The silvery legless lizard is a federal and state species of concern. About 20 percent of the historic range of this species has been converted to uses that are incompatible with legless lizard use. This species is usually found on ancient Aeolian sand deposits that support some level of shrub cover. Silvery legless lizards have been found in numerous areas north of the Santa Ynez River on the Burton Mesa and in the Purisima Hills (L. Hunt, pers. comm.). There is limited potential for this species to occur in the coastal scrub, annual grassland of the Bike Trail alignment and very little potential for this species to occur within the agricultural fields of Riverbend Park.

**Phase 1**

Phase 1 activities will include grading of the existing agricultural fields, and very limited riparian trimming (one low-hanging branch is expected to be removed) and ruderal vegetation removal to widen the trail between the Babe Ruth field and McLaughlin Road. Most of the construction and ground disturbance in this Phase will occur on the existing agricultural lands of Riverbend Park, which does not serve as habitat for the horned lizard or legless lizard. Due to the limited extent
of the work proposed in habitats potentially occupied by these two species, impacts from Phase I construction activities are expected to be less than significant. A pre-construction survey is recommended to be conducted for horned lizards and legless lizards in this phase.

**Phase 2**

Phase 2 implementation has the potential to disturb native soils that serve as habitat for California horned lizards and silvery legless lizards. The Bike Trail alignment itself is not ideal habitat for these species as it is very compacted from regular use. However, in areas where the 20-foot construction width is not completely coincident with the existing compacted trail, or where staging areas are located, some horned lizard and legless lizard habitat may be disturbed. In order to reduce this potential impact to a less than significant status, a pre-construction survey and a limitation on the amount of disturbance within the construction area and any designated staging area(s) are recommended. Implementation of these measures will result in a reduction of the level of the impacts to less than significant.

**Phase 3**

Phase 3 will involve only disturbance to agricultural property. Scrub vegetation and sandy upland areas are not expected to be disturbed in this phase. The potential for these species to be located within an agricultural field is very limited as it does not provide the necessary habitat requirements for horned lizards and silvery legless lizards. The level of potential impacts to California horned lizards and silvery legless lizards is less than significant. A pre-construction survey is recommended to be conducted for horned lizards and legless lizards to further reduce the potential for any harm to these species.

**White-tailed Kite**

White-tailed kites inhabit open lowland grassland, riparian woodland, marshes, and scrub areas. Some large shrubs or trees are required for nesting. They depend on small rodents with highly cyclical populations. Communal night roosts are common in winter. There is a moderate to high potential for this species to forage in the project area and a moderate potential for white-tailed kites to nest in or near the project area.

**Cooper’s Hawk**

Cooper’s hawks (*Accipiter cooperii*) tend to nest in oak trees, especially if the oaks are in or adjacent to riparian zones. Cottonwoods and large willows also provide potential nest sites. There is a moderate to high potential for Cooper’s hawks to occur in low numbers during winter, or migration, in the project area. In addition, there is a moderate potential for this species to nest in or near the project area.

Phase 1 construction will disturb primarily agricultural land, some distance from the perimeter of the riparian vegetation along the Santa Ynez River, without disturbing area trees. As such, the potential for loss of white tailed kites or Cooper’s hawk adults, nests, or nest contents is low. Activity during these birds’ nesting season (approximately February 1 through August 31), if there were nesting birds in the nearby riparian area, could potentially cause a nest to be abandoned. That would be considered a violation of the Migratory Bird Treaty Act of 1918, as well as of the California Fish and Game Code, Section 3503.5. Because of this potential for
impact, a pre-construction survey for active bird nests (including those of white-tailed kite and Cooper’s hawk) is recommended. If nests are found, protective measures shall be taken. This will ensure that the likelihood of project-related nest abandonment will be minimized, resulting in a less than significant impact on these species. The conversion of this cultivated agricultural land would result in the loss of only a small amount of potential foraging habitat for the white-tailed kite and Cooper’s hawk. Considering the abundance of similar foraging habitat in the region, this is a less than significant impact and would not adversely affect local populations of white-tailed kites or Cooper’s hawks.

Phase 2 construction will result in some disturbance near areas of riparian and scrub habitat, adjacent to the Santa Ynez River. There will also be incrementally more human activity near habitat that would be suitable for nesting of white-tailed kites and Cooper’s hawks. The direct loss of adults is not expected, due to the bird’s mobility. Construction during the nesting season (February 1 through August 31) could potentially affect active nests due to noise and general disruption of the surrounding area. It is unlikely there would be a loss of a nest due to vegetation trimming or removal, as only one elderberry shrub and fewer than ten branches of greater than three-inches in diameter are to be removed as a part of the proposed project. The branches to be removed are lower branches that overhang an existing packed dirt roadway that is used by pedestrians, pet dogs, and off-highway vehicles. In order to prevent abandonment of nests of white-tailed kites and Cooper’s hawks, a pre-construction survey for bird nests is recommended, with protective measures required if nesting birds are identified. This will serve to reduce the potential Phase 2 impact on white-tailed kites and Cooper’s hawks to a less than significant level.

The impact of construction on the riparian and scrub foraging habitat will be less than significant, given the much greater amount of similar habitat in the region. Additionally, the planting of replacement elderberry shrubs will enhance the area’s habitat in the future.

The increase in ongoing activity in the area of the scrub and riparian habitat, during the operational phase of the project (pedestrians or bicyclists on the trail), is not expected to be significant. Currently, there is substantial human activity (ORV use) that is much more disruptive to the natural environment. Efforts are being made to curb this unauthorized use with the placement of bollards to be located at Bike Trail entrances, and the ongoing efforts of the three-person ranger staff that patrols the area.

Phase 3 construction will affect agricultural land and a small in-holding of natural vegetation adjacent to the PGE lines that are to be relocated. The result is that a small amount of foraging habitat (approximately 10 acres) will be converted to recreational use. Considering the substantial amount of foraging habitat in the region, this is a less than significant impact. The impact of Phase 3 construction will be less than significant, because this construction will take place away from the riparian zone, and because a pre-construction survey is recommended for the remainder pocket of natural vegetation within the agricultural field, to ensure there are no nesting birds within it, prior to construction of the fields or relocation of the Pacific Gas and Electric (PGE) lines.

Southwestern Willow Flycatcher
Southwestern willow flycatchers typically arrive in California to nest by mid-May, usually concluding by mid-July (Sedgwick 2000). The nest is constructed in a horizontal fork or branch
above the ground or water in trees or shrubs, usually with dense vegetation providing a canopy over the nest. Breeding habitat is “strikingly restricted to thickets of willow (Salix), whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes” (Grinnell and Miller 1944). Riparian patches used by breeding southwestern willow flycatchers vary in size and shape, but always have dense vegetation in the interior, and are usually located near standing water (Sogge et al. 1997).

**Phase 1** construction is not expected to adversely impact the southwestern willow flycatcher. The majority of the grading work will be done in the agricultural fields west of the existing Babe Ruth field. In addition, the caretaker’s residence will be located in the agricultural field to the south of McLaughlin Road. The Bike Trail extension will follow the perimeter of the existing Riverbend Park and will be constructed in the same alignment as the existing dirt road. No vegetation of over three inches in diameter will need to be removed in order to construct Phase 1, with the exception of a single branch that overhangs the dirt road adjacent to the Babe Ruth field. No other vegetation removal is planned for this segment. Minor trimming of small willow branches that extend into the Bike Trail may be required. Staging is planned to be located a minimum of 200 feet away from the edge of the riparian vegetation adjoining the Santa Ynez River. Protocol-level surveys and general surveys were completed in this portion of the project area and no Willow Flycatchers were observed.

**Phase 2** Bike Trail implementation will be conducted along the western edge of the Santa Ynez River, from McLaughlin Road to the intersection of Riverside Drive and College Avenue. While the portion of the trail just south of McLaughlin Road winds through a riparian forest for a short distance, protocol-level surveys did not identify any willow flycatchers in this area. From the riparian forest, the trail is to move up on to a low plateau or bench of scrub vegetation. In this area, the riparian vegetation along the river’s edge is highly disturbed by off-highway vehicle use and limited to the area directly adjacent to the river’s bank. South, beyond this lower bench, is a higher bench. This bench is located adjacent to Riverside Drive, on its eastern side. The bench vegetation consists of mown grasses. Along the steep bank of the river to the east, riparian and scrub vegetation are present. As the bluff tends further south toward College Avenue, the riparian vegetation along the river’s edge becomes more dense.

No southwestern willow flycatchers were detected during the protocol-level surveys. Recent sightings of willow flycatchers in and near the project area have been of non-breeding individuals. Jones & Stokes biologists observed two non-breeding individuals on May 22, 2002, in the upland trail portion of the project area. During surveys conducted by TOBC for a separate project, there was a single observation of a willow flycatcher (that could be identified only to specific level) on May 16, 2003. That observation was just downstream of the SR 246 Bridge, approximately 1.5 miles upstream of Riverbend Park and 0.5 mile upstream of the project area. None of the three individual willow flycatchers were observed during subsequent surveys. The potential for this species to nest in the project area is low due to: (1) the relatively low quality of habitat compared to that occurring in downstream areas; and (2) a lack of surface water in the river throughout the breeding season in most years. The project area is likely used by a low number of migrating willow flycatchers on a rare to uncommon basis.

Because of this, pre-construction surveys for nests and construction fencing placed at the edge of the 20-foot construction corridor along the trail alignment are recommended measures to
mitigate the potential impacts to willow flycatchers and their habitats to below a level of significance. The presence of a biologist to locate and check the fencing periodically is also recommended.

Phase 3 construction of playing fields in the agricultural field south of McLaughlin Road should not impact southwestern willow flycatchers. The work to be done is in a cleared field. The only vegetation disturbing activity proposed is the relocation of the PGE utility poles located some distance from the river’s edge. The easternmost pole is surrounded by some natural vegetation. This vegetation may be damaged or disturbed in the process of relocating the power pole. Because of this, although southwestern willow flycatchers have not been seen in this area, a pre-relocation bird survey for nests is recommended to ensure there is no impact on this or other sensitive avian species.

**Least Bell’s Vireo**
The breeding season of the least Bell’s vireo is mostly mid-April to early June (Baicich 1997). The open-cup nest is constructed of pieces of bark, fine grasses, plant down, and horse hair, and is often placed on a slender branch of willow, other shrub, mesquite, or other small tree, usually 2–3 feet, but sometimes 1–10 feet, aboveground. Nests are typically located near dense thickets along water or along dry parts of intermittent streams, and are placed low in dense riparian vegetation with a large degree of vertical strata. This taxon is typically associated with willow, cottonwood, baccharis, wild blackberry, or mesquite in desert localities (AOU 1957; Zeiner et al. 1983).

Phase 1 construction is not expected to adversely impact the Least Bell’s Vireo. The majority of the grading work will be done in the agricultural fields west of the existing Babe Ruth field. In addition, the caretaker’s residence will be located in the agricultural field to the south of McLaughlin Road. The Bike Trail extension will follow the perimeter of the existing Riverbend Park and will be constructed over top of the existing dirt road. No vegetation of over three inches in diameter will need to be removed in order to construct Phase 1, with the exception of a single branch that overhangs the dirt road. No other vegetation removal is planned for this segment. Minor trimming of small willow branches that extend into the Bike Trail may be required. Staging of construction will be located a minimum of 200-feet away from the edge of the riparian vegetation adjoining the Santa Ynez River. Protocol-level surveys and general surveys were completed for the project and no Least Bell’s Vireos were found.

Phase 2 Bike Trail implementation will be conducted along the western edge of the Santa Ynez River, from McLaughlin Road to the intersection of Riverside Drive and College Avenue. The portion of the trail just south of McLaughlin Road winds through a riparian forest for a short distance. From the riparian forest, the trail moves up on to a low plateau or bench of scrub vegetation. In this area, the riparian vegetation along the river’s edge is highly disturbed by off-highway vehicle use and limited to the area directly adjacent to the river’s bank. South, beyond this lower bench, is a higher bench. This bench is located adjacent to Riverside Drive, on its eastern side. The bench vegetation consists of mown grasses. Along the steep bank of the river to the east, riparian and scrub vegetation are present. As the bluff tends further south toward College Avenue, the riparian vegetation along the river’s edge becomes more dense.
Protocol-level surveys for least Bell’s vireo were conducted in spring 2003. No least Bell’s vireos were identified during these surveys. In addition, no records of least Bell’s vireo were found in the project area (CNDDB 2004). Also, Least Bell’s vireos have not been observed during surveys for other projects in and near the project area in 1998 and late spring 1999 (Garcia and Associates 1998, 1999). Currently, least Bell’s vireos are known to nest only along the upper Santa Ynez River near Gibraltar Reservoir and Mono Creek. Other than the extant breeding population in the Gibraltar Reservoir area, the only other recent sightings include an early 1990s observation upstream of Salsipuedes Creek (more than two miles upstream of Riverbend Park) and a territorial bird observed for a three-week period about one mile west of Buellton (15 miles upstream of the project area) (Greaves, pers. comm., 2003). This species is not expected to nest in the project area, due to the limited quantity and quality of habitat. This conclusion is supported by the lack of least Bell’s vireo sightings during several survey efforts conducted in and near the project area in the past six years. Because there have been no sightings of least Bell’s vireo at or near the project site, it is unlikely that they are or will be present in the area. However, pre-construction bird surveys are recommended to include this species to ensure that there are no impacts to the least Bell’s vireo. Disturbance to a small amount of migration habitat (branch removal and minimal trimming of vegetation less than three inches in width) represents a less than significant impact because: (1) individual birds are expected to use this reach of the river only on uncommon to rare occasions; and (2) there are large areas of quality riparian habitat, that is better than the habitat found on the project site, on other reaches of the Santa Ynez River and throughout the region.

Phase 3 development is not planned within riparian areas or the riverbed. Phase 3 will involve the development of playing fields and tennis courts, parking and a restroom in the agricultural field south of McLaughlin Road. Protocol-level surveys and general surveys were completed for the proposed project, and no least Bell’s vireos were observed.

**California Yellow Warbler**
The yellow warbler is known to nest throughout much of the Santa Ynez River riparian zone, including the reach that contains the project area. Breeding activity begins in April and ends in August. Yellow warblers typically nest in riparian scrub and riparian forest habitats from lowland riparian areas up to the mixed north-slope forest zone.

**Yellow-Breasted Chat**
The yellow-breasted chat is associated with dense, shrubby vegetation including early successional riparian habitat (Eckerle and Thompson 2001). Breeding populations of yellow-breasted chats exist along the Santa Ynez River and in the Barka Slough at Vandenberg Air Force Base.

Jones & Stokes observed a single yellow-breasted chat on June 13, 2002. In 2003, there were four observations of yellow-breasted chats (TOBC) along the Santa Ynez River just south of the project area in May, June and July. It is likely that the yellow-breasted chat bred within the Santa Ynez River riparian area, just south of the project site, as a territorial male was observed singing on territory in May, June and July and subsequently, an adult bird was observed with a single fledged young, 30 meters upstream of the known territory (TOBC and Whitney 2003). Although a nest was not found, it is likely that this species nested nearby, based on the continued presence of the territorial male and the subsequent observation of an adult with a young near the known territory. There is a moderate potential for this species to nest in the project area and a moderate
to high potential for yellow-breasted chats to occur in the project area at some time during the year.

Although the quality and extent of nesting habitat in the project area is limited compared to habitat downstream, suitable habitat for nesting California yellow warbler is present in the riparian habitat along the Santa Ynez River. There is high potential for this species to nest in riparian habitat in and near the project area. The project area is likely utilized by the species during non-breeding times of the year as well.

**Phase 1** development will not involve significant construction near riparian vegetation. The majority of the construction activity will take place in the existing agricultural field north of McLaughlin Road and west of the Babe Ruth field. A portion of the construction for the Bike Trail extension will take place on the north and east perimeter of the North Park site. In this area, the Bike Trail will abut riparian vegetation. Impacts on either the yellow warbler or yellow-breasted chat are not expected, however, to ensure that nesting birds are not disturbed, a pre-construction bird survey is recommended for the work in the vicinity of the riparian vegetation. Trimming of vegetation will be kept to a minimum and the only identified vegetation to be cut is a single, low-hanging branch adjacent to the Babe Ruth field. Because of this and the fact that there is a significant amount of riparian vegetation on the lower Santa Ynez River, the impact to habitat for these species will be less than significant.

**Phase 2** construction is expected to have potentially more impact on these birds as a result of additional noise and disturbance occurring closer to riparian species and along the riverbank. Although yellow warblers commonly nest along the Santa Ynez River basin, no data base records of California yellow warblers were found in the project area (CNDDB 2004). There have been recent sightings of this species in and near the project area. Forty-seven individual yellow warblers were observed during the Jones & Stokes field surveys from April through July 2002. One individual was heard singing during the July 11, 2003 reconnaissance survey. Up to eight singing males were heard in 2003 during morning surveys of the Santa Ynez River riparian zone just downstream of the SR 246 Bridge and two separate yellow warbler nests were identified in this area during June and July of 2003 (TOBC and Whitney 2003). Several pairs were observed in riparian habitat on the nearby LPMSHP in 2004 (Olson, pers. observations).

There is a moderate potential that the construction of the Bike Trail and its Phase 1 extension could affect nesting yellow warblers and/or yellow-breasted chats, if construction activities occur during the nesting season (approximately April 15 through August 15). This impact will be reduced to a less than significant level by conducting a pre-construction survey for nesting birds. The survey would be done in conjunction with the survey for nesting raptors (white-tailed kite and Cooper’s hawk) described above. As only one elderberry shrub is expected to be removed, along with the trimming of less than ten branches over three inches in diameter, the impact to nesting and foraging habitats of these birds is expected to be negligible. In addition, replacement elderberry shrubs will be planted along the river side of the Bike Trail.

Areas of riparian scrub and forest along the Bike Trail alignment represent suitable habitat for these species. Construction activities between April 15 and August 15 could potentially affect nesting yellow warblers and yellow-breasted chats. As described above, a pre-construction survey for nesting birds will reduce this potential impact to a less than significant level.
Phase 3 will involve construction activity in the South Park area, south of McLaughlin Road. The only potential impact on the yellow warbler or the yellow-breasted chat is the relocation of the PGE lines within the field. Natural vegetation has grown up around the easternmost power pole and may be damaged when the pole is removed for relocation. In order to reduce this impact to a level below significance, a pre-construction bird survey is recommended for this isolated native habitat.

**Yuma Myotis**

The Yuma myotis is known to forage at night over surface water and roosts in caves, under bridges and in buildings. There is a moderate potential for the species to forage over open water areas of the Santa Ynez River. It is not expected to roost in the project area, due to a lack of suitable roost sites.

Phase 1 will disturb mostly cultivated agriculture. That is considered to be a less than significant impact to the Yuma myotis. If night lighting is necessary, it is unlikely to detrimentally affect bats. Rather, it could potentially attract an increased number of insects, and thus increase the likelihood of this species foraging in the area.

Phase 2 construction has greater potential to affect the Yuma myotis, because there will be more disturbance to areas adjacent to the river. However, the disturbance will be limited to the 20-foot wide construction area and will not affect the riverbank, open water areas within the channel or significantly affect the riparian vegetation along the river’s bank. The primary foraging area for this species is over water and along the vegetated edges of water courses. Construction will be limited to daylight hours, thus reducing the potential conflict with foraging time for the Yuma myotis. The project staging area will be located as far as possible from the riverbank and riparian/sensitive vegetation. This species requires a regular water source. Because the Santa Ynez River flows intermittently during spring, summer and fall, there is a high probability that flows will be minimal or non-existent during the time of construction. In the absence of flow, the Yuma myotis would be expected to relocate to tributaries of the Santa Ynez River.

Phase 3 construction activities will be located a significant distance from the Santa Ynez River and adjacent riparian habitat. Thus, they are not expected to impact this species.

**American Badger**

This species has potential to forage in the project area, and to possibly den in the area in the future.

Phase 1 activities will disturb mostly cultivated agricultural land, as well as limited areas near the riparian zone during construction of the Bike Trail extension through the park. This represents the temporary loss of a minimal amount of foraging habitat, a less than significant impact. Badgers are not expected to den in the Phase 1 area.

Phase 2 will involve more construction activities in suitable badger habitat. Loss of foraging and potential denning habitat will be very limited, as the only area to be disturbed will be the existing 20-foot wide cleared roadway, which is already well used and compacted. A small portion of undisturbed area between two cottonwood trees will be disturbed and an elderberry bush will be removed. The trail will be re-routed between the two cottonwood trees. The potential for strikes
of badgers by construction vehicles and equipment will be minimal because vehicle speeds are not permitted to exceed 10 miles per hour. To ensure that badgers are not located within the project area and that their dens are not impacted, a pre-construction survey is recommended for Phase 2. The survey for badger dens can be done in conjunction with surveys for silvery legless lizard and California horned lizard.

Phase 3 activities will include conversion of cultivated agricultural land. Some disturbance to a small amount of isolated native vegetation is possible during the relocation of an existing power pole. A pre-construction survey is recommended to ensure that an active badger den will not be impacted.

**Southern California Steelhead**

The Southern California steelhead is the only special-status fish species, known to occur, or with the potential to occur, in the project reach of the Santa Ynez River, that could be indirectly affected by project activities. The Southern California steelhead, considered an Evolutionarily Significant Unit, is federally listed as endangered under the ESA (62 FR 43938, August 18, 1997) and is a state Species of Special Concern. The National Marine Fisheries Service (NMFS, now referred to as National Oceanic and Atmospheric Administration – Fisheries Division, or NOAA-Fisheries for short) has jurisdiction over steelhead.

The success of fish populations has been linked to levels of turbidity and siltation in watersheds. The Santa Ynez River is already listed as impaired due to sedimentation. Physiologically, high suspended sediment creates a loss of visual capability, leading to a reduction in feeding and growth rates; a thickening of the gill epithelium, potentially causing the loss of respiratory function; and increases in stress levels, reducing the tolerance of fish to disease and toxicants (Waters 1995). High suspended sediment can also affect physical habitat. Once the suspended sediment is deposited, it can reduce water depths in pools, decreasing the physical carrying capacity of juvenile and adult fish in those pools (Waters 1995).

The lower main stem of the Santa Ynez River is an important migratory corridor for adult and juvenile steelhead. This corridor will be protected, as migration pathways will not be blocked by the proposed construction of the playing fields, park improvements or the bicycle trail. No in-stream or near stream construction is proposed. All construction would occur above the river’s high-water mark.

Steelhead spawning habitat is not likely to be affected, because the fish are not likely to occur near the project area, except during months of upstream-downstream migration. The mainstem of the lower Santa Ynez River can, however, provide important rearing habitat for juvenile steelhead. The Storm Water Pollution Prevention Plan to be prepared for the project will ensure that construction does not result in erosion or sedimentation around the riverbed resulting in an impact on the population of steelhead in the Santa Ynez River.

Development of the proposed Riverbend Park Master Plan and Trail is not expected to have any impact on Southern California steelhead. The proposed construction of playing fields is to take place quite a distance from the river’s edge, beyond the riparian corridor. There is also a substantial distance between the Bike Trail alignment and the river’s bank. A Storm Water Pollution Prevention Plan will be prepared, incorporating best management practices (BMPs)
including the City’s Operational BMPs (Appendix O) to ensure that erosion, sedimentation or other pollutants do not adversely impact the river.

Impacts to steelhead will be less than significant because: (1) the project area is used by this species only for migration; (2) there are no anticipated impacts to the bed or banks of the Santa Ynez River; and (3) mitigation measures, including a Stormwater Pollution Prevention Plan will be implemented to minimize storm water pollution and indirect impacts, such as sedimentation and erosion.

**Arroyo Chub**

Arroyo chubs are small, chunky cyprinids (members of the minnow family, Cyprinidae), typically less than four inches in length. This state species of special concern is grey to olive green dorsally with white undersides and usually have a dull grey lateral band along their sides. Arroyo chubs are commonly found in slow-moving or backwater sections of warm to cool (50°-75°F) streams with mud or sand substrates. They feed primarily on algae, although they also regularly prey upon insects and small crustaceans. This species is native to the Los Angeles Basin, Malibu Creek and San Juan Creek, and have been introduced throughout the coastal streams of southern California, including the Santa Ynez River.

Arroyo chubs are fractional spawners which breed more or less continuously from February through August; the peak spawning occurs in June and July. Most spawning occurs in pools or in quiet waters along the stream margins when the water temperature is between 14°C and 22°C (57°F and 72°F). Their eggs typically hatch in four days at 24°C (75°F). Arroyo chubs reach sexual maturity after one year, and typically live up to four years. This species potentially spawns both downstream and upstream of the project area where there is perennial or near perennial water. However, near the project area, the Santa Ynez River rarely has slow-moving water and is usually completely dry during the peak spawning months of June and July. As such, this reach of the river provides a potential corridor for arroyo chubs moving between upstream and downstream areas.

**Phases 1 through 3**

Arroyo chub spawning is not likely to be affected by the project because there is little suitable spawning habitat near the project area. Moreover, the Storm Water Pollution Prevention Plan to be prepared for the project will ensure that construction does not cause erosion or sedimentation around the riverbed that might impact the arroyo chub population in the Santa Ynez River.

Development of the proposed Riverbend Park Master Plan and Trail is not expected to have any impact on the arroyo chub. The proposed construction of playing fields is to take place quite a distance from the river’s edge, beyond the riparian corridor. There is also a substantial distance between the Bike Trail alignment and the river’s bank. A Storm Water Pollution Prevention Plan will be prepared, incorporating best management practices (BMPs) including the City’s Operational BMPs (Appendix O) to ensure that erosion, sedimentation or other pollutants do not adversely impact the river.

Impacts to arroyo chub will be less than significant because: (1) this species likely spawns primarily upstream and downstream of the project area; (2) there are no anticipated impacts to the bed or banks of the Santa Ynez River; and (3) mitigation measures, including a Stormwater
Pollution Prevention Plan will be implemented to minimize storm water pollution and indirect impacts, such as sedimentation and erosion.

**Pacific Lamprey**
The life history of the Pacific lamprey is similar to that of the Southern California steelhead. This species is anadromous with ammocetes (young lamprey) born in freshwater streams. Ammocetes mature in streams after a period of four to six years, then return to the ocean for a period of two to three years before once again entering freshwater to spawn as adults. Pacific lampreys are known to enter the Santa Ynez River during years of average and above-average rainfall. Adults were observed during the winter of 1997-98 (Engblom, pers. comm., 2004).

The lower mainstem of the Santa Ynez River, including the reach within the project area, is an important migration corridor for adults moving upstream to spawn, and for juveniles moving downstream to return to the ocean. However, the reach of the river in the project area does not provide spawning or rearing habitat for this species. As such, the vicinity of the project area is used by Pacific lamprey only for migration, and then primarily in above-average rainfall year.

**Phases 1 through 3**
Spawning by this species is not likely to be affected by the project because lampreys are not expected to occur near the project area, except during months of upstream-downstream migration. Moreover, the Storm Water Pollution Prevention Plan to be prepared for the project will ensure that construction does not cause erosion or sedimentation around the riverbed that might impact the lamprey population in the Santa Ynez River.

Development of the proposed Riverbend Park Master Plan and Trail is not expected to have any impact on Pacific lamprey. The proposed construction of playing fields is to take place quite a distance from the river’s edge, beyond the riparian corridor. There is also a substantial distance between the Bike Trail alignment and the river’s bank. A Storm Water Pollution Prevention Plan will be prepared, incorporating best management practices (BMPs) including the City’s Operational BMPs (Appendix O) to ensure that erosion, sedimentation or other pollutants do not adversely impact the river.

Impacts to Pacific lamprey will be less than significant because: (1) the project area is used by this species only for migration; (2) there are no anticipated impacts to the bed or banks of the Santa Ynez River; and (3) mitigation measures, including a Stormwater Pollution Prevention Plan will be implemented to minimize storm water pollution and indirect impacts, such as sedimentation and erosion.

**Natural Communities and Riparian Habitat**
The proposed project will not have a substantial adverse effect, on any riparian habitat or other sensitive natural community. No impact will result from the project, either directly, or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or United States Fish and Wildlife Service (USFWS).
Special-status Plant Communities
Construction and operation of the project will result in disturbance to a small amount of Southern Cottonwood Willow Riparian Forest. The disturbance will be very minor (trimming of one cottonwood and two willows, and removal of one elderberry shrub). It is expected that trimming and/or damage to some riparian vegetation on the east end of the South Park area may occur when a utility pole is relocated. This is an area where riparian vegetation has grown up around one of the poles. These impacts will be reduced to a level of non-significance by replanting, in order to address impacts of any required trimming or damage that occurs. The elderberry to be removed will be replaced at a 5:1 ratio. A CDFG 1601 Streambed Alteration Agreement will be applied for and obtained if the amount of vegetation trimming necessitates CDFG review.

The other special-status plant communities present in the project area (Central Maritime Chaparral and Central Coast Arroyo Willow Riparian Forest) will be avoided by construction and operation of the project. Protective construction fencing will be placed to designate areas that are off-limits (Figure 1-7). As such, there will be no impacts to these communities.

Special-status Plants
A CDFG and California Native Plant Society (CNPS) protocol-level survey was conducted by Rincon Consultants, Inc. in May and June of 2003 for black-flowered figworts (Scrophularia atrata; CNPS List 1B). No other special status plant species were identified as being located in the project area, however Rincon conducted a focused rare plant survey of the project area. During the survey, La Purisima manzanita (Arctostaphylos purissima; CNPS List 1B) was identified in an isolated occurrence of Maritime Chaparral, east of the Bike Trail alignment. It was determined that all individual plants of this species are outside of the construction zone of the project area and will not be impacted. Protective construction fencing will be placed between the construction area and the plants to ensure it is clear that the area in which they occur is not a part of the construction site or within an area to be used for staging.

Noxious Plants
Implementation of the proposed project could result in the introduction or spread of noxious weed species that could displace native species in riparian and sensitive natural communities. Soil-disturbing activities during construction and maintenance of the proposed project could promote the introduction of plant species not currently found in the project area, including exotic pest plant species. Exotic pest plants include noxious weeds designated as federal noxious weeds by the U.S. Department of Agriculture and listed by the California Department of Food and Agriculture, as well as other exotic pest plants designated by the California Exotic Pest Plant Council (2000). The introduction and spread of exotic pest plants adversely affects natural plant communities by displacing native plant species that provide shelter and forage for wildlife species. This potential impact will be mitigated to a less than significant level by removing any non-natives identified as “noxious” in the USDA list from the work area. Noxious vegetation shall be disposed of in a manner and at a location which will prevent its re-establishment. Whenever possible, noxious species will be removed by hand or by hand-operated power tools rather than by chemical means. Where control of noxious vegetation is required and chemical use necessary, only those herbicides, such as Rodeo (Glyphosate), that are approved for aquatic use, will be used.
Wetlands
The proposed project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.

The existing agricultural fields in Riverbend Park were evaluated by Garcia and Associates to determine if they qualified as agricultural wetlands pursuant to the requirements of the Natural Resources Conservation Service. Using the three required wetland parameters of hydrophytic vegetation, hydric soils and wetland hydrology and recognizing that these fields are regularly irrigated, it was determined that these properties do not qualify as agricultural wetlands or wetlands pursuant to section 404 of the Clean Water Act.

Jones & Stokes biologists surveyed the remainder of the project area and did not identify any potential wetlands.

Wildlife Corridors and Nursery Sites
The proposed project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The construction of the playing fields at Riverbend Park should not interfere with the movement of any native species as the fields are located adjacent to existing development, will not be located on the riverbank and there are ample areas of open space remaining to the west, north, east and south to accommodate wildlife movement. In addition, the proposed fields and the proposed Bike Trail will not interfere with movement of migratory fish. No construction is proposed within the river or directly adjacent to the riverbank. The Bike Trail will not serve to create a barrier to wildlife passage and a Storm Water Pollution Prevention Plan will address necessary erosion control measures. Impacts will be less than significant.

Biological Resource Ordinances and Policies
The proposed project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The proposed project is consistent with the City’s General Plan. The recommended mitigation measures will ensure that the identified areas of biological significance and specific species of concern will be protected and impacts reduced to a less than significant level.

Habitat Conservation Plans
The proposed project will not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, as no habitat conservation plans or similar plans have been prepared for the project area or adjacent lands.

Degradation of the Environment
The proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. The proposed project will
have only a minor impact on the environment, as it does not involve, substantial disturbance to a natural area or watercourse and does not have the potential to significantly threaten or eliminate a plant or animal community. The recommended mitigation measures will ensure that the impact on the environment is less than significant.

Mitigation Measures

B-1: A pre-construction survey for nesting birds shall be conducted by a qualified wildlife biologist, if Bike Trail construction or PGE line relocation is planned to occur between February 1 and August 31. Special emphasis shall be placed on the potential occurrence of nests of southwestern willow flycatchers, white-tailed kites, Cooper’s hawks, yellow-breasted chats, and California yellow warblers. If no active nests, or indications resulting in a strong suspicion of a nest location, are found during the survey, no further protection measures will be required. If active nests are found, the biological monitor shall prepare a nest avoidance plan designed to avoid impacts to known or suspected nests. Whether a buffer distance is established shall depend on the distance of the nest from construction activities and the type of activities that are to take place. No construction activities shall occur within an established buffer until young have fledged or the species is no longer attempting to nest. Construction activities shall be allowed outside the established buffer zone. No further protection measures shall be required once young have fledged or after August 31.

B-2: The project proponent or its contractors shall conduct environmental awareness training of construction crews before project initiation. The education program shall include a brief review of the special-status plant and wildlife species that occur, or could potentially occur in the project area, including their life history and habitat requirements, identification of the portions of the project area in which they may occur, and their legal status and protection under the federal Endangered Species Act of 1973 (16 USC 1536), the California Endangered Species Act of 1970 and 1984 and the California Environmental Quality Act of 1970 and their amendments. The program shall also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation. The crew foreman shall be responsible for ensuring that crew members adhere to the guidelines and restrictions. Education programs will be conducted for new personnel as they are brought onto the job during the construction period. Restrictions and guidelines that must be followed by construction personnel include:

- Project-related vehicles will observe the posted speed limit on hard-surfaced roads and a 10 mph speed limit on unpaved roads during travel in the project area.

- Off-road travel shall be restricted to designated construction areas and the 20-foot wide Bike Trail corridor, in any segment where it is required. Wider width construction corridors can be designated with the prior approval of both the biological monitor and the City’s Project Manager.

- Night-time construction adjacent to the Santa Ynez River shall not be permitted.
- All food-related trash shall be disposed of in closed containers and removed from the project area at least once a week during the construction period. Construction personnel shall not feed or otherwise attract wildlife to the project area.

- No pets or firearms shall be allowed in the project area.

- No rodenticides or herbicides shall be applied in the project area during construction activities, except as directed by the biological monitor to eradicate noxious vegetation.

- Any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped, shall immediately report the incident to the biological monitor. The monitor shall immediately notify the project proponent, who shall provide verbal notification, as appropriate, to the USFWS Endangered Species Office in Ventura, California, and to the local CDFG contact within three working days. The project proponent shall provide written notification of the incident to USFWS and CDFG within five working days.

B-3: Immediately prior to ground-disturbing activities, a qualified wildlife biologist shall survey all construction areas with natural vegetation for the presence of California horned lizards, silvery legless lizards, and American badger dens. Although expected to occur on rare occasions only, the monitor shall also survey for the presence of California red-legged frogs, southwestern pond turtles, and two-striped garter snakes. If California horned lizards or silvery legless lizards are found, those individual animals shall be relocated to similar habitat away from construction activities. If California red-legged frogs, southwestern pond turtles, or two-striped garter snakes are found, construction activities shall not begin until appropriate resource agency representatives have been consulted and permission to continue work is granted.

B-4: Staging shall be located as far as possible from the river’s bank, and a minimum of 200 feet away from the edge of the riparian vegetation adjoining the Santa Ynez River.

B-5: If night-time security lighting is required, it shall be directed downward and away from the river and riparian vegetation.

B-6: Any noxious vegetation identified by the biological monitor shall be removed from the work area. Noxious vegetation shall be disposed of in a manner and at a location that will prevent its re-establishment. Whenever possible, noxious species will be removed by hand or by hand-operated power tools rather than by chemical means. Where control of noxious vegetation is required and chemical use is necessary, only those herbicides, such as Rodeo (Glyphosate) that are approved for aquatic use shall be used.

B-7: The City and its contractors shall minimize the likelihood of removal or disturbance of sensitive biological resources adjacent to the construction area by installing orange construction barrier fencing (and sedimentation fencing in some cases) around the construction areas. Sensitive resources that occur within and adjacent to the construction area include the sensitive natural plant communities and riparian forest along the Santa Ynez River.
It is anticipated that if the contractor wishes to work in sequential order, up to one mile of fencing would need to be installed on the river side of the project site and then relocated when the next segment is begun. If alternating portions of the Bike Trail site are to be worked on at one time, up to three miles of construction fencing is anticipated to be required. This fencing shall be installed on the river side of the Bike Trail. The fencing shall be installed on the City side of the Bike Trail, in areas where riparian vegetation and/or trees border both sides of the trail alignment (See Figure 1-6). Prior to construction, the contractor shall work with the project engineer/site supervisor and a qualified wildlife biologist to identify the exact locations where barrier fencing is necessary. The protected areas shall be designated as an “environmentally sensitive areas”. The fencing shall be installed, prior to the initiation of construction activities and shall be maintained throughout the construction period, in any given segment. Periodic site inspections of the barrier fencing shall be made by the biological monitor. The following paragraphs shall be provided in the construction specifications for environmentally sensitive areas:

“The contractor’s attention is directed to the designation of “Environmentally Sensitive Areas” and to local, state and federal regulations that pertain to the resources in these areas. These areas are protected and no entry by the contractor for any purpose will be allowed. The contractor shall take measures to ensure that the contractor’s work force does not enter or disturb these areas, including giving written notice to his employees and subcontractors.”

“Temporary construction fences around Environmentally Sensitive Areas shall be installed as the first order of work. Temporary fences shall be furnished, constructed, maintained, and later removed, by the contractor, as directed by the qualified Wildlife Biologist and site supervisor, and generally, as shown in Figure 1-6. The fencing shall be commercial quality woven polypropylene, orange in color, and a minimum of 1.2 meter (4 feet) high (tensor polygrid or equivalent). The fencing shall be tightly strung on posts with a maximum 3-meter (10-foot) spacing. The biological monitor will make a final determination, on the ground, regarding the exact locations where temporary fencing is required.”

B-8: A qualified biologist shall be hired to periodically monitor construction activities for compliance with the project’s mitigation measures. The biological monitor shall assist construction personnel, as needed, to comply with all project implementation restrictions and guidelines. Furthermore, the biological monitor shall be responsible for ensuring that the staked and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources are maintained in good repair.

B-9: The City shall develop a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices to prevent soil erosion and sedimentation to protect aquatic wildlife species and prevent toxic materials spills during the construction phases of site development. These BMPs may become part of a SWPPP and/or erosion control plan. The BMPs shall require that the contractor and/or project proponent:
- Establish strict on-site handling rules to keep construction and maintenance materials from entering the river; and
- Immediately clean up all spills and notify agencies of any spills and cleanup procedures;
- Locate staging and storage areas for equipment, materials, fuels, lubricants, solvents, and other possible contaminants outside the river’s normal high-water area;
- Remove vehicles from the river’s normal high-water area before refueling and lubricating; and
- Develop an erosion control plan to control potential erosion during construction and in the early post-construction phase of the site development until vegetation can be established or re-established to cover bare native soil. Erosion control measures to protect water quality and steelhead shall be developed and implemented as part of the erosion control plan.

B-10: To avoid the introduction or spread of noxious weeds into previously uninfested areas, the City or its contractors with the assistance of the biological monitor will implement the following measures:

- Educate construction supervisors and managers on weed identification and the importance of controlling and preventing the spread of noxious weed infestations;
- Conduct a follow-up inventory of the construction area to verify that construction activities have not resulted in the introduction of new noxious weed infestations; and
- If new noxious weed infestations are located during the follow-up inventory, the appropriate resource agency will be contacted to determine the appropriate species-specific treatment methods for removal and the noxious vegetation shall be removed.

B-11: The contractor shall limit trimming of riparian shrubs and trees to that necessary to construct the Bike Trail and allow construction equipment and materials necessary access to the construction area. An estimated 20-foot wide construction area has been designated for the Bike Trail construction. If additional area for construction is needed in any portion of the Bike Trail alignment, the construction area may be expanded with the agreement of both the biological monitor and the City’s project manager. Any necessary tree trimming shall be conducted or supervised by an International Society of Arboriculture-certified arborist, to avoid permanent damage to riparian trees along all trails and access roads within the project site.

B-12: A mitigation plan to address any trimming of trees or natural vegetation removal that occurred during construction shall be prepared and implemented for each phase of construction, once it is completed. The plan shall utilize native plant species to replace plants trimmed or removed from areas of riparian scrub, riparian forest, coastal scrub, alluvial plain, and other natural plant communities. The plan will include the following provisions:
- Any riparian scrub or riparian forest that is disturbed will be replaced at a 3:1 ratio, based on acres of habitat permanently disturbed; and

- Any elderberry shrubs and willows removed during construction will be replaced at a 5:1 ratio.

- Any cottonwoods removed or significantly damaged shall be replaced at a 5:1 ratio.

- Locations for replanting shall be carefully selected by a revegetation specialist to maximize the likelihood of success. The areas used in planting shall be accessible by water truck to facilitate irrigation during the dry season of the first two years post-planting. The revegetated areas will be monitored annually by a revegetation specialist to document survival rate and growth. Success criteria shall be established in the plan, including percent of contained plants and/or cuttings surviving the first and second years, percent groundcover provided by the plantings, and height of plants after the first and second growing seasons. Success criteria for willows, cottonwoods and scrub species shall be as follows, unless reasonable substantiation is provided as to why an alternate criteria will be as effective or more effective in ensuring plant survival.

<table>
<thead>
<tr>
<th>Species</th>
<th>Size at Planting</th>
<th>Planting Centers</th>
<th>Height at 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow</td>
<td>1 gallon</td>
<td>8 ft.</td>
<td>10 ft.</td>
</tr>
<tr>
<td>Cottonwood</td>
<td>1 gallon</td>
<td>20 ft.</td>
<td>7 ft.</td>
</tr>
<tr>
<td>Scrub species</td>
<td>1 gallon</td>
<td>5 ft.</td>
<td>2 ft.</td>
</tr>
</tbody>
</table>

A re-vegetation report shall be prepared after each annual monitoring survey. The report shall include a determination as to whether the success criteria have been met and what percentage of the plants in any given category have met the success criteria. If success criteria have not been met, remedial actions, such as replanting shall be required.

**Unavoidable Significant Impacts**

There are no significant and unavoidable biological impacts associated with the proposed project’s implementation.
3.3 Cultural Resources

This section analyzes cultural resource impacts associated with the proposed project. The analysis is based on information presented in a report prepared by Applied Earthworks, Inc. (AE), July 2004. A copy of this report is included as Appendix I.

Regional Setting

Prehistoric
Prehistoric cultural change is most often described in terms of cultural horizons. Chronologies describe cultural horizons in terms of changes in technology, subsistence, and settlement patterns. Several chronologies of cultural change for the Santa Barbara sub-region of the South Coast Region have been postulated over the years. These have been divided primarily between those applying to the Channel Islands (Hoover 1971; Olson 1930; Orr 1968) and those applying to the mainland (Harrison 1964; Olson 1930; Orr 1943; Rogers 1929). One chronology addresses both geographic areas (King 1981). A synthesis of these theories and the history of archaeology in the area is provided in Moratto (1984) and it is on that work that this brief summary is based. King’s 1981 chronology of cultural change is divided into three periods: Early, Middle, and Late. Each period is subdivided into phases, and each phase is divided into more refined subdivisions.

The Early Period, which is divided into three phases, is defined as beginning more than 7,000 years ago, with the first human occupation of the area, and continuing until approximately 1000 B.C. The Early Period corresponds to the Oak Grove and Hunting periods postulated by Rogers (1929) and Orr (1943). Oak Grove period sites tend to be on high ground away from the ocean and contain semi-subterranean pit houses. These sites are characterized by extended burials with red ochre, abundant milling stones, and a few crude projectile points. Hunting Period sites tend to be located near the ocean and are characterized by flexed burials, mortars, pestles, stone bowls, few millingstones, and numerous projectile points. The periods were initially thought to be sequential. Later, it was theorized that these two cultural material sets represented two groups of people co-existing and eventually merging together. More recently, the differences in Oak Grove and Hunting sites appear to be best explained by site specialization.

The Middle Period (1000 B.C.–A. D. 1100), which is divided into five phases, is characterized by an increase in the number of types of beads and ornaments and a shift from rectangular to circular Haliotis and Olivella beads. The Late Period (A.D. 1100–1804) is characterized by the presence of Olivella callus beads and clam disks and cylinder beads. Late Period sites are characterized by flexed burials, plank canoes, domed pole and thatch structures, and elaborate shell and steatite industries. The people of the Late Period are the ethnographic Chumash.

This reconstruction is more temporal than cultural. Changes in artifact assemblages indicate time periods, but do not necessarily imply cultural replacement. King believes that the Chumash society was developing in the region for some 7,000 years. Changes in artifacts instead are taken to represent the evolution of that society.
Attention is usually focused on the coastal Chumash and their coastal adaptation. However, the Chumash also occupied territory inland. Inland areas appear to have been occupied and utilized both seasonally by coastal groups and year round by inland Chumash groups. There is archaeological evidence of trade between inland and coastal groups. Some have postulated that this exchange was necessary to maintain populations in the interior. Generally, technological and design advances that occurred on the coast arrived later to inland areas (Greenwood 1978).

**Ethnographic**

Before the settlement of the project area by Europeans, the area was occupied by a Native American group referred to as the Chumash. The Chumash occupied a large area, and are best documented in the Channel Islands and the coast in the area of Santa Barbara. Chumash populations in the vicinity of the project area spoke the Purisimeño dialect of the Chumashan language family of the Hokan stock (Shipley 1978). They lived in relatively small villages and relied heavily on acorns and riverine resources for subsistence (Greenwood 1978).

The Chumash were the first major Native American group encountered by Europeans, when Juan Rodriguez Cabrillo landed near the location of the modern city of Ventura in 1542. When the missions were established, the Chumash were friendly and docile toward the Spanish and adapted readily to the mission system. The mission La Purisima Concepcion was founded in 1787, in what is now the City of Lompoc. The original buildings were destroyed by an earthquake in 1812, and the mission was immediately relocated four miles northeast to its present location. Mission La Purisima Concepcion reached its highest population in 1804, when 1,520 neophytes, or Mission Indians, were associated with the mission. In 1838, the neophyte population had declined to 120, and by 1845, the mission had been all but abandoned by converts. (Grant 1978; Greenwood 1978.)

**Historic**

The Spanish mission system played an important role in the early history of the area. Mission La Purisima Concepcion was founded in 1787, the 11th of the 21 California missions. The purpose of the missions was to “civilize” the Indians, making them good citizens of the Spanish Crown. Ideally, mission lands were held in trust for the neophytes. The mission would be secularized within a given period of time and the neophytes would be given the land and expected to continue to manage it in Spanish style.

After achieving independence from Spain in 1821, Mexico declared California as one of its territories; the government then became intent on secularizing the missions there. Although missions had produced great amounts of material resources, not enough Native Americans had been “hispanicized” to enable a defense of the province. This defense was essential to repel foreign invaders. Political, economic, and social factors made it difficult for the Mexican government to maintain the California mission chain, and a decision was made to secularize the mission properties. After secularization, very little if any of the mission land went to the neophytes. Most of the land was portioned out among the Mexican elite. (Hoover et al. 1990; Manfrina 1974.)

After the proclamation for secularization was issued in 1834, Mission La Purisima Concepción was divided into seven ranchos. Two of these ranchos, the Lompoc Rancho and the Mission Vieja de la Purisima Rancho, encompassed the area now known as the City of Lompoc. Rancho
Lompoc, a name derived from the Native American word for “lagoon” or “little lake,” totaled approximately 38,335 acres and was granted to Jose Antonio Carrillo in 1837. The Mexican government granted Rancho Vieja de la Purisíma, which contained 4,400 acres, to brothers Joaquin and Jose Antonio Carrillo in 1845. The Carrillo brothers appear to have used this land for agricultural purposes (O’Neill 1939; Storke 1891).

In the early 1850s, the Carrillo brothers sold Rancho Lompoc to Thomas Wallace More and his brother A. P. More. The More brothers sold their holdings to Hollister, Dibblee, and Cooper in 1863. Hollister, Dibblee, and Cooper had acquired other area ranchos as well for a sheep enterprise, including Rancho Vieja de la Purisíma. In 1874, Hollister and Dibblee (Cooper was no longer listed as a partner) sold the Lompoc and Mission Vieja Ranchos to a joint stock company for $50,000, payable in 10 installments. This joint stock company, known as the California Immigrant Union of San Francisco, was composed of California farmers and businessmen. This group, wishing to establish a land colony within which no alcoholic beverages could be manufactured or sold, wrote a temperance covenant into the land deed.

The lands of the company were surveyed and divided into lots made up of 5, 10, 20, 40, or 80 acres. A tract measuring 1 square mile was set aside for a townsite. At the subsequent land auction, approximately 200 lots were purchased by settlers from all over the United States. The unsold lots, amounting to approximately 35,000 acres, were sold back to Hollister and Dibblee, who continued to use them for sheep grazing. Settlers began farming and building almost immediately. Within 2 months, 80 families had settled on their newly purchased lots. Within a year, the flourishing town supported a newspaper, physician, justice of the peace, notary public, drug store, a 100-member Sunday school, and a tri-weekly stagecoach (O’Neill 1939; Storke 1891).

Of the more than 1,400 settlers that were living on the colony lands by 1880, 200 resided on the Lompoc town site. Attempts to keep the colony “dry” often failed as liquor was often transported in via stagecoach or was kept by druggists for “medicinal purposes.”

Lompoc was incorporated in 1888; by 1890 a population of 2,000 supported churches, schools, libraries, various retail establishments, a flour mill, physicians, dentists, lawyers, and real estate dealers. Agricultural activities on the outskirts of town produced wheat, beans, hay, sugar beets, onions, potatoes, mustard, cherries, pears, apricots, and apples. The incorporation also brought the end of temperance as courts ruled that the temperance covenant was unenforceable (Lompoc Valley Historical Society [LVHS] 2004; Manfrina 1974; O’Neill 1939; Storke 1891).

Despite drought and a diphtheria epidemic, the town prospered. The completion of the Southern Pacific Railroad between Los Angeles and San Francisco in 1901 included a spur into Lompoc, initiating further agricultural, residential, and commercial growth. This period also was hailed as the beginning of diatomaceous earth mining. The wide variety of uses for this material, including building materials, insecticides, and pharmaceutical products, made diatomaceous earth mining one of Lompoc’s most important industries. The flower seed industry also found a successful home here (Hart 1978; Manfrina 1974).

Camp Cooke, an army training base, was established north of town in 1941. This facility later became Cooke Air Force Base, and was renamed Vandenberg Air Force Base in 1958.
Development of the facility brought an influx of new residents, and within the next decade the population of Lompoc had quadrupled (Hart 1978; LVHS 2004; Manfrina 1974).

**Paleontologic**

The project site is underlain by deposits mapped as Quaternary alluvium, most of which are Holocene sediments from the Santa Ynez River (Dibblee 1988). The Pleistocene Orcutt Sand, exposed in the Purisima Hills to the north, reaches its maximum thickness in this region (Dibblee 1950). This formation consists mainly of slightly indurated, buff-colored sand, transported from beaches to the west. The potential for finding fossil material in these deposits is very low.

**Project Setting**

The City of Lompoc proposes to expand the recreational facilities at Riverbend Park located between the Lompoc Airport and the Santa Ynez River in the northeastern portion of Lompoc in Santa Barbara County (Figure 1-1). A portion of this project entails construction of a 2.3-mile-long Bike Trail. This segment of the project will use Federal Highway Administration funds acquired through the California Department of Transportation Local Assistance Program. Because the Bike Trail portion of the project will use federal funds and may affect historic properties (i.e., any prehistoric or historic site included in or eligible for inclusion in the National Register of Historic Places), it is considered an undertaking (per 36 CFR 800.16[y]) subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations found in 36 CFR 800.

The proposed Bike Trail parallels the west side of the Santa Ynez River, extending from Highway 246 north to Riverbend Park. Residential neighborhoods are found west and south of the trail and agricultural fields are present east of the trail. The proposed Trail follows existing trails through and to the west of the riparian zone of the river. The city proposes to improve and pave an existing dirt trail in order to create a Bike Trail. The completed Trail will be eight-feet wide, with two-foot gravel shoulders. The depth of disturbance will not exceed one-foot.

**Jones and Stokes**

Efforts to locate cultural resources within the project area consisted of conducting a records search, conducting archival research, contacting Native American representatives, and field surveys (Jones and Stokes).

**Records Search**

A records search was conducted at the Central Coastal Information Center at the University of California, Santa Barbara. The search indicated that portions of the project area had already been surveyed (Levulett et al. 1998; Peterson et al. 1984; and Spanne 1978). In total, these surveys cover approximately ¼ of the current project area. The records search indicated that there are nine previously recorded archaeological sites within a ¼-mile radius of the project area and one previously recorded historic cultural resource site located within the project area. This resource, the historic McLaughlin Road dump site (CA-SBa-1767H), is mapped on the site record along the west bank of the Santa Ynez River, in the area of McLaughlin Road. Historical resources are defined as cultural resources (including buildings, structures, and archaeological sites) that are listed in or determined by the State Historical Resources Commission to be eligible for listing in
the National Register of Historic Places (NRHP), the CRHR, or a local register of historical resources, or determined to be historically significant by a lead agency. Though the McLaughlin Road Dump was recorded within the project area, no determination regarding its significance has been made.

Archival Research
The McLaughlin Road dump was recorded in 1978 by Spanne. He noted lenses and a mound of historic refuse buried beneath 1–2 meters of sand. These materials were seen in the cut of the riverbank and included ceramics, bottles, brick, and a wide variety of artifacts representative of the period from approximately 1830 to 1940. Because the deposit was only visible in the eroded riverbank in 1978, the actual extent of the site is unknown.

Published and unpublished county and City histories, historic maps, and newspaper articles were consulted during archival research. Historic maps dating to 1903, 1947, 1952, and 1959 show structures within the project area (Metzker 1952; U.S. Geological Survey 1903, 1947, 1959). Only three of these structures were located in areas that are not currently developed. No indication of a city dump was located on any maps.

Native American Contacts
Jones & Stokes cultural resources staff contacted the Native American Heritage Commission (NAHC) and requested a search of their sacred lands files and a list of Native American representatives. No known sacred lands are located within the project area. The 24 Native American representatives recommended by the NAHC were contacted by means of a letter and then through follow-up phone calls.

Ms. Regina Washtiqoliqol, a Native American representative of Chumash heritage, called on October 11, 2000, to express her concern regarding the project. She indicated that approximately a dozen interconnecting villages were located in the area and offered to send a map to the Jones & Stokes office. When no map had been received by the beginning of November 2000, Jones & Stokes staff attempted to contact Ms. Washtiqoliqol. Her telephone number was not operational, so the staff sent a letter to her on November 10, 2000. No reply was received. Additional telephone calls were placed between January 22, 2002 and February 6, 2002, but there was no answer or voicemail at that number.

Mr. John Ruiz was concerned about particular areas and said that he would contact Jones & Stokes with that information, but as of March 1, 2001, no contact had been made. Jones and Stokes attempted to re-contact Mr. Ruiz but was not successful. In a telephone conversation on January 22, 2002, Mr. Ruiz stated that he was no longer handling this issue and that Dr. Kote Lotah of the Southern Owl Clan should be contacted. In a telephone conversation on January 23, 2002, Dr. Lotah requested a map of the project area and indicated that he would speak with Mr. Ruiz and contact Jones & Stokes. On February 5, 2002, Dr. Lotah stated that there were no concerns.

Ms. Suzie Harrison of the Santa Ynez Tribal Elders Council stated that the council was not concerned, as long as no known sites existed, but that they would like copies of the technical and compliance documents. Quinton Shoop of Owl Clan Consultants and Carol Pulido have requested to be contacted if cultural resources are discovered accidentally.
Pedestrian Survey
Two Jones & Stokes cultural resource specialists conducted a pedestrian survey of the project area in October 2000. Areas where visibility was good were examined using intensive survey techniques, with transects no further than 20 meters apart. Areas that were vegetated and had little to no visibility were not surveyed. Existing paths through the riparian zone were examined, based on planning information regarding possible routes. Additional efforts were made to locate the McLaughlin Road dump site. The bank of the river in the area of McLaughlin Road was examined carefully and profiles were scraped in the bank on several terraces. No indication of the dump site was located. This site was recorded 22 years ago, and the actual extent was never known. No indication of historic deposits were noted in the location of the structures on historic maps. No cultural resource sites were located during the survey.

Because pedestrian surveys examine only the surface of the ground, it is possible that there are subsurface components of the McLaughlin Road Dump or other previously undocumented buried cultural resources within the project area. Given the previously described potential timeline of the dump’s use and the determination by Spanne that the site is expected to be significant, additional efforts to determine its location in relation to the proposed Bike Trail construction were initiated.

Excavations
Past work in the site area (Jones & Stokes 2003; Spanne 1978) had shown that CA-SBA-1767H is buried under 3–6 feet of fill and that no surface evidence is present. Because of the lack of documentary evidence for the site, subsurface work in the form of an Extended Phase I testing was needed to establish the presence or absence of the deposit in the project area. The current project scope dictated establishing the presence of the site only within the Area of Potential Effect (APE). Due to the possible depth of the deposit, hand excavation was economically and logistically infeasible. Therefore, mechanical excavation with a mechanical auger was deemed to be the most efficient method for determining the presence or absence of a historical deposit.

Based on Spanne’s site record, Jones & Stokes (2003) (Appendix J) identified the approximate location of CA-SBA-1767H in their Phase I report. This information was used by Applied Earthworks (Æ) to plan testing locations. The City of Lompoc then staked the portion of the Bike Trail that passed through the approximated site area. Æ contracted with S&G Drilling Company, an environmental and geotechnical drilling firm, to provide and operate a truck-mounted auger (Appendix I). Initially, a 10-inch auger bit was to be used; however, the hole that this bit size produced severely limited visibility in test units deeper than 2.5 feet. Therefore, an 18-inch auger bit was employed for the tests. Testing took place on 13 January 2003 and Wendy M. Nettles, Historical Archaeologist, served as the field archaeologist.

Test excavations were dug approximately 50 feet apart within the APE of the Bike Trail. Each test site was excavated in 2-foot lifts—the auger drilled down 2 feet and then was pulled out of the test unit. When the auger lifted soil from the hole, the soil remained on the auger bit and allowed a clear view of the stratigraphy. Soil also could be easily removed from the bit to determine if artifacts were present. When cultural material was encountered, soil from that lift was screened through 1/4-inch mesh to recover all artifacts. Occasionally, soil from lifts that did not appear to contain artifacts was screened to ensure complete recovery. Recovered artifacts were placed in plastic bags labeled with all pertinent provenience data. The soil stratigraphy, as
well as the presence or absence of cultural material, was recorded on ÅE auger records. Each completed test was backfilled and compacted immediately after recordation of data. Testing continued until materials were no longer encountered in three consecutive tests.

The Extended Phase I testing performed at CA-SBA-1767H recovered material that corresponds with the location and age of the material that Spanne (1978) recorded as the Lompoc City Dump. Additionally, a 1938 aerial photograph depicts a road branching north from McLaughlin Road just west of the river. The terminus of this road appears to correspond with the northern extent of cultural deposits found during testing. This information strongly suggests that the material recovered from the current test effort is directly related to the Lompoc City Dump site.

Data gleaned from the auger tests provides the location of an old buried riverbed. The riverbed was located between 6 and 8 feet below the surface in most of the testing units. In many instances the artifacts lay right on top of this silt deposit. Although difficult to see now, aerial photographs from the 1930s and 1950s show that the site is clearly located on the Santa Ynez River floodplain. This river has flooded the area several times in written history. It appears that when this area of the dump was in operation, trash was deposited directly on top of or in the dry riverbed. After the dump was closed, subsequent floods deposited sediment that buried the site to the present depth.

Testing indicates that the present depth of the site is approximately 3–4 feet. The bikeway that the City of Lompoc has proposed will disturb soils to a depth of only about 1 foot below modern grade. Therefore, the bikeway project will not impact CA-SBA-1767H. Further, approximately 2–3 feet of sediment will protect the buried deposit from compaction during construction or anticipated use following construction.

Tests indicated that the dump deposit primarily lies approximately 4 feet below the present ground surface. Cultural material recovered from CA-SBA-1767H consists of a variety of glass, metal, ceramic, plastic, and shell artifacts. The numerous types of household items—including plate, cup, and other tableware fragments; an alcohol bottle fragment; other various unidentifiable bottle fragments; an ornamental hook; a lamp globe fragment; and part of a flowerpot—shows that a wide variety of items were discarded by local residents over time. Of special interest in the artifact collection were two pieces of Chinese brown glazed stoneware.

Of the 94 artifacts recovered, only four were datable (Table 4-2). A descriptive artifact list of recovered items can be found in Appendix B of Appendix I.

<table>
<thead>
<tr>
<th>Table 3.3 - 1</th>
<th>Datable Artifacts Recovered from CA-SBA-1767H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artifact</td>
<td>Date Range</td>
</tr>
<tr>
<td>Molded pattern ceramic</td>
<td>1765–present</td>
</tr>
<tr>
<td>Cut nail</td>
<td>End date of 1890/1895</td>
</tr>
<tr>
<td>Amethyst glass</td>
<td>1880–1918</td>
</tr>
<tr>
<td>Glass maker’s mark</td>
<td>1916–1929</td>
</tr>
</tbody>
</table>
These dates are well within the 1850–1940 range that Spanne attributed to the city dump, further strengthening not only Spanne’s interpretation but also the likelihood that the positive tests revealed elements of CA-SBA-1767H.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

d. Disturb any human remains, including those interred outside of formal cemeteries; and

e. Does the project have the potential to eliminate important examples of the major periods of California history or prehistory.

**Project Impacts and Significance – Phases 1, 2 & 3**

**Analysis**

The proposed project will not cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5. A portion of the proposed 2.3 mile Bike Trail passes through historical archaeological site CA-SBA-1767H, the Lompoc City Dump, which was recorded in 1978. The boundaries of this site were not defined during previous investigations. To ensure this archaeological site is not affected by ground-disturbing project activities, Applied EarthWorks, Inc. performed Extended Phase I testing to determine whether buried archaeological materials are present within the Area of Potential Effects (APE).

On 13 January 2004, Applied Earthworks conducted field work in the Bike Trail APE where it traverses CA-SBA-1767H. Mechanical excavation of 16 auger tests within the project APE revealed household artifacts dating to the turn of the twentieth century. However, within the APE, the site is buried under 3–5 feet of fill. Construction of the proposed bikeway will only impact the upper 1 foot of the present ground surface. Approximately 2–3 feet of undisturbed fill will cover the site and protect it from construction activities and impacts stemming from use of the bikeway. Since CA-SBA-1767H will not be affected by the proposed project, the site was not evaluated for significance or eligibility to the National Register of Historic Places. Because there will not be an impact to existing underground resources, due to the limited need to excavate within the City Dump site to construct the Bike Trail, impacts on historical resources have been determined to be less than significant.
The proposed project will not cause a substantial adverse change in the significance of an archaeological resource, pursuant to Section 15064.5. No known archaeological sites were identified during the record search and the pedestrian survey of the project area’s surface did not identify any artifacts of concern. A mitigation measure requiring that work stop if any artifacts are located and a qualified archaeologist contacted is recommended.

The proposed project will not directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature. The project site is flat and does not have any surface expressions of unique geologic features. The project site is underlain by deposits mapped as Quaternary alluvium, most of which is Holocene sediments from the Santa Ynez River (Dibblee 1988). The Pleistocene Orcutt Sand, exposed in the Purisima Hills to the north, reaches its maximum thickness in this region (Dibblee 1950). This formation consists mainly of slightly indurated, buff-colored sand transported from beaches to the west. The potential for finding fossil material in these deposits is very low. Accordingly, impacts would be less than significant, due to the limited amount and depth of grading proposed to construct the project.

The proposed project will not disturb any human remains, including those interred outside of formal cemeteries. There are no known human remains located within the project area. A mitigation measure requiring that state law be implemented by calling the County Coroner if a body is accidentally found is recommended.

The proposed project will not have the potential to eliminate important examples of the major periods of California history or prehistory. The Lompoc Dump site may be important in identifying features of California history from 1830 – 1940, however, sub-surface investigation has identified the fact that the resources below the project site are located approximately 3-4 feet in depth. As the proposed project will only excavate to a depth of one foot in this area, the project has been determined not to have an effect on the Lompoc Dump site.

**Mitigation Measures**

C-1: If archaeological artifacts are unearthed or exposed during demolition or construction, work shall stop in the area of the discovery until the artifacts and the site are evaluated by an experienced Archaeologist. An appropriate plan for the preservation of the artifacts from the site shall be prepared and its implementation overseen by an experienced Archaeologist.

C-2: If human remains are discovered during construction, the County Coroner, and the Native American Heritage Commission shall be notified and their recommendations and requirements adhered to, prior to continuation of construction activity.

**Unavoidable Significant Impacts**

There will be no unavoidably significant cultural resource impacts as a result of the proposed project, if the above mitigation measures are implemented.
3.4 Noise

Regional Setting

This section analyzes noise impacts associated with the proposed project. The analysis is based on a report prepared by David L. Wieland, Principal Consultant, Wieland Associates, Inc., August 2004. A copy of this report is included as Appendix K. The analysis incorporates the project as analyzed in the report, with the incorporation of noise analysis for the four field alternative in the South Park.

The City of Lompoc uses CNEL (Community Noise Equivalent Level) as the standard unit of measurement for noise. The City’s General Plan identifies value limits, based on CNEL for noise levels at property lines, for different types of uses. Noise standards are also found in the City’s Municipal Code.

Table 3.4-1. City of Lompoc General Plan Noise Element Standards

<table>
<thead>
<tr>
<th>Land Use Categories</th>
<th>Uses</th>
<th>CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Interior¹</td>
</tr>
<tr>
<td>Residential</td>
<td>Single Family, Duplex, Multiple Family, Mobile Home</td>
<td>45³</td>
</tr>
<tr>
<td>Commercial &amp; Industrial</td>
<td>Retail, Restaurant</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Motel</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Professional Offices, Movie Theater, Auditorium</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Manufacturing, Utilities, Warehousing, Agriculture</td>
<td>65</td>
</tr>
<tr>
<td>Community Facility</td>
<td>Hospital, School, Nursing Home, Church, Library, Civic Offices, Parks</td>
<td>45</td>
</tr>
<tr>
<td>Open Space</td>
<td>Passive Outdoor Recreation</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: City of Lompoc General Plan 1997

Notes
1. Interior areas exclude bathrooms, closets, and corridors.
2. Exterior areas are limited to the following:
   - Private yards or patios of residential uses;
   - Restaurant patios;
   - Motel recreation areas;
   - Office, theater, or hospital patios or assembly areas;
   - School playgrounds;
   - Nursing home, library, or civic office assembly areas; and
   - Park picnic areas.
3. If achievement of the interior noise standards requires that windows and doors remain closed, air conditioning or mechanical ventilation is required.
4. In areas affected by aircraft noise, the standard is 65 CNEL with the stipulation that the noise level exclusive of the aircraft-generated noise cannot exceed 60 CNEL.
The existing agricultural use to the west of the park site is within an Open Space designation and is considered an overlapping standard, as addressed in the City’s Noise Element. The Open Space standard has a requirement of 60 CNEL at the property line, while the agricultural use has a 75 CNEL requirement. Although in cases of conflict the quieter standard generally applies, in this case, because the agricultural use can be expected to generate noise levels over 60 CNEL, the 75 CNEL standard can govern.

**Project Setting**

The proposed project site is located at the base of a bluff on a flood plain of the Santa Ynez River. The project is adjoined by open space to the north and east, agricultural land to the west and single-family homes on top of the bluff to the south and southwest. The main access to the park site, McLaughlin Road, extends north from Central Avenue and runs down the bluff face to the flood plain and project area. Primary noise concerns are impacts on the residents in the homes to the south and southwest, and the wildlife in the natural riverine habitat. The proposed park development site is also located within the approach zone of the Lompoc Municipal Airport. Some of the residences are buffered from noise by walls and fences of various heights.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Expose persons to or generate noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies.

b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels.

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

e. Expose people residing or working in the project area to excessive noise levels, for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

f. Expose people residing or working in the project area to excessive noise levels, for a project located within the vicinity of a private airstrip.
Project Impacts and Significance – Phases 1, 2 & 3

Analysis

Noise Descriptors
The following sections briefly describe the noise descriptors that will be used throughout this study.

Decibels
Sound pressures can be measured in units called microPascals (µPa). However, expressing sound levels in terms of µPa would be very cumbersome since it would require a wide range of very large numbers. For this reason, sound pressure levels are described in logarithmic units of ratios of actual sound pressures to a reference pressure squared. These units are called bels. In order to provide a finer resolution, a bel is subdivided into 10 decibels, abbreviated dB.

Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB. In fact, they would combine to produce 73 dB. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3 dB. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dB.

A-Weighting
Sound pressure level alone is not a reliable indicator of loudness. The frequency or pitch of a sound also has a substantial effect on how humans will respond. While the intensity of the sound is a purely physical quantity, the loudness or human response depends on the characteristics of the human ear.

Human hearing is limited not only to the range of audible frequencies, but also in the way it perceives the sound pressure level in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, and perceives both higher and lower frequency sounds of the same magnitude with less intensity. In order to approximate the frequency response of the human ear, a series of sound pressure level adjustments is usually applied to the sound measured by a sound level meter. The

Figure 1-8. Common Noise Sources and Levels
adjustments, or weighting network, are frequency dependent.

The A-scale approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. A range of noise levels associated with common in- and outdoor activities is shown in Figure 1-8.

The A-weighted sound level of traffic and other long-term noise-producing activities within and around a community varies considerably with time. Measurements of this varying noise level are accomplished by recording values of the A-weighted level during representative periods within a specified portion of the day.

**Community Noise Equivalent Level (CNEL)**

It is recognized that a given level of noise may be more or less tolerable depending on the duration of exposure experienced by an individual. There are numerous measures of noise exposure that consider not only the A-level variation of noise but also the duration of the disturbance. The State Department of Aeronautics and the California Commission on Housing and Community Development have adopted the community noise equivalent level (CNEL). This measure weights the average noise levels for the evening hours (7:00 p.m. to 10:00 p.m.), increasing them by 5 dB, and weights the late evening and morning hour noise levels (10:00 p.m. to 7:00 a.m.) by 10 dB. The daytime noise levels are combined with these weighted levels and are averaged to obtain a CNEL value. Figure 1-9 indicates the outdoor CNEL at typical locations.

**Existing Noise Measurements**

In order to document the existing noise environment, measurements were obtained at three locations throughout the study area. The locations are identified as follows:

#1 - In the rear yard of 1525 Orchid Street. This location was adjacent to A Street, on the southeast corner of A Street and Canfield Avenue.

#2 - In the agricultural fields just to the west of the northern portion of Riverbend Park.

#3 - In front of 1121 Sixth Street. This location was near the intersection of Riverside Drive and Sixth Street adjacent to the proposed trail.

At location #1 a noise measurement was obtained over a continuous four-day period that included both weekdays and a weekend, with the microphone positioned at a height of 5’ above the ground. At locations #2 and #3 the measurement was obtained for a period of 20 to 30 minutes; to obtain the measurement, the microphone was positioned at a height of 5’ above the ground.
ground, and extraneous noise sources (such as sirens) were excluded from the measurement by placing the sound level meter on “standby” until the noise event concluded. The results of the noise measurements, provided in Appendix I of the Noise Study (Appendix L), are summarized in the following table:

Table 3.4-2. Summary of Noise Measurements

<table>
<thead>
<tr>
<th>Location #</th>
<th>Location Description</th>
<th>Measurement Period</th>
<th>Measured Average Noise Level, dBA</th>
<th>CNEL, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1525 Orchid Street</td>
<td>24 hours</td>
<td>Weekday: 40-57 Weekend: 39-54</td>
<td>Weekday: 54 Weekend: 54</td>
</tr>
<tr>
<td>2</td>
<td>Agricultural fields</td>
<td>5:20 PM to 5:40 PM</td>
<td>52</td>
<td>Not measured</td>
</tr>
<tr>
<td>3</td>
<td>1121 Sixth Street</td>
<td>2:14 PM to 2:46 PM</td>
<td>50</td>
<td>Not measured</td>
</tr>
</tbody>
</table>

The CNEL values measured at location #1 are considered to be representative of the ambient noise levels at all residential and open space areas in the vicinity of the park.

The instrumentation used to obtain the noise measurements consisted of integrating sound level meters (Model 820) and acoustical calibrators (Models CAL200 and CAL250) manufactured by Larson Davis Laboratories. The accuracy of the calibrators is maintained through a program established by the manufacturer, and is traceable to the National Bureau of Standards. All instrumentation meets the requirements of the American National Standards Institute (ANSI) S1.4-1971.

Traffic
The results of the noise measurements were used to calibrate a proprietary version of the highway traffic noise prediction model developed by the Federal Highway Administration (as described in report FHWA-RD-77-108). The model was used to estimate existing traffic noise levels adjacent to various reaches of street in the study area based on traffic volumes, speeds, truck mix, site conditions, and distance from the roadway to the receptor. The California reference energy mean emission (Calveno) levels developed by Caltrans were used in the prediction model. The results of the modeling effort, provided in Appendix II of the noise study (Appendix L), are summarized in the following table:

Table 3.4-3. Existing Traffic Noise Levels

<table>
<thead>
<tr>
<th>Location</th>
<th>CNEL Due to Traffic, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Avenue, A St. to H St.</td>
<td>N/A</td>
</tr>
<tr>
<td>A Street, north of Central Ave.</td>
<td>55.5</td>
</tr>
<tr>
<td>A Street, south of Central Ave.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes:
N/A – Not included in traffic study prepared by Associated Transportation Engineers.
Referring to the above table, it is noted that the City’s exterior noise standards are currently exceeded at residences on Central Avenue, and on A Street south of Central Avenue.

**Lompoc Airport**
The Lompoc Airport, located west of the project site, is a general aviation airport used exclusively by private and business aircraft. A single east-west runway, 4,600 feet long and 100 feet wide, can accommodate single- and multi-engine propeller aircraft and most business jets. As shown in the City’s General Plan, the 65 dB CNEL contour is within the airport property limits. It is estimated that the 60 dB contour is located well to the west of the study area for the Riverbend Park and Trail Master Plan.

**Project Impacts**

By the year 2006, Phases I and II of the Master Plan will be complete, and by the year 2015 Phase III will be complete. For ease of presentation, the discussion of future conditions in the study area with the project has been divided into two sections: construction and operation. Each is discussed in greater detail in the following sections.

**Construction Impacts**

Construction noise levels in the vicinity of the project will fluctuate depending on the particular type, number and duration of use of various pieces of construction equipment. The exposure of persons to the periodic increase in noise levels will be short-term (i.e., construction is anticipated to occur for less than one year). Table 3.4-4 shows typical noise levels associated with various types of construction-related machinery.

**Vibration**

Ground-borne vibration is measured in terms of the velocity of the vibration oscillations. As with noise, a logarithmic decibel scale (VdB) is used to quantify vibration intensity. When ground-borne vibration exceeds 75 to 80 VdB, it is usually perceived as annoying to building occupants. The degree of annoyance is dependent upon type of land use, individual sensitivity to vibration, and the frequency of the vibration events. Typically, vibration levels must exceed 100 VdB before building damage occurs. Construction of the project will not involve pile-driving activities, the use of jackhammers or pavement breakers. As a result, it is unlikely that construction will result in perceptible, let alone excessive, ground-borne vibration or ground-borne noise levels.

**Park**
The construction of the park will require minimal clearing and earth movement, some paving, and the pouring of a concrete slab for the resident host facility and the tennis courts or similar improvements. Construction will occur only between 8:00 a.m. and 6:00 p.m. on weekdays, or between 9:00 a.m. and 6:00 p.m. on Saturdays. There will be no construction activities on Sundays or legal holidays. It is anticipated that construction of the Phase I improvements will take 3 to 4 months, and that construction of the Phase III improvements will take 3 months.
Construction of the proposed project can be divided into three parts: (1) site clearing and grading, (2) paving, and (3) concrete work. Since the exact construction schedule, number and type of equipment to be used, and duration of use are not known at this time, the analysis is based on the noisiest equipment item in each part of the construction. Table 3.4-5 provides the analysis of estimated construction noise levels during the development of the north section of Riverbend Park, and Table 3.4-6 provides the same analysis for the south section of Riverbend Park.

**Table 3.4-4. Construction Equipment Noise Levels**

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Typical Average Equipment Noise Level at 50 ft. in dB(A)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Compressor</td>
<td>75</td>
</tr>
<tr>
<td>Backhoe</td>
<td>75</td>
</tr>
<tr>
<td>Compactor</td>
<td>80</td>
</tr>
<tr>
<td>Concrete Mixer</td>
<td>80</td>
</tr>
<tr>
<td>Concrete Pump</td>
<td>75</td>
</tr>
<tr>
<td>Dozer</td>
<td>75</td>
</tr>
<tr>
<td>Generator</td>
<td>75</td>
</tr>
<tr>
<td>Grader</td>
<td>85</td>
</tr>
<tr>
<td>Loader</td>
<td>75</td>
</tr>
<tr>
<td>Pneumatic Tools</td>
<td>80</td>
</tr>
<tr>
<td>Power Hand Saw</td>
<td>75</td>
</tr>
<tr>
<td>Roller</td>
<td>80</td>
</tr>
<tr>
<td>Tractor</td>
<td>85</td>
</tr>
<tr>
<td>Trucks</td>
<td>75</td>
</tr>
</tbody>
</table>


Notes:
1. With noise controls applied. Obtainable by selecting quieter procedures or machines and implementing noise control features such as improved mufflers, use of silencers, shields, shrouds, ducts and engine enclosures.

**Table 3.4-5. Analysis of Estimated Construction Noise Levels during Phase I (North Park)**

<table>
<thead>
<tr>
<th>Noise-Sensitive Location / Construction Task</th>
<th>Noisiest Equipment Item</th>
<th>Estimated Avg. Level at 50’, dB(A)</th>
<th>Correction for CNEL, dB¹</th>
<th>Attenuation Due to Distance, dB(A)²</th>
<th>Estimated CNEL, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residences to the South</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearing/grading</td>
<td>Tractor</td>
<td>85</td>
<td>-6</td>
<td>-25 (900’)</td>
<td>54</td>
</tr>
<tr>
<td>Paving</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-25 (850’)</td>
<td>49</td>
</tr>
<tr>
<td>Concrete work</td>
<td>Concrete Mixer</td>
<td>80</td>
<td>-6</td>
<td>-21 (550’)</td>
<td>53</td>
</tr>
<tr>
<td><strong>Agricultural to the West</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearing/grading</td>
<td>Tractor</td>
<td>85</td>
<td>-6</td>
<td>-17 (350’)</td>
<td>62</td>
</tr>
<tr>
<td>Paving</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-22 (600’)</td>
<td>52</td>
</tr>
<tr>
<td>Concrete work</td>
<td>Concrete Mixer</td>
<td>80</td>
<td>-6</td>
<td>-24 (750’)</td>
<td>50</td>
</tr>
</tbody>
</table>

Notes:
1. Correction for 6 hours of use in a day.
2. Based on a reduction of 6 dB per doubling of distance. The distance used in the analysis is from the approximate center of the site to the nearest noise-sensitive location.
Trail
The construction of the trail will require compaction of the existing soil, the laying of compacted aggregate, and paving. Construction of the trail will occur only between 8:00 a.m. and 6:00 p.m. on weekdays, or between 9:00 a.m. and 6:00 p.m. on Saturdays. There will be no construction activities on Sundays or legal holidays. It is anticipated that construction of the trail will take four months.

Construction of the proposed trail can be divided into two parts: (1) compaction, and (2) paving. Since the exact construction schedule, number and type of equipment to be used, and duration of use are not known at this time, the analysis is based on the noisiest equipment item in each part of the construction. Table 3.4-7 provides the analysis of estimated construction noise levels during the development of the trail.

**Table 3.4-6. Analysis of Estimated Construction Noise Levels during Phase III (South Park)**

<table>
<thead>
<tr>
<th>Noise-Sensitive Location / Construction Task</th>
<th>Noisiest Equipment Item</th>
<th>Estimated Avg. Level @ 50’, dB(A)</th>
<th>Correction for CNEL, dB¹</th>
<th>Attenuation Due to Distance, dB(A)²</th>
<th>Estimated CNEL, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residences to the South</td>
<td>Tractor</td>
<td>85</td>
<td>-6</td>
<td>-14 (250’)</td>
<td>65</td>
</tr>
<tr>
<td>Clearing/grading</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-19 (450’)</td>
<td>55</td>
</tr>
<tr>
<td>Paving</td>
<td>Concrete Mixer</td>
<td>80</td>
<td>-6</td>
<td>-17 (350’)</td>
<td>57</td>
</tr>
<tr>
<td>Agricultural to the West</td>
<td>Tractor</td>
<td>85</td>
<td>-6</td>
<td>-22 (650’)</td>
<td>57</td>
</tr>
<tr>
<td>Clearing/grading</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-22 (600’)</td>
<td>52</td>
</tr>
<tr>
<td>Paving</td>
<td>Concrete Mixer</td>
<td>80</td>
<td>-6</td>
<td>-14 (250’)</td>
<td>60</td>
</tr>
</tbody>
</table>

Notes:
1. Correction for 6 hours of use in a day.
2. Based on a reduction of 6 dB per doubling of distance. The distance used in the analysis is from the approximate center of the site to the nearest noise-sensitive location.

**Table 3.4-7. Analysis of Estimated Construction Noise Levels during Phase II (Trail)**

<table>
<thead>
<tr>
<th>Noise-Sensitive Location / Construction Task</th>
<th>Noisiest Equipment Item</th>
<th>Estimated Avg. Level @ 50’, dB(A)</th>
<th>Correction for CNEL, dB¹</th>
<th>Attenuation Due to Distance, dB(A)²</th>
<th>Estimated CNEL, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residences / Open Spaces</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-0 (50’)</td>
<td>74</td>
</tr>
<tr>
<td>Paving</td>
<td>Compactor</td>
<td>80</td>
<td>-6</td>
<td>-0 (50’)</td>
<td>74</td>
</tr>
</tbody>
</table>

Notes:
1. Correction for 6 hours of use in a day.
2. Based on a reduction of 6 dB per doubling of distance.
Operations Impacts

The three main types of operational noise sources associated with the project are traffic, park activities, and trail activities. These are discussed in the following sections:

Traffic

Using data provided by Associated Transportation Engineers, an analysis was conducted to identify the future traffic noise exposures that will occur in the study area, both with and without the project. The results of the analysis for completion of Phases I through III (2015) are provided in Appendix II of the noise report (Appendix L), which identifies the traffic data used in the analysis and the estimated CNEL generated by the traffic. The results are summarized in the following table:

<table>
<thead>
<tr>
<th>Time of Week</th>
<th>Location</th>
<th>CNEL Due to Traffic, 2015, dB</th>
<th>Increase in CNEL Due to Project, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central Avenue, A St. to H St.</td>
<td>Without Project: 69.5</td>
<td>With Project: 69.5</td>
</tr>
<tr>
<td>Mon – Fri</td>
<td>A Street, north of Central Ave.</td>
<td>56.5</td>
<td>58.0</td>
</tr>
<tr>
<td></td>
<td>A Street, south of Central Ave.</td>
<td>63.5</td>
<td>63.5</td>
</tr>
<tr>
<td>Wknd</td>
<td>Central Avenue, A St. to H St.</td>
<td>Not included in traffic study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Street, north of Central Ave.</td>
<td>57.0</td>
<td>60.5</td>
</tr>
<tr>
<td></td>
<td>A Street, south of Central Ave.</td>
<td>Not included in traffic study</td>
<td></td>
</tr>
</tbody>
</table>

The proposed project will result in traffic noise increases of between 0 and 3.5 dB (CNEL). An increase in dB of 3 is the point at which the change in noise becomes noticeable. It is not until the change in dB reaches 5dB that the impact becomes clearly significant. In this case, the impact is not clearly significant, as it is under 5 dB. However, the General Plan threshold of 60 db is expected to be exceeded in 2015 as a result of the project. It should be noted that even though this is the case, the residents in the area will only find the change in traffic noise to be barely more than perceptible. However, the technical standard is expected to be exceeded in 2015, resulting in a potentially significant impact. The existing homes along this section of “A” Street are already protected by six-foot high block walls, which is the standard noise mitigation applied in such situations. The height of the walls is not permitted to exceed six feet under the City’s Zoning Ordinance. Therefore, the impact is a significant an unavoidable impact.

Park Activities

Noise measurements of tennis and softball/baseball activities were obtained at existing parks in order to characterize the typical noise levels generated by each activity. These parks were visited on a number of occasions, including Saturdays, Sundays and weekdays, and multiple measurements were made of each activity. From these measurements, the worst-case (noisiest) data for each activity was selected to be used in a computer noise model for the proposed park. It was not possible to obtain noise measurements of soccer games as the season for this activity did not coincide with the time period available for this study. For this activity, noise data from the measured baseball games were used.

Another source of on-site noise at the proposed park is parking lot activities. These activities (such as car doors slamming; cars starting; cars accelerating away from the parking stalls; cars
accelerating into or out of the parking lot; and people talking, shouting and laughing) are sporadic in nature. This results in relatively low average noise levels over an extended period of time. To characterize the CNEL that is generated by these activities, an analysis was conducted using published noise data, measurements obtained during previous studies, and trip-generation data provided by Associated Transportation Engineers.

Once the noise levels for each activity had been determined, a 3-dimensional noise model was created in order to investigate the noise levels at a number of receiver locations within the study area. Six receiver locations were used in the model to characterize the various land uses in the vicinity of the park.

Using a computer model, an analysis was conducted in order to estimate the noise levels at six receiver locations in the vicinity of the project. The noise model and a summary of the estimated noise levels due to each individual activity are provided in Appendix V of the noise report (Appendix L). The following table summarizes the worst case estimated park activity noise levels:

<table>
<thead>
<tr>
<th>Receiver</th>
<th>CNEL, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekday</td>
</tr>
<tr>
<td>Residences to south</td>
<td>44.0</td>
</tr>
<tr>
<td>Agriculture to west</td>
<td>44.5</td>
</tr>
</tbody>
</table>

Operation of the park will be passive and will not cause ground-borne vibration or noise levels.

**Trail Activities**

The primary source of noise associated with the operation of the trail is people talking. Based on published data it has been assumed for this study that the average noise level of a conversation (with raised voices) is 65 dB(A) at a distance of three feet. This corresponds to an average level of 41 dB(A) at 50 feet. As a worst case, it may be assumed that conversation occurs continuously for twelve hours (dawn to dusk). In this case, the CNEL will be 38 dB at a distance of 50 feet.

Operation of the trail will be passive and will not cause ground-borne vibration or noise levels.

**Conclusion**

a. Based on the criteria established for this project, there are no significant impacts associated with activities at the park.

b. However, although the increase in dB (3.5) has not reached 5dB, indicating a significant increase in noise from the project, a significant impact will still occur at residences adjacent to A Street north of Central Avenue due to weekend traffic because the CNEL will increase above the General Plan threshold of 60 dB to 60.5 dB.

c. Construction of the proposed project will result in a substantial temporary increase in ambient noise levels at residences to the south, and open space areas in the vicinity of the
trail (Phase II) and at the agricultural fields west of the park (Phases I and III). The exposure of persons to a periodic increase in ambient noise levels will be short-term (i.e., construction will occur for no more than approximately 3 to 4 months). Also, construction will be carried out in compliance with the City of Lompoc Regulations discussed in Section 4 of the Noise Study (Appendix L). Adherence to the regulations is considered by the City of Lompoc to be adequate mitigation for construction noise. Therefore, the impact is not significant.

d. The construction or operation of the project will not expose people to excessive ground-borne vibration or ground-borne noise levels. Therefore, the impact from vibration is not significant.

**Mitigation Measures**

N-1: Noisy construction activities shall be scheduled for periods, such as from 7 a.m. to 6 p.m. on weekdays and 8 a.m. to 6 p.m. on Saturdays, when loud noises would have the least impact on adjacent residents or other sensitive receptors.

N-2: A construction schedule shall be developed that minimizes potential cumulative construction noise impacts and accommodates particularly noise-sensitive periods for nearby land uses.

N-3: Where feasible, temporary solid noise barriers shall be constructed between source and sensitive receptors to reduce off-site propagation of construction noise.

N-4: Internal combustion engines used for construction purposes shall be equipped with a properly operating muffler of a type recommended by the manufacturer. Impact tools shall be shielded per manufacturer’s specifications.

**Unavoidable Significant Impacts**

There will not be an unavoidably significant noise impact from project construction, if the recommended noise mitigation measures are adopted.

However, a significant impact will occur at residences adjacent to “A” Street north of Central Avenue due to weekend traffic since the CNEL will increase above the significance threshold of 60 dB. The usual means of addressing such an impact is to build a six-foot high block wall to mitigate street noise. However, a six foot high block wall already exists along either side of this stretch of “A” Street. The City’s Zoning Ordinance does not allow for block walls at a height exceeding six-feet. Additional feasible mitigation has not been identified. Therefore, the impact from operational noise along this segment of “A” Street will be Significant and Unavoidable.
### 3.5 Transportation/Traffic

The information presented within this section regarding traffic conditions in the project area is based on the Riverbend Park and Bike Trail Master Plan Traffic and Circulation Study prepared by Associated Transportation Engineers (ATE), July 2004. The traffic analysis included an assessment of the existing traffic conditions, a determination of expected trip generation for the project, and an evaluation of the potential traffic impacts associated with the project, incorporating four fields in the South Park. A copy of the traffic analysis is attached as Appendix M.

#### Regional Setting

Riverbend Park is served by a circulation system comprised of arterial, collector and local streets. The major components of the existing street network that serve the park are discussed below.

**State Route 1 (H Street)**, located west of the project site, extends as a two-lane highway southeasterly from Lompoc, connecting with U.S. Highway 101 in the Gaviota area. North of Lompoc, Route 1 provides connections between Vandenberg Air Force Base and the Orcutt-Santa Maria area. The section of State Route 1 located in the project vicinity, known as H Street, is four-lanes wide with left-turn channelization and signalized control at major intersections. The segment within the study area is classified as a Major Arterial in the General Plan. The H Street/Central Avenue intersection is controlled by traffic signals.

**Central Avenue**, southwest of the project site, is an east-west street that extends from "A" Street on the east to west of the City limits. This roadway is classified as a Major Arterial in the General Plan. The segment between "H" Street and "A" Street contains four travel lanes and is divided by a median left-turn lane. Class II bike lanes (painted on-street lanes) are also provided on this segment. The posted speed limit on Central Avenue is 45 mph. The tee intersection at "A" Street is all-way stop controlled.

"A" Street-McLaughlin Road is classified as a Minor Arterial in the General Plan. "A" Street is a north-south street that extends from McLaughlin Road on the north to Locust Avenue on the south. McLaughlin Road extends north of "A" Street to the Riverbend Park site. The segment north of Central Avenue is two-lanes wide and the segment south of Central Avenue is four-lanes wide. The posted speed limit 35 mph.

#### Traffic Volumes

**Roadways**

Existing (2004) average daily traffic (ADT) volumes for the key roadways in the study area were obtained from the City and from counts conducted in 2004 by ATE for this study. Both weekday and weekend periods are analyzed in the Master Plan traffic analyses since the park activities will peak on weekends. City staff collected volumes on the streets adjacent to the park throughout a weekend period and that data shows that the volumes on Saturdays are higher than
on Sundays. The higher volumes recorded on Saturdays were therefore selected to represent weekend conditions.

**Intersections.**
Existing (2004) weekday and weekend hour turning movements for the key intersections in the study area were obtained from the City and from counts conducted in 2004 by ATE for this study.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a) Cause an increase in traffic which is substantial, in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

e) Result in inadequate emergency access?

f) Result in inadequate parking capacity?

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

**City of Lompoc Standards**

In determining the operational characteristics of roadway segments and intersections with existing or future traffic volumes, "Levels of Service" (LOS) A through F are applied, with LOS A indicating very good operations with little congestion and LOS F indicating poor operations with heavy congestion (more complete definitions are shown in Table 3.5-1).

The City has adopted a circulation policy that states that the City will attempt to achieve and maintain LOS C as a system performance standard for traffic on the roadway system and as a basic design guideline for roadways in the City. Any project which cannot meet the performance standard is considered to have a significant impact. Peak hour traffic creates the heaviest demand upon the circulation system and the lane configuration at intersections is a limiting factor in roadway capacity; therefore, peak hour intersection capacity analyses address "worst-case" conditions. Tables 3.5 -1 and 3.5 - 2 show the roadway criteria and daily capacities by roadway type. Table 3.5 - 3 shows the intersection level of service standards.
### Table 3.5 - 1  
**Roadway Level of Service**

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Traffic Flow Characteristics&lt;sup&gt;a&lt;/sup&gt;</th>
<th>V/C Ratio Range&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS A</td>
<td>Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Primarily free flow operations at average travel speeds 90% of the free flow speed for the arterial classification.</td>
<td>0.00 - 0.75</td>
</tr>
<tr>
<td>LOS B</td>
<td>Reasonably unimpeded operation at average travel speed 70% of the free flow speed for the arterial classification. Maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome</td>
<td>0.76 - 0.87</td>
</tr>
<tr>
<td>LOS C</td>
<td>Stable operations at average travel speeds 50% of the free flow speed for the arterial classification. Motorist will experience appreciable tension while driving.</td>
<td>0.88 - 1.00</td>
</tr>
<tr>
<td>LOS D</td>
<td>Average travel speeds are 40% of the free flow speed. Small increases in flow may cause substantial increases in delay.</td>
<td>1.01 - 1.12</td>
</tr>
<tr>
<td>LOS E</td>
<td>Significant delays with average travel speeds that are one-third the free flow speed or less</td>
<td>1.13 - 1.25</td>
</tr>
<tr>
<td>LOS F</td>
<td>Arterial flow at extremely low speeds one-fourth the free flow speed. Intersection congestion with high delays and extensive queuing.</td>
<td>1.26+</td>
</tr>
</tbody>
</table>

<sup>a</sup> Source of traffic flow description by LOS HCM 2000.<br><sup>b</sup> Volume-to-capacity (V/C) ratios are used for roadway link (mid-block) application with the V/C of the upper limit of the design capacity (LOS C) equal to 1.0.


### Table 3.5 - 2  
**Daily Capacity Estimates by Roadway Type**

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Lane Geometry&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Capacity&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressway</td>
<td>4-Lane Divided</td>
<td>30,000 ADT</td>
</tr>
<tr>
<td>Major Arterial</td>
<td>4-Lane Divided</td>
<td>30,000 ADT</td>
</tr>
<tr>
<td>Major Arterial</td>
<td>4-Lane Undivided</td>
<td>20,000 ADT</td>
</tr>
<tr>
<td>Major Arterial</td>
<td>3-Lane Undivided</td>
<td>17,500 ADT</td>
</tr>
<tr>
<td>Major Arterial</td>
<td>2-Lane Undivided</td>
<td>12,500 ADT</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>4-Lane Undivided</td>
<td>20,000 ADT</td>
</tr>
<tr>
<td>Minor Arterial/Collector</td>
<td>2-Lane Undivided</td>
<td>10,000 ADT</td>
</tr>
<tr>
<td>Local Street</td>
<td>2-Lane Undivided</td>
<td>5,000 ADT</td>
</tr>
</tbody>
</table>

<sup>a</sup> Number of through lanes at mid-block locations.  
<sup>b</sup> Capacity represents the upper limit of LOS C.

### Table 3.5 - 3
Intersection Level of Service Criteria

<table>
<thead>
<tr>
<th>LOS</th>
<th>(^\text{1}\text{Signal Delay})</th>
<th>(^\text{1}\text{Stop Control Delay})</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt; 10.0 sec.</td>
<td>&lt; 10.0 sec.</td>
<td>Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.</td>
</tr>
<tr>
<td>B</td>
<td>10.1 - 20.0</td>
<td>10.1 - 15.0</td>
<td>Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.</td>
</tr>
<tr>
<td>C</td>
<td>20.1 - 35.0</td>
<td>15.1 - 25.0</td>
<td>Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.</td>
</tr>
<tr>
<td>D</td>
<td>35.1 - 55.0</td>
<td>25.1 - 35.0</td>
<td>Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.</td>
</tr>
<tr>
<td>E</td>
<td>55.1 - 80.0</td>
<td>35.1 - 50.0</td>
<td>Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exist for extended duration throughout the peak period.</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 80.0</td>
<td>&gt; 50.0</td>
<td>Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by upstream signal are unable to proceed because of back-ups from a downstream signal.</td>
</tr>
</tbody>
</table>

\(^1\)Average Control Delay Per Vehicle in Seconds At Signalized Intersections.

### Existing (2004) Levels of Service

**Roadways.** Table 3.5 - 4 presents the roadway segment volumes and levels of service for existing conditions. This analysis is based on the City’s roadway capacity estimates and level of service criteria (see Tables 3.5 - 1 and 3.5 - 2). The roadway analysis found that the key roadway segments in the study area operate at LOS A on weekdays. The segment of McLaughlin Road north of "A" Street also operates at LOS A on weekends.

**Intersections.** Pursuant to City policies, the level of service for the study area intersection were calculated using the Highway Capacity Manual operations methodology. Table 3.5 - 5 lists the type of control and the weekday and weekend peak hour levels of service for the key intersections. The two study-area intersections analyzed during the weekday P.M. peak hour period operate at LOS C with existing P.M. peak hour volumes. The McLaughlin Road / Cagney Way intersection operates at LOS A during the weekend peak hour period. These levels of service meet City's standards.
Table 3.5 - 4  

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Classification</th>
<th>Geometry</th>
<th>Volume</th>
<th>Capacity *</th>
<th>V/C Ratio</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Ave - H St to A St</td>
<td>Major Arterial</td>
<td>4-Lanes</td>
<td>10,300 ADT</td>
<td>30,000 ADT</td>
<td>0.34</td>
<td>LOS A</td>
</tr>
<tr>
<td>A St s/o Central Ave</td>
<td>Minor Arterial</td>
<td>4-Lanes</td>
<td>6,700 ADT</td>
<td>20,000 ADT</td>
<td>0.34</td>
<td>LOS A</td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>Minor Arterial</td>
<td>2-Lanes</td>
<td>1,700 ADT</td>
<td>10,000 ADT</td>
<td>0.17</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

* Capacity represents the upper limit of LOS C.

Weekends

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Classification</th>
<th>Geometry</th>
<th>Volume</th>
<th>Capacity *</th>
<th>V/C Ratio</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>Minor Arterial</td>
<td>2-Lanes</td>
<td>1,800 ADT</td>
<td>10,000 ADT</td>
<td>0.18</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

Table 3.5 - 5  
Existing (2004) Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control Type</th>
<th>Delay / LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday P.M. Peak Hour Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;H&quot; Street/Central Avenue</td>
<td>Signal</td>
<td>31.1 Sec/LOS C</td>
</tr>
<tr>
<td>&quot;A&quot; Street/Central Avenue</td>
<td>3-Way Stop</td>
<td>15.7 Sec/LOS C</td>
</tr>
<tr>
<td>Weekend Peak Hour Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Road/Cagney Way</td>
<td>2-Way Stop</td>
<td>8.7 Sec/LOS A</td>
</tr>
</tbody>
</table>

Relevant Circulation Plans

City of Lompoc Circulation Element. The City of Lompoc’s Circulation Element roadway classifications are illustrated on Figure 6 of Appendix M. The right-of-way requirements and typical cross-sections associated with the roadway classifications are shown on Figure 7 of Appendix M. The Circulation Element roadway classifications include expressways, major arterials, minor arterials, collectors and local roads.

"H" Street/Central Avenue. Previous traffic analyses completed for projects in the Lompoc area have identified the need for dual left-turn lanes on the northbound and southbound approaches at the "H" Street/Central Avenue intersection. These planned improvements are assumed as completed in the 2006 and 2015 traffic scenarios for the Riverbend Park & Bike Trail Master Plan.

Congestion Management Program. The Santa Barbara County Association of Governments (SBCAG) has been designated as the Congestion Management Agency for the County and is therefore responsible for administration of the Congestion Management Program (CMP). The CMP establishes a minimum level of service along roadways and intersections which are included in the CMP network. SBCAG requires the use of the Intersection Capacity Utilization
ICU method to calculate intersection level of service. The project's potential impact to the CMP system is addressed below under Impact Analysis.

**Signal Warrants**

The unsignalized "A" Street/Central Avenue intersection currently operates at LOS C and is forecast to operate at LOS C with 2006 + Phases I & II volumes. The existing and 2006 + Phases I & II levels of service shows that the intersection will meet the City's standard with the existing all-way stop control. The General Plan Circulation Element contains the extension of Central Avenue to the east to Highway 246. The traffic study completed for the General Plan indicates that a traffic signal would be needed at the intersection for buildout conditions and that the projected operation is LOS C with the signal. This planned improvement is assumed to be completed in the 2015 traffic scenario for the Riverbend Park & Bike Trail Master Plan.

**IMPACT ANALYSIS**

**Circulation**

The Master Plan envisions development of the recreational park uses in three phases, with Phases I and II being developed in Year 2006 and Phase III being developed by Year 2015. The following traffic analyses therefore assesses potential impacts of the anticipated park uses based on traffic forecasts for Year 2006 and Year 2015.

**a. Trip Generation**

*Proposed Project.* Trip generation estimates were developed for the anticipated uses of the Master Plan park facilities based on scheduling information provided by the City's Parks & Recreation Department. The scheduling information forecasts people per field or event. The person estimates were converted to vehicles to assess traffic and parking generation. For example, the scheduling information estimated 66 players/spectators per game for Saturday AYSO games. This estimate is converted to vehicles as follows:

- 12 players per team x 2 teams = 24 players
- 25% of players share rides (siblings) thus, 18 vehicles transporting players
- 18 vehicles x 1.75 parent-spectators per vehicle = 32 parent spectators
- 1 non-parent coach per team = 2 coaches
- 4 non-parent spectators per team = 8 non-parent spectators

Total players/spectators = 24 + 32 + 2 + 8 = 66

The operational information developed by the City, along with trip generation calculation worksheets, are contained in the Technical Appendix of the Traffic and Circulation Study (Appendix M). Table 3.5 - 6 summarizes the trip generation estimates for Phases I & II (2006) and for Phases I-III (2015).
Table 3.5 - 6
Master Plan Trip Generation Estimates

<table>
<thead>
<tr>
<th>Phase/Day of Week</th>
<th>Average Daily Trips&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Peak Hour Trips&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phases I &amp; II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekdays</td>
<td>359</td>
<td>177</td>
</tr>
<tr>
<td>Saturdays</td>
<td>2,063</td>
<td>425</td>
</tr>
<tr>
<td>Sundays</td>
<td>1,095</td>
<td>273</td>
</tr>
<tr>
<td>Phases I-III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekdays</td>
<td>732</td>
<td>312</td>
</tr>
<tr>
<td>Saturdays</td>
<td>3,266</td>
<td>658</td>
</tr>
<tr>
<td>Sundays</td>
<td>2,022</td>
<td>599</td>
</tr>
</tbody>
</table>

<sup>a</sup> Average Daily Trips based on average traffic levels per day throughout the various seasons of the year.

<sup>b</sup> Peak Hour Trips based on average traffic per day throughout the various seasons of the year during weekday P.M. peak period and weekend peak hour of adjacent street network.

The data presented in Table 3.5-6 indicates that the Phase I & II uses would generate an average of 359 ADT on weekdays, with 177 trips during the P.M. peak hour period. Phase I & II uses would generate 2,063 ADT on Saturdays, with 425 trips generated during the peak hour period. The Phase I & II trip generation estimates for Sundays is 1,095 ADT, with 273 trips generated during the peak hour period. The higher levels of traffic on Saturdays is a result of full use of the sports fields throughout the day.

Phases I-III would generate an average of 732 ADT on weekdays, with 312 trips during the P.M. peak hour period. On Saturdays an ADT of 3,266 would be generated, with 658 trips generated during the peak hour period. The Phase I-III trip generation estimates for Sundays is 2,022 ADT, with 599 trips generated during the peak hour period. Higher levels of traffic are expected on Saturdays, as a result of the projected full use of the sports fields throughout the day.

The trip generation estimates shown in Table 3.5-6 assume the most intensive use of the park and the fields throughout the year based on the scheduling information provided by the City. The City's scheduling information assumes that all of the sport fields would be used on each weekday throughout the year (for soccer, softball, baseball, etc.). However, it is anticipated that there may be some days during the year when all of the fields are not in use. The trips generation estimates listed in Table 3.5-6 are, nonetheless, used for the impact analysis to provide a reasonable worst case analysis and to provide some flexibility for future operational planning and scheduling of activities at the park.

**Trip Distribution and Assignment**

**Proposed Project.** The trips generated by the project were distributed and assigned to the study-area street network according to the distribution percentages listed in Table 3.5 – 7. The distribution percentages were formulated based on existing travel patterns in the study area as
well as the location of the residential areas of the community in relation to the location of the park.

Table 3.5 - 7
Project Trip Distribution

<table>
<thead>
<tr>
<th>Route</th>
<th>Origin/Destination</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>H Street n/o Central Avenue</td>
<td>North</td>
<td>10%</td>
</tr>
<tr>
<td>H Street s/o Central Avenue</td>
<td>South</td>
<td>37%</td>
</tr>
<tr>
<td>Central Avenue w/o H Street</td>
<td>West</td>
<td>20%</td>
</tr>
<tr>
<td>D Street s/o Central Avenue</td>
<td>South</td>
<td>5%</td>
</tr>
<tr>
<td>A Street s/o Central Avenue</td>
<td>South</td>
<td>25%</td>
</tr>
<tr>
<td>Local area north of A Street</td>
<td>–</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Cumulative Growth. Cumulative traffic forecasts for the 2006 scenario were developed using a 3% annual growth factor to account for future developments in the City area. The 3% annual growth factor was applied to the existing 2004 volumes to develop the 2006 traffic forecasts. Figures 13 and 14 (Appendix M) show the 2006 cumulative forecasts for the weekday and weekend periods. Cumulative traffic forecasts for the 2015 scenario were derived from the traffic study completed for the Wye Specific Plan.¹ Figures 15 and 16 (Appendix M) show the 2015 cumulative forecasts. Figures 17-20 (Appendix M) illustrate the 2006 + project volumes and 2015 + project volumes.

2006 & 2006 + Phases I & II

Roadways. Traffic operations on the key roadway segments within the study-area were analyzed assuming 2006 and 2006 + Phases I & II forecasts. Using the roadway design capacities discussed previously, it was determined that all of the study-area roadway segments would continue to operate at LOS A during the weekday and weekend periods with 2006 + Phase I & II traffic volumes. Table 3.5 - 8 summarizes the results of the roadway analysis for the 2006 + Phase I & II scenario.

Intersection. Levels of service were calculated for the study-area intersections assuming the 2006 and 2006 + Phases I & II peak hour volumes. Table 3.5 - 9 lists the results of the calculations and compares them to existing conditions. The two study-area intersections analyzed during the weekday P.M. peak hour period are forecast to operate at LOS C with 2006 and 2006 + Phases I & II traffic. The McLaughlin Road/Cagney Way intersection is forecast to operate at LOS A with 2006 traffic and LOS B with 2006 + Phases I & II traffic during the weekend peak hour period. These levels of service meet City’s standards.

Table 3.5 - 8
2006 + Phases I & II Roadway Operations

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Classification</th>
<th>2006 Volume</th>
<th>2006 + Phases I &amp; II</th>
<th>Capacity&lt;sup&gt;a&lt;/sup&gt;</th>
<th>V/C&lt;sup&gt;b&lt;/sup&gt;</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekdays</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Ave - H St to A St</td>
<td>4-Lane Major Arterial</td>
<td>10,900 ADT</td>
<td>11,158 ADT</td>
<td>30,000 ADT</td>
<td>0.37</td>
<td>LOS A</td>
</tr>
<tr>
<td>A St s/o Central Ave</td>
<td>4-Lane Minor Arterial</td>
<td>7,100 ADT</td>
<td>7,190 ADT</td>
<td>20,000 ADT</td>
<td>0.36</td>
<td>LOS A</td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>1,800 ADT</td>
<td>2,148 ADT</td>
<td>10,000 ADT</td>
<td>0.21</td>
<td>LOS A</td>
</tr>
<tr>
<td><strong>Weekends</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>1,900 ADT</td>
<td>3,901 ADT</td>
<td>10,000 ADT</td>
<td>0.39</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

<sup>a</sup> Capacity represents the upper limit of LOS C.

<sup>b</sup> Volume-to-Capacity ratio for 2006 + Phases I & II.

Table 3.5 - 9
2006 & 2006 + Phases I & II
Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control Type</th>
<th>Delay / LOS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>2006</td>
<td>2006 + Phases I &amp; II</td>
</tr>
<tr>
<td><strong>Weekday P.M. Peak Hour Period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;H&quot; Street/Central Avenue&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Signal</td>
<td>31.1 Sec/LOS C</td>
<td>26.6 Sec/LOS C</td>
<td>27.7 Sec/LOS C</td>
</tr>
<tr>
<td>&quot;A&quot; Street/Central Avenue</td>
<td>3-Way Stop</td>
<td>15.7 Sec/LOS C</td>
<td>17.8 Sec/LOS C</td>
<td>19.8 Sec/LOS C</td>
</tr>
<tr>
<td><strong>Weekend Peak Hour Period</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Road/Cagney Way</td>
<td>2-Way Stop</td>
<td>8.7 Sec/LOS A</td>
<td>8.8 Sec/LOS A</td>
<td>11.5 Sec/LOS B</td>
</tr>
</tbody>
</table>

<sup>a</sup> 2006 and 2006 + Phases I & II assume planned improvements (dual left-turn lanes on NB & SB approaches).

As noted, the levels of service for the "H" Street/Central Avenue intersection assume that the dual left-turn lanes that are planned for the northbound and southbound approaches are in place by 2006. The intersection would operate at LOS D and require mitigation if the planned improvements are not in place. Installing dual left-turn lanes on the southbound approach would be required to provide LOS C with 2006 + Phases I & II traffic. Based on the project's share of the future traffic increases at the intersection, the project's "fair share" of the additional lane would be 33%.
2015 & 2015 + Phases I-III

Roadways. Table 3.5 - 10 summarizes the results of the roadway analysis for the key roadway segments within the study-area for the 2015 and 2015 + Phases I-III scenarios. The results show that all the study-area roadway segments are forecast to operate at LOS A during the weekday and weekend periods with 2015 + Phases I-III traffic volumes. These service levels meet the City's LOS C standard.

Table 3.5 - 10
2015 + Phases I-III Roadway Operations

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Classification</th>
<th>2015 Volume</th>
<th>2015 + Phases I &amp; II</th>
<th>Capacitya</th>
<th>V/Cb</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Ave - H St to A St</td>
<td>4-Lane Major Arterial</td>
<td>20,200 ADT</td>
<td>20,674 ADT</td>
<td>30,000 ADT</td>
<td>0.69</td>
<td>LOS A</td>
</tr>
<tr>
<td>A St s/o Central Ave</td>
<td>4-Lane Minor Arterial</td>
<td>9,100 ADT</td>
<td>9,265 ADT</td>
<td>20,000 ADT</td>
<td>0.46</td>
<td>LOS A</td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>2,300 ADT</td>
<td>2,939 ADT</td>
<td>10,000 ADT</td>
<td>0.29</td>
<td>LOS A</td>
</tr>
<tr>
<td>Weekends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>2,400 ADT</td>
<td>5,250 ADT</td>
<td>10,000 ADT</td>
<td>0.53</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

a Capacity represents the upper limit of LOS C.
b Volume-to-Capacity ratio for 2015 + Phases I-III.

Intersection. Table 3.5 - 11 compares the level of service forecasts for the study-area intersections assuming the 2015 and 2015 + Phases I-III peak hour volumes. The "H" Street/Central Avenue intersection is forecast to operate at LOS D with 2015 traffic during the weekday P.M. peak hour period, which does not meet the City's LOS C standard. Phases I-III of the project would add 209 trips to the intersection during the weekday P.M. peak hour period.

The "A" Street/Central Avenue intersection is forecast to operate at LOS C with 2015 and 2015 + Phases I-III traffic during the weekday P.M. peak hour period assuming the Central Avenue extension project and signalization of the intersection, as planned under General Plan build-out conditions. The McLaughlin Road/Cagney Way intersection is forecast to operate at LOS A with 2015 traffic and LOS B with 2015 + Phases I-III traffic during the weekend peak hour period. These service levels meet the City's LOS C standard.
Table 3.5 - 11
2015 & 2015 + Phases I-III
Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control Type</th>
<th>Delay / LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2015</td>
</tr>
<tr>
<td><strong>Weekday P.M. Peak Hour Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;H&quot; Street/Central Avenue(^a)</td>
<td>Signal</td>
<td>48.5 Sec/LOS D</td>
</tr>
<tr>
<td>&quot;A&quot; Street/Central Avenue(^b)</td>
<td>Signal</td>
<td>24.4 Sec/LOS C</td>
</tr>
<tr>
<td><strong>Weekend Peak Hour Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Road/Cagney Way</td>
<td>2-Way Stop</td>
<td>8.8 Sec/LOS A</td>
</tr>
</tbody>
</table>

\(^a\) 2015 and 2015 + Phases I-III assume planned improvements (dual left-turn lanes on NB & SB approaches).

\(^b\) 2015 and 2015 + Phases I-III assume planned improvements (Central Avenue Extension and traffic signal control).

Site Access
Access to the proposed parking areas in the North Park and South Park areas would be provided by McLaughlin Road (See Figure 2 - Preliminary Site Plan [Appendix M]). Since the site planning process is in the preliminary stages, the number and location of driveways serving the parking areas is uncertain. Driveways are projected to be located at the east and west sides of the South Park parking area, in addition to one central driveway. The driveways will be required to meet City standards. McLaughlin Road will be improved to collector road standards, and include curb, gutter and sidewalk on both sides of the street. This would facilitate vehicle and pedestrian movements. The City's collector road standard is 44-feet curb-to-curb, which would allow on-street parking in the vicinity of the park.

Parking
The current proposal would provide 580 parking spaces in the North Park area and up to 308 spaces in the South Park area. Parking demands for the Master Plan uses were forecasted to determine the adequacy of the proposed parking supply. As with the trip generation analysis, peak demands were forecasted using the scheduling and operational information provided by the City's Parks & Recreation Department (See the Technical Appendix of the Traffic and Circulation Study [Appendix M]) for parking demand calculation worksheets.) Table 3.5 - 12 summarizes the peak parking demand forecasts for the Phase I & II (2006) uses as well as for Phases I-III uses.

The parking demands for Phases I & II are expected to peak at 426 spaces on Saturdays when all of the fields are in use during the AYSO soccer season. The 580 spaces in the North Park area would satisfy these demands. Similarly, the peak parking demands for Phases I-III are forecast at 654 spaces on Saturdays when the fields are used for AYSO games. The 580 spaces in the North Park area coupled with the 308 spaces in the South Park area would satisfy these demands.
Table 3.5 - 12
Master Plan Peak Parking Demand Estimates

<table>
<thead>
<tr>
<th>Phase/Day of Week</th>
<th>Peak Parking Demanda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phases I &amp; II</td>
<td></td>
</tr>
<tr>
<td>Weekdays</td>
<td>184</td>
</tr>
<tr>
<td>Saturdays</td>
<td>426</td>
</tr>
<tr>
<td>Sundays</td>
<td>274</td>
</tr>
<tr>
<td>Phases I-III</td>
<td></td>
</tr>
<tr>
<td>Weekdays</td>
<td>272</td>
</tr>
<tr>
<td>Saturdays</td>
<td>589</td>
</tr>
<tr>
<td>Sundays</td>
<td>437</td>
</tr>
</tbody>
</table>

a Peak parking demand for most intensive 1-hour period.

Potential A.M. Peak Hour Impacts
Although the park would open at dawn, the majority of planned activities that will generate traffic on weekdays would be during the late afternoon-evening periods when the playing fields would be in use. The park would include some passive uses that attract users during the A.M. peak commuter period on weekdays (A.M. peak commuter period is the highest 1-hour period between 7:00 and 9:00 A.M.). Based on studies of parks that have been compiled and published by the San Diego Association of Governments, it is estimated that the Master Plan uses would generate a total of 60 trips (30 inbound + 30 outbound) during the A.M. peak hour period. This traffic would not change the levels of service at key intersections during the weekday A.M. peak commuter period.

AYSO Tournaments
The Master Plan scheduling information shows that the fields at Riverbend Park may be used infrequently for soccer tournaments. Since the number of fields used in tournaments would be the same as proposed under the Master Plan (use of 10 soccer fields on weekends), the traffic generation for tournament events would be the same as full use of the fields for regular AYSO games. The traffic impacts would therefore be the same.

Although the number of fields used in tournaments would be the same as proposed under the Master Plan (10 soccer fields), tournament events may have different parking demand characteristics. For instance, teams coming from out of town may arrive via buses or ride share to a greater degree than local participants – thereby reducing potential parking demands. On the other hand, both out-of-town and local participants may stay at the park for extended periods while waiting to play or to watch others play – thereby increasing potential parking demands. There are no empirical data to estimate potential parking demands for such tournaments.

It is recommended that the City monitor tournament events in the near term and develop a Parking Management Plan if the parking demands exceed the number of spaces proposed. The

Parking Management Plan could include information measures that would reduce parking demands at the site (e.g. informing participants/families of limited parking and encouraging ride sharing) along with measures that would increase the parking supply (e.g. use of off-site parking with shuttles, alternative striping on the north end of McLaughlin Road such as angled parking).

**Trail Use Traffic and Parking Impacts**

Phase II includes development of the Santa Ynez River Multi-Use Trail (Class I), which is proposed to run along the Santa Ynez River from College Avenue/Riverside Drive, extending the length of the bluff along Riverside Drive, and finishing at McLaughlin Road. A small segment of Class II bike lane is to be improved within the existing 12th Street right-of-way, between Highway 246 and Laurel Avenue. The trail will be accessible from the park as well as several points along its reach. The Bike Trail is intended for recreational use by locals and it is anticipated to attract low volumes of motor vehicles traveling to/from the trail.

**CONGESTION MANAGEMENT PROGRAM ANALYSIS**

The Santa Barbara County Association of Governments (SBCAG) has developed a set of traffic impact guidelines to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities within the County CMP roadway system. The following guidelines were developed by SBCAG to determine the significance of project-generated traffic impacts on the regional CMP system.

1. For any roadway or intersection operating at "Level of Service" (LOS) A or B, a decrease of two levels of service resulting from the addition of project-generated traffic.

2. For any roadway or intersection operating at LOS C, project-added traffic that results in LOS D or worse.

3. For intersections within the CMP system with existing congestion, the following table defines significant impacts.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Project-Added Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS D</td>
<td>20</td>
</tr>
<tr>
<td>LOS E</td>
<td>10</td>
</tr>
<tr>
<td>LOS F</td>
<td>10</td>
</tr>
</tbody>
</table>

4. For freeway or highway segments with existing congestion, the following table defines significant impacts.
Table 3.5 – 14 CMP Highway Segment Impacts

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Project-Added Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS D</td>
<td>100</td>
</tr>
<tr>
<td>LOS E</td>
<td>50</td>
</tr>
<tr>
<td>LOS F</td>
<td>50</td>
</tr>
</tbody>
</table>

The "H" Street/Central Avenue intersection is part of the CMP system. The CMP requires analyses of intersections using the Intersection Capacity Utilization (ICU) level of service method. Table 3.5 - 15 summarizes the CMP analysis competed for the "H" Street/Central Avenue intersection.

Table 3.5 – 15  CMP Analysis

<table>
<thead>
<tr>
<th>Intersection</th>
<th>ICU / LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>&quot;H&quot; Street/Central Avenuea</td>
<td>0.71/LOS C</td>
</tr>
</tbody>
</table>

* LOS assume planned improvements (dual left-turn lanes on NB & SB approaches).

The intersection is forecast to operate at LOS C with 2006 and 2006 + Phase I & II traffic, which meets CMP criteria. The intersection is forecast to degrade to LOS E by 2015. Development of Phases I-III would add 209 trips to the intersection during the weekday P.M. peak hour period, which exceeds the CMP criteria. This intersection is projected to operate at LOS D with 2015 traffic during the weekday P.M. peak hour period. The CMP requires that deficiency plans be prepared for facilities that operate at LOS E or LOS F. The City of Lompoc will be required to prepare a deficiency plan for the "H" Street/Central Avenue intersection when its operation degrades to LOS E (sometime between 2006 and 2015, depending upon the pace and magnitude of development in the traffic-shed that affects the intersection).

Adding a separate right-turn lane on the northbound approach would off-set the project’s traffic additions to the intersection. Based on the project’s share of the future traffic increases at the intersection, the projects “fair share” contribution to construction of the additional lane is 10%. However, if the dual left-turn lanes planned for the northbound and southbound approaches at the “H” Street / Central Avenue intersection are not in place by 2006, the project’s “fair share” contribution to the right-turn lane construction would increase to 33%.

**Air Traffic Patterns**

The proposed project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The proposed project does not include any changes or proposals that would impact the airport or air
traffic patterns. Traffic levels to the local municipal airport are not expected to change because of the proposed park improvements.

**Hazards**
The proposed project will not create or increase hazards due to a design feature or incompatible uses. Farm equipment rarely uses McLaughlin Road and much of the existing limited use is associated with the farming of Riverbend Park property. Roads will not change and accesses and cul-de-sacs will be designed to be wide enough and placed in such a way as not to create a hazard.

**Emergency Access**
The proposed project will not result in inadequate emergency access. Access to Riverbend Park will remain the same, from McLaughlin Road. A turnaround will be added at the end of McLaughlin and the Bike Trail will be designed to support standard sized vehicles to increase access to areas adjacent to the Bike Trail in an emergency.

**Parking**
The proposed project will not result in inadequate parking capacity. The proposed number of parking spaces necessary to support the playing fields has been evaluated and peak parking demand has been determined to be 654 spaces. A possible 888 spaces have been designed into the project to ensure that adequate on-site parking can be developed to meet the needs of the park users.

**Alternative Transportation**
The proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks). The proposed Master Plan includes a Bike Trail and bike racks will be provided at Riverbend Park. A bus turnout and stop are also planned for the park in the future, dependant on demand.

**Mitigation Measures**

T-1: When a separate right-turn lane on the northbound approach to the “H” and Central intersection is constructed, the project shall contribute its “fair share” of the improvements, either 10%, if the improvements are in place by 2006, or 33%, if the improvements are not in place by 2006.

**Unavoidable Significant Impacts**

There will be no unavoidable significant traffic impacts, if the “fair share” contribution to the intersection at “H” and Central is made.
3.6 Air Quality

Regional Setting
Santa Barbara County’s air quality is influenced by local topography and meteorological conditions. Surface and upper-level wind flow varies both seasonally and geographically in the County and inversion conditions common to the area can affect the vertical mixing and dispersion of pollutants. According to the Santa Barbara County Air Pollution Control District’s Draft Clean Air Plan, meteorological and topographical influences that are important to air quality in Santa Barbara County are as follows:

- The semi-permanent high pressure ridge that lies off the Pacific Coast leads to limited rainfall (around 18 inches per year), with warm, dry summers and relatively damp winters. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast and in the high 80s to 90s inland. During winter, average minimum temperatures range from the 40s along the coast to the 30s inland. Additionally, cool, humid, marine air causes frequent fog and low clouds along the coast, generally during the night and morning hours in the late spring and early summer. The fog and low clouds can persist for several days until broken up by a change in the weather pattern.

- In the northern portion of the county (north of the ridgeline of the Santa Ynez Mountains), the sea breeze (from sea to land) is typically northwesterly throughout the year while the prevailing sea breeze in the southern portion of the county is from the southwest. During summer, these winds are stronger and persist later into the night. At night, the sea breeze weakens and is replaced by light land breezes (from land to sea). The alternation of the land-sea breeze cycle can sometimes produce a "sloshing" effect, where pollutants are swept offshore at night and subsequently carried back onshore during the day. This effect is exacerbated during periods when wind speeds are low.

- The terrain around Point Conception, combined with the change in orientation of the coastline from north-south to east-west can cause counterclockwise circulation (eddies) to form east of the Point. These eddies fluctuate temporally and spatially, often leading to highly variable winds along the southern coastal strip. Point Conception also marks the change in the prevailing surface winds from northwesterly to southwesterly.

- Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend down the slopes of a mountain range. Wind speeds associated with Santa Ana’s are generally 15-20 mph, though they can sometimes reach speeds in excess of 60 mph. During Santa Ana conditions, pollutants emitted in Santa Barbara, Ventura County, and the South Coast Air Basin (the Los Angeles region) are moved out to sea. These pollutants can then be moved back onshore into Santa Barbara County in what is called a "post-Santa Ana condition." The effects of the post-Santa Ana condition can be experienced throughout the county. Not all post-Santa Ana conditions, however, lead to high pollutant concentrations in Santa Barbara County.
• Upper-level winds (measured at Vandenberg Air Force Base once each morning and afternoon) are generally from the north or northwest throughout the year, but occurrences of southerly and easterly winds do occur in winter, especially during the morning. Upper-level winds from the south and east are infrequent during the summer. When they do occur, they are usually associated with periods of high ozone levels. Surface and upper-level winds can move pollutants that originate in other areas into the county.

• Surface temperature inversions (0-500 ft) are most frequent during the winter, and subsidence inversions (1000-2000 ft) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them and ozone concentrations are often higher directly below the base of elevated inversions than they are at the earth’s surface. For this reason, elevated monitoring sites will occasionally record higher ozone concentrations than sites at lower elevations. Generally, the lower the inversion base height and the greater the rate of temperature increase from the base to the top, the more pronounced effect the inversion will have on inhibiting vertical dispersion. The subsidence inversion is very common during summer along the California coast, and is one of the principal causes of air stagnation.

• Poor air quality is usually associated with "air stagnation" (high stability/restricted air movement). Therefore, it is reasonable to expect a higher frequency of pollution events in the southern portion of the county where light winds are frequently observed, as opposed to the northern part of the county where the prevailing winds are usually strong and persistent.

Federal and state criteria pollutant emission standards have been established for seven pollutants: Carbon Monoxide (CO), Ozone (O₃), Particulate Matter, 10 microns or less in diameter (PM₁₀), Particulate Matter, 2.5 microns or less in diameter (PM₂.₅), Nitrogen Dioxide (NO₂), sulfur dioxide (SO₂), and lead.

Santa Barbara County has been designated a federal ozone attainment area for the 1-hour ozone National Ambient Air Quality standard and is officially in attainment for all federal air quality standards. Santa Barbara County is also in attainment for all State air quality standards, with the exception of Ozone (O₃) and Particulate Matter (PM₁₀). A monitoring station located at 128 South “H” Street in Lompoc is the closest monitoring station to the project site. From 1998 to 2002, the “H” Street monitoring station did not record any days in which the State or Federal air quality standards for Ozone (O₃), Carbon Monoxide (CO), Nitrogen Oxide (NO₂), Sulfur Dioxide (SO₂) and Particulate Matter (PM₁₀) were exceeded. (Personal Communication, Joel Cordes, SBCAPCD).

Project Setting
The Lompoc Valley is a relatively narrow valley located between the Santa Ynez Mountains and the Purisima Hills. Winds are generally from the northwest or west, except those associated with winter storms. These winds tend to circulate so that they flow over the valley from south to north. Ocean winds begin in the mid-day and continue into the early evening. Toward morning breezes from the mountain canyons flow out through the valley. Inversion layers form within the
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards 1</th>
<th>Federal Standards 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Concentration 3 Method 4</td>
<td>Primary 3,5 Secondary 3,6 Method 7</td>
</tr>
<tr>
<td>Ozone (O₃)</td>
<td>1 Hour</td>
<td>0.09 ppm (180 µg/m³) Ultraviolet Photometry</td>
<td>0.12 ppm (235 µg/m³) Same as Primary Standard</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>—</td>
<td>0.03 ppm (157 µg/m³)</td>
</tr>
<tr>
<td>Respirable</td>
<td>24 Hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³            Same as Primary Standard</td>
</tr>
<tr>
<td>Particulate Matter</td>
<td></td>
<td>Gravimetric or Beta Attenuation</td>
<td>—</td>
</tr>
<tr>
<td>(PM10)</td>
<td>Annual</td>
<td>20 µg/m³</td>
<td>50 µg/m³            Same as Primary Standard</td>
</tr>
<tr>
<td>Fine Particulate</td>
<td>24 Hour</td>
<td>No Separate State Standard</td>
<td>65 µg/m³            Same as Primary Standard</td>
</tr>
<tr>
<td>Matter (PM2.5)</td>
<td>Annual</td>
<td>12 µg/m³</td>
<td>15 µg/m³            Same as Primary Standard</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>8 Hour</td>
<td>0.06 ppm (10 mg/m³) Non-Dispersive Infrared Photometry (NDIR)</td>
<td>6 ppm (10 mg/m³) None</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>20 ppm (23 mg/m³)</td>
<td>36 ppm (40 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>6 ppm (7 mg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Annual</td>
<td>—</td>
<td>0.053 ppm (100 µg/m³) Same as Primary Standard</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.25 ppm (476 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>Annual</td>
<td>—</td>
<td>0.030 ppm (80 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>0.04 ppm (105 µg/m³)</td>
<td>0.14 ppm (385 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.25 ppm (655 µg/m³)</td>
<td>—</td>
</tr>
<tr>
<td>Lead *</td>
<td>30 Day Average</td>
<td>1.5 µg/m³</td>
<td>1.5 µg/m³            Same as Primary Standard</td>
</tr>
<tr>
<td></td>
<td>Calendar Quarter</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Visibility</td>
<td>8 Hour</td>
<td>Extraction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.</td>
<td>No</td>
</tr>
<tr>
<td>Reducing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfates</td>
<td>24 Hour</td>
<td>25 µg/m³</td>
<td>Ion Chromatography</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>1 Hour</td>
<td>0.03 ppm (42 µg/m³)</td>
<td>Ultraviolet Fluorescence</td>
</tr>
<tr>
<td>Sulfide</td>
<td>24 Hour</td>
<td>0.01 ppm (26 µg/m³)</td>
<td>Gas Chromatography</td>
</tr>
<tr>
<td>Vinyl Chloride *</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See footnotes on next page...
1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr. ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. New federal 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current federal policies.

9. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

California Air Resources Board (7/9/03)
valley during summer, though pollutants are expected to be frequently flushed from the valley by high velocity winds from the ocean.

The Santa Barbara County Air Pollution Control District (SBCAPCD) has specified significance thresholds to determine whether mitigation is needed for project-related air quality impacts. Those thresholds, which only apply to operational emissions, state that a project would have significant air quality impacts if it results in emissions exceeding 240 pounds per day for reactive organic gases (ROG) and NOX, and 80 pounds per day for PM10. The SBCAPCD has also established a significance threshold of 25 pounds per day for ROG and NOX, which applies to emissions from motor vehicle trips only.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines and from the adopted SBCAPCD thresholds. Under these guidelines, a project will have a significant impact if its operation will:

a. Conflict with or obstruct implementation of, or be inconsistent with the adopted federal and state air quality plans for Santa Barbara County;

b. Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);

c. Result in a Cumulatively Considerable net increase of any pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;

d. Emit more than 25 pounds-per-day of NOx or ROC from motor vehicle trips only. Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule for any pollutant (i.e. 240 pounds-per-day for ROC or NOx and 80 lbs per day for PM10);

e. Exceed the APCD health risk public notification thresholds adopted by the APCD Board;

f. Expose sensitive receptors to substantial pollutant concentrations; or

g. Create objectionable odors affecting a substantial number of people.

**Project Impacts and Significance – Phases 1, 2 & 3**

**Compliance with the Clean Air Plan**

The proposed project will not conflict with or obstruct implementation of the SBCAPCD’s Clean Air Plan (CAP). A project is deemed inconsistent with clean air plans if it would result in population and/or employment growth that exceeds growth estimates included in the SBCAPCD’s Clean Air Plan (CAP). Thus, projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would
exceed the growth rates anticipated in the Clean Air Plan. The proposed project is designed to improve an existing park to meet the recreational needs of the existing population of Lompoc. Because the proposed project is recreational in nature and is designed to serve an existing identified recreational need in Lompoc, it will not result in an increase in the area’s population or employment. Consequently, the proposed project would not conflict with or obstruct Santa Barbara County’s CAP.

The project is consistent with the Parks and Recreation Element of the City of Lompoc’s General Plan, in which Policy 1.2 states that “the City shall develop adequate park sites in the northwest and northeast portions of the City as well as other future growth areas” and Policy 1.6 states that “the City shall encourage establishment of off-road bicycling/hiking trails extending along the Santa Ynez River.” The project is also consistent with the Circulation Element of the City of Lompoc’s General Plan. Thus, the proposed project will be consistent with, and will not obstruct the implementation of the Clean Air Plan. No significant impacts in relation to the CAP are anticipated.

Conformity with the Federal Transportation Improvement Program
The only portion of the project which could be subject to a finding of conformity with the Federal Transportation Improvement Program is the Bike Trail construction from McLaughlin Road south to the intersection of College Avenue and Riverside Drive, as well as the small segment of Class II bike lane, from Laurel Avenue to Ocean Avenue, on 12th Street. This portion of the project is being funded through the Federal Highway Administration / Caltrans. A Preliminary Environmental Study (PES) was conducted in January 2003 and was reviewed and approved by the Caltrans Local Assistance Engineer in January 2003. The PES states that the project is included in a currently conforming regional transportation plan (RTP) and transportation improvement program (TIP) and that there have been no substantial changes in the design concept and scope as used in the TIP. The PES also states that the project is exempt from the requirement to determine conformity (40 C.F.R. 93.126). Thus, the proposed project will be consistent with, and will not obstruct the implementation of the Transportation Improvement Plan. No significant impacts in relation to the TIP are anticipated.

City General Plan Consistency
The City of Lompoc’s General Plan, Circulation Element, Goal 5 states that the City will seek to “Reduce automobile use and the associated emissions by maintaining a compact and well designed urban form which encourages alternative transportation modes.” The proposed project is consistent with this Goal, as it will provide a Bike Trail connecting with several streets along the eastern edge of Lompoc with Riverbend Park. Measure 10 of the Circulation element states that “The City shall develop a pedestrian and bicycle trail system which connects major park and wildlife areas within the Lompoc Valley. The proposed project will connect an identified area of biological significance along the Santa Ynez River with a bicycle trail that will provide increased access to this area for Lompoc’s residents. The proposed Bike Trail location coincides with the location of a Class I Bike Trail on the Bikeway Routes Map in the General Plan’s Circulation Element. The proposed Class II and III bike lanes are also identified on the Bikeway Routes Map. In addition, a future bus stop on the City of Lompoc Transit line has been identified at Riverbend Park to address increased demand once the playing fields are fully operational. This provision will be consistent with Measure 32 of the Circulation Element of the General Plan, as
this is a transit stop location that will improve transit service at this park expansion site. The proposed project will be consistent with and further the goals of the City’s adopted General Plan.

**Short-term and Construction Emissions**
The proposed project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Construction of the project would result in the temporary generation of emissions of ROG, NO\textsubscript{x}, CO, and PM10. Construction-related emissions would result from preliminary and final grading, construction worker commute trips, mobile construction equipment exhaust, and asphalt paving. Construction emissions are estimated using projected construction activities for each construction phase and emission factors included with the URBEMIS 2002 land use emissions model.

The proposed project would result in temporary increases in ROG, NO\textsubscript{x}, CO and PM10 during construction. The following estimates are based on the construction activities associated with site clearing, grading, and building construction. The construction estimates assume the use of one wheeled loader, one bulldozer, and one motor grader, operating simultaneously during the grading phase. One wheeled loader, one bulldozer, one motor grader, and one dump truck were assumed to be operating simultaneously during the field construction phase. Construction emission estimates are presented in Table 3.6-2. Although there are no quantitative thresholds for construction emissions, mitigation measures are still required by the SBCAPCD to ensure that the impact is less than significant. These mitigation measures are identified below.

**Table 3.6-2. Construction Emission Estimates (Tons per year / unmitigated)**

<table>
<thead>
<tr>
<th></th>
<th>ROG</th>
<th>NO\textsubscript{x}</th>
<th>CO</th>
<th>SO2</th>
<th>PM10 TOTAL</th>
<th>PM10 EXHAUST</th>
<th>PM10 DUST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>0.25</td>
<td>1.71</td>
<td>2.00</td>
<td>0.00</td>
<td>0.48</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>Phase 2</td>
<td>0.48</td>
<td>3.37</td>
<td>3.99</td>
<td>0.00</td>
<td>0.96</td>
<td>0.16</td>
<td>0.12</td>
</tr>
<tr>
<td>Phase 3</td>
<td>0.24</td>
<td>1.49</td>
<td>2.06</td>
<td>0.00</td>
<td>0.36</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>Total</td>
<td>0.97</td>
<td>6.57</td>
<td>8.05</td>
<td>0.00</td>
<td>1.80</td>
<td>0.28</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Threshold standard for construction emissions for ROG and NO\textsubscript{x} is 25 tons per year. No threshold standard for PM10 dust; however, use standard dust mitigation measures.

**Long-term / Operational Emissions**

**Assumptions**
Project-related air emissions will have a significant effect if they result in concentrations that create either a violation of an ambient air quality standard or contribute to an existing air quality violation. National and state air quality standards are identified in Table 3.6-1. The Santa Barbara County Air Pollution Control District (SBCAPCD) has specified significance thresholds to determine whether mitigation is needed for project-related air quality impacts. Those thresholds, which only apply to operational emissions, state that a project will have significant air quality impacts if it will result in emissions exceeding 240 pounds per day for reactive organic gases (ROG) and NO\textsubscript{x}, and 80 pounds per day for PM10. The SBCAPCD has also established a significance threshold of 25 pounds per day for ROG and NO\textsubscript{x}, which applies to emissions from motor vehicle trips only.
The proposed project could result in operational emissions of ROG, NOx, CO, SO2 and PM10. These emissions would be caused by vehicular travel. The parking area is to be surfaced with road base and gravel and therefore should not contribute significantly to PM10 emissions. Unmitigated and mitigated emissions associated with the project are shown in Table 3.6-3 below.

Average trips-per-acre were calculated, using traffic data prepared for this project by Associated Transportation Engineers (2004), for each phase of the proposed project and then averaged to obtain a total for Phases I-III of 20.4 trips-per-acre. Emissions of ROG, NOx, CO, SO2 and PM10 were then calculated, using this value, and the URBEMIS 2002 model (See Appendix E). Projected mitigated operational vehicle emissions of ROG were 9.56 lbs. per day, NOx, - 13.41 lbs. per day, PM10 – 26.23 lbs. per day, CO – 115.55 lbs. per day and SO2 - .17 lbs. per day. As shown in Table 3.6-3, the project would not result in exceedances of the thresholds for ROG, NOx, or PM10. The impact would therefore be less than significant.

Mitigating features of the site and project include a bus shelter and bus service planned for the site, bicycle racks and the proposed Bike Trail. The site is close to an elementary school and is well served by both bike lanes and sidewalks. Street trees are present in the surrounding neighborhoods, as well as along the sidewalk leading to Riverbend Park. A caretaker will reside at the park to provide security and an added measure of safety for park users.

<table>
<thead>
<tr>
<th>Trips Per Acre – Phases I – III Project Build-out 2015</th>
<th>ROG</th>
<th>NOx</th>
<th>PM10</th>
<th>CO</th>
<th>SO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average 21 trips-per-acre (ITE estimate for Saturday / Regional Park, plus standard deviation)</td>
<td>11.31</td>
<td>16.02</td>
<td>31.32</td>
<td>137.97</td>
<td>.20</td>
</tr>
<tr>
<td>Average 21 trips-per-acre mitigated</td>
<td>9.56</td>
<td>13.41</td>
<td>26.23</td>
<td>115.55</td>
<td>.17</td>
</tr>
</tbody>
</table>

Based on the above values, the proposed project will not cause or contribute to a violation of any California or National Ambient Air Quality Standard and does not exceed the threshold limits established by the SBCAPCD.

**Project Screening for CO Impacts**
Carbon Monoxide (CO) screening is intended to identify the potential for creating “hot spots” at congested intersections. Within the proposed project area, the only significantly congested intersection is that of Central Avenue and “H” Street. Based on the Traffic Study prepared for the project by Associated Transportation Engineers, dated July 9, 2004, the number of P.M. Peak hour trips added by phases I-III of the project to the intersection at Central Avenue and “H” Street would be 188 trips. This falls below the threshold of 800 peak hour trips per lane added to an affected intersection. Therefore, the CO modeling is not required to be completed for this project.

**Air Toxics**
Because the proposed expansion of Riverbend Park and the construction of the Bike Trail and maintenance of these facilities will not involve hazardous or acutely hazardous materials, the...
proposed project will not exceed the adopted SBCAPCD health risk public notification thresholds.

**Sensitive Receptors**

Although sensitive receptors may be located in residential areas in the vicinity of the site, implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. The residents located adjacent to the proposed project site could be sensitive receptors that could potentially be affected by construction and operational activities. However, the type of project, recreational playing fields and a Bike Trail, and the analysis of construction and operations emissions above, substantiates the fact that the proposed project will not result in substantial pollutant concentrations. In addition, implementation of the proposed air quality mitigation measures during construction will minimize project effects overall, resulting in less-than-significant impacts.

**Potential for Odor Impacts**

The proposed project would not create objectionable odors that could affect a substantial number of people. The project involves relatively typical recreational uses, field sports and the construction of a bicycle trail. These uses are not associated with odors. Chemicals are not proposed to be used on the fields. No odor impacts are anticipated, as a result of the project.

**Mitigation Measures**

AQ-1: Dust (PM$_{10}$) - A dust abatement program shall be prepared by the applicant. The program shall be reviewed and approved by the City Engineer, Senior Environmental Coordinator, and City Planner, prior to issuance of grading permits. The dust abatement program shall include the following dust control measures:

a. The construction contractor shall designate a person or persons to monitor and oversee the implementation of a comprehensive dust control program and to increase watering, as necessary, to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and 24/7 contact information for the person responsible for dust control shall be provided to the Air Pollution Control District and the Lompoc Community Development Department, prior to issuance of grading permits.

b. The construction area and ground disturbance shall be limited to the minimum necessary to construct the project. For the Bike Trail, the construction area has been estimated to be a 20-foot wide area along the Bike Trail. If additional area is necessary to construct portions of the Bike Trail, or for staging activities, the construction area can be expanded with the prior approval of both the biological monitor and the City’s project manager.

c. During construction, water trucks or sprinkler systems shall be used to prevent dust from leaving the site. At a minimum, this should include wetting down the construction site, especially during excavation and other ground-preparing operations, and cleaning all equipment in the mid- to late- morning and after work
is completed for the day. Increased watering frequency shall occur, whenever the wind speed exceeds 15 mph.

d. The amount of area disturbed at any one time shall be limited to 15 acres.

e. Stockpiled soil shall be watered, covered, or treated with soil binders to prevent blowing dust.

f. Any material transported to or from the site by truck shall be covered with a tarp from its point of origin, or have adequate freeboard to prevent blowing or spillage.

g. Construction workers shall maintain speeds under 10 mph in all vehicles or equipment. Signs shall be posted on the job site that limit vehicle speeds on unpaved roads and over disturbed soils to 10 miles per hour during construction.

h. A minimum depth of eight (8) inches of gravel and/or mud grates shall be placed at all roadway entrances, extending 25-feet from the edge of pavement, to prevent tracking of dirt and mud onto public roads.

i. After grading, earthmoving, or excavation is completed, disturbed areas shall be watered, adequately revegetated, or covered with soil binders until the area is paved or otherwise developed, so that dust will not be generated. Binders should be refreshed according to manufacturer specifications or when the crust is broken.

j. Streets and alleys surrounding the project shall be kept clean and free of dirt. Dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter through vehicle movement over those surfaces. Washing of streets and pavement is not permitted.

k. Dust control requirements shall be provided as a note on a separate informational sheet on project grading and building plans and in plan specifications developed for the project.

AQ-2: If dust is not adequately controlled on-site, the City shall shut down work on the project until adequate dust control is provided.

AQ-3: Key provisions of dust control requirements shall be shown on grading and construction plans.

AQ-4: Only APCD approved paint and asphalt shall be used.

AQ-5: Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated “clean” diesel engines) shall be used, whenever feasible.

AQ-6: The engine size of construction equipment shall be the minimum practical size.
AQ-7: The number of pieces of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time.

AQ-8: Construction equipment shall be maintained in-tune, per the manufacturer’s specifications.

AQ-9: Construction equipment operating on-site shall be equipped with two or four degree engine timing retard or pre-combustion chamber engines.

AQ-10: Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

AQ-11: Diesel catalytic converters, diesel oxidation catalysts and diesel particulate fibers as certified and/or verified by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board shall be installed, if available.

AQ-12: Diesel powered equipment shall be replaced by electric equipment, whenever feasible.

AQ-13: Construction worker trips should be minimized by encouraging carpooling and by making food available on-site during the lunch break.

AQ-14: Temporary traffic control shall be provided (e.g., flag person) to avoid unnecessary delays to traffic, during construction activities which interrupt normal traffic flow.

**Unavoidable Significant Impacts**

There will be no unavoidable significant air quality impacts, with the implementation of the proposed mitigation measures above.
3.7 Hydrology and Water Quality

Regional Setting
The proposed project is located within the Lompoc Valley, on the lower section of the Santa Ynez River. The Lompoc Valley is underlain by the Lompoc Groundwater Basin aquifer complex.

Hydrology

Groundwater
Groundwater provides 100% of the water supply in the Lompoc Basin and is used primarily for agricultural, municipal, and military purposes. The Lompoc Basin is the second of two groundwater basins crossed by the Santa Ynez River downstream of Lake Cachuma; the first is the Santa Ynez River Riparian Basin, located upstream of the Narrows.

The Lompoc Basin is divided into three sub-basins: the Lompoc Plain, Lompoc Upland, and Lompoc Terrace. The Lompoc Plain underlies the proposed project site in the vicinity of the existing Riverbend Park. Groundwater in this location is approximately 30 feet below the ground’s surface. Only the Lompoc Plain is linked directly to the Santa Ynez River. Much of the percolation from the Santa Ynez River occurs just after the river enters the Lompoc Plain. Within the area of connection between the Lompoc Plain groundwater sub-basin and the Santa Ynez River there is only a limited amount of space in which recharge of the aquifer from the river can take place (Pers. Comm. Beck and Wales). The City of Lompoc utilizes water from the aquifer in the Lompoc Plain as its primary source of municipal water. Surface water from Miguelito Creek is used to serve a few homes in Miguelito Canyon.

Groundwater Quality
The Central Coast Regional Water Quality Control Board’s Basin Plan (2001) sets median groundwater objectives for the Lompoc Plain sub-basin at 1,250 parts per million (ppm) total dissolved solids. At 1,300–1,400 ppm, current total dissolved solids levels in this sub-basin exceed the median objectives and are relatively high. The groundwater is also high in manganese and iron. This water is treated at the Lompoc Water Treatment plant, which has recently undergone improvements, to obtain City municipal water which meets all required standards.

Surface Water and Surface Water Quality
Surface water flows from the Lompoc Valley to the Santa Ynez River, either as sheet flow or through storm drains and channels or through creeks such as Miguelito Creek or Davis Creek. The Santa Ynez River is included on Region 3’s Regional Water Quality Control Board 2002 list of Clean Water Act Section 303(d) Water Quality Limited Segments. Pollutants of concern identified for this river include, nutrients, sedimentation / siltation, and salinity/TDS/chlorides. Expected sources of pollutants are identified as non-point sources (nutrients); agriculture (salinity/TDS/chlorides and sedimentation / siltation); urban run-off/storm sewers; (sedimentation/siltation) and resource extraction (sedimentation / siltation).
Project Setting

The proposed project site is adjacent to the Santa Ynez River from Riverbend Park to the intersection of Riverside Drive and College Avenue. There are no perennial or ephemeral streams within the proposed site. The Santa Ynez River, within the project area, is designated as critical habitat for southern steelhead trout, an endangered species. Because the proposed project site occurs within the Regulatory Floodway and 100-year floodplain, flood hazard and flood elevations are a concern. Groundwater quality and quantity is also an issue because the City of Lompoc relies on ground water as a primary water source.

Surface Water

The proposed project site is within the watershed of the lower Santa Ynez River. Riverbend Park (Figure 1-2) is situated on a low-lying bench above the Santa Ynez River. Much of this area is within the regulatory floodway of the Santa Ynez River, as shown on the Flood Insurance Rate (FIRM) Map (Community-Panel Numbers 060334 0003D; 060331-0527; 060334 0002 D; and 060331 0389). The whole of the North Park site is within the Regulatory Floodway and a portion of the South Park site is within the Regulatory Floodway as well. Both the North and South Park sites are within the 100-year floodplain, as defined on the Flood Insurance Rate Maps (FIRM) for City of Lompoc (1997) and the County of Santa Barbara (1997).

The proposed Bike Trail begins within the Regulatory Floodway but then extends upward onto a higher plateau and includes both the Regulatory Floodway and the 100-year floodplain. At approximately the intersection of Tangerine and Riverside Drive, the Bike Trail attains a higher elevation, outside of the 100-year floodplain, per the Flood Insurance Rate Map (FIRM) (Community-Panel Numbers 060334 0003D; 060331-0527; 060334 0002 D; and 060331 0389).

Surface flows are found within the proposed project site. The largest surface flow is found in a storm water channel located along the south side of McLaughlin Road. The channel is culverted underneath the dirt agricultural access road and discharges into the Santa Ynez River. This drainage serves to collect storm water from the development on the bluff above the project site. Surface water crosses the project area just north of the intersection of Riverside Drive and Tangerine Avenue, and at North Avenue. This water is directed into pipes. In order to reduce erosion that is occurring near the intersection of Tangerine and Riverside Drives, as a result of the directed storm flow, the project will entail the replacement or extension of the existing pipe so that storm flows do not undercut the Bike Trail or the adjacent slope. The existing concrete drainage swale at North Avenue and Riverside Drive will be addressed with an at-grade crossing.

Flooding

An analysis of the historical flooding of the project area has been undertaken. Flood frequency data was obtained for the area from U.S. Geological Survey gauging station records. Water surface profile information was obtained from several sources, including the most recent floodway and FIRM maps, the Flood Insurance Study for the City of Lompoc (1996), and the most recent Hydraulic Engineering Circular (HEC)-2 data files for the area. A topographic map that included spot elevations and contours at 2-foot intervals was used to update the HEC-2 data files. A field visit was made to verify mapping information and surface conditions (Penfield & Smith 2001).
On completion of the data-gathering effort, the official 100-year flood boundaries, regulatory floodway, and the 100-year flood elevations were accurately digitized onto the project topographic map. The HEC-2 water surface profile data file was updated with the new topographic information, transferred to a HEC-RAS water surface profile program and compared to the effective flood information. The effective 100-year inundation boundary and the updated 100-year inundation boundary were compared (Penfield & Smith 2001). The updated boundary is shown on Figure 1-4.

The flood frequency data was assembled and analyzed using the U.S. Army Corps of Engineers Flood Frequency Analysis computer program. These figures were compared to the effective flow estimates provided in the most recent flood insurance study. Recent developments with regard to the storm operations at Bradbury Dam were reviewed (Penfield & Smith 2001).

Elevations from recent aerial topographic mapping in the over-bank areas of the Santa Ynez River were found to be similar to those used in the hydraulic analysis (HEC-2) of the Santa Ynez River. Minor revisions in reach lengths were applied. Channel depths and widths were found to vary somewhat significantly. Channel widths, based on the recent topographic mapping, were wider and the channel depth had aggraded (become shallower) by approximately three feet within the study reach (Penfield & Smith 2001).

Peak flow estimates as presented in the flood insurance study and as used in the effective HEC-2 study are shown in Table 3.7-1. Table 3.7-1 also shows the statistical results of flow gauging near the project site since the Bradbury Dam has been in place.

Table 3.7-1. Peak-Flow Estimates of the Santa Ynez River

<table>
<thead>
<tr>
<th>Return Interval (in years)</th>
<th>Peak Flow–Flood Insurance Study /Effective (cubic feet per second)</th>
<th>Peak Flow(^8)–Computed Probability (cubic feet per second)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Not available</td>
<td>2,120</td>
</tr>
<tr>
<td>5</td>
<td>Not available</td>
<td>9,060</td>
</tr>
<tr>
<td>10</td>
<td>34,000</td>
<td>19,600</td>
</tr>
<tr>
<td>50</td>
<td>93,000</td>
<td>78,500</td>
</tr>
<tr>
<td>100</td>
<td>118,000</td>
<td>129,000</td>
</tr>
<tr>
<td>500</td>
<td>160,000</td>
<td>358,000</td>
</tr>
</tbody>
</table>

Source: Penfield & Smith 2001

\(^8\) USGS Station 11133000, years 1953 - 1995

The two sets of peak flow estimates show a relatively good correlation. Factors to remember in assessing these results are:

- A large portion of the Santa Ynez River watershed is controlled by Bradbury Dam, upstream of the City. This significantly alters the rainfall/runoff response of the river in unpredictable ways.
• The U.S. Bureau of Reclamation has historically been obligated to operate Bradbury Dam as a water resource facility only. Recent developments and negotiations with the local flood control agency have resulted in changes allowing dam operations to address flood safety. These modified operations may reduce peak storm flow for significant events by 20–40%.

Because the peak flow estimates correlated well, the flood insurance study estimates were used for the water surface profile results. The water surface profile results are shown in Table 3.7-2. The results indicate that the subject site will begin to be inundated during storm events that are statistically estimated to have a probability of occurrence of between 2% (50-year frequency or recurrence interval) and 10% (10-year frequency recurrence interval) in any one year. Although the depth of flow within the active recreation areas at Riverbend Park will be high (5–12 feet), the flow velocities will be minimal and non-erosive. This would indicate that there may be significant deposition of alluvial silts and sands during large run-off events. The higher channel velocities indicate that there is a risk of bank erosion within the active portion of the river during the 10- and 50-year storm events (Penfield & Smith 2001).

Table 3.7-2. Project Flood Data Estimates

<table>
<thead>
<tr>
<th>Return Interval (in years)</th>
<th>Ground Elev. (ft. above m.s.l.)</th>
<th>Est. Water Surface Elevation (feet)</th>
<th>Est. Flood Depth (feet)a</th>
<th>Channel Velocity (ft. / sec.)</th>
<th>Overbank Velocity (ft. / sec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>82–86</td>
<td>76.58–77.72</td>
<td>0</td>
<td>1.7 – 2.5</td>
<td>--</td>
</tr>
<tr>
<td>5</td>
<td>82–86</td>
<td>79.54–81.07</td>
<td>0</td>
<td>2.9–3.7</td>
<td>--</td>
</tr>
<tr>
<td>10</td>
<td>82–86</td>
<td>83.72–85.73</td>
<td>0</td>
<td>4.4–5.6</td>
<td>--</td>
</tr>
<tr>
<td>50</td>
<td>82–86</td>
<td>87.44–89.31</td>
<td>2–7</td>
<td>6.8–7.0</td>
<td>0.9</td>
</tr>
<tr>
<td>100</td>
<td>82–86</td>
<td>91.20–92.01</td>
<td>5–10</td>
<td>5.1–5.3</td>
<td>1.3–2.6</td>
</tr>
<tr>
<td>500</td>
<td>82–86</td>
<td>93.31–94.07</td>
<td>7–12</td>
<td>5.8</td>
<td>1.7–3.0</td>
</tr>
</tbody>
</table>

a In the park area. Source: Penfield & Smith 2001

Flood Hazards

The City of Lompoc General Plan Safety Element, Goal 2 states that the community shall be protected from “loss of life and property resulting from flooding, while maintaining protection of natural resources located in flood hazard areas.” Related Policy 2.3 states that the “City shall ensure that all new developments will not compound the potential for flooding.

The City of Lompoc Flood Plain Management Ordinance No. 1418 (96) describes requirements for reducing flood losses (Section 1023) and contains provisions for flood hazard reduction (Section 1024.3). The ordinance offers the following methods to reduce flood losses.

• Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

• Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
• Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

• Control filling, grading, dredging and other development which may increase flood damage; and

• Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Thresholds of Significance

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Violate any water quality standards or waste discharge requirements.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface run-off in a manner which would result in flooding on- or off-site.

e. Create or contribute run-off water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

f. Otherwise substantially degrade water quality.

g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

h. Place within a 100-year flood hazard area structures that could impede or redirect flood flows.

i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

j. Inundation by seiche, tsunami, or mudflow.
Project Impacts and Significance – Phases 1, 2 & 3

Project Impacts

Water Quality Standards and Waste Discharge Requirements
The project would not violate the water quality standards stipulated in the Central Coast RWQCB’s basin plan. The project entails creation of facilities to support both active and passive recreation. Restrooms will be connected to the City sewer system or to pumpable vaults. The project will not store or create hazardous materials. Irrigation will be controlled to avoid run-off. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population. A Storm Water Pollution Prevention Plan will be prepared to address the potential for sedimentation during construction. Therefore, no water quality standards will be exceeded and no waste discharge requirements violated. No significant impacts are anticipated.

Groundwater Depletion
The project will use state-of-the-art water conservation measures for the landscape irrigation system, which will use metered City domestic supply or an on-site well as the water source. The existing well at the park has the capacity to supply the required water needs for the expanded park (Keefe pers. comm.)

The City of Lompoc depends heavily on groundwater as a municipal water source. The primary recharge area for the Lompoc plain is located along the Santa Ynez River, from the point at which it enters Lompoc on the southeast to just beyond Riverbend Park. Regular water releases in low water years have been negotiated to ensure that Lompoc retains enough water for its needs.

A long-term plan for the construction of recharge basins along the Lompoc side of the Santa Ynez River, from the Highway 246 crossing to Riverbend Park, has been developed. Five recharge basins have been identified within this area. Funding for the construction of these recharge basins has been procured. However, the proposed playing fields in the North Park are located in the same place as proposed recharge basins four and five. In addition, the proposed Bike Trail will run along the eastern edge of the three other identified recharge basins. The recharge basins are necessary to ensure the future availability of water in Lompoc particularly as: the Lompoc Valley is relatively arid, water demands continue to increase and global warming may result in a drier environment in the future. Construction of the planned recharge basins is expected to be initiated within the next five years.

While the Bike Trail’s location will not preclude the construction of the basins, the North Park fields will preclude construction of a portion of proposed basins 4 and 5, (Figure 1-13) roughly reducing the basin area to that of one basin instead of two.

The improvements for the proposed project will consist of athletic fields and open space. A host facility and a restroom are proposed in the South Park area. The proposed project has little potential to reduce percolation due to the construction of impervious area. A mitigation measure is proposed requiring the parking lots are to be permeable. The Bike Trail, tennis courts and the foundation and driveway of the caretaker’s residence are minor in size and the surface run-off from these structures will be directed to pervious ground.
The loss of the planned recharge basin will result in a significant adverse impact on long-term water availability for the City of Lompoc. While irrigation of the playing fields will contribute to percolation rates, the water will be drawn directly from the same aquifer, therefore this percolation cannot be counted as a net benefit. One mitigation measure has been determined to be reasonable.

- Instead of paving the parking lots, pervious gravel lots could be constructed to take advantage of percolation throughout the year.

While the use of pervious paving material may contribute to groundwater pollution, because of the proposed project’s location in the prime recharge area, the minimal amount of pollutants generated by occasional parking by playing field users will result in fewer impacts to the City’s long-term water availability than the loss of the recharge area will.

The City’s Wastewater Reclamation Plant will not be adversely impacted by the proposed project, as mitigated, because the amount of surface water percolation on the project site will remain the same. If the percolation rate were to be significantly reduced, the levels of Total Dissolved Solids could increase to a point at which Wastewater Discharge Limitations would be exceeded.

Should the availability of water become a critical issue, deconstruction of the playing fields and parking area could occur. However this is not adequate mitigation for the impact to water availability.

**Erosion**
The Bike Trail will be paved and erosion is not anticipated to be a significant issue. Short-term construction-related erosion impacts should be avoided by implementing the Stormwater Pollution Prevention Plan (SWPPP) referenced in H-1, as part of a NPDES storm water construction permit. With implementation of mitigation measure H-1, erosion impacts would be less than significant.

**Flooding**
The North Park area of Riverbend Park and a portion of the South Park and Bike Trail are located within the Regulatory Floodway of the Santa Ynez River. The floodway is an extremely hazardous area due to the velocity of flood waters that carry debris, potential projectiles, and sediment from erosion. Because of this, fill, new construction and other development cannot be approved within the floodway unless a registered professional engineer certifies that any development will not result in an increase in the base flood elevation during the occurrence of the base flood discharge. The remainder of the South Park site and a significant portion of the Bike Trail are located within the 100-year floodplain. Improvements in the North Park and a portion of the South Park and Bike Trail would be subject to erosion if sufficient flood-flow velocities were to occur in the overbank of the Santa Ynez River. The structural facility that would be most exposed is the proposed parking lot. The Federal Emergency Management Agency (FEMA) indicates that increased protective measures are warranted for erosion protection when flow velocities approach 5 feet per second. Flow velocities ranging from 1 to 3 feet per second are predicted in the overbank areas of the existing Riverbend Park site. Therefore, erosion is not anticipated to be a significant issue in this location. Although erosion is
not anticipated to be a problem, these areas would receive silt deposition during periods of overflow and would require post-flood cleanup to remain serviceable.

In order to place structures or facilities, such as the baseball bases, backstops, goals, bleachers, picnic tables, an Emergency Removal Plan will need to be prepared. The Plan shall require that all proposed equipment and structures shall be able to be removed and relocated above the area of flood hazard, within four hours of notification of an expected flood hazard. All the proposed features of the Park improvements to be located within the Floodway are expected to be able to be removed within this time frame.

**Storm Water Drain System Capacity**

The proposed project will not substantially alter the drainage pattern of the site, or substantially increase run-off from the site. Existing storm drains collect storm water from the developed portions of Lompoc and discharge that storm water onto portions of the project site or direct it through the project site. Surface flows are found within the proposed project site. The largest surface flow is found in a storm water channel located along the south side of McLaughlin Road. The channel is culverted underneath the dirt agricultural access road and discharges into the Santa Ynez River. This drainage serves to collect storm water from the development on the bluff above the project site. Surface water crosses the project area just north of the intersection at Riverside Drive and Tangerine Avenue, and at North Avenue. The water is directed into a pipe. In order to reduce the erosion that is occurring now in this area, as a result of the directed storm flow, the project will replace or extend the existing pipe so that storm flows do not undercut the Bike Trail or the adjacent slope. Also, an existing concrete drainage swale at North Avenue and Riverside Drive will be crossed with an at-grade crossing of the Bike Trail.

The proposed project will not result in a significant amount of additional impervious space, relative to the amount of property on the site. The pad to be constructed at the caretaker’s residence, the tennis courts, parking areas and Bike Trail comprise the additional impervious space proposed. As each of these structures will be surrounded by substantial pervious area, the proposed project is not expected to create or concentrate run-off so that additional storm water capacity will be required in the existing storm drains or in other locations on-site. The proposed project will not result in a significant impact on storm water facilities, or provide additional polluted run-off.

**Water Quality Degradation**

Section 402 of the Clean Water Act (CWA) mandates that construction activity disturbing one or more total acres must comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) to file a Notice of Intent (NOI) with the Regional Water Quality Control Board, Region 3 and prepare a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP describes the Best Management Practices (BMPs) that will be implemented to control accelerated erosion, sedimentation, and other pollutants during construction.

A Storm Water Pollution Prevention Plan will be prepared to address sedimentation, chemical storage and use and activities using cement and paint. The City’s Best Management Practices (Appendix O) to reduce storm water pollution will be incorporated into the SWPPP. The SWPPP shall include a map of the project site, showing sensitive areas such as storm channels and drains.
and appropriate erosion control and water quality protection measures shall be submitted for approval by the City Public Works Department, prior to construction.

In addition to pollutants generated by construction, the proposed project is not expected to degrade water quality. Natural soil amendments will be used in lieu of chemical fertilizers. Gopher traps will be used to control the gopher population.

**Residential Flood Hazard**
The proposed project does not involve construction of permanent residential structures. A fully mobile caretaker’s residence and restroom are planned for inclusion in the South Park. The caretaker’s residence and restroom will meet all applicable requirements of the City’s Flood Ordinance for protection of structures within the 100-year flood plain. If flooding is forecast, the structure and the caretaker will be moved to higher ground and the park closed. In the unlikely event of a failure of Bradbury Dam, the dam is sufficiently distant from the proposed project site to allow ample advanced warning and evacuation of the resident park host and caretaker’s residence, temporary structures and people using the park facilities. No significant impacts are anticipated.

**Flood Hazards to People**
The active recreation area proposed at Riverbend Park and on the Bike Trail occur within the regulatory floodway and 100-year floodplain. The City floodplain ordinance stipulates that no filling or blockage of flow is allowed within the regulatory floodway, that would result in increased flood elevations. Proposed grading, cut or fill will not be permitted to raise the flood levels. However, playing field features, such as the backstops, goals and bleachers could trap debris or be swept away by the river in flood stage. An Emergency Removal Plan for Riverbend Park and Trail will be required (H-4) to ensure that these structures will be removed prior to inundation by flood flows. The plan will require removal of all temporary structures within the Floodway, within four hours of notification of an impending flood hazard. During flood conditions, the park will be evacuated and closed. With the proposed mitigation measures applied, the impact of flooding on people will be less than significant.

**Seiche, Tsunami or Mudflow**
The project site is too far inland to be inundated by any foreseeable tsunami event. The project site is too far from the nearest substantial hillside to have potential for inundation by a mudslide. The nearest impoundment capable of failure during a seiche event is Bradbury Dam, which is approximately 40 miles to the east. The project site could theoretically become inundated by a seiche event at Bradbury Dam that coincided with periods of high flows in the Santa Ynez River. However, it is assumed that Bradbury Dam is sufficiently distant from the proposed project site to allow ample advanced warning and evacuation of a resident park host and park users present, so that no loss of life would occur. No significant impacts are anticipated.

**Mitigation Measures**

H-1: The parking areas shall be constructed of gravel and road base or other approved construction material and shall be pervious.
H-2: The City shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for the proposed project and file a Notice of Intent with the Regional Water Quality Control Board. The SWPPP shall include Best Management Practices for Erosion Control, Hazardous Materials and Chemical handling, staging, storage, fueling, spill clean-up, maintenance of vehicles, concrete work and paving. The Best Management Practices approved for City operations (Appendix O) shall be incorporated into the requirements of the SWPPP, as well as the following provisions:

a. Prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses;

b. Clean up spills immediately according to the spill prevention and response plan, and immediately notify the California Department of Fish and Game (CDFG) and the Regional Water Quality Control Board (RWQCB) of any spills and clean-up measures taken;

c. Provide staging and storage areas to keep equipment, materials, fuels, lubricants, solvents, and other possible contaminants protected, contained and away from watercourses; and

d. The SWPPP shall include a map of the project site, showing sensitive areas such as storm channels and drains and appropriate erosion control and water quality protection measures. The map and plan shall be submitted for approval by the City Public Works and Community Development Departments, prior to construction.

H-3: Once the project, or each phase, has been completed, a qualified professional engineer shall certify that there is no increase in the base flood elevation, due to project construction in the Regulatory Floodway, per Section 1024.3.F of the Floodplain Management Ordinance.

H-4: No permanent structures shall be placed within the Regulatory Floodway.

H-5: An Emergency Removal Plan identifying all temporary structures to be located within the Regulatory Floodway and stipulating that they must be removed within four hours of notification of flood hazard shall be prepared. The Plan shall also identify the methods by which these items will be removed and transported to higher ground above the area of flood hazard.

H-6: In case of flooding, the electrical lines shall be de-energized, by the Electric Division of the City’s Utility Department, at a point above the 100-year flood level, to prevent a short circuit of the electrical system and the potential for exposed live wires.

H-7a: All water connections in Riverbend Park shall have backflow assemblies.

H-7b: The main line water valve to Riverbend Park shall have a shut-off located above the anticipated 100-year flood level.
H-8: During flood threat conditions, the park shall be evacuated and closed to the public.

**Unavoidable Significant Impacts**

The impact of the proposed project on the potential for recharge of the Lompoc Plain Aquifer is significant and cannot be adequately mitigated. While some of the planned recharge basins can still be constructed, one of the larger basins is precluded by the proposed project, thus reducing the potential for recharge of the City’s main aquifer water source significantly.
3.8 Geology and Soils

Regional Setting
The project site is located on the north side of the Lompoc Valley, a structural depression in the southwestern portion of the Coast Ranges physiographic province of California. The valley is bound on the north by the rolling Mission Hills and the steeply sloping Purisima Hills, both of which are composed of primarily non-marine sedimentary rocks (Jennings 1959). To the south, the Lompoc Valley is bound by the east-west trending Santa Ynez Mountains, which are also composed of primarily non-marine sedimentary rocks. To the east, the Lompoc Valley is bound by the Santa Rita Hills, and to the west by the Pacific Ocean.

Seismicity - Fault Rupture
Fault systems are relatively abundant in the hills and mountains surrounding the Lompoc Valley (Jennings 1994). Potentially active faults in the region include the Los Alamos-Baseline Fault, the Lions Head Fault, the Hosgri Fault, and the Santa Ynez River Fault. (Padre Associates, Inc. 2001).

The Los Alamos - Baseline Fault is a regional, active fault system that extends northwest from the Santa Ynez Fault from the Santa Ynez mountains east of Los Olivos, west along Highway 101 into the Los Alamos Valley.

The Hosgri Fault is an active fault system. The Hosgri fault is an off-shore fault that extends from San Francisco southeast to Point Conception.

The Lions Head Fault is a potentially active fault system. The southern terminus of the fault is approximately five miles north east of the City of Lompoc. From there the fault runs northwest to 8 kilometers south of Point Sal.

The Santa Ynez River Fault is a potentially active fault system. The fault is believed to be located along the southern side of the Lompoc Valley.

While the Santa Ynez River fault, exists beneath the alluvial landforms of the Lompoc Valley, it has not been identified as extending beneath the project area or its immediate vicinity. Thus, the probability of surface fault rupture occurring in the project area is relatively low.

Seismic Ground Shaking
In 1996, the California Division of Mines and Geology (CDMG) released Open-File Report 96-08 to aid in the assessment of seismic ground shaking hazards in California (Peterson et al. 1996). The report contains a probabilistic seismic hazard map that depicts the peak horizontal ground acceleration values exceeded in a given region of California at a 10% probability in 50 years (i.e., a 0.2% probability in one year). The peak horizontal ground acceleration values depicted on the map represent probabilistic estimates of the ground shaking intensity likely to occur in a given area as a result of characteristic earthquake events on nearby faults. These estimates can be used to assess the relative seismic ground shaking hazard for a given region.
The probabilistic peak horizontal ground acceleration value, and thus the seismic ground shaking hazard, for the Lompoc Valley ranges from low to moderate. The findings of the CDMG hazard assessment are generally consistent with those of the seismic hazard assessment conducted by The Morro Group (1987), which indicated that the seismic environment (i.e., seismic ground shaking hazard) in the Lompoc Valley is “moderate.” Both assessments indicate that the active San Andreas fault system, located less than 50 miles from the project area, is responsible for a substantial proportion of the seismic ground shaking hazard associated with the Lompoc Valley.

Settlement, Liquefaction, and Seismically Induced Landslides

Settlement and liquefaction are related processes in that they both result from the natural compaction of poorly consolidated, non-cohesive soils and sediments. Settlement can happen gradually over many years, or it can occur rapidly as a result of seismic ground shaking. Liquefaction happens rapidly as water-saturated soils and sediments lose shear strength during episodes of strong seismic ground shaking.

Liquefaction hazards are most commonly associated with water-saturated sands and silts located within 50 feet of the ground surface. Poorly consolidated, sandy alluvial soils and sediments are present in and adjacent to the Santa Ynez River channel along the entire length of the Lompoc Valley (Shipman 1972; The Morro Group 1987). The groundwater table in the vicinity of the Santa Ynez River channel typically resides at depths less than 30-feet from the ground surface for most of the year (The Morro Group 1987) and, as discussed above, the Lompoc Valley will probably experience seismic ground shaking of at least low to moderate intensity in the near future. Therefore, there is a potential for liquefaction within the Lompoc Valley.

Soils

Soils in the project area are mapped as Riverwash and as soils of the Metz and Mocho series (Shipman 1972). Riverwash materials occur in the Santa Ynez River channel and on low and high floodplain surfaces, while soils of the Metz and Mocho series turn up on older (and higher) river terraces.

Riverwash materials consist of excessively well-drained, recently deposited coarse river sediments (gravel and sand) that have low water-holding capacity and low fertility. Soils of the Metz series typically consist of somewhat excessively drained loamy sands and also have low available water-holding capacity and fertility. Soils of the Mocho series contain more clay and silt than the Metz soils and Riverwash, and typically consist of well-drained sandy loams, silty loams, and loams to depths of greater than 60 inches. Soils of the Mocho series have relatively high available water-holding capacity and moderate fertility.

The Riverwash materials and the soils of the Metz and Mocho series have relatively low shrink-swell potentials as a result of their relatively low clay contents. Therefore, they are not likely to shrink and swell significantly in response to natural variations in soil moisture content and are considered to be highly suitable for use as road base material (Shipman 1972).
Project Setting
The project area is situated on the nearly level and gently sloping alluvial floodplain and terraces that exist adjacent to the current Santa Ynez River channel, which meanders west through the Lompoc Valley. The floodplains and terraces that make up the project area are underlain at the surface by relatively young soils and sediments that have been deposited by the Santa Ynez River during the last 11,000 years (Jennings 1959), and are generally stable, owing to their gentle slopes and good vegetative cover.

Unstable slopes in the project area are generally limited to locally steep, poorly vegetated terrace and high floodplain escarpments. The Morro Group (1987) indicated that the potential for instability on steep terrace escarpments in the project area is largely a function of the low to moderate shear strength of the sandy soils and sediments that compose these landforms (Shipman 1972). Slope failures in the project area are shallow in nature and they do not significantly affect the overall stability of the terrace landforms on which they occur. In some portions of the project area (e.g., on the terrace escarpment east of Riverside Drive), recent slope failures appear to have been initiated or at least exacerbated by concentrated run-off from nearby residential areas and off-road vehicle damage. Debris from shallow slope failure in the project area is deposited in the uninhabited riverbed.

Settlement, Liquefaction, and Seismically Induced Landslides

Thus, there is a potential for both settlement and liquefaction to occur in the project area. This assessment is consistent with that made by The Morro Group (1987), which also found that the young alluvial soils and sediments that exist adjacent to the Santa Ynez River channel are susceptible to settlement and liquefaction. Based on their initial assessment, The Morro Group (1987) further suggested that soils and sediments in these areas undergo geotechnical evaluations, prior to development, to more accurately address the potential for liquefaction and settlement during a large earthquake event. The City’s General Plan identifies areas of potential liquefaction in the Geologic and Soils Hazards Map in the Safety Element. Based on this map, the primary areas of potential liquefaction hazard are located in the lowest elevations of the riverbed, throughout the project area.

The steep terrace and floodplain escarpments that exist throughout the project area possess the greatest potential for slope failure during an earthquake event. Because recent slope failures in the project area have been relatively small and shallow, it is reasonable to assume that slope failures induced by seismic ground shaking would also be relatively small and shallow and, consequently, would not significantly affect the overall stability of the terrace landforms on which the project area occurs.

Soils

Soils in the project area are highly permeable, exist on nearly level surfaces, and have moderate to rapid permeability rates. Consequently, run-off rates are slow and the hazard of erosion is slight. The primary erosion hazard exists on steeply sloping, poorly vegetated terrace escarpments that have been disturbed by off-road-vehicle traffic and/or receive concentrated run-off from surrounding residential areas.
**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
   
   a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
   b. Strong seismic groundshaking;
   c. Seismic-related ground failure, including liquefaction; and
   d. Landslides.

2. Result in substantial soil erosion or the loss of topsoil.

3. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.

**Project Impacts and Significance – Phases 1, 2 & 3**

**Project Impacts**

No Alquist Priolo Zones are located within or near the project area. No active faults or potentially active faults exist beneath the project area or its immediate vicinity. Therefore, the project will not expose people or property to substantial adverse effects resulting from the surface rupture of a known fault.

The project site could be subject to strong seismic ground shaking. Seismic hazard assessments conducted by the California Division of Mines and Geology (CDMG) and The Morro Group (1987) both indicate that the Lompoc Valley, which includes the project area, will probably experience seismic ground shaking of at least low to moderate intensity in the near future. Additionally, many of the soils and sediments in the project area are susceptible to seismic-induced liquefaction and settlement. However, the project will not involve the construction of habitable structures (the mobile home is pre-constructed), and all project permanent facilities will be constructed and secured according to applicable Uniform Building Code requirements. These requirements are designed to prevent or minimize property damage and the threat to human life, in the event of seismic ground shaking, liquefaction, or settlement. The North Park
site will have only the placement of temporary field sport equipment such as goals, backstops and bleachers. The South Park area will have a permanent restroom, tennis courts, a concession stand and a concrete pad for the caretaker’s residence. The majority of the Bike Trail will be built on the higher terraces of the floodplain, generally outside of the identified liquefaction zone. Because of the lack of permanent structures, hazardous materials storage or other related on-site hazards, there should be no significant effect on people or property in the event of ground shaking or liquefaction. Therefore, the project would not significantly increase the exposure of people or property to substantial adverse effects resulting from seismic ground shaking, liquefaction, or settlement.

The alluvial floodplain and terrace landforms that make up the project area are generally stable, owing to their gentle slopes and good vegetative cover. The playing fields and park improvements will be built on flat, farmed land, and the Bike Trail will be constructed over an existing dirt road and located an adequate distance from the top of bank of the Santa Ynez River to ensure that the bank will be protected. The project would not significantly alter geologic or topographic conditions, vegetative cover, or drainage patterns in the project area and, therefore, would not decrease the stability of these alluvial landforms. No landslides would result from the proposed project.

Although the erosion hazard in the project area is slight, project construction would involve a variety of ground-disturbing activities. These activities could expose soils to accelerated erosion and result in increased sedimentation. In order to address this potential, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the project to identify the methods to be used to control erosion and sedimentation in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction Storm Water Permit administered by the Central Coast Regional Water Quality Control Board (RWQCB). The SWPPP would prescribe temporary best management practices (BMPs) to minimize accelerated erosion and sedimentation during project construction. With implementation of the mitigation measure below, the project would not result in significantly increased sedimentation.

Any topsoil removed during the minimal grading necessary to construct the park improvements and Bike Trail will be distributed in the areas adjacent to these improvements and will not be lost.

The alluvial floodplain and terrace landforms that make up the project area are generally stable, owing to their gentle slopes and vegetative cover. No landslides would result from the proposed project. Soils in the project area have low shrink-swell potentials and lateral spreading impacts would not be significant. However, soils in the project area are susceptible to seismic-induced liquefaction and settlement. The proposed project improvements will, generally, be located outside the liquefaction hazard zone identified in the Safety Element of the Lompoc General Plan. Because the proposed project involves the construction of only the restroom in the South Park which is outside the liquefaction hazard zone and all construction will be according to applicable Code requirements, the project would not significantly increase the exposure of people or property to substantial adverse effects resulting from liquefaction or subsidence. The potential liquefaction impact of the project will be less than significant.
Soils in the project area have low shrink-swell potentials. Therefore, the expansion and contraction of project area soils in response to natural fluctuations in soil moisture status would be minor and would have no impact on property or human safety.

Septic tanks or other alternative wastewater disposal systems will not be required. Portable toilets will be used in the North Park area, and the caretaker’s residence will be a recreational vehicle equipped with an on-board holding tank. Permanent restrooms in the South Park will be served with the extension of a sewer line and pump system from the nearby intersection of Canfield Avenue and McLaughlin Road. There will be no impact on soils from the proposed waste removal methods.

**Mitigation Measures**

**GS-1:** All project facilities shall comply with the most recent adopted City and State building codes to mitigate the potential risk of seismic impacts.

**GS-2:** A Storm Water Pollution Prevention Plan shall be prepared, incorporating the City of Lompoc’s Storm Water Best Management Practices and addressing the potential for contamination of storm water by pollutants, erosion and sedimentation during construction.

**Unavoidable Significant Impacts**

There will be no unavoidably significant Geology and Soils impacts as a result of the proposed project, if the above mitigation measures are implemented.
3.9 Land Use and Planning

Regional Setting
The City of Lompoc is located in the Lompoc Valley, and is physically distinct from other communities. The urbanized portion of the City is approximately 11.2 square miles in size. The U.S. Penitentiary complex is located at the northwest end of the City of Lompoc. Allan Hancock College is located at the north entrance to the City, along with the La Purisima Highlands development on a high bluff above the Santa Ynez River. North of the City are the unincorporated residential communities of Mission Hills, Mesa Oaks and Vandenberg Village, as well as the La Purisima Mission.

The Santa Rita Hills lie to the east of the City, with Miguelito Canyon and the Santa Ynez Mountain Range to the south. The Purisima Hills are to the north and the Pacific Ocean is approximately 9 miles to the west. The Lompoc Valley is an agricultural valley with agricultural land both east and west of the City. Specialty vegetables and flower seeds are primarily produced in the valley. The hills and rangelands beyond the Lompoc Valley support cattle and vineyards. The Santa Ynez River forms much of the eastern boundary of the City, although the City extends north of the river and the City has property holdings on the east side of the Santa Ynez River. As the river flows northward, the City boundary cuts to the west at Riverbend Park, leaving the South Park area within the City and the North Park area outside of it. From there, the river flows within the City between the U.S. Penitentiary property and the City Airport and Wastewater Treatment Plant. The City is served by Highways 1 and 246. A Southern Pacific Railway line extends into the City from the west.

Project Site Setting
The Riverbend Park and Trail Master Plan consists of approximately 95 acres of proposed improved Parkland and 2.5 miles of proposed Bike Trail. The project site is located along the eastern edge of the City of Lompoc, just west of the Santa Ynez River (SYR), extending from the intersection of College Avenue and Riverside Drive north to the existing Riverbend Park. A minor portion of the Bike Trail project includes a Class II bike lane to be designated from Laurel Avenue to Ocean Avenue (Highway 246). The portion of the site which runs along the west edge of the SYR from Riverbend Park to the intersection of College Avenue and Riverside Drive is natural and undeveloped, with the exception of an existing well-worn, 20-foot wide dirt road. This road and the surrounding area is used for walking and illegally used for off-highway vehicle recreation.

Riverbend Park consists of the North Park (North of McLaughlin) and the South Park (South of McLaughlin). The North Park has some improvements, including a Babe Ruth baseball field and unpaved parking area. The remainder of the North Park is proposed to be developed into playing fields, with six soccer fields, and four little league fields and one softball field. The parking area is to be expanded and portable toilets added. The North Park will also have a small open area for passive recreation and a City funded extension of the Bike Trail that will extend around the perimeter of the North Park site to connect with McLaughlin Road as it turns south. This area has been in agricultural production, but is now fallow.
Immediately north of the proposed field site the park reverts to wildland open space, alongside and within the riverbed. To the west of McLaughlin Road and Riverbend Park the land is in agricultural production. The riverbed extends eastward along the project alignment. Across the river to the east, there is land in agricultural production. South and southwest of Riverbend Park are single-family residences located at the top of an approximately 15-foot high bluff. Single-family homes are also located along Riverside Drive, opposite the Bike Trail alignment. A segment of Class II bike lane is located in an area of industrial and commercial development.

Jurisdiction and Applicable Regulations
A portion of the proposed Master Plan project site is located within the City limits of Lompoc. The remainder of the site is located within Santa Barbara County’s jurisdiction. All the property in the project’s site is owned by the City of Lompoc. Based on 40 Ops. Atty. Gen. 243 (1962.), cities and counties are mutually exempt from compliance with each other’s building and zoning ordinances. The City of Lompoc maintains that property owned by the City and located in Santa Barbara County’s jurisdiction is not subject to County regulations and is to be developed pursuant to City Regulations. Therefore this proposal has been evaluated based on City of Lompoc development requirements.

City of Lompoc General Plan
The City of Lompoc’s General Plan is a comprehensive statement of goals and policies relating to the development of the community, the management of potential hazards, and the protection of natural and cultural resources. The General Plan serves as a benchmark to shape the City in a manner that reflects the desires of all community members (City of Lompoc 1997), setting forth goals, policies, and implementation measures that serve to communicate the objectives of the General Plan (City of Lompoc 1997).

The City of Lompoc’s Land Use Element Map’s (Figure 1-3) designation of the project site is Open Space and Community Facility. The project area has a Park Overlay. The whole project site is located within the City’s Urban Limit Line, while portions of the project site south of the extension of Central Avenue include property outside the City’s designated Sphere of Influence.

The Open Space designation provides for preservation of scenic beauty; conservation of natural resources; protection of significant biological and cultural resources; provision of opportunities for outdoor recreation and the enjoyment of nature; managed production of natural resources; and protection of public health and safety. (City of Lompoc General Plan 1997).

The Community Facility designation applies to areas that meet the public service, educational, recreational, social and cultural needs of Lompoc Valley residents. Appropriate uses include, but are not limited to, educational facilities, parks and transit facilities.

As a part of the Master Plan adoption, a General Plan Amendment is being processed to change the land use designation of these properties owned by the City of Lompoc to the Community Facility land use designation, to better reflect their use as a public park.

City of Lompoc Zoning Ordinance
The City of Lompoc’s Zoning Map shows the portion of the Master Plan area within the City of Lompoc as Open Space (OS) and Single-family Residential, 7,000 square foot minimum (7-R-1).
In addition, Riverbend Park and a portion of the Trail south of the park are within an Airport Approach Zone Overlay (Figure 1-11).

The Open Space zoning designation allows for recreation, parks, trails, utility easements, agriculture, silviculture, rangeland, groundwater recharge, resource extraction activities, and other uses that protect on-site resources or public safety (City of Lompoc Zoning Ordinance).

The portion of land through which the Bike Trail extension will run from “A” Street to connect with the main Bike Trail is zoned 7-R-1 for Single-family Residential development, 7,000 square-foot minimum lot size. This zoning appears to be a remnant of prior area zoning. The property in question has been identified as the future location of the Central Avenue Extension, which would preclude residential use of the site. It will not however, preclude the location of a Bike Trail to be co-located with the road extension.

As a part of the Master Plan adoption, a Zone Change will be processed to change the zoning on properties within the Park and Trail sites, owned by the City of Lompoc and within the City limits, to the Public Facilities (PF) Zone to reflect their use as a public park.

**City of Lompoc Flood Ordinance**

The City of Lompoc has adopted a Floodplain Management Ordinance, in an effort to protect human life and health and to minimize cost and damage associated with flooding and flood control. The City’s Floodplain Management Ordinance applies to all areas of special flood hazards within the City. These areas of special flood hazards are those identified by the Federal Emergency Management Agency (FEMA). The Ordinance identifies requirements for anchoring, construction materials and methods, and elevation and flood-proofing in flood hazard zones. Additional requirements apply to any construction activity within a Regulatory Floodway. In these areas any fill, new construction or substantial improvement must be able to be certified by a registered professional engineer or architect that the fill, construction or improvement will not result in any increase in the base flood elevation during the occurrence of the base flood discharge.

**Lompoc Airport Master Plan**

The Lompoc Airport Master Plan (LAMP) was prepared in 1993 by P&D Aviation Consultants for the City of Lompoc. The Master Plan evaluated the future needs of the Municipal Airport and made recommendations for improvements and overlays affecting adjacent development.

The Airport Master Plan also identifies Riverbend Park as being within the 34:1 Approach Surface and the 7:1 Transitional Surface. These zones will only impact the improvements at Riverbend Park and the northernmost sections of the Bike Trail. Riverbend Park and the Bike Trail north of the Central Avenue Extension are within the typical flight lines of the airport. Concentrations of people, particularly residential uses are discouraged in areas of over-flight. Structure height within this area is not to exceed 97 feet (Approach Zone) and lighting must be properly shielded to be located within the approach zone (Figure 1-11).
**Santa Ynez River Plan for the City of Lompoc**
The Santa Ynez River Plan was prepared by the 606 Studio from California State Polytechnic University, Pomona. The plan was never formally adopted and as such only serves as general guidance in developing areas adjacent to the Santa Ynez River or its associated streams. The plan was intended to develop an integrated approach to recreation and water supply, compatible with the existing natural environment. It was designed to address water management, habitat enhancement and recreation. The plan identifies the cottonwoods opposite the extension of North Avenue as significant and important to preserve. The plan identifies unattractive locations along the proposed Bike Trail as being dumping grounds and ORV trails. The Riverbend Park Master Plan area identifies recharge basins, athletic fields, a Bike Trail and riparian habitat enhancement as desired uses.

**Lower Santa Ynez River Fish Management Plan**
The Lower Santa Ynez River Fish Management Plan was prepared by the Santa Ynez River Technical Advisory Committee for the Santa Ynez River Consensus Committee in 2000. The goal of the plan was to identify and evaluate potential management actions that would benefit fish and other aquatic resources in the lower Santa Ynez River, including the Lompoc reach. Plan recommendations include: increased releases of water in Hilton Creek and the upper reaches of the Santa Ynez River below the Bradbury Dam to improve summer steelhead rearing conditions and habitat; investigate the possibility of providing steelhead passage above Bradbury Dam; improve existing steelhead habitat and access to that habitat; and increase public awareness of steelhead habitat requirements.

**Thresholds of Significance**
The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Physically divide an established community.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, zoning ordinance, specific plan or local coastal plan) adopted for the purpose of avoiding or mitigating an environmental effect.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan.

d. Not be compatible with existing land uses.

**Project Impacts**

**Dividing An Established Community**
The proposed project will provide an additional transportation corridor within the community. The Bike Trail will provide a new connection between Riverbend Park and the homes and streets along Riverside Drive and will provide bicycle access along the Santa Ynez River.
improvements will be made to an existing park, in an area where a need for additional park amenities has been identified. The project will not serve to physically divide an established community.

**Land Use Plan Conflicts**
The proposed project will not conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect. The project will be consistent with the City’s General Plan and Zoning Ordinance, the City’s Flood Ordinance and Santa Ynez River Plan.

**General Plan Consistency**
Based on the General Plan designations in the project area, the proposed project will not be in conflict with the intent of the General Plan. It is important to note that no portion of the proposed Park or Trail will be located on land identified in the General Plan as Agriculture, therefore the project’s changes in use, General Plan designation and zoning will not impact land that currently has a General Plan designation of Agricultural.

As a part of the Master Plan and Trail proposal, a General Plan Amendment from Open Space to Community Facility is proposed for those areas to be developed which are not already designated as Community Facility. This will allow for the park, bikeway and educational components of the proposed project, while clearly designating this publicly owned property as a community facility.

**Land Use Element**
The proposed project is consistent with the Land Use Element of the City’s General Plan as it will contribute to the maintenance of high-quality public facilities and services and protection of the Lompoc Valley’s natural resources. Measures are also included in the Master Plan to ensure that the park will be protected against natural hazards. (Goals 4, 5 and 6)

**Circulation Element**
The proposed project is consistent with the Bikeway Routes Map found in the Circulation Element (Goal 1, Policy 1.1) in that it will provide two segments of the identified Class I bikeway routes shown on the Map. The Bike Trail is consistent with Goal 1 of the Circulation Element, Policy 1.1, “The City shall use the...Bikeway Routes Map...in establishing the location and design of...bikeways.” The proposed project is also consistent in that the traffic impacts of the proposed project were evaluated with a traffic study, pursuant to the requirements of Implementation Measure 26.

**Parks and Recreation Element**
The proposed project is consistent with the Parks and Recreation Element of the City of Lompoc General Plan, Goal 1, Policy 1.2 which states “the City shall provide adequate park sites throughout the City, especially in the northwest and northeast portions of the City...” The Plan is also consistent with Goal 1, Policy 1.5 which states that “The City shall encourage establishment of off-road bicycling...trails extending...along the Santa Ynez River.” In addition, the proposed project is consistent with the Circulation Element of the City of Lompoc’s General Plan. The proposed project will provide for playing fields which are convenient to all neighborhoods and specifically addresses a need in the northeast portion of the City. The
proposed Master Plan area is shown as portions of Sites 8 and 9, on the Park and Recreation Sites Map found in the Parks and Recreation Element of the City’s General Plan.

Public Services Element
The proposed project is consistent with the Public Services Element of the General Plan, Goal 13, in that it will protect and improve water quality in the Lompoc Groundwater Basin. This will be accomplished by retaining the Park and Trail sites in open space and grassy fields, with pervious pavement used for parking. This will allow for percolation and recharge of the aquifer below the site. The proposed project will allow for the future construction of recharge basins on the property adjacent to the proposed improvements. The proposed project is not completely consistent with the goals of the Public Services Element, as the location of the playing fields precludes the construction of a portion of two planned recharge basins. Mitigation is proposed by constructing depressed fields with surrounding berms in the North Park, so that some water will be captured and retained during the rainy season, increasing percolation. Consistency with the General Plan is thereby achieved.

Urban Design Element
The proposed project is consistent with the Urban Design Element of the City’s General Plan, Goal 4, in that its dedicated open space will assist in protecting and enhancing the natural features and landmarks of the Lompoc Valley, emphasizing the visual edge along the river’s course. The improvement of the Park and Trail will help to enhance and maintain the open space buffers along the eastern portion of the Urban Limit Line (Urban Design Element, Goal 1, Policy 1.4).

All Phases of the project are consistent with the requirements of the Urban Design Element, Implementation Measure 23, because lighting will be prohibited, with the exception of necessary temporary construction lighting and a light at the caretaker’s residence that will be screened and directed downward.

Goal 1 of the Urban Design Element of the City’s General Plan will also be furthered, in that the alignment of the Bike Trail will define, protect and link urban features with open space areas, increasing awareness of the visual edge of the City, against which it is to be built (Policies 1.1 and 1.3).

Resource Management Element
The proposed project is consistent with the City’s General Plan, Resource Management Element, Goal 2, which states that the City shall “Protect natural habitats in recognition of their biological, educational and scientific values. The Proposed project is designed to limit the impact of the Park improvements and Bike Trail on the natural biological communities adjacent to the riverbed. The project will also provide educational signage and an opportunity for more people to access the river’s environment. The project will also provide for native planting to enhance habitat. The proposed project will include mitigation measures to protect water quality from construction impacts such as siltation. Archaeological investigations were conducted to ensure that any potential impacts on archaeological resources would be addressed. Mitigation measures are recommended to ensure that significant biological resources are not damaged.
Noise
The proposed project is consistent with the Noise Element of the City’s General Plan. While construction impacts have been identified, mitigation measures are recommended to reduce those impacts to a less than significant level.

Safety Element
The Proposed project is consistent with the General Plan, Safety Element, Goal 2 “Protect the community from loss of life and property resulting from flooding while maintaining protection of natural resources located in flood hazard areas” because the proposed project will not allow permanent structures to be placed in the Regulatory Floodway and includes an Emergency Removal Plan. The Master Plan calls for preservation of the existing vegetation and does not propose structural flood control methods. The Master Plan will also provide safety measures consistent with the Safety Element, Goal 5, “minimizing injury and property damage resulting from landslides…” by discouraging construction activity near or on eroded slopes and providing for re-vegetation of eroding or potentially eroding slopes.

On the whole, the proposed project will be consistent with the City’s General Plan, however, some Class I and II agricultural land will be converted to playing fields and the construction of the playing fields will preclude the construction of a portion of two recharge basins.

City of Lompoc Zoning Ordinance Consistency
A Zone Change from Open Space (OS) and Single-family Residential, 7,000 square foot minimum (7-R-1) to Public Facilities is being processed at the same time as the Riverbend Park and Trail Master Plan. This will make the zoning designation of the whole project area consistent with the City of Lompoc’s General Plan proposed Community Facility (CF) land use designation for the project site.

Flood Ordinance Consistency
The proposed project is consistent with the City’s Floodplain Management Ordinance as it does not propose to locate any permanent features within the Regulatory Floodway and any structures to be located out of the floodway and within the 100-year floodplain will be properly flood-proofed and will comply with the requirements of the Floodplain Management Ordinance. A certification by a registered professional engineer or architect verifying that any cut or fill within the Regulatory Floodway will not result in any increase in the base flood elevation during the occurrence of the base flood discharge will be obtained.

Santa Ynez River Plan for the City of Lompoc
The project area is designated as Riverbend Park in the Santa Ynez River Plan (The 606 Studio, 1993). The proposed project is consistent with the Santa Ynez River Plan in that it provides for playing fields at Riverbend Park, will accommodate future development of recharge basins in a large portion of the project area, and will provide a multi-use bicycle trail and pedestrian walkway from Riverbend Park south along the rivers edge.

Lompoc Airport Master Plan
The proposed project is consistent with the requirements of the Lompoc Airport Master Plan. The improvements proposed for Riverbend Park will not exceed the height limitation of the Airport Approach Zone and the lighting proposed for the caretaker’s residence will be screened
and directed downward so that it will not interfere with approaching flights. The proposed use of the property within the Airport Approach Zone will not be residential, with the exception of the mobile caretaker’s residence. As such, hazards to residents will be minimized.

**Lower Santa Ynez River Fish Management Plan**
The proposed project is consistent with the Lower Santa Ynez River Fish Management Plan in that it provides for periodic plantings to enhance riparian vegetation along the river’s edge. These proposed plantings in disturbed areas will help to maintain slopes and banks by reducing erosion and can increase the amount of cover and shade provided when the river is flowing.

**Habitat Conservation Plans**
The Riverbend Park and Trail Master Plan will not conflict with any habitat conservation plans or natural community conservation plans, as no such plans have been developed for the project area.

**Land Use Compatibility**
The proposed project will be compatible with adjacent land uses. The proposed project will be compatible with the open space to the east and north of the proposed Park and Trail improvements, as the passive recreational use of bicycle riding and walking should not adversely impact the river or adjacent properties across the riverbed. The playing fields will not be incompatible with the open space to the north, as they are concentrated in a single area and riparian vegetation will not be removed in order to locate them. The proposed playing fields will be compatible with the agricultural fields to the west, as there are no sensitive noise receptors in that location.

The Parks and Recreation Department shall coordinate with the Agricultural Commissioner’s office and the property owner to the west to limit play within the fields when applications of pesticides are occurring on the property to the west. In general, applications of pesticides occur in the early morning when there is not a great deal of wind. This is because it is often less windy in the early morning and therefore products applied at that time have the greatest chance of reaching the target species and not drifting off of the field to which they are applied. Because of this practice, the actual number of conflicts between pesticide application and use of the sports fields are expected to be few. Impacts from park users damaging the adjacent agricultural fields are expected to be very limited and are not expected to pose a significant impact.

The proposed Bike Trail will not conflict with the adjacent open space lands or with the residential neighborhoods on the west side of Riverside Drive. The trail will provide a new route for bicycles and pedestrians that is protected from traffic. Some residents have expressed concerns that the construction of the Bike Trail will encourage criminals to use it as an access route. While it is possible that the Bike Trail would be used as an access route, the construction of the Bike Trail is not expected to result in a significant increase in crime. The Trail is to be built on an existing dirt access road which is hard packed and can currently be used by mountain bikes, motorcycles, all-terrain vehicles and even monster-trucks. In addition, this neighborhood is well served with access from existing public streets. Therefore, the potential increase in access by criminals to these neighborhoods, due to the Bike Trail’s construction will be negligible. In addition, the Parks and Recreation Department now has three rangers who regularly patrol the off-road project area.
Mitigation Measures

LU-1: The Parks and Recreation Department shall coordinate with the Agricultural Commissioner’s office and the property owner to the west, to limit play on the fields when applications of pesticides are known to be occurring on the property to the west.

Unavoidable Significant Impacts

There will be no unavoidable significant Land Use impacts as a result of the proposed project.
3.10 Public Services

Regional Setting

Fire
Fire protection services in the City are provided by the Lompoc Fire Department from two stations. Station 1 is located at 115 South “G” Street, and Station 2 is at 1100 North “D” Street. The fire department has a daily crew of seven to eight staff, including six to seven firefighters and one battalion chief for each of the three shifts. A fire chief heads the entire department. Each station is equipped with one active engine; one backup engine; and three to four firefighting personnel, including a captain, an engineer, and one or two firefighters. The Lompoc Fire Department has a reciprocal aid agreement with Santa Barbara County. Additional assistance is dispatched from County Station 51 located at 749 East Burton Mesa Boulevard in the community of Vandenberg Village. This station is equipped with a fire engine, brush truck, and an ambulance.

Lompoc Fire Station 2 is the closest station to the project site and is approximately one mile away from the existing Riverbend Park. Response time to the park is estimated at between three to five minutes. The standard response time requirement is under five minutes and the department averages 4.14 minutes.

Police
The City of Lompoc Police Department (LPD) provides law enforcement services to the City, inclusive of the project site. The LPD operates out of one main station, located at 107 Civic Center Plaza, which is approximately two miles from the existing Riverbend Park (Morgan pers. comm.).

Typical types of calls that could be expected from park land include vandalism, fights, public drunkenness, and transient complaints. The police department receives very few calls from Riverbend Park. When reviewing development applications, adequate lighting and absence of concealment (e.g., planting trees rather than shrubs) are emphasized. (Dabney pers. comm.).

Schools
The Lompoc Unified School District (District) serves students in Kindergarten through 12th grade that live in the City, Vandenberg Village, Mesa Oaks, Mission Hills, or at Vandenberg Air Force Base, and the rural areas adjacent to these communities. Based on October 2003 enrollment records for the 2003-2004 school year, 11,548 students are attending 10 elementary schools, three middle schools, two high schools, and one continuation high school within the District. Elementary schools have an enrollment of 5,930 students, middle schools have 2,301 students, and high schools have 3,328 students. Total enrollment by the end of the 2003-2004 school year was 11,559 students.

Based on the Developer Fee Justification Study of January 2000, some of the schools within the District are nearing capacity, with elementary schools at approximately 98%, middle schools at approximately 79%, and high schools at approximately 85%. The District is currently updating
this information and a new report will be issued in 2004. As school attendance rises and portable classrooms are constructed on sports fields and open play areas, the availability of these areas for recreation and sports events is decreasing. Currently, sports field facilities available during school hours are adequate to meet the needs of the students; however, the availability of fields for community use, organized sports teams and school games, and recreation after school hours and on weekends is not adequate (Edwards pers. comm.).

**Parks and Recreation Facilities**

The majority of the existing public park and recreation facilities in the Lompoc area are owned by the City, with some facilities being operated by the County of Santa Barbara or the State of California. Within the City park system, there are 13 park facilities, including one regional facility, five community facilities, five neighborhood facilities, and two mini-parks.

The 1991 Parks and Recreation Element of the General Plan indicates a projected shortfall of 317 acres of City parkland in 2005, including 64 acres of Neighborhood Parks, 48 acres of Community Parks, and 205 acres of Regional Parks. Additionally, sports fields at school sites are anticipated to decrease, at a rate of one multi-purpose field per elementary school, due to the addition of classrooms. This will impact the number of fields available to sports leagues which will place a greater demand on City parks. With up to 1,200 players in the Youth Soccer Organization, soccer fields are in greatest demand, with little league and softball fields also being requested.

Residential growth in the northern portion of the City has resulted in a need for additional park land in that area. The Parks and Recreation Element of the City of Lompoc’s General Plan (1998) identifies the Dezember property, and various portions of the Caltrans right-of-way along the eastern edge of the City adjacent to the Santa Ynez River as candidate park sites. Since the development of this Element, portions of these properties have been purchased by the City from Caltrans and from the Dezember Trust for park purposes.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

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

**Project Impacts**

The improvement of Riverbend Park and construction of the Bike Trail are not expected to have a significant impact on the Lompoc City Fire Department. The permanent restroom to be
constructed at the South Park, will be built to fire code. The fact that the park will see additional use may increase the number of calls received by the Fire Department, including calls for medical assistance at the sports fields. However, the expected increase is minor and will not affect service ratios and response times. Therefore, impacts would be considered less than significant. In addition, however, greater use of Riverbend Park and the Bike Trail by the public may reduce the potential for arson and malicious mischief in the surrounding wildland area, as there will be greater visibility and scrutiny of illegal activity.

Construction of the proposed improvements to Riverbend Park and the Bike Trail will not have significant impacts on existing police services. The activities at the park currently require very little assistance from the police and according to Captain Dabney, the proposal would not be expected to increase the number of calls received by the police. Increased public use of these City properties may reduce the potential for illegal activity in the surrounding wildland area. Impacts on police services would be considered less than significant.

Implementation of the proposed project would not significantly affect the Lompoc Unified School District. Construction of new baseball and soccer fields would benefit the District by alleviating the demand for sports fields, and allowing for rest periods to allow recovery and maintenance for turf playing fields. Impacts on the School District would be beneficial.

The proposed project would result in beneficial impacts on park and recreation facilities within the City. The proposed project would satisfy needs identified in the Parks and Recreation Element of the City’s General Plan. The proposed project would provide needed park improvements to meet the existing demand for parks on the north side of the City, as well as making more playing fields available for the residents of Lompoc. Bicycle access would be provided along the Santa Ynez River corridor and Natural Preserve Area.

No other public facilities, service ratios, or response times would be impacted by the project.

**Mitigation Measures**

No mitigation measures are required. The impacts of the proposed project on public services are less than significant.

**Unavoidable Significant Impacts**

There will be no unavoidably significant public services impacts as a result of the proposed project.
### 3.11 Hazards and Hazardous Materials

#### Regional Setting

Use of hazardous materials and hazardous materials management are governed by a broad array of federal and state laws and regulations. Generally, federal and state laws regarding hazardous materials are enforced by several departments within the California Environmental Protection Agency. These include the Department of Toxic Substances Control, the State Water Resources Control Board, the Department of Pesticide Regulation, the Office of Environmental Health Hazard Assessment, and the California Air Resources Board. These departments have the responsibility for tracking and managing hazardous materials use within the state. In Lompoc, the City of Lompoc Fire Department is responsible for tracking known storage of hazardous materials and for responding to emergency hazardous waste-related incidents.

Both the federal Environmental Protection Agency and the California Department of Pesticide Regulation control sale and use of pesticides and other agricultural chemicals. Included within the laws governing use and management of hazardous materials are reporting requirements that cause known instances of accidental spills or releases, improper disposal, and/or other releases of hazardous materials into the environment to become public record.

#### Project Setting

The proposed project is to be located on open space along the western edge of the Santa Ynez River. The majority of this open space is not developed. In the past, portions of this area have been used for a sand and gravel mine, an off-highway vehicle park and as a City Landfill from 1830-1940. Illegal dumping and off-highway vehicle use still occurs along the riverbank. The Parks Department has three rangers, with ticketing authority, who patrol the project area to discourage ORV use and illegal dumping.

The northwestern portion of the project site, formally Riverbend Park, has been in agricultural production since 1938. This portion of the site has two wells, one which has served Riverbend Park and another which has served to irrigate the South Park agricultural field.

Residential land use occurs south of the farmed land at Riverbend Park and to the west of the land acquired from Caltrans. There is a well-vegetated hillside between the farmed land and the residential structures, which are located well above the 100-year floodplain. South from Riverbend Park, the majority of the Bike Trail will be located primarily on a bench above the existing grade of the river. The bench land in this location is vegetated with native and non-native woody shrubs and grasses. This area is bounded on the west by residential neighborhoods and on the east by the Santa Ynez River. In the southeastern portion of the project site the Bike Trail will extend along a strip of land on top of steep vegetated river bluffs and is located adjacent to residential neighborhoods west of Riverside Drive.


**ENSR Report**

In October 1999, ENSR Engineering and Consulting (ENSR) prepared a Draft Phase I Environmental Site Assessment of the Dezember properties incorporated in the North Park and South Park sections of Riverbend Park. This was done as a standard condition, prior to transfer of land to the City from the R.L. Dezember Trust. The parcels are identified in the ENSR report as Parcel A (Assessor’s Parcel Number 93-051-09), 7.24 acres, and Parcel B (Assessor’s Parcel Number 93-051-08), 9.83 acres. This area is incorporated into the proposed Riverbend Park fields. Parcel A is in the North Park and Parcel B is located in the South Park. The assessment consisted of a site inspection, historical research, records search, and an environmental database search regarding the subject parcels.

No reports of hazardous materials spills or contamination of the subject parcels were found in the records search, which included the most recent Cortese List. Customary agricultural uses of herbicides and pesticides were reported. ENSR reported that a 1996 Phase I assessment of Parcel A conducted by EMC, Inc., observed evidence of illegal dumping, fill-dirt storage, and a borrow stockpile on the northern part of the north adjoining property, however, Parks and Recreation Department staff have verified that this observation was actually made of a Parks and Recreation storage yard where irrigation piping, old pots, non-motorized farm equipment and fill dirt have been stored over the years to support the Parks Department’s nursery and maintenance efforts. The ENSR study concluded that there is a potential for past use of pesticides or herbicides on the Dezember properties, that the quality of the existing agricultural well is unknown. Also, it notes that a one-square foot area of oil staining was observed on the concrete base and soil beneath the water well pump on Parcel B. It is recommended that any contaminated soil identified on-site be removed or remediated, as required by law.

**Airport Safety**

The Lompoc Municipal Airport is in regular operation. Current flight patterns result in aircraft passing over portions of the project area. Public safety related to aviation and airports for existing and proposed land uses within the City is controlled by the Lompoc Airport Master Plan. The Lompoc Airport Master Plan is a 20-year comprehensive plan for the City-owned Lompoc Airport that is operated by the Department of Public Works.

The City of Lompoc Ordinance 1352 (91) contains City policy and regulations pertaining to airport operations. Therefore, the project is required to comply with all requirements of the City ordinance and the Lompoc Airport Master Plan (LAMP) (P&D Aviation 1993).

According to the LAMP, Riverbend Park and Trail are within the Approach Zone and a portion of Riverbend Park is within the Transitional Zone of the Lompoc Airport. The Approach Zone is an imaginary inclined plane (vertical) beginning at the end of the primary surface and extending outward to distances up to ten miles, depending on runway use. The width and slope are also dependent on runway use. The approach surface governs the height of objects on or near the airport. Objects should not penetrate or extend above the approach surface. If they do, they are classified as obstructions, and must be either marked or removed. The approach surface slope east of the airport is 34:1, and it extends a horizontal distance of 10,000 feet (P&D Aviation 1993) At Riverbend Park, the height limit is approximately 97 feet to the approach zone. Therefore, because the proposed project does not involve locating new structures of significant
height and the relocated electric poles are expected to be the same height as the existing poles, the project should have no impact on the Approach Zone.

The transitional zone extends out from the side of the runway, both along and away from the runway at a slope of 7:1. Because the Riverbend Park and Trail are no closer than 3,300 feet from the east end of the runways, the Transitional Slope height for restricting protrusions is approximately 471 feet high.

Development proposals within the Airport’s Approach Zone are subject to the approval of the Santa Barbara County’s Airport Land Use Commission.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;

c. Emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school;

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

e. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, where the project would result in a safety hazard for people residing or working in the project area;

f. Be located within the vicinity of a private air strip, where the project would result in a safety hazard for people residing or working in the project area;

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

h. Expose people or structures to the risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

**Project Impacts**

**Hazardous Materials Use and Transport**

The proposed project will not create a significant hazard to the public or the environment through routine transport, use or disposal of hazardous materials. The proposed recreational use of the property for playing fields, tennis and a Bike Trail does not require use on-site of any
hazardous chemicals. No handling or delivery of hazardous materials, acutely hazardous materials, substances, or waste is anticipated as part of the proposed project. The proposed project does not include the use of chemical fertilizer or pesticides on the park property. Herbicides will only be used, as directed, for removal of invasive species.

The temporary continuation of agricultural operations on the Dezember property until development of Phase III, can be expected to use some pesticides. Also, the agricultural property to the west may apply pesticides. While pesticides are usually applied in the early morning, before sports practice or play, the North Park playing fields and Bike Trail will be near the ongoing agricultural uses.

Many agricultural chemicals can be harmful or toxic to humans, fish or wildlife. For this reason, limitations are placed on their use and methods of application are restricted. The California Department of Pesticide Regulation regulates the use and application of pesticides. As a part of their oversight, they coordinate with the Department of Fish and Game, the Department of Health Services, the State Water Quality Control Board, the Department of Toxic Substances Control, the Office of Health Hazard Assessment and the Air Resources Board to assess risk and enforce federal and state law.

The County Agricultural Commissioner’s office administers state laws regulating the application of agricultural materials. They carefully control the storage and use of these materials and disposal of containers and waste materials. Controls include concentration of mixtures, methods and timing of applications, and worker handling of materials. There are time constraints as to when workers may enter fields subsequent to application of certain materials, and constraints as to meteorological conditions under which materials may or may not be applied.

Because an increased number of people will be attracted to the enhanced facilities in the Riverbend Park area, human-health impacts could occur. If the Parks Department does not take into account the discernable timing of applications of agricultural chemicals, when drawing up game and practice schedules, players could be exposed to chemicals. Such impacts are potentially significant. Mitigation measure HM-1 minimizes this potential impact to a less-than-significant level by requiring coordination between the Agricultural Commissioner’s office, the farmers and the City Parks Department to identify likely times of pesticide application. It should also be noted that, in general, the wind direction in the Lompoc Valley is from the Northwest to Southwest, therefore, agricultural drift impacts from the continued agricultural use of the South Park are expected to be minimal.

**Hazardous Materials Accidental Release**

The proposed Riverbend Park Improvements and Bike Trail construction will not require the use of hazardous materials in the course of operations. No fueling stations, chemical storage or other regular hazardous material uses are proposed or will be required for the project operation. Minor amounts of hazardous materials may be stored on-site during construction or present in construction vehicles. Provisions to protect the environment from discharge of these materials are to be included in the Storm Water Pollution Prevention Plan for the project. Neither construction activities, nor operation of the proposed project for its intended purposes are likely to cause a release of hazardous materials into the environment.
Handling and Emissions Near Schools
The proposed recreational park project will not emit hazardous substances, or handle hazardous, or acutely hazardous materials substances or waste. The nearest school is more than ¼ mile distant.

Hazardous Emissions
Over the years, concern has been expressed about the potential for electric or magnetic fields causing adverse effects on humans. Because the proposed project requires the relocation of the Pacific Gas and Electric (PG&E) power lines that currently cross the South Park site, an analysis of the potential impact of the PG&E line relocation is included below.

Electric and Magnetic Field Research
According to the Electric Power Research Institute (EPRI), numerous studies have been conducted regarding the potential effects of electric and magnetic fields (EMF) on humans. In the past, primary concerns focused on the potential for EMF to cause childhood leukemia. At this point, considering each of the studies conducted, the EPRI has concluded that there is no association between power line configurations (wire codes) and Childhood Leukemia, and that there is a weak association between measured fields and childhood Leukemia.

Worldwide, some studies report limited associations between childhood leukemia and magnetic fields, while others report no association between the two. The national institute of environmental health sciences has stated that no individual epidemiological study has provided convincing evidence linking magnetic field exposure with childhood leukemia. The U. S. National Academy of Sciences concluded in 1996 that the current body of evidence does not show that exposure to EMF poses a human health risk.

Electric and Magnetic Field Regulation
There are no federal standards limiting occupational or residential exposure to 60 Hz EMF. California does not regulate EMF from electric transmission lines.

Electric and Magnetic Field Intensity
The location and intensity of the source of the EMF determines how much EMF is in a given environment. Electric fields from power lines rapidly become weaker with distance and can be further reduced by walls, trees, earth berms and building walls and roofs that are located between the source and the receiving individual.

Potential for Impact on Canfield Avenue Homes
The existing Pacific Gas and Electric (PG&E) 115 kV electric lines in Riverbend Park are now approximately 200 feet from the exterior of the nearest homes. The proposed relocation of the lines would place them approximately 100 feet from these same homes. The magnetic field can be expected to be blocked or reduced to some extent by the earthen bluff between the power lines and the homes, the trees and vegetation along the bluff, as well as the houses themselves. Distance will reduce the EMF exposure as well. At 100 feet of distance, even without barriers such as roofs, walls or trees to attenuate the exposure, a 115 kV line is expected to emit EMF levels lower than those experienced while standing one-foot away from a fax machine or baby monitor.
Therefore, the exposure to EMF from the PG&E lines, even when relocated to the area just north of the bluff in South Park, is expected to be very slight. In addition, the PG&E lines will be located approximately 100-feet away from the nearest homes, and the bluff, vegetation, and homes themselves will further reduce any magnetic field emissions from the lines. Therefore, the EMF levels experienced are expected to be lower than those emitted by many common household appliances, according to the resource literature reviewed. Therefore, the effect of the relocation of the PGE lines and their associated electric and magnetic fields to the south boundary of the South Park will not be significant.

Potential for Impact at Soccer Fields
The existing electric lines may be relocated to the north edge of the right-of-way of McLaughlin Road. The level of exposure to electric fields and magnetic fields directly under 115 kV power lines is smaller magnetic field than might be found one foot from a washing machine, dishwasher, stove, fluorescent light or analog clock, or two feet from an electric pencil sharpener or microwave oven. As with the residential exposures described above, the strength of the magnetic and electric fields is reduced with distance. Therefore, the effect of the relocation of the PGE lines and their associated electric and magnetic fields to the north right-of-way of McLaughlin Road will not be significant.

On-site Hazardous Materials
The proposed use of the project site is as recreational playing fields, passive recreational open space, and for wildlife protection and educational purposes. Construction activities are not expected to cause the release of hazardous materials into the environment. A Storm Water Pollution Prevention Plan will be prepared for the project and the Plan will incorporate requirements for proper use, storage and containment of any hazardous substances.

A Phase I environmental assessment was previously conducted for Parcels A and B (the Dezember properties), which comprise a portion of the North and South Parks. Regulatory databases were searched, interviews were conducted, historical photographs were reviewed, and site visits were conducted. The proposed property does not show up as a historic leaking underground fuel tank site, or on a site mitigation unit list. With the exception of one square foot of soil with oil staining, these efforts did not identify evidence of known hazardous materials contamination of the subject parcels or nearby surrounding lands. Pedestrian surveys, conducted by Jones and Stokes, of the remaining portions of the proposed project site did not reveal any readily observable evidence of likely contamination by hazardous materials. The survey recommended that the oil-stained soil be removed and disposed of properly off-site. No significant impacts are anticipated.

Lompoc Municipal Airport
The proposed project is located within the Runway Approach Zone and the Transitional Zone as identified in the City of Lompoc’s Airport Master Plan. The recreational activities associated with Riverbend Park and the Bike Trail are neither considered incompatible with airport operations, nor do they conflict with the Airport Approach or Transitional Zones. No structures that may be considered obstructions are proposed as improvements to Riverbend Park. Therefore, no impacts are anticipated.
Private Airstrips
There are no private airstrips within, or adjacent to the City of Lompoc. Therefore, there will be no safety impacts from private airports on people residing or working in the area of the project.

Emergency Response Plans
The proposed project will not impair implementation of emergency response plans or evacuation plans. The proposed project will provide additional emergency supervision for emergency response plans and evacuation efforts at the park in the form of the Park Host. Telephone access will be made available to the Park Host. The proposed project will not impair implementation of any existing emergency response plan for the park. The improvements at Riverbend Park within the Regulatory Floodway will be temporary only and will be subject to removal in case of projected high river flows. This is consistent with the requirements of the existing emergency removal plan for temporary structures within the Regulatory Floodway. In addition, the improved Bike Trail will serve as an emergency access road if needed.

Police, fire, and ambulance vehicles would be able to access all areas of the proposed project by way of existing streets. These areas will be maintained for continued access. All areas to be developed will provide access for emergency vehicles. No significant impact is anticipated.

Wildland Fire
The proposed project will not expose people or structures to the risk of loss, injury, or death involving wildland fires. Although wildlands are adjacent to urbanized areas in the project area, no wooded brushland, woodland, or grassland capable of sustaining wildland fires occur adjacent to residential areas. The proposed park plantings would include irrigated turf and trees, and fire hazard resulting from the proposed vegetation is unlikely. In addition, the park is bounded by the Santa Ynez River on the east and north. No significant adverse impacts related to wildland fire are anticipated. No new residential structures are proposed as a part of the project, with the exception of the proposed Park Host’s mobile recreational vehicle. There is adequate access to and from the Riverbend Park site and adequate means to close access to the park if necessary. The proposed Bike Trail is to be constructed so that it can support the weight of vehicles for maintenance and emergency access. The proposed project will not result in increased risk to the public from wildland fire and the project will provide a new paved emergency access along the river’s edge.

Mitigation Measures

HM-1: The City Parks Department shall designate a staff person to act as a liaison between the City, the County Agricultural Commissioner, and the agricultural operator of the Dezember property and operator(s) of the fields to the west. This staff person will work with the Agricultural Commissioner and the adjacent landowner(s), operator(s) to identify discernable times of pesticide application in fields adjacent to or within Riverbend Park.

HM-2: Any contaminated soil identified on-site shall be removed or remediated, as required by law.

HM-3: The well located on the South Park site shall be properly abandoned, in accordance with all applicable regulations, if it is not to be used to serve the project.
HM-4: Erosion control measures shall be implemented along the river bank as necessary to stabilize the slopes and prevent erosion that could threaten the Bike Trail and its users.

HM-5: Periodic pruning of vegetation adjacent to the Bike Trail shall be conducted to ensure vertical clearance, safety from horizontal projections and adequate sight distance around turns. Vegetation hazards along the Bike Trail shall be monitored at least twice a year.

HM-6: The Bike Trail shall be monitored annually and after high flow storms. The Trail shall be repaired as needed to ensure that it is not damaged and the safety of the trail is not compromised by debris deposited during storms.

**Unavoidable Significant Impacts**

There will be no unavoidably significant hazards or hazardous materials impacts as a result of the proposed project, if the above mitigation measures are implemented.
3.12 Utilities and Service Systems

Regional Setting

Water Supply

Water for Lompoc is provided by nine wells. The wells draw from the main zone of the upper aquifer of the Lompoc Plain groundwater basin. Groundwater is processed, stored and then delivered to the City's water customers. The City currently uses 5,700 acre-feet of water per year.

Wastewater Treatment Plant and Sewer Facilities

Wastewater treatment in Lompoc is provided by the Lompoc Regional Wastewater Reclamation Plant (LRWRP). The plant design hydraulic loading is 5 MGD average dry weather flow (ADWF), peak dry weather flow (PDWF) of 9.1 MGD and peak wet weather flow (PWWF) of 16 MGD. The plant treats an average of 3.3 (2003) MGD. The LRWRP is regulated by the Regional Water Quality Control Board, Region 3.

Storm Water Drainage

Lompoc’s storm water drains principally through a system of street flow, connected to underground storm drains. The storm drains flow into either the East-West Channel, the Miguelito Channel or to storm drains that connect directly to the Santa Ynez River or the Bailey Wetlands.

Electric

The City of Lompoc operates its own electric utility which provides electricity to City facilities, businesses and residents.

Telephone

Telephone service is provided to the City of Lompoc by a number of different telephone companies.

Cable Television

Comcast Cable provides cable television services to the City of Lompoc.

Solid Waste

All solid waste from the City is taken to the City landfill. This facility was opened in 1961 and is classified as a Class III, unlined landfill. The Lompoc landfill does not accept any hazardous waste. Current design capacity of the landfill is 4.56 million cubic yards (mcy) and the remaining capacity is 2.87 mcy. The Lompoc landfill is permitted to accept 500 tons per day (tpd); however, the current average is 145 tpd; this total includes materials heading for large scale
recycling. The landfill is scheduled to close in 2047. The City also operates a curbside recycling program.

**Project Setting**

**Water Supply**

The nearest water main extends down McLaughlin from Canfield Avenue and “A” Street, to the entrance gate of Riverbend Park. This main provides a source of potable water to the existing park. Additionally, a well on the South Park property provides water for irrigation. Well 6 is located just north of the intersection of Bush Avenue and Riverside Drive. Water and electric lines extend from the intersection of Central Avenue and “A” Street to serve this facility. This facility is just south of the proposed location for the Bike Trail extension to Central Avenue. No other water lines currently extend into the project area. A water line is planned to extend out from Riverside Drive, cross under the Bike Trail and then under the Santa Ynez River using directional drilling to provide water to River Park.

**Wastewater Treatment Plant and Sewer Facilities**

The City is served by the Lompoc Regional Wastewater Reclamation Plant. No sewer lines are currently located within Riverbend Park or along the Bike Trail alignment. The nearest existing sewer lines are found at the intersection of Canfield Avenue and “A” Street. Sewer lines do not extend into the Bike Trail project site at this time. A future sewer line is planned to be co-located with the water line, referenced above, to serve River Park.

**Storm Water System**

Storm water currently percolates into the ground throughout the project area. An existing drainage swale runs along the south side of McLaughlin Road collecting surface water from the farm field, the development to the south (Canfield Dr., Orchid St., Cagney Ave., Cooper Dr., Calvert Ave., Gardenia St., Riverside Drive) and the area of the planned Central Avenue extension. The swale is connected to the riverbed, running through a culvert at the existing farm road crossing. One above ground swale carries surface water toward the river along the Bike Trail. This swale is located across from North Avenue, along Riverside Drive.

**Electrical Equipment**

A Pacific Gas and Electric line crosses the South Park site from northeast to southwest. These large poles bi-sector the proposed playing fields. This power line is one of two main lines that provide power to the City’s Electric Department.

City of Lompoc electric lines are located underground, within the McLaughlin Road right-of-way, until they turn north to connect to an existing transformer in Riverbend Park. The transformer serves electricity to the well pump, lights on the north side of McLaughlin, east of the access drive to the park and to a concession that has been located at the Babe Ruth field. A transformer on the north east corner of the intersection of Canfield Drive and “A” Street provides electricity to the street lights on the south side of McLaughlin Road, west of the access drive to
Riverbend Park. Electric lines also run from the intersection of Central Avenue and “A” Street east to the City’s Well Number 9. No other electric lines currently exist in the project area.

**Telephone**
There are currently no telephone lines at Riverbend Park.

**Cable Television**
There are currently no cable television lines at Riverbend Park.

**Solid Waste**
Solid-waste disposal at Riverbend Park is provided by the City Parks Department. The waste is taken to the Lompoc landfill, located at the southern terminus of Avalon Road.

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

d. Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements will be needed;

e. Not result in a determination by the wastewater treatment provider that serves, or may serve, the project that it has adequate capacity to serve the project’s projected demand, in addition to the provider’s existing commitments;

f. Not be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs; or

g. Not comply with federal, state, and local statutes and regulations related to solid waste.

**Project Impacts and Significance – Phases 1, 2 & 3**

Phases One, Two and Three of the proposed Riverbend Park and Trail Master Plan are not expected to have a significant adverse effect on utilities, with the exception of impacts to the City’s main electrical supply line and the associated environmental impacts of its necessary relocation.
**Wastewater**

Park - There are adequate facilities within the City and adjacent to the project site to be able to serve the proposed temporary North Park and permanent South Park restrooms, per Jim Beck, City of Lompoc Utility Director. The proposed project will not generate the volume or type of waste that would exceed the Regional Wastewater Reclamation Plant’s capacity or the Regional Water Quality Control Board’s standards. The portable restrooms proposed for the North Park will generate a minimal volume of waste. These toilets will be serviced regularly by contracted waste haulers. The Caretaker’s Residence will either be serviced by a waste hauler or may discharge waste at River Park. The permanent restrooms proposed for the South Park are also not expected to result in a significant amount of new flow to the Wastewater Reclamation Plant. A minor sewer line extension and small underground, submersible sewer pump, with wet well and back-up pump will be required to extend sewer service to the proposed permanent restroom location and provide reliability. Impacts on the City’s Wastewater system will be less than significant.

Bike Trail - No new wastewater facilities or lines are proposed along the Bike Trail alignment as a part of this project. Therefore, no significant impacts to wastewater utilities will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

**Water**

Park - Adequate water is available to serve the proposed uses, according to Jim Beck, City of Lompoc Utility Director. Municipal water will be available to provide potable water to drinking fountains, the permanent restroom and the caretaker’s residence in the South Park. Well water will be used to irrigate the playing fields in the North and South Parks. Irrigation of the park would be limited to before 10 a.m. and after 4:00 p.m. to comply with the City’s irrigation prohibition regulations. Additional irrigation lines and City water lines will need to be installed in Riverbend Park to serve the proposed facilities. Impacts on the City’s water supply will be less than significant.

Bike Trail - No new water lines or facilities are proposed along the Bike Trail alignment as a part of this project. Therefore, no significant impacts to water facilities will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

**Storm Water**

Park - Run-off from impervious surfaces that are proposed at Riverbend Park is expected to be directed to pervious surfaces through gutters and swales with dissipaters or through sheet-flow. Because the park area is generally flat and low-lying, significant flow from the site is not expected. No new storm drains are proposed.

The existing open swale on the south side of McLaughlin Road will be culverted at the point at which the driveway to the South Park caretaker’s residence and parking lots crosses it. In order to accomplish this, some riparian vegetation may have to be removed. Any necessary riparian vegetation removal will be mitigated by planting, based on the ratios identified in the Biological
Resources Section of this document. If required, a Streambed Alteration Agreement will be processed through the California Department of Fish and Game.

Bike Trail - The construction of the paved Bike Trail could result in minor amounts of increased run-off. Because there is limited impervious surface area and the Bike Trail is proposed in an area where the surrounding land is permeable, run-off resulting from the Bike Trail’s construction is anticipated to percolate on-site. The existing drainage swale, located across from North Avenue, will be culverted to allow the Bike Trail to cross it. This should not require vegetation removal. Therefore, no significant impacts to storm drains will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

Electric

Park - Adequate energy is available to serve the proposed uses, according to Jim Beck, City of Lompoc Utility Director. The proposed development of Riverbend Park will have a limited effect on the existing City electric service to the park. No lighting is proposed, with the exception of a porch light(s) at the caretaker’s residence. Electrical lines will be extended to the Park Host’s residence to provide power connections to the residence and porch light. Additional electrical connections are expected to be provided to the west side of the South Park, where a restroom will be located, as well as a possible concession stand. As the electric lines will be located within the 100-year flood plain, an electrical shut-off will be incorporated to de-energize the lines in case of flooding.

Pacific Gas and Electric (PG&E) lines, one of two main sources of power to the City, cross the South Park from southwest to northeast. These large poles bi-sect the proposed playing fields and must be relocated, prior to construction of the South Park fields. The poles are expected to be relocated to one of two alignments. They could be relocated along the north side of McLaughlin Road, where substantial guy wires would need to be used to support the pole in the floodway and because the poles would be making a turn at that point. The placement of the guy wires could limit the turf area that could be used for field sports. A second location would be along the south boundary of the South Park. Here the poles could be aligned so that they would not have to make a turn. In addition, much of the South Park is outside of the Regulatory Floodway, so fewer supports may be needed, reducing impacts on the proposed playing fields. The south side of the South Park is adjacent to a bluff averaging 15-feet high. This bluff area is vegetated and some setback to the fields is expected to be necessary. Locating the PG&E poles within this setback will help to ensure that resulting impacts on the playing fields will be minimized.

The relocation of the lines has the potential to result in a potentially significant impact, if the remaining main line were to go out-of-service during the time that this line was being transferred. If this were to occur, the whole City would potentially be without electricity for a number of hours. Critical facilities, such as the City offices and hospital maintain back-up generators which would activate in case of a power failure. According to Rodney Ray, Electric Division Manager, the second line would only be expected to go down if it were unexpectedly damaged, such as by an automobile, lighting strike, or other accidental occurrence. This type of damage is most likely to occur during the winter storm season. Therefore, a mitigation measure requiring that the line transfer occur outside of the storm season (December through
April) has been recommended to minimize the potential for a Citywide power outage during the transfer of the lines to the new location.

Bike Trail - No additional electric lines are required as a part of the Bike Trail construction.

**Telephone**

Park - The caretaker’s residence is expected to be served by a cellular phone. Extension or installation of phone lines into the park is not planned.

Bike Trail - No new phone lines are needed or planned to be installed along the Bike Trail alignment. Therefore, no significant impacts to telephone utilities will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

**Cable Television**

Park and Bike Trail - There are no cable television facilities in the project area and the installation of cable television lines is not planned in Riverbend Park or the Bike Trail project areas. Therefore, no significant impacts to cable television utilities will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

**Solid Waste**

Park - The Lompoc landfill has sufficient permitted capacity to serve the proposed Riverbend Park development, per Solid Waste Superintendent, Claudia Stine. The construction of the park will minimize vegetation removal and trimming. Therefore, significant loads of clearing and demolition debris are not expected to impact the landfill. The additional sports activity proposed for Riverbend Park is expected to increase the amount of solid waste collected at the park. However, the additional waste is not expected to be significant. The additional waste load is expected to be comparable to or less than that of a single family dwelling and will not significantly impact the landfill.

Recycling containers will be provided in, and collected from, the park to encourage recycling. This will assist the City in providing the greatest percentage of recycled versus landfilled waste products. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste. No significant impacts will result from the further development of the proposed Riverbend Park site.

Bike Trail – A secured trash container will be provided approximately midway along the trail, in the same area as the proposed bench. Parks’ crews will service the container. The addition of this single container should not result in a significant impact on solid waste or Landfill operations.

In addition, there is a significant illegal dumping problem at and near the park at this time. When these illegal dumps are cleaned up, the costs of clean-up are borne by the public and the material ends up at the Lompoc landfill. When the dumping occurs, it damages riparian vegetation and habitat and creates an eyesore for people who are trying to enjoy the river environment. This illegal dumping also provides a ready source of pollution to be washed down-
river in winter, resulting in contaminated beaches and ocean water. It is hoped that the additional focus on, development of and activity at Riverbend Park will result in a reduction in illegal dumping at the site. Therefore, no significant impacts to solid waste operations will result from the construction of the proposed improvements at Riverbend Park or the construction of the Bike Trail.

Mitigation Measures

The following mitigation measure is required.

U-1 The existing PG&E utility lines shall be relocated, either along the north side of McLaughlin Road or at the south side of the South Park portion of Riverbend Park. Relocation shall take place between May and November.

Unavoidable Significant Impacts

There will be no unavoidably significant utility impacts as a result of the proposed project, if the above mitigation measures are implemented.
3-13  Aesthetics

Methodology and Approach
The term aesthetics typically refers to the perceived visual character of an area, such as of a scenic view, open space, or architectural facade. The aesthetic value of an area is a measure of its visual character and visual quality combined with viewer response (Federal Highway Administration 1983). This combination may be affected by the components of a project (e.g., buildings constructed at a height that obstructs views, hillsides cut and graded, open space changed to an urban setting), as well as changing elements, such as light, weather, and the length and frequency of viewer exposure to the setting. Aesthetic impacts are thus defined as changes in viewer response as a result of project construction and operation.

Visual Character
Visual character is the appearance of the physical form of the landscape, composed of natural and human-made elements, including topography, water, vegetation, structures, roads, infrastructure, and utilities; and the relationships of these elements in terms of form, line, color, and texture.

Visual Quality
Visual quality is evaluated based on the relative degree of vividness, intactness, and unity as modified by its visual sensitivity.

Vividness is the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.

Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well as natural settings.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the artificial landscape. (Federal Highway Administration 1983.)

High-quality views are highly vivid, relatively intact and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Viewer Response
Viewer response is the psychological reaction of a person to visible changes in the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., roadway or trail) (Federal Highway Administration 1983). The measure of the quality of a view must be tempered with the overall sensitivity of the viewer and viewer response. Viewer sensitivity is dependent on the number and type of viewers and the frequency (e.g., daily or seasonally) and duration of views (i.e., how long a scene is viewed). Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and the viewing duration.
The concepts presented above are combined in a visual impact assessment process which involves identification of the following:

- relevant policies for protection of visual resources;
- visual character and quality of the project area;
- general visibility of the project area and site using descriptions and photographs;
- viewer response; and
- potential impacts.

**Regional Setting**
The Lompoc Valley offers many diverse visual resources which the community values (See Photos following page 18 of the Master Plan). The most obvious visual resource relevant to the Master Plan and the Santa Ynez River Bike Trail is the Santa Ynez River corridor. Because of upstream water diversions and impoundments, the riverbed near Lompoc has variable flows and at times there is no visible water in the channel. Despite the lack of constant water, views of the river corridor throughout the project area are highly vivid, unified, and intact. The character and quality of these views is mainly attributable to scenic, dense native vegetation along the river and lack of human-developed features. Segment-specific visual character and quality are described below.

**Project Setting**

12th Street
This segment connects Highway 246 with Laurel Avenue, via 12th Street, with a Class II bike lane. This segment travels through industrial/commercial development with a small industrial business complex and Home Depot to the west and the remnants of the Grefco Diatomaceous Earth Processing Plant to the east. The viewshed from this segment is low to moderate in unity and intactness because of the dilapidated status of the Grefco plant site. However, the viewshed retains a significant amount of vividness, as it will have views of the undeveloped hills of the transverse range to the south.

Riverside Drive Segment
The bluff area near Riverside Drive offers expansive high-quality views of the river corridor and the rolling undisturbed slopes of the Santa Rita Hills in the background on the opposite side of the river (See Photos 15-18, following page 18 of the Master Plan). The appearance of the adjacent neighborhood to the west is well maintained and orderly. The aesthetic quality of the narrow parcel along the bluff on which the trail would be located is somewhat degraded, attributable to weed intrusion, blowing trash and the appearance of being underutilized. Overall, the viewshed in this segment is highly vivid, intact, and unified, although the immediate area of the Bike Trail alignment is low to moderate in vividness, intactness, and unity.

River Trail Segment
The River Trail Segment offers high-quality views similar to the Riverside Drive Segment, although the perspective is shifted because the viewer is closer to the river and farther from
residential development (See Photos 11 –14, following page 18 of the Master Plan). The views from this segment are of the sandy bed of the river; trees and shrubby native vegetation to the east; and low-lying, ruderal vegetation and one-story residences to the west, with the surrounding hills in the background. Views are unobstructed and free from encroaching elements; however, the trail passes by an equipment storage and industrial facility in the southwest part of this segment. With the exception of this facility, views in this segment are highly vivid, intact, and unified.

Riverbend Park Segment
Riverbend Park is proposed to have recreational sports fields and supporting park facilities. The park is bordered by the Santa Ynez River to the east and north, agricultural fields to the west and single-family homes to the south (See photos 1-7, following page 18 of the Master Plan). The surrounding view-shed has the same character as that of the River Trail Segment, with the addition of the proposed sports fields. The fields to the west of Riverbend Park are commonly used for flower seed and vegetable production and are notably picturesque during the growing season. Riverbend Park is well-maintained. Views from this segment are generally moderate to high in vividness, intactness, and unity.

Thresholds of Significance
The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Have a substantial adverse effect on a scenic vista.

b. Damage scenic resources along a scenic highway.

c. Degrade the existing visual character or quality of the site and its surroundings.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Project Impacts and Significance – Phases 1 and 3

Project Impacts

Scenic Vistas
The proposed improvements at Riverbend Park (Phases 1 and 3) would not have a significant adverse impact on a scenic vista. The Lompoc General Plan identifies the location of scenic vistas in and around Lompoc. The Urban Design Features Exhibit in the Urban Design Element of the General Plan does not show a scenic vista in the area of Riverbend Park. The closest identified vista is from the top of the bluff at Ken Adam Park, looking toward Lompoc. From this location, the proposed park improvements would not be discernable. The bluff on the south boundary of the park is identified as a visual edge on the Urban Design Features Exhibit. Because significant vertical changes in the landscape are not proposed, the visual edge of the bluff will not be obscured.
Scenic Highway
The City’s General Plan, Urban Design Element’s Scenic Ridgelines and Roads does not designate any roads directly within the viewshed of Riverbend Park as scenic roads. The proposed park and trail improvements will be minimal and are not expected to be visible from roads identified in the City’s General Plan as scenic, including: “H” Street (north of the river), La Purisima Road and Highway 246 (East of Lompoc to its intersection with Highway 1). Therefore, implementation of the proposed project would not substantially damage scenic resources, such as trees, rock outcroppings, and historic buildings along a scenic highway.

Existing Visual Character
The improvement of Riverbend Park with additional ballfields and recreational elements would not degrade the existing visual character or quality of the site and its surroundings. The existing park sites to be improved are currently being farmed. The area to be developed is not naturally vegetated and has no significant landmarks that will be impacted by the development.

The improvement of the South Park ballfields will require the relocation of the existing PG&E poles and lines that run from southwest to northeast in the South Park. One of two potential relocation sites are expected to be considered.

The poles and lines may be relocated to the north side of McLaughlin Road. Here, because of the guy wires necessary to support these large poles within the floodway, the usable area of turf may be reduced, as the guy wires would necessarily be on the north side (outside of the turn) of the poles, because the poles would be making a turn at that point.

An alternative location for the poles would be along the south side of South Park. Here, the poles could be relocated so that there would not be a turn and the guy wiring would not have to extend so far into the proposed playing fields. In addition, a significant portion of the South Park is outside of the floodway where less strong supports are required. This location however, would bring these tall electric poles closer to the existing residential development. The poles would be more visible, but would not be expected to block views from the top of the bluff. Appropriate mitigation measures include: placement of poles to avoid directly impacting views from homes and planting of trees to soften the impact of the poles within the viewshed. With these mitigation measures, the re-location of the poles is not expected to result in a significant aesthetic impact. Therefore, the relocation of the PG&E lines and the addition of parking, turf and park amenities is not expected to significantly degrade the visual character of these fields.

Light and Glare
Implementation of the proposed project would not include any additional light sources that would substantially affect night-time views of the area. With portions of the project site near the approach surface of the Lompoc airport and with the potential for bird nesting habitat disturbance, no lighting is proposed, other than minimal lighting at the caretaker’s residence. The proposed project does not include any objects or buildings that could create significant glare. The parking area at Riverbend Park is proposed to be landscaped with shade trees to minimize potential for daytime glare. Overall, changes in light and glare would be less than significant. A mitigation measure prohibiting exterior lighting beyond that proposed at the caretaker’s...
residence and a mitigation measure requiring the lighting at the caretaker’s residence to be low in intensity and height, screened and directed downward are recommended.

**Project Impacts and Significance – Phase 2**

**Project Impacts**

**Scenic Vista**
The construction of the proposed Bike Trail in Phase 2 would not have a significant adverse impact on a scenic vista. The Lompoc General Plan identifies the location of scenic vistas in and around Lompoc. The Urban Design Features Exhibit in the Urban Design Element of the General Plan does not show a scenic vista in the area of the Santa Ynez River Bike Trail. The closest identified vista is from the top of the bluff at Ken Adam Park, looking toward Lompoc. From this location, the proposed trail improvements would not be discernable. A visual edge is identified along the bluff above the proposed Bike Trail route. Only minor vegetation removal or trimming is proposed. Therefore, the only impact expected would be the increased accessibility of the features of the visual edge. The trail would provide visual access to the Santa Ynez River and Santa Rita Hills for the Lompoc community. With the implementation of the trail system, the only vertical change in the landscape would be the native plantings and signage. Impacts on scenic vistas from the proposed changes would be considered less than significant. Any ground disturbance or other construction-related visual impacts would be temporary and would not result in significant aesthetic impacts.

**Scenic Highway**
State Route One and State Route 246 through Lompoc are not designated as segments of the state scenic highway system (California Department of Transportation 1996). No features defined in the Lompoc General Plan as a Scenic Vista, Scenic Ridgeline, are located near or in the project area. Therefore, implementation of the proposed project would not substantially damage scenic vistas or ridgelines. The Bike Trail is to be aligned along the existing unpaved road, eliminating the need for vegetation removal. The impact of Phase 2 on scenic resources is considered less than significant.

With one exception, the City’s General Plan, Urban Design Element’s Scenic Ridgelines and Roads does not designate any roads directly within the view-shed of Riverbend Park or the Bike Trail as scenic roads. Highway 246 is identified as a scenic road east of town until it intersects with Highway 1 at the terminus of the Bike Trail. This is the closest, and only visible point from the proposed project to a scenic road. At this point the Bike Trail is a Class II bikeway and will not significantly impact the scenic resources at the intersection of Highways 246 and 1. The proposed park and trail improvements will be minimal and are not expected to be visible from other roads identified in the City’s General Plan as scenic, including: “H” Street, north of the river; La Purisima Road. Therefore, implementation of the proposed project would not substantially damage scenic resources, such as trees, rock outcroppings, and historic buildings along a scenic highway.
Existing Visual Character
The construction of the Bike Trail will not degrade the existing visual character or quality of the site and its surroundings. The trail is proposed to be a maximum of 12-feet wide and will be placed at or below grade. The proposed Bike Trail alignment over the existing unpaved road, eliminates the need for vegetation removal. The proposed plantings will provide aesthetic enhancement in areas with degraded vegetation. There will be no degradation of existing visual character or quality as a result of Phase 2. The impacts of this phase are less than significant.

The proposed Bike Trail does not include lighting. Therefore, there will be no impacts to nighttime views of the area. The proposed signage and the paved trail will not create a substantial source of glare. Impacts related to new sources of light or glare are less than significant. The aesthetic impacts of Phase 2 have been determined to be less than significant and do not require mitigation.

Mitigation Measures

The aesthetic impacts of Phases 1, 2 and 3 have been determined to be less than significant with the following mitigation measures.

A-1: If the PG&E poles are relocated to the south side of the South Park, they shall be placed to minimize impacts on views from homes along Canfield Drive. Poles shall not be placed directly in front of homes. Effort shall be made to locate the poles opposite property lines and where they may naturally and safely be screened by existing vegetation.

A-2: Where necessary, trees and/or shrubs shall be planted, as needed, at the bottom and/or top of the south slope to soften the view of the poles from Canfield Drive. Species planted shall have a height at maturity that will maintain a 15-foot clearance from the poles.

A-3: No lighting of the playing fields at Riverbend Park shall be permitted.

A-4: The exterior light(s) installed at the Caretaker’s residence shall be of low intensity, a maximum of eight feet in height, screened and directed downward.

Unavoidable Significant Impacts

There will be no unavoidably significant aesthetic impacts as a result of the proposed project, if the above mitigation measures are implemented.
3.14 Population and Housing

Regional Setting

Lompoc has a population of approximately 42,000 people. The City is still connected to its agricultural heritage, but is a growing residential, commercial, and industrial City. The Santa Ynez River runs through the northern portion of the City and along its eastern edge. The project site is located just south and west of the bend of the river. Residential units lie south and east of the project site.

Project Setting

Riverbend Park is currently developed with a single Babe-Ruth playing field, some storage sheds and a batting cage. The remainder of the Park and Trail site are in open space, with agriculture on the South Park area. McLaughlin road provides paved access, otherwise, dirt trails provide pedestrian access through the subject properties. No houses or areas used as living space exist within the project area. Homes are located on the bluff south of the South Park and on Riverside Drive, opposite the Bike Trail alignment.

Thresholds of Significance

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure.

b. Displace a substantial number of people or existing housing units, necessitating the construction of replacement housing elsewhere.

c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Project Impacts and Significance – Phases 1, 2 & 3

Project Impacts

The proposed project would make improvements to the existing Riverbend Park property to serve the existing population of Lompoc. Because the project will provide additional developed park space at the north side of town, it will serve to meet a park need identified over thirteen years ago. Because the park improvements will serve a previously identified need for parkland on the north side of the City, and Lompoc has limited remaining developable land, the proposed park improvements will not directly or indirectly induce population growth. With the exception of the caretaker’s residence and a new concession at the South Park fields, no homes or businesses are proposed as a part of the project. No new roads are proposed and the
infrastructure required to serve the restroom and caretaker’s residence will be limited and will not be sized to accommodate additional uses. Existing water and electric lines will be used.

There are no people living within the project area and there are no housing units within that area. Replacement housing will not be required.

The proposed project has the potential to result in unavoidable adverse environmental impacts on humans, directly and indirectly. Specifically, there may be a significant temporary and a permanent increase in noise in some areas within and adjacent to the project site. The permanent noise increases will be cumulative increases resulting from the addition of the project to the existing traffic noise on “A” Street north of Central Avenue. Also, the reduction in agricultural land can be expected to contribute cumulatively to a future lack of farmland for food production in the state and country. The proposed project will preclude construction of one of the planned recharge basins to augment Lompoc’s water supply. The impact of this is unknown, however, may result in a future limitations on available water in the Lompoc Plain and/or a need to upgrade water treatment methods at the City’s water plant.

Mitigation Measures

There are no feasible mitigation measures that will address the areas of significant impacts.

Unavoidable Significant Impacts

There may be a substantial adverse effect on humans as a result of:

1. Temporary or permanent increase in noise in some areas within and adjacent to the project site.

2. The reduction in agricultural land can be expected to contribute cumulatively toward a future dearth of farmland for food production in the state and country.

3. The proposed project will preclude construction of one of the planned recharge basins intended to enhance Lompoc’s water supply. The impact of this is unknown, however, it can be expected to potentially result in a need for greater water conservation measures and a need to upgrade water treatment methods at the City’s water plant.
3.15 Recreation

Regional Setting

Based on the City of Lompoc Parks and Recreation Element (1997), there are 13 park facilities, including one regional facility, five community facilities, five neighborhood facilities, and two mini-parks within the City’s park system. There are also two special-use recreation facilities (Anderson Recreation Center and the Civic Auditorium) and one natural preserve area. Trails are also an important recreational resource. The existing park and recreation facilities in the City comprise approximately 368 acres (City of Lompoc 1991). Schools within the City also provide valuable recreational facilities. While there is no joint use agreement between the District and the City, many school play fields are currently used by organized sports groups for practice based on written agreements between the school district and each sports league or association (City of Lompoc 1991).

The 1997 Parks and Recreation Element of the General Plan indicates a projected shortfall of 317 acres of City parkland in 2005, including 64 acres of neighborhood parks, 48 acres of community parks, and 205 acres of regional parks. Residential growth in the northern portion of the City has spurred the need for additional parks in that area.

Project Setting

The existing Riverbend Park and Bike Trail project site is owned by the City of Lompoc and supports a Babe Ruth Baseball Field, as well as open space, and passive recreation at Riverbend Park. Open Space and passive recreation opportunities are also provided on the Park property extending south along the river’s edge, to College Avenue.

Thresholds of Significance

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

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

Project Impacts and Significance – Phases 1, 2 & 3

Project Impacts

The proposed Master Plan for Riverbend Park and the Santa Ynez River Bike Trail is not expected to increase the use of other existing City neighborhood or regional parks or recreational facilities. The normal rate of deterioration of other City parks and facilities will not be
substantially accelerated as a result of this proposal. The proposed Park and Trail improvements are expected to reduce the use of other City park and Lompoc Unified School District facilities by residents and particularly by organized sports leagues. The proposed Riverbend Park improvements will also provide needed recreational space for north Lompoc residents. The proposed development is expected to reduce wear and tear on existing City parks and will not have a significant adverse effect on them.

The construction and operation of the proposed recreational facilities are expected to have significant and unavoidable, as well as potentially significant adverse impacts on the environment. Areas of potential impacts include: agricultural resources, biological resources, cultural resources, noise, transportation/traffic, air quality, hydrology and water quality, geology and soils, land use and planning, utilities and service systems, population and housing, public services, hazards and hazardous materials, recreation, aesthetics and cumulative impacts. These potential impacts are discussed and evaluated in the related sections of this document.

**Mitigation Measure(s)**

The mitigation measures identified in Table 1.0-1, Summary of Project Specific Impacts are recommended to be applied to the proposed project to ensure that adverse impacts associated with the construction of the proposed recreational facilities will be minimized.

**Unavoidable Significant Impacts**

The following impacts are expected to be significant and unavoidable adverse impacts of project construction and operation: Agricultural Resources, Recreation, Population and Housing and Cumulative Impacts, (Reduction in Prime Agricultural Lands); Noise, Population and Housing, Recreation and Cumulative Impacts (Noise Impacts to homes adjacent to “A” Street north of Central Avenue); and Hydrology and Water Quality, Population and Housing and Recreation (Loss of potential recharge basin acreage, as a result of the location of the fields in North Park).
3.16 Growth Inducement

The potential for growth inducing impacts that may result from the implementation of a particular project must be evaluated.

Growth Inducing Criteria

The proposed project will be growth inducing if it:

a. Results in the urbanization of land in a remote location ("Leap frog" development), creating an intervening area of open space which then induces growth pressure on that open space.

b. Results in the removal of an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation).

c. Results in economic expansion, population growth, or the construction of additional housing occurs in the surrounding environment, in response to the project, either directly or indirectly (e.g., changes in revenue base, employment expansion, etc.).

Project Impacts and Significance – Phases 1, 2 & 3

The proposed project entails development of property that is contiguous with developed land. Leap frog development will not result from the project. The project is also, in large part, open space, developing an urbanized characteristic only in the form of open grassy fields that will be designated as Community Facilities and zoned as Public Facilities. There will not be an intervening parcel of open space between the proposed project and existing urbanized development.

The proposed project does not involve the removal of an impediment to growth. The vast majority of the project site is either within the Regulatory Floodway or the floodplain. Therefore, growth will be restricted in the future, whether or not the project is implemented. No significant expansion of utilities is proposed and the relocation of the PG&E supply lines will not facilitate development on undeveloped parcels.

Economic expansion, population growth and the construction of additional housing are not expected to result from the development of the proposed playing fields and the Bike Trail along the Santa Ynez River. Although these amenities are important in providing recreational resources to support a vibrant community, the proposed playing fields are intended to serve the existing population and existing need. The Bike Trail is also intended to upgrade an existing path to increase the variety of recreational uses to which it can be put.

The result of development of the playing fields and Bike Trail is not expected to be additional growth, but additional opportunities for the existing population of Lompoc.
Mitigation Measure(s)

No mitigation measures are required.

Unavoidable Significant Impacts

There are no identified unavoidable significant growth inducing impacts associated with the proposed project.
4.0 Significant Unavoidable Impacts and Significant Irreversible Environmental Impacts

Significant Unavoidable Impacts

Based on the analysis in the above related sections, the following impacts are expected to be significant and unavoidable adverse impacts of project construction and operation:

<table>
<thead>
<tr>
<th>Category</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Resources</td>
<td>Reduction in Prime Agricultural Lands.</td>
</tr>
<tr>
<td>Noise</td>
<td>Noise Impacts to homes adjacent to “A” Street north of Central Avenue.</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Loss of potential recharge basin acreage, resulting from construction of fields in North Park.</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>Reduction in Prime Agricultural Lands; Noise Impacts to homes adjacent to “A” Street north of Central Avenue; and loss of potential recharge basin acreage, resulting from construction of fields in North Park.</td>
</tr>
<tr>
<td>Recreation</td>
<td>Reduction in Prime Agricultural Lands; Noise Impacts to homes adjacent to “A” Street north of Central Avenue; and loss of potential recharge basin acreage, resulting from construction of fields in North Park.</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>Reduction in Prime Agricultural Lands and Noise Impacts to homes adjacent to “A” Street north of Central Avenue.</td>
</tr>
</tbody>
</table>

There are no significant and unavoidable impacts related to the construction of the Bike Trail. While adequate and feasible mitigation measures are not available to reduce the above referenced impacts to a level of insignificance, the question of whether they are reversible is a separate inquiry.

Significant Irreversible Environmental Impacts

The only means by which the above mentioned Significant Unavoidable Impacts would be reversible would be if the sports fields ceased to be used and the turf areas were plowed under and returned to agricultural production. No significant permanent structures will be constructed on the agricultural fields in the North Park, leaving the conversion from grass field to agricultural field a relatively easy change. In the South Park the proposed restroom and tennis courts, caretaker’s driveway and recreational vehicle pad and the gravel parking area, could be demolished if necessary, but their removal and thus their reversibility may be problematic.

As a result, there would be a remaining significant irreversible impact on water supply, as the proposed recharge basins would not be constructed in the North Park. Recharge basins were
proposed in the North Park by the Santa Ynez River Water Conservation District, to benefit the City of Lompoc by providing additional long-term aquifer recharge. There may be significant irreversible environmental impacts due to construction of permanent improvements outside of the regulatory floodway in the South Park, as they are expected to be more difficult to remove than the turf fields. Without the playing fields, the traffic noise impacts on “A” Street would be eliminated. Therefore, if all the turf fields were converted to agriculture, noise impacts of the proposed plan would be reversible, however agricultural impacts would only be partially reversible. Water supply impacts would not be reversible.

If the North Park turf fields were converted to the planned recharge basins, the impacts on water supply and traffic noise would be reversed, but only a partial reversal of the agricultural impacts would be possible, due to the limited South Park area that could be converted to agricultural production.
5.0 Less Than Significant Impacts

5.1 Mineral Resources

Regional Setting

The Conservation Element of the Santa Barbara County Comprehensive Plan (Santa Barbara County 1994), A Soil Survey of the Northern Santa Barbara Area (Shipman 1972), and California Division of Mines and Geology Special Report 162 (Miller 1991).

Three types of mineral resources have been identified in the Lompoc area: oil and natural gas, diatomite, and sand and gravel.

Oil and Natural Gas

Oil and natural gas was discovered in the Lompoc area in the early 1900s when the Union Oil Company of California began conducting exploratory work in the Purisima Hills north of Lompoc. This exploration activity led to the designation of the Lompoc Oil Field by the State Division of Oil and Gas. This field covers approximately 8,500 acres between Mission Hills and Vandenberg Air Force Base. (Environmental Science Associates 1997).

Nuevo Energy operates the Lompoc Oil and Gas Plant (LOGP) located 2.7 miles northeast of Lompoc. LOGP is served by Platform Irene, located approximately 4 miles west of Point Pedernales, and the Lompoc Oil Field. Oil and gas production operations at Platform Irene and the Lompoc Oil Field lift oil to the surface and separate gas and water from the oil. The gas and oil are then transported by pipeline to the LOGP for further processing. (Santa Barbara County Air Pollution Control District 2003).

Diatomite

Diatomite is a unique sedimentary rock composed of the siliceous skeletons of microscopic, one-celled aquatic plants known as diatoms. The unique chemical and physical properties of diatomite give it many useful characteristics, such as high adsorptive capacity, chemical stability, and low bulk density. The diatomite deposits present in the Lompoc area occur in the gently folded strata of sedimentary rock that underlie the Purisima Hills and the western extension of the Santa Ynez Mountains and are believed to be the largest and purest source of diatomite in the world. Diatomite has been mined commercially in the Lompoc area since the late 1800s. Diatomite was first used as a local building material. Subsequently, it has been produced for use in filters, abrasives and pest control products.

Sand and Gravel

Lompoc has also served as a base for sand and gravel operations. Two sand and gravel mining companies have operated in the Santa Ynez River in the Lompoc areas. These operations have recovered low-quality sand suitable for use as construction fill. The V&J Mine is located west of the “H” Street Bridge, in the vicinity of “V” Street. The quarry and the associated operating
facility on “V” Street continue to be operated by V&J and leased from the Lompoc Airport. V&J mines sand and gravel from the quarry during the dry season when the river channel is accessible to mining equipment (V&J Rock Transport pers. comm.). A second mining operation was located in the riverbed just east of the project site, but has ceased operation.

**Project Setting**

Of the mineral resources listed above, only sand and gravel are known to occur in the project area. Two oil wells are located in the general vicinity of the project site, but have been abandoned and are no longer in use (Environmental Resource Associates 1997). Diatomite deposits are extensive in the Santa Ynez Mountains to the south and in the Purisima Hills to the north, but do not extend to within the project area.

**Applicable Regulations**

Mineral resources and surface mining activities in California are regulated by local, regional, and state government under the authority and direction of the Surface Mining and Reclamation Act of 1975 (SMARA). The Department of Conservation’s Office of Mine Reclamation and the State Mining and Geology Board are jointly charged with ensuring proper administration of the act’s requirements. The sections of SMARA that are applicable to the proposed project activities are those which require local governments, such as the City, to adopt official policies that emphasize the conservation of known mineral resources and to prevent development of land uses that are incompatible with mining in areas where such resources occur. “Incompatible land uses” are defined in Division 2, Chapter 9, Section 3675 of the Public Resources Code as follows:

> “Land uses inherently incompatible with mining and/or that require public or private investment in structures, land improvements, and landscaping, that may prevent mining because of the greater economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, high-density residential, low-density residential with high unit value, public facilities, geographically limited but impact intensive industrial, and commercial.”

The intent of the above-listed SMARA requirements is to protect and ensure the availability of known mineral resources that are of value to a given region and/or to the residents of the state. The City has chosen to protect the availability of known mineral resources (mainly sand and gravel) along the Santa Ynez River course, in accordance with the requirements of SMARA, by designating the river course and a portion of its alluvial plain as Open Space (City of Lompoc 1998).

**Thresholds of Significance**

The following thresholds of significance are taken from Appendix G of the CEQA guidelines. Under these guidelines, a project will have a significant impact if it will:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, specific plan, or other land use plan.

**Project Impacts and Significance – Phases 1, 2 & 3**

Project facilities would be located on the alluvial plain of the Santa Ynez River, which has been classified by the State Geologist as an area where mineral deposits (primarily sand and gravel) of undetermined significance exist (Miller 1991). However, the project does not qualify as an incompatible land use as defined by SMARA and would not significantly restrict the availability or recovery of known sand and gravel resources in and around the project area (i.e., on the alluvial plain of the Santa Ynez River). Therefore, the impact of the project on the future availability and recovery of known mineral resource deposits would be less than significant.

The V&J sand and gravel mine is the only identified locally important mineral resource recovery site on the Lompoc Reach of the Santa Ynez River. This quarry is located outside of the project area and will not be affected by the proposed project.

**Mitigation Measures**

Because the proposed project will not have an impact on Mineral Resources, no mitigation measures are required.

**Unavoidable Significant Impacts**

There are no unavoidably significant impacts on mineral resources that will result from the construction of the proposed Riverbend Park improvements and Bike Trail.
6.0 Cumulative Impacts

Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts.” 14 Cal Code Regs. § 15355. There could be cumulative impacts of one aspect of the proposed project that combine with impacts from another portion of the same project, or cumulative impacts that result from the combination of past, current and future projects with the proposed Park and Bike Trail.

Cumulative Impact Test

The test for a cumulative impact is two-part:

1) Is the combined impact of the proposed project and other project(s) (or impact and other impacts) significant?

“The cumulative impact from more than one project is the change in the environment that results from the incremental effect of the project, when added to other closely related past, present and probable future projects.” “Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time.” 14 Cal. Code 15355(a, b).

2) Is the proposed project’s incremental effect cumulatively considerable?

“The project may have impacts that are individually limited but cumulatively considerable. (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)”

Both of these conditions must be met before a cumulative impact is considered to be potentially significant.

A proposed project’s contribution to cumulative impacts can be determined to be “de minimis”, i.e. would the cumulative environmental condition be essentially the same, whether or not the proposed project is implemented? If this is the case, the proposed project would not have a cumulative impact.

Also, a project’s contribution to a significant cumulative impact can be found not to be cumulatively considerable, based on the adoption of appropriate mitigation measures.

Method of Analysis

This analysis will use a “blended” method of analysis, comparing the impact of the proposed development combined with the impacts of General Plan build-out and any other projects, not considered in the General Plan build-out scenario, that are currently approved or anticipated. This method will utilize the City of Lompoc’s General Plan (1997). There is only one project which has been proposed within the project area. This project is called River Terrace and is to be
constructed on the property just south of the terminus of the Bike Trail. While the impact of this project was partially considered in the General Plan evaluation, the proposed project is requesting a General Plan Amendment and Rezoning to permit residential development of property evaluated under the City’s Open Space General Plan and Zoning designations and is also requesting an increase in density on the portion of the property zoned 7-R-1 (Single-family Residential, 7000 square-foot minimum). Therefore, some additional weight has been added to this portion of the comparison standard to account for this proposal’s proximity to the project site and for the additional residential units proposed beyond what was evaluated in the City’s General Plan.

Agricultural Resources

The City’s General Plan identified build-out of the Plan as having a significant impact related to the conversion of prime agricultural land to urban uses. The loss of prime agricultural land associated with the proposed project has been determined to be a significant and unavoidable impact. Therefore, the combined impact of General Plan build-out and the proposed project will be significant. Because the impact of the proposed project on prime agricultural land conversion was determined to be significant and unavoidable, then the combined impact of the conversion of prime agricultural land from the General Plan and the project would be significant. Thus, the cumulative impact of the conversion of the agricultural land at Riverbend Park is significant and unavoidable.

Hydrology and Water Quality

Impacts on hydrology and water quality for projects identified in the City’s General Plan were not found to be significant. There are no projects potentially impacting water recharge that were not anticipated in General Plan build-out. The additional water use required by the GPA/ZC for River Terrace is not expected to be significant, based on Water Division projections. Because of this, the cumulative impact of the proposed project, with General Plan build-out and other foreseeable projects is not expected to be significant. Although the proposed project’s impact is individually significant, because the combined impact of this and other projects is not cumulatively significant, there are no cumulative impacts to hydrology and water quality. Also, while there are existing sedimentation concerns regarding the Santa Ynez River, the proposed project, with the recommended mitigation measures would be de minimus, as the condition of the river will remain essentially the same, with or without the proposed project.

Noise

Using data provided by Associated Transportation Engineers, an analysis was conducted to identify the future (2015) traffic noise exposures that will occur in the study area, both with, and without, the project. The results of the analysis for completion of Phases I-III (2015) are provided in Table 3.4-8 / 6.0-1.

Referring to the table, it is estimated that the proposed project will increase traffic noise exposures in the area by 0 to 3.5 dB. Taken alone, this would not be significant, as although an increase of 3 dB is noticeable, an increase of 5dB is generally thought to be the threshold beyond which a noise impact is determined to be significant. Significant impacts can also result if the
noise increase associated with the proposed project combined with the existing noise levels results in a noise level above the threshold identified in the City’s General Plan. Because of this, the impact of the proposed project on the existing noise conditions along “A” Street north of Central Avenue is significant, the residential threshold of 60 dB is expected to be exceeded in 2015 and reach 6.5 dB. While the project has an individual noise impact, it also has a cumulative impact, as the cumulative measure of significance evaluates the combined effect of the proposed project and past projects (i.e. existing conditions). While there are not now any projects with similar effects, nor are there any foreseeable future projects with similar effects due to the fact that the neighborhood and park will be built-out, the combined project and existing condition result in a projected exceedance of a General Plan threshold in 2015 of .5 dB. It should be noted that even though this is the case, the residents in the area will only find the change in traffic noise to be barely more than perceptible. This situation is akin to that were there is an existing air quality problem and the proposed project will contribute only a small increment to that existing air quality exceedance. The fact that the contribution is small does not change the fact that a threshold will be breached once the project is operational. Unless there are mitigation measures that can adequately address this increased impact resulting from the proposed project, it must be concluded that the cumulative impact is considerable. In this case, there are no feasible mitigation measures that would reduce the impact of the proposed project to a less than significant impact. Therefore, the proposed project will have a significant unmitigable cumulative impact, in addition to its individual noise impact.

Table 6.0-1. Analysis of Estimated Cumulative Traffic Noise Levels, Phases I-III

<table>
<thead>
<tr>
<th>Time of Week</th>
<th>Location</th>
<th>CNEL Due to Traffic, 2015, dB</th>
<th>Increase in CNEL Due to Project, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon – Fri</td>
<td>Central Avenue, A St. to H St.</td>
<td>69.5</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>A Street, north of Central Ave.</td>
<td>56.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>A Street, south of Central Ave.</td>
<td>63.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Wknd</td>
<td>Central Avenue, A St. to H St.</td>
<td>Not included in traffic study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Street, north of Central Ave.</td>
<td>57.0</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>A Street, south of Central Ave.</td>
<td>Not included in traffic study</td>
<td></td>
</tr>
</tbody>
</table>

Population and Housing

There are no other projects in the vicinity of the project site that will adversely impact population and housing. Because the proposed project is intended to address the recreational needs of the existing population of the City of Lompoc, substantial population growth is not an anticipated impact of the proposed project. In addition, the proposed project does not require the displacement of either people or housing units. Therefore, there are no expected cumulative impacts on population and housing, as a result of the construction of these recreational facilities. While some impacts of the construction of the proposed project may have significant impacts on humans, the discussion of cumulative impacts related to these significant impacts is addressed in each impact-specific section. Significant cumulative impacts on agricultural resources will result from the construction of the proposed project.
Land Use and Planning

Impacts on land use and planning identified in the City’s General Plan were not found to be significant. The proposed project analysis identified a potential for conflicts between agricultural and recreational uses. A mitigation measure to address this impact is recommended. There are no other projects in the vicinity of the project site where there is a potential for conflicts between agricultural operations and recreation. Because of this, the cumulative impact of the proposed project, with General Plan build-out and other foreseeable projects is not expected to be significant. The proposed project’s impact is less than significant with the proposed mitigation measure applied and therefore would not be cumulatively considerable. Because there are no other projects or sources of land use and planning impacts similar to that identified for the project, there are no cumulative impacts to land use and planning.

Recreation

There are no other recreational projects planned in the vicinity of the project site. Therefore, there are no expected cumulative impacts on recreational facilities or as a result of the construction of recreational facilities. While some impacts of the construction of the proposed project are significant, those related cumulative impacts are addressed in each impact-specific section. Significant cumulative impacts on agricultural resources will result from the construction of the proposed project.

Biological Resources

The proposed project will not have a significant cumulative impact on biological resources, as mitigation measures have been recommended to reduce impacts to vegetation, fish and wildlife. The impact of the proposed project is less than significant with the application of the recommended mitigation measures. The General Plan did not identify significant unmitigable impacts to biological resources and it is expected that the River Terrace project will be subject to similar mitigation measures to protect adjacent biologically significant areas. As a result, it is not anticipated that the combined impact of the proposed project, General Plan build-out and the incremental addition of the portion of River Terrace not addressed in the General Plan, will be significant. In addition, with the mitigation measures proposed, the project will have a less than significant impact on biological resources and therefore, its incremental impact would not be cumulatively considerable. While there are existing sources of biological habitat degradation in and around the Santa Ynez River, the proposed project, with the recommended mitigation measures would be de minimus, as many of the existing processes resulting in adverse biological impacts on the Santa Ynez River will remain essentially the same, with or without the proposed project.

Cultural Resources

Impacts on cultural resources are most often site specific. Cumulative impacts could potentially occur if impacts from several projects within a specific archaeological site, or type of sites, or surrounding a specific historic building or district were combined. In the case of Riverbend Park and Bike Trail, there is only one known site within the project area. This is the Historic Lompoc Dump Site (CA-SBA-1767H). Investigative excavation conducted by professional
archaeologists suggests that the dump site is located solely within the boundaries of Riverbend Park. This evaluation also concluded that the project would not adversely impact this archaeological site. The remainder of the project area was generally surveyed for indications of other potential archaeological sites and none were found.

There are no other planned projects or activities in the vicinity of CA-SBA-1767H and there are no known related or similar sites to which this project might be compared. As such, cumulative impacts are not expected. With implementation of the proposed mitigation measures, the individual and cumulative impacts of the project on archaeological resources will be less than significant.

**Transportation / Traffic**

The cumulative transportation and traffic analysis was prepared for roadway volumes and intersection volumes, comparing the General Plan build-out at 2015 and the General Plan build-out at 2015 plus the project, Phases I-III.

**Roadways.** Table 3.5 – 11/ 6.0 - 3 summarizes the results of the roadway analysis for the key roadway segments within the study-area for the 2015 and 2015 + Phases I-III scenarios. The results show that all the study-area roadway segments are forecast to operate at LOS A during the weekday and weekend periods with 2015 + Phases I-III traffic volumes. These service levels meet the City's minimum Level of Service (LOS) C standard. Therefore, there is no cumulative impact on roadways. There is no incremental impact associated with the proposed project, no existing impact at General Plan build-out, no development other than General Plan build-out is expected to impact roadway segments to the park and the combined analysis of 2015 General Plan build-out and the Project Phases I-III does not indicate that the level of service will fall below LOS C performance.

**Table 6.0 - 2**  
**2015 and 2015 + Phases I-III Roadway Operations**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekdays</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Ave - H St to A St</td>
<td>4-Lane Major Arterial</td>
<td>20,200 ADT</td>
<td>20,674 ADT</td>
<td>30,000 ADT</td>
<td>0.69</td>
<td>LOS A</td>
</tr>
<tr>
<td>A St s/o Central Ave</td>
<td>4-Lane Minor Arterial</td>
<td>9,100 ADT</td>
<td>9,265 ADT</td>
<td>20,000 ADT</td>
<td>0.46</td>
<td>LOS A</td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>2,300 ADT</td>
<td>2,939 ADT</td>
<td>10,000 ADT</td>
<td>0.29</td>
<td>LOS A</td>
</tr>
<tr>
<td><strong>Weekends</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Rd n/o Central Ave</td>
<td>2-Lane Minor Arterial</td>
<td>2,400 ADT</td>
<td>5,250 ADT</td>
<td>10,000 ADT</td>
<td>0.53</td>
<td>LOS A</td>
</tr>
</tbody>
</table>

a Capacity represents the upper limit of LOS C.  
b Volume-to-Capacity ratio for 2015 + Phases I-III.
Intersections. Table 3.5-11 and 6.0-3 compare the level-of-service forecasts for the study-area intersections assuming the 2015 and 2015 + Phases I-III peak hour volumes. The "H" Street/Central Avenue intersection is forecast to operate at LOS D with 2015 traffic during the weekday P.M. peak hour period, which does not meet the City's LOS C standard. Phases I-III of the project would add 209 trips to the intersection during the weekday P.M. peak hour period.

The "A" Street/Central Avenue intersection is forecast to operate at LOS C with 2015 and 2015 + Phases I-III traffic during the weekday P.M. peak hour period assuming the Central Avenue extension project and signalization of the intersection, as planned under General Plan build-out conditions. The McLaughlin Road/Cagney Way intersection is forecast to operate at LOS A with 2015 traffic and LOS B with 2015 + Phases I-III traffic during the weekend peak hour period. These service levels meet the City's LOS C standard.

Table 6.0 - 3
2015 & 2015 + Phases I-III
Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control Type</th>
<th>Delay / LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2015</td>
</tr>
<tr>
<td><strong>Weekday P.M. Peak Hour Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;H&quot; Street/Central Avenuea</td>
<td>Signal</td>
<td>48.5 Sec/LOS D</td>
</tr>
<tr>
<td>&quot;A&quot; Street/Central Avenueb</td>
<td>Signal</td>
<td>24.4 Sec/LOS C</td>
</tr>
<tr>
<td><strong>Weekend Peak Hour Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McLaughlin Road/Cagney Way</td>
<td>2-Way Stop</td>
<td>8.8 Sec/LOS A</td>
</tr>
</tbody>
</table>

a 2015 and 2015 + Phases I-III assume planned improvements (dual left-turn lanes on NB & SB approaches).
b 2015 and 2015 + Phases I-III assume planned improvements (Central Avenue Extension and traffic signal control).

Based on this analysis, there are cumulative impacts as a result of the project, but they can be mitigated to below a level of significance. The project’s “fair share” contribution to the right-turn lane construction necessary to mitigate the impacts is 10% if the improvements are in place by 2006. If they are not constructed by 2006, the “fair share” contribution of the project is increased to 33%.

Site Access

Access to the proposed parking areas in the North Park and South Park areas would be provided by McLaughlin Road (Figure 1-4 – Proposed Riverbend Park Expansion Map). Since the site planning process is in the preliminary stages, the number and location of driveways serving the parking areas is unknown. The driveways will be required to meet City standards. McLaughlin Road will be improved to collector road standards, and include curb, gutter and sidewalk on both sides of the street. This would facilitate vehicle and pedestrian movements. The City's collector road standard is 44-feet curb-to-curb, which would allow on-street parking in the vicinity of the park (see Appendix M, Figure 7 - Typical Cross Sections).
Air Quality

The proposed project will not result in a cumulatively considerable net increase of any criteria pollutant. Operational air quality impacts would be cumulatively considerable if the project, after mitigation, would exceed the operational emission thresholds established by the SBCAPCD. Because the proposed project would not exceed the operational project-specific emissions thresholds with inclusion of the recommended air quality mitigation measures, it will not result in incremental air quality impacts that are cumulatively considerable. Therefore, the proposed project’s contribution to impacts to air quality, with adoption of the recommended mitigation measures is expected to be de minimus. The air quality in northern Santa Barbara County and the project area are expected to be essentially the same, with or without the proposed project.

Geology and Soils

The proposed project will not have a significant cumulative impact on geology or soils, as mitigation measures have been recommended to reduce erosion and siltation, as well as ensure that structures are constructed in compliance with all applicable state and local building codes. The impact of the proposed project is less than significant with the application of the recommended mitigation measures. The General Plan did not identify significant impacts to soils and geology and it is expected that the River Terrace project will be subject to similar mitigation measures to address soils, erosion and sedimentation. As a result, it is not anticipated that the combined impact of the proposed project, General Plan build-out and the incremental addition of the portion of River Terrace not addressed in the General Plan, will be significant. With the mitigation measures proposed, the project will have a less than significant impact on geology and soils and therefore, its incremental impact would not be cumulatively considerable. While there are existing sedimentation concerns regarding the Santa Ynez River, the proposed project, with the recommended mitigation measures would be de minimus, as the condition of the river will remain the same, with or without the proposed project.

Public Services

The proposed project will not have any impacts on public services and therefore no cumulative impacts are possible.

Hazards and Hazardous Materials

The proposed project will not have a hazard or hazardous materials impact, if recommended mitigation measures are applied. The General Plan did not identify a significant impact in these areas, with the exception of a hazardous materials impact from the use of hazardous materials from new businesses in town. No hazardous materials are expected to be used as a part of the Park or Trail operation or construction. Fertilizer to be used on the playing fields is to be natural soil amendments and gopher control will be achieved with the use of traps. Since hazardous materials are not intended to be used on the project site, no incremental cumulatively considerable impact is anticipated from the proposed project, and no cumulative impact is expected to result from project implementation.
Utilities and Service Systems

Neither the proposed project, nor the General Plan or River Terrace development identified Utilities and Service Systems impacts that were significant. Combined, the proposed project and River Terrace both require relocation of PGE lines, but these relocations are expected to have negligible, mitigable environmental impacts. Therefore, the proposed project, combined with other projects is not expected to have a significant impact, with the mitigation measures proposed.

Aesthetics

The areas surrounding the Park and Trail are either built-out or designated as open space. As a result, there is only one proposed project that has the potential to result in cumulative aesthetic impacts. River Terrace is planned to be developed on the old Grefco Diatomaceous Earth Processing Plant’s northern property. The property takes access from East Laurel Avenue. The proposed project would result in the construction of townhomes, condominiums and patio homes, as well as some office/retail space. The project is designed so that the higher density development is to be located on the west end of the property and the lowest density development will be located on the eastern edge of the property, adjacent to the Santa Ynez River. Some open space and a Community Park and Garden will be provided on the eastern edge of the development, adjacent to the Santa Ynez River. The construction of this proposed project will impact the views from River Park and other areas east of the River, however, because the project site was previously in industrial use and is adjacent to the deteriorating physical plant site, the conversion of the site to new residential uses against the backdrop of industry and urban development will not have a significant effect. In addition, the construction of these units will not adversely impact views from the Riverbend Park and Trail project site or adjacent sites west of the river and will have either a neutral or positive impact on views south of the project area. The proposed project will generally have a positive impact by maintaining existing views, through careful placement and screening of the relocated PG&E poles, and will make the viewshed more accessible to the public. Neither of the two parts of the cumulative impacts test are met and therefore, the cumulative aesthetic impact of the proposed project will be less than significant.

Mineral Resources

The proposed project will not have any impacts on mineral resources and therefore no cumulative impacts are possible.

Conclusion

The proposed project is expected to have significant and unavoidable cumulative impacts related to the conversion of agricultural land to non-agricultural uses and in the increase in traffic noise above the 60 dB CNEL threshold in the City’s General Plan to a level of 60.5 dB CNEL.
7.0 ALTERNATIVES

The CEQA guidelines state that an EIR needs to describe a range of reasonable alternatives to a project, or the location of the project, that would feasibly achieve most of the project’s basic goals, with fewer significant impacts. Among the factors that may be taken into account in determining the feasibility of a given alternative are: Site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries and control of, or access to, the potential site. Each alternative needs to be evaluated to determine: 1) The ability of the proposed project to meet identified goals; 2) The nature of environmental impacts associated with that project; and 3) The ability of each alternative to lessen the environmental impacts of the project.

1. No Project Alternative

Under this alternative, Riverbend Park would remain as a relatively unimproved park with open space as its primary component. The Babe Ruth field would remain as it exists today and no turf or other improvements would be made to the remainder of the Park, including the portion in agricultural production. The City property extending to the south along the river’s edge would remain as it is, unimproved. The proposed Bike Trail would not be constructed. As a result, none of the impacts identified in Section 3.0, Environmental Analysis, including agricultural conversion, potential reduction in water supply, or noise impacts, would occur with this alternative. However, the project goals would not be met.

2. Lesser Project Alternative

Project Improvements
The lesser project alternative would involve only the construction of Phases I and II of the Project. This alternative would create six soccer fields, or alternately four little league sized fields and one softball-sized field. In addition, parking, a kiosk, and a caretaker’s residence, to be located south of McLaughlin Road, would be constructed. Porta-potties would be provided. The Bike Trail would include the segment from the intersection of Riverside Drive and College Avenue to McLaughlin Road, plus the extension to Central Avenue and the extension beginning east of the Babe Ruth field, running along the outside of the fields and ending west of the fields on McLaughlin Road. The 12th Street Class II bikeway would also be striped.

Project Goals and Feasibility
This project would be feasible, as the property is owned by the City, and necessary infrastructure is available. The lesser project alternative would not meet the community’s goals, as it would not provide all of the soccer / little league fields desired at Riverbend Park. In addition, this alternative would not provide a permanent restroom facility, tennis courts or additional parking.

Significant and Unavoidable Impacts
Because the agricultural conversion impacts apply to conversion of the agricultural fields in both the North and South Parks, agricultural conversion impacts would still be felt, although overall there would be a lesser impact, as less land would be converted. The impact of a potential loss of
water, due to the reduced area for recharge basins would still be felt, as the recharge basins are planned for the North Park and not the South Park site.

**Construction Impacts**
There will still be potential impacts associated with the project that will need to be mitigated. There would still be temporary noise impacts from construction, although they would be expected to be reduced because the construction of the south fields would not occur. Construction activities could also be expected to result in water quality degradation, impacts to protected wildlife and plants, cultural resources, and air quality.

**Operational Impacts**
In addition, mitigation would also be necessary, under this alternative, for potential operational impacts related to flood levels and barriers, conflicts between park uses and adjacent agricultural uses, hazardous materials and lighting impacts. Traffic impacts would be reduced, but a lesser contribution to the future improvement of the intersection at “H” Street and Central Avenue would still be required.

**Impacts Eliminated by the Lesser Project Alternative**
The significant and unavoidable weekend traffic noise impacts along “A” Street north of Central Avenue would not occur with this alternative. Under this alternative, the utility line relocation and any associated potential biological or aesthetic impacts would not occur. Some remaining impacts of this alternative that require mitigation and have been previously discussed, would be reduced in intensity because of the reduction in project area.

**3. Reduced Field Project Alternative**
The reduced project alternative consists of the construction at Riverbend Park of Phases I, II and III, although Phase III construction would be reduced from four soccer/little league fields to three.

**Goals and Feasibility**
This alternative is feasible and would achieve all of the goals of the project, with the exception of the reduction of one little league / soccer field.

**Construction Impacts**
Construction impacts will be the same as those of the proposed project, however, because the playing field area would be smaller, the resulting construction noise may be of shorter duration. However, construction noise is still expected to be potentially significant and the recommended mitigation measures need to be applied.

**Operational Impacts**
Operational impacts under the Reduced Field Project Alternative are expected to be the same as those that would result from the project’s implementation. The percentage of traffic impact “fair share” contribution would be reduced from 10% to 9%.
Significant and Unavoidable Impacts
The significant and unavoidable impacts associated with the Reduced Field Project Alternative include the reduced area for recharge basins resulting in reduced water recharge and the conversion of agricultural lands.

Impacts Eliminated by the Reduced Field Project Alternative
The significant and unavoidable weekend traffic noise impacts along “A” Street north of Central Avenue would not occur with this alternative.

4. Ken Adam Park Alternative
This alternative would involve locating ten flexible turf soccer fields (or nine softball/little league fields) and a restroom at Ken Adam Park, which is located on a bluff north of the Santa Ynez River and property owned by the Bureau of Prisons. Access to the site is through a signalized intersection. Access to the Ken Adam Park is combined with access to Allan Hancock College. The access road to the park runs southwest from the site access and currently terminates in a dead end. The project site adjoins a detention basin on the college site that is designed to accommodate storm water drainage from the college site. The area proposed as an alternative site is relatively flat grassland on a high bluff above the Lompoc Valley and the Santa Ynez River. The potential project area is relatively large, extending westward to a row of eucalyptus on the west end of the park site.

Goals and Feasibility
Use of this property for the playing fields would be feasible. There would be some additional cost to bring utilities onto the project site. Sewer and utility lines would need to be extended into the park in order to serve the public restroom and any other facilities. In addition, the goal of having a bicycle trail along the Santa Ynez River would not be met by this alternative (It should be noted that a bike trail is already proposed to run from the Santa Ynez River, up the bluff to the proposed project location). Construction of this alternative would effectively preclude some of the other uses being considered for this park site, but would not eliminate the area needed for the proposed child care center, bike trail or the existing improved park, barbeque area, playground, memorial grove and park host residence. Because the project site is not located in the Regulatory Floodway, improvements at the fields could include more permanent features, if desired.

Significant and Unavoidable Impacts
There are no known significant and unavoidable environmental impacts that would result from development of this project alternative.

Construction Impacts
There would still be potential impacts that would need to be mitigated. Temporary noise impacts from construction of the fields, dust, potential storm water pollution, impacts to protected wildlife and plants, cultural resources and air quality can be expected. However, the potential for impacts on water quality, Steelhead, Arroyo Chub and Southwestern Willow Flycatcher would be reduced because of the increased distance to the Santa Ynez River. In general, fewer sensitive wildlife species could be expected to be present on this alternative project site. It is more likely
that badger dens will be found at Ken Adam Park than at Riverbend Park and its environs. Any structures would still need to meet the requirements of the most recently adopted City and State building codes. While there are no known archaeological resources on this alternative site, an in-depth survey would be required, because of the number of culturally significant sites closely associated with this location.

**Operational Impacts**

Some mitigation measures are expected to be required to ensure that impacts on plants and wildlife, such as badgers, are minimized. Mitigation in the form of additional investigation regarding archaeological impacts would be required, as well as standard mitigation measures for air and water quality impacts. Mitigation is expected to be necessary under this alternative for potential operational impacts related to traffic. Increased traffic from Lompoc to the project site can be expected to adversely impact the intersection of “H” Street and Central Avenue. A fair share contribution to intersection improvements would be required. This contribution may be greater than that required at Riverbend Park, because of the increased need for all residents to negotiate the intersection of “H” and Central in order to reach the playing fields. Police and Fire response times and service levels would be adversely impacted because of the additional distance that it would be necessary to travel, in order to respond to calls at Ken Adam Park. In addition, if Fire or Police services were needed at Ken Adam Park, this would impact the ability of these services to be provided in a timely manner in the main portion of Lompoc. This impact would not be as great for the Fire Department, if a third Lompoc City Fire Station were constructed at the north end of town.

**Impacts Eliminated by the Ken Adam Park Project Alternative**

The significant and unavoidable weekend traffic noise impacts along “A” Street north of Central Avenue would not occur with this alternative. Under this alternative, the utility line relocation and any associated potential biological or aesthetic impacts would not occur. Impacts on riparian vegetation and wildlife, including the Southwestern Willow Flycatcher, associated with riparian environments would be reduced or eliminated. Impacts on Steelhead and Arroyo Chub would be reduced or eliminated. The potential for flood impacts would be eliminated. Depending upon the results of a site specific review of the site’s biological resources, and potential impacts on the City’s airport, the lighting restrictions required at Riverbend Park could be reduced or eliminated.

**Environmentally Superior Alternative**

The environmentally superior alternative is the alternative that results in the fewest environmental impacts. Based on the previous analysis, Alternative 1, the no project alternative is the environmentally superior alternative. Section 15326(d)(2) of the CEQA guidelines states that, if the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the remaining alternatives. The following table shows the impacts of each alternative, relative to the proposed project.
Table 7.0-1
Comparison of Alternatives

<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>Alternative 1 No Project Alternative</th>
<th>Alternative 2 Lesser Project Alternative</th>
<th>Alternative 3 Reduced Field Project Alternative</th>
<th>Alternative 4 Ken Adam Park Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Resources</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>L</td>
<td>S</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Noise</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>L</td>
<td>S</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Recreation</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>L</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Transportation / Traffic</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>G</td>
</tr>
<tr>
<td>Air Quality</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>S</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Utilities and Service Systems</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>L</td>
<td>L</td>
<td>S</td>
<td>L</td>
</tr>
</tbody>
</table>

*Level of Impact*

- **L** = Less Than Project
- **S** = Same As Project
- **G** = Greater Than Project

Alternative four is considered to be the Environmentally Superior Project. However, although it would attain the majority of the goals identified for the proposed project, it would not include the construction of a bike trail along the Santa Ynez River.
8.0 Mitigation Monitoring and Reporting Program

(Not Yet Available)
9.0 List of EIR Preparers

The Riverbend Park and Trail Master Plan was prepared by the City of Lompoc, with assistance from Jones & Stokes.

The Riverbend Park and Trail Master Plan Environmental Impact Report was prepared by the City of Lompoc, with assistance from Applied Earthworks Inc., Associated Transportation Engineers, Jones & Stokes, Kathleen Whitney – Consulting Biologist, Penfield & Smith, Rincon Consultants, Inc., Thomas Olson Biological Consulting, and Wieland Associates.

Preparation By City of Lompoc

Document Preparation

Stacy L. Lawson, Senior Environmental Coordinator

In coordination with:

Vincent Elizondo Parks and Recreation Director
Cindy McCall Parks and Urban Forestry Manager
Dan McCaffrey Recreation Superintendent

With assistance from:

Applied Earthworks Wendy Nettles
Associated Transportation Engineers Dan Dawson
Jones and Stokes Chris Elliott
Kathleen Whitney Consulting Biologist Kathleen Whitney
Penfield and Smith Craig Steward
Rincon Consultants Kevin Merk
Thomas Olson Biological Consulting Thomas Olson
Wieland Consultants, Inc. David Wieland
10.0 Citations - Lists of Individuals and Organizations Consulted

Printed References


Engblom, S. 2004. Personal communication. Fisheries biologist, Carpinteria, CA.

ENSR Engineering and Consulting. 1999. Two parcels of land located at the intersections of “A” Street and McLaughlin Road in Lompoc, California: phase I environmental site assessment. October. (Document no. 8709-103-100.) Camarillo, CA. Prepared for City of Lompoc Parks and Recreation Department, Lompoc, CA.


Garcia and Associates. 1999. Preliminary Sensitive Species and Wetland Assessment Lot 98 (Parcel #9305108) City of Lompoc, California


Levulett, V., and R. Pavlik. 1998. Department of Transportation negative archaeological survey report in Santa Barbara County, Route 1, Post Mile R19.2/R21.5. E Number 2247 on file at the Central Coast
Information Center, University of California, Santa Barbara, California.


Lompoc, City of. Lompoc City Code. 1964 – Present.


Metzker. 1952. Metsker’s map of Santa Barbara County. On file at the California Room of the California State Library, Sacramento, CA.


Rincon Consultants, Inc. Fess Parker Lompoc Wine Center, LLC Project, Biological and Wetland Assessment.


Santa Barbara, County of. Flood boundary and floodway maps. Community Panel Number 060331 0389, June 5, 1997; Community


Santa Barbara County Air Pollution Control District. June 2004. Scope and Content of Air Quality Sections in Environmental Documents.

Santa Barbara County Association of Governments. 1994. Regional bikeway study. Santa Barbara, CA.


Shapovalov, L. 1944. Preliminary report on the fisheries of the Santa Ynez River system, Santa Barbara County, California. California Division of Fish and Game Administrative Report No. 44-14.


Spanne, L. 1978. Archaeological Evaluation of the Mission Hills interceptor and pumping station project, Santa Barbara County, California. E number 288 on file at the Central Coast Information Center, University of California, Santa Barbara.


Tennyson, Marilyn E., Santa Maria Basin Province (012), USGS.

Thomas Olson Biological Consulting. 2001. Results of Surveys for Sensitive Species Identification of Trees and Shrubs To Be Removed, Lompoc Airport Runway Expansion Project.


Electronic References


Personal Communications

Beck, Jim. City of Lompoc Utility Director- numerous in-person, email and telephone communication.

Bratz, Bobbie. Public information and community program supervisor. Santa Barbara County Air Pollution Control District, Santa Barbara, CA. March 3, 2001 – telephone conversation.
Breese, Lucille. City Planner, City of Lompoc – numerous in-person, telephone and email communications.


Curtze, Rick. Fire Marshall/Building Official, City of Lompoc. – multiple communications.


Fernbaugh, Richard. Aviation and Transportation Administrator, City of Lompoc, numerous telephone, written and in-person communications.

Guerrero, Mario. Recreation Supervisor, City of Lompoc. – numerous communications.

Halpin, Susan. Wastewater Reclamation Plant Superintendent, City of Lompoc – numerous telephone, in-person, email communications.


Keefe, Gary. City Administrator, City of Lompoc, CA. – numerous in-person, telephone and email communications.

Jammalamadaka, Vijaya. Air Quality Specialist, Santa Barbara County Air Pollution Control District. – telephone conversations.

Lohmus, Natasha. Biologist. California Department of Fish and Game, Santa Barbara Office – numerous phone conversations.
Lotah, Dr. Kote. Southern Owl Clan. January 23, February 1, 4, 5, 2002 –
telephone conversations.

Luther, Michael, Civil Engineering Associate, City of Lompoc, CA –
numerous communications.

McCune, Kevin, City Engineer, City of Lompoc – numerous in-person,
television and email communications.

McGoogan, Matthew, National Marine Fisheries Service, NOAA Fisheries,
multiple telephone conversations.

Morgan, Hal. Sergeant. Lompoc Police Department, Lompoc, CA.
November 15, 2000 – telephone conversation.

Parker, Mike. Flood Plain Manager. Santa Barbara County Department of

Patch, David. California Department of Conservation, Farmland Mapping
and Monitoring Program, Sacramento, CA. November 13, 2000 –
written correspondence and telephone conversation.

Pelster, Arleen, Community Development Director, City of Lompoc –
numerous in-person, telephone and email communications.

Potter, Martin, California Department of Fish and Game, Ojai, CA –
multiple telephone conversations.

Ray, Rodney. Electric Utility Manager, City of Lompoc – numerous in-
person, telephone and email communications.

conversation.

Segovia, Susan. Utility Administrative Analyst, Utility Department, City of
Lompoc – numerous in-person, telephone and email communications.

Stine, Claudia. Solid waste superintendent. City of Lompoc, Lompoc, CA.
numerous in-person, telephone and email communications.


Terrones, John. Coordinator. Lompoc Landfill, Lompoc, CA. November
15, 2000 – telephone conversation.

Williams, Capt. Patrick. Lompoc Police Dept. Lompoc, CA - Telephone
conversation, November 2004.