

City of Colusa

Plan For Services
Annexation and Sphere of Influence Modifications

Draft Engineer's Report

February 12, 2019



Engineer of Work:
Consulting City Engineer
California Engineering Co.
1110 Civic Center Blvd., Suite 404
Yuba City, Ca 95993
Phone (530) 751-0952
Fax (530) 751-0953
www.cecusa.net



I. ABOUT THIS DOCUMENT

This document is intended to be the basis for a new annexation and expansion of the existing sphere of influence of property into the City of Colusa. Eventually this may result in the reorganization of an existing special district, or formation of a new district to provide services to these areas, however, at the present time no new services are planned. Eventually this will become a part of a Municipal Services Review filed with the Colusa County Local Agency Formation Commission (LAFCo) by the City proposing to provide services. This plan for services is an engineering technical document which serves to describe the project, future services, and reflects the most updated revisions and related to this annexation. This document specifically describes services and service providers related to water, wastewater treatment collection and transport, circulation, storm drainage, fire protection, medical services, electrical, parks and recreation, law enforcement, telecommunication, natural gas, cable, and solid waste for the proposed area to be annexed. It is also anticipated that the review and evaluation of this document may be used by other stake holders or potential stake holders in their evaluation of conformance with conditions, mitigations, or in their evaluations to annex or provide utility service to the project area. The annexation area is unique in that much of the study elements of this area have previously been considered and evaluated by three main documents; 2007 City of Colusa General Plan, 2007 City of Colusa Master Environmental Impact Report (MEIR), and 2006 Environmental Impact Report for the Colusa Industrial Park. This document relies heavily on these studies and conclusions generated from these three documents and we suggest that they are actually considered supplements of this document.

II. EXECUTIVE SUMMARY

Over the past decade the City has been involved as a commenting agency with several development projects, mostly related to the Colusa Industrial Park, in the south eastern area of town, but outside the City limits. The Colusa Industrial Park is a self-sufficient area and able to provide municipal services to its tenants, and possesses the facilities, infrastructure and permits to perform this service as it relates to the “industrial park operations and development”. However, over the past 3-4 years the City and the Industrial park have worked together to both annex property and on other types of development to include commercial and residential, whereby it benefits both entities for the City to begin the planning process to provide some services such as wastewater collection and treatment to future developing projects. Installation of infrastructure will require a financial plan and managing authority such as a CFD. The area is large enough that it may very well make sense for the formation of a CFD to manage the assets within a designated area that would include current and annexed areas. The area contemplated by the annexation is approximately 684 acres and includes approximately 44 parcels of

land. In addition to this annexation, the City is also planning on increasing it's sphere of influence in and around the City. A "sphere of influence" is a plan for the probable ultimate physical boundaries and service area of a local governmental agency, as determined by the Local Agency Formation Commission (LAFCo).

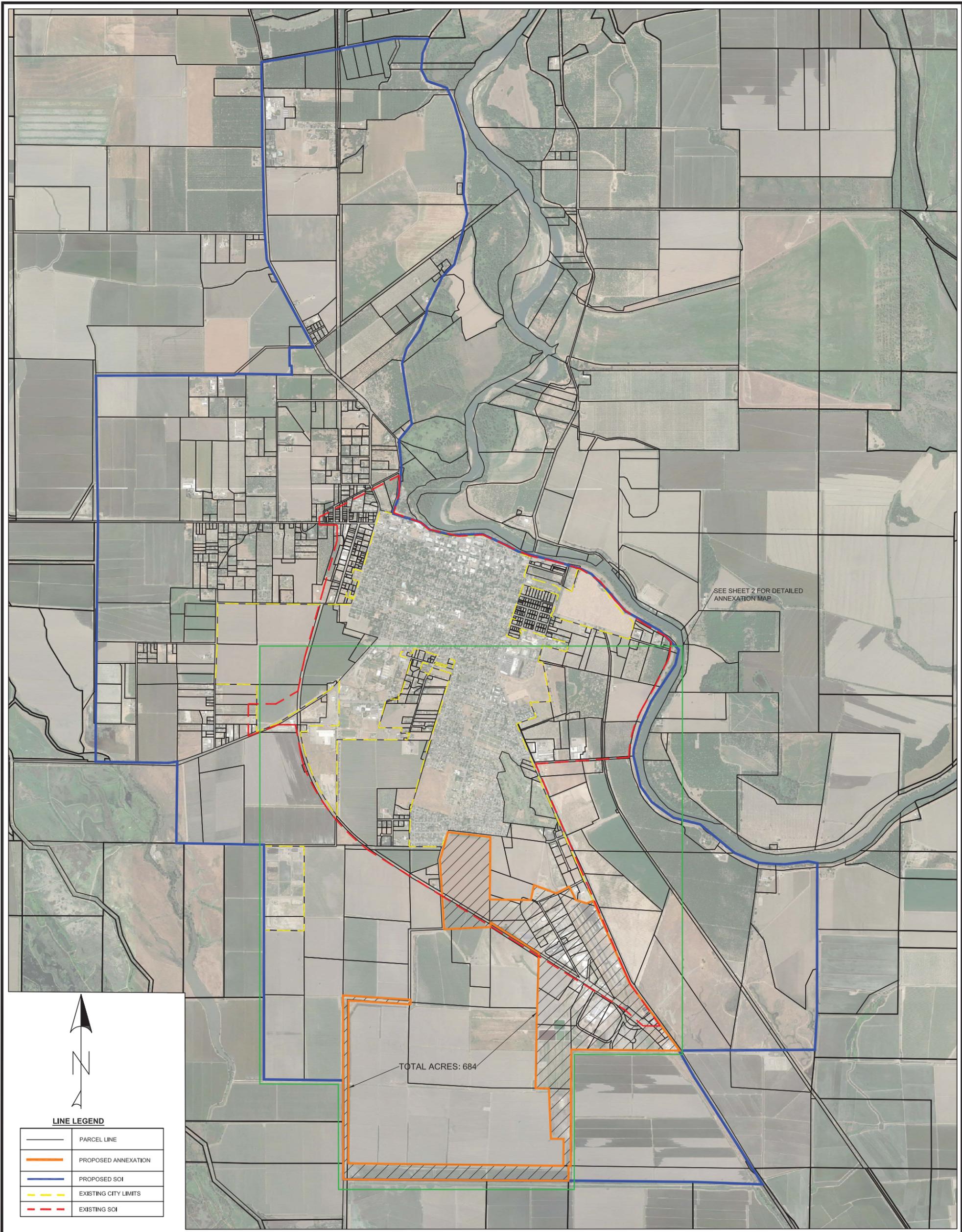
With the initiation of the annexation and sphere of influence the city intends to do the following:

- Apply zoning and development standards, including environmental protection
- Create efficiencies in service delivery, particularly for public safety services
- Protect and expand the tax base
- Provide municipal services beyond those available in rural areas

Figure 1-1 represents an overall examination of the annexation and sphere of influence proposed modifications.

The analysis herein determines that the necessary infrastructure to service the proposed annexed area either already exists as a result of the private development of the Colusa Industrial Park, or is easily expandable to service the undeveloped areas within the annexation boundary. The proposed area considered for annexation is between 40-50 percent developed with infrastructure, and approximately 20-25 percent of the annexed area is dedicate to sewer or storm drainage service and will not be developed. Thus services only need to be provided/expanded to service approximately 25-40 of the total area being proposed for annexation. The existing infrastructure coupled with connection to the Cities facilities are capable of providing this service.

FIGURE 1-1



SEE SHEET 2 FOR DETAILED ANNEXATION MAP

TOTAL ACRES: 684

LINE LEGEND

	PARCEL LINE
	PROPOSED ANNEXATION
	PROPOSED SOI
	EXISTING CITY LIMITS
	EXISTING SOI

NO.	DATE	DESCRIPTION

DATE	03/07/2019
SCALE	1"=200'
DRAWN BY	MSB
DESIGNED BY	MSB
CHECKED BY	CLS

CALIFORNIA ENGINEERING COMPANY INC
 CIVIL ENGINEERING
 LAND SURVEYING
 FUNDING PROCUREMENT
 CONSTRUCTION ADMINISTRATION
 www.cecus.com

1110 Civic Center Blvd, Suite 404 | Yuba City, CA 95993 | (530) 751-0952 Office

CITY OF COLUSA
 ANNEXATION MAP

PROJECT NUMBER
 18-109
 SHEET 01 OF 02

California Engineering Company is not responsible for the accuracy or completeness of reproductions of this document generated by others from electronic media.

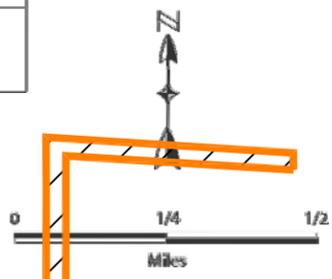
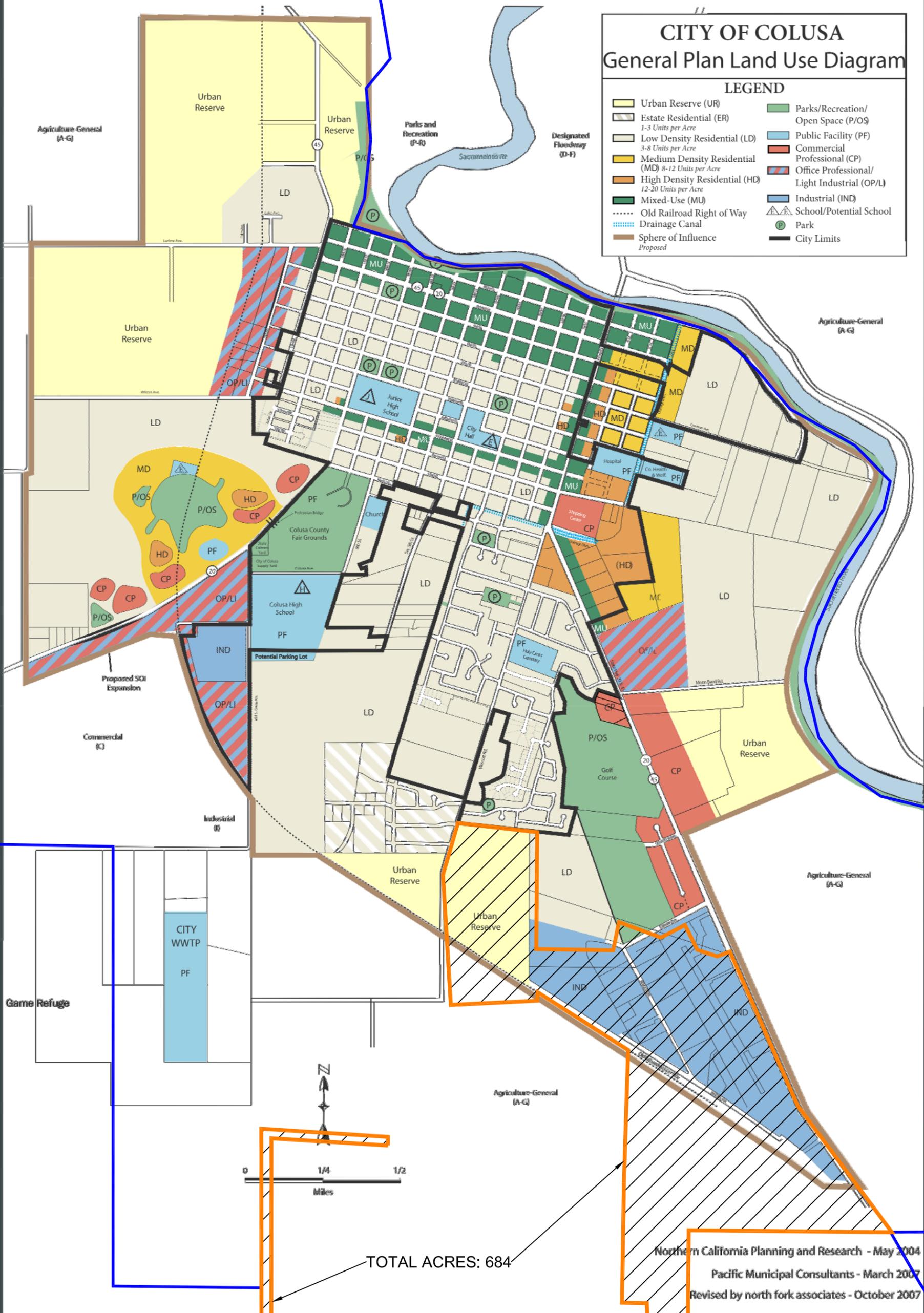
A. Zoning and Entitlements

The City's current general plan was updated and adopted in 2007. Some of the area proposed for annexation lies within the city's existing sphere of influence, and a portion lies outside the sphere of influence, however seems to have a reasonable general plan designation as recognized by the County. In 2006 the city completed and MEIR that encompassed most of the proposed annexation area as the initial entitlement. The area that is not covered by the MEIR is designated for storm water detention and discharge and has functioned in that capacity for the past several years. It is not intended to develop the area that was not covered by the MEIR or which involves the Sphere of Influence increase until further zoning and environmental studies can be conducted. The area which encompasses the sphere increase is anticipated to remain zoned and used as it currently occurs within the county. At such a time any of these sphere increase areas are annexed to the City, they will be part of a general plan update, and EIR process that considers site specific projects. Figure 2-1 is from the City's general plan and illustrates the existing zoning and land uses referred to herein related to the annexation.

Draft Land Use Diagram

CITY OF COLUSA General Plan Land Use Diagram

LEGEND	
	Urban Reserve (UR)
	Estate Residential (ER) 1-3 Units per Acre
	Low Density Residential (LD) 3-8 Units per Acre
	Medium Density Residential (MD) 8-12 Units per Acre
	High Density Residential (HD) 12-20 Units per Acre
	Mixed-Use (MU)
	Old Railroad Right of Way
	Drainage Canal
	Sphere of Influence Proposed
	Parks/Recreation/ Open Space (P/OS)
	Public Facility (PF)
	Commercial (CP)
	Office Professional/ Light Industrial (OP/L)
	Industrial (IND)
	School/Potential School
	Park
	City Limits



TOTAL ACRES: 684

Northern California Planning and Research - May 2004
 Pacific Municipal Consultants - March 2007
 Revised by north fork associates - October 2007

LINE LEGEND

	PROPOSED ANNEXATION
	PROPOSED SOI

FIGURE 1-2

GENERAL PLAN LAND USE DIAGRAM

PMC

B. Project Applicant and Property Ownership

The project applicant for this annexation and Sphere increase is the City of Colusa, however there are numerous individual property owners. These owners will have a vote in the choice to annex their property into the City. The city envisions public hearings, public outreach and public meetings with this group of affected resident owners.

C. Existing Uses

Existing uses within the annexation area include a mix of commercial, industrial, and agricultural zoned properties along with the Colusa Airport Complex. Existing uses within the sphere increase area are mostly Agricultural, some light industrial, the City WWTP and the Colusa Casino. Through the entitlement process the existing land uses will be adjusted to coincide with the land uses identified by the City's general plan and studied by the MEIR, and the County's General Plan. The land use definitions are referred to herein and defined in the aforementioned documents.

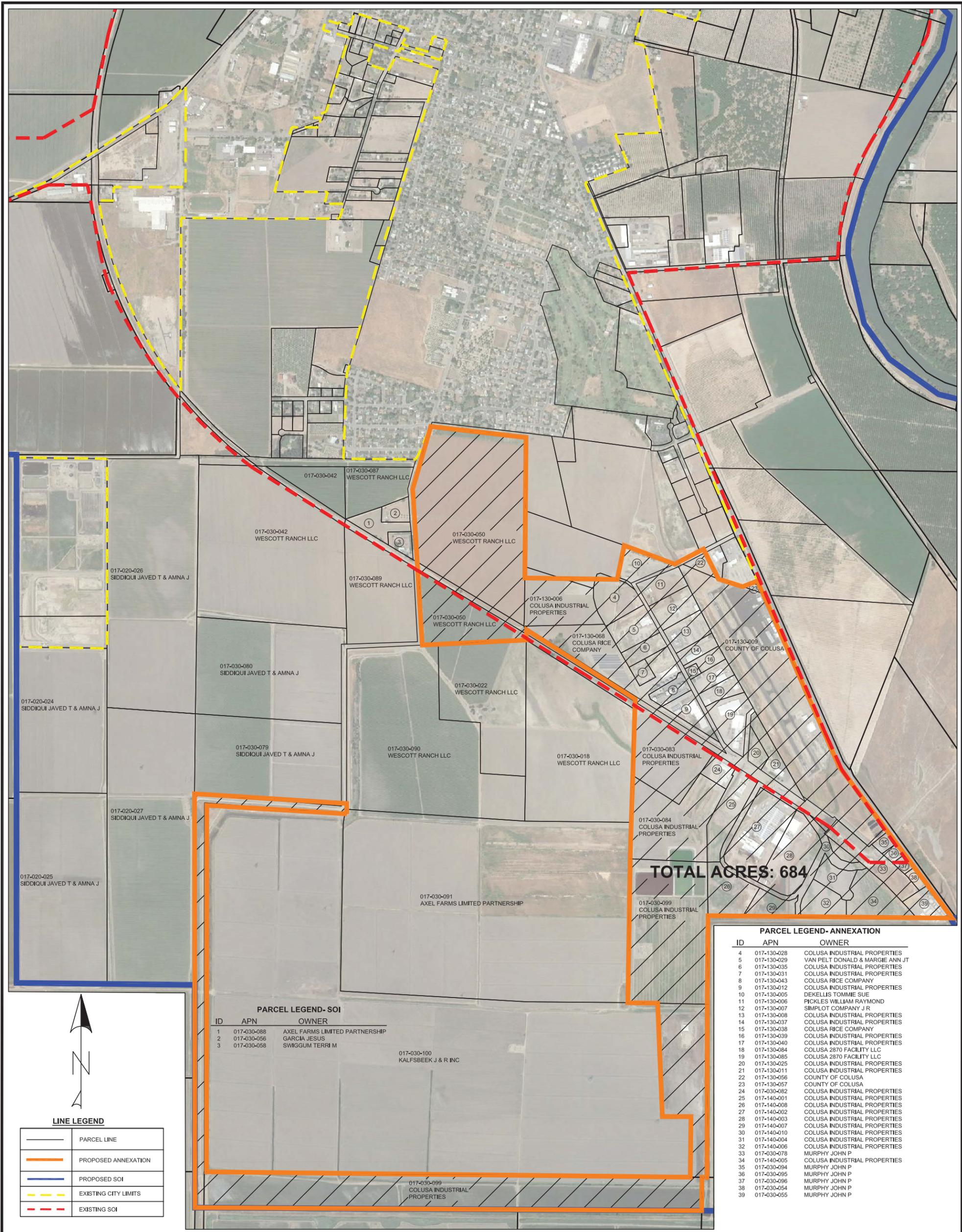
III. PLAN FOR SERVICES OVERVIEW

This plan for services is intended to accomplish the following related to the annexation:

- 1.) Provide a detailed review of the utility services provided to support proposed development.
- 2.) How the proposed improvements will provide levels of service that are sufficient to meet the needs of the current and future residents.
- 3.) How the development services will be managed.
- 4.) The scope and range of capital facilities, improvements, and transfers.
- 5.) The timing of capital facilities
- 6.) Demonstrate how the project meets all applicable regulations.

The existing facilities serving the existing development within the annexation area were analyzed. Thus developing a phased approach to both the development scheme, coupled with the public facilities, and accelerating some of the major capital improvements may be required by the approving agencies, however not within the scope of this document. The annexation area is specifically illustrated on Figure 1-3.

FIGURE 1-3



TOTAL ACRES: 684

PARCEL LEGEND- SOI

ID	APN	OWNER
1	017-030-088	AXEL FARMS LIMITED PARTNERSHIP
2	017-030-056	GARCIA JESUS
3	017-030-058	SWIGGUM TERRI M

PARCEL LEGEND- ANNEXATION

ID	APN	OWNER
4	017-130-028	COLUSA INDUSTRIAL PROPERTIES
5	017-130-029	VAN PELT DONALD & MARGIE ANN JT
6	017-130-035	COLUSA INDUSTRIAL PROPERTIES
7	017-130-031	COLUSA INDUSTRIAL PROPERTIES
8	017-130-043	COLUSA RICE COMPANY
9	017-130-012	COLUSA INDUSTRIAL PROPERTIES
10	017-130-005	DEKELIS TOMMIE SUE
11	017-130-006	PICKLES WILLIAM RAYMOND
12	017-130-007	SIMPLLOT COMPANY J R
13	017-130-008	COLUSA INDUSTRIAL PROPERTIES
14	017-130-037	COLUSA INDUSTRIAL PROPERTIES
15	017-130-038	COLUSA RICE COMPANY
16	017-130-039	COLUSA INDUSTRIAL PROPERTIES
17	017-130-040	COLUSA INDUSTRIAL PROPERTIES
18	017-130-084	COLUSA 2870 FACILITY LLC
19	017-130-085	COLUSA 2870 FACILITY LLC
20	017-130-025	COLUSA INDUSTRIAL PROPERTIES
21	017-130-011	COLUSA INDUSTRIAL PROPERTIES
22	017-130-056	COUNTY OF COLUSA
23	017-130-057	COUNTY OF COLUSA
24	017-030-082	COLUSA INDUSTRIAL PROPERTIES
25	017-140-001	COLUSA INDUSTRIAL PROPERTIES
26	017-140-008	COLUSA INDUSTRIAL PROPERTIES
27	017-140-002	COLUSA INDUSTRIAL PROPERTIES
28	017-140-003	COLUSA INDUSTRIAL PROPERTIES
29	017-140-007	COLUSA INDUSTRIAL PROPERTIES
30	017-140-010	COLUSA INDUSTRIAL PROPERTIES
31	017-140-004	COLUSA INDUSTRIAL PROPERTIES
32	017-140-006	COLUSA INDUSTRIAL PROPERTIES
33	017-030-078	MURPHY JOHN P
34	017-140-005	COLUSA INDUSTRIAL PROPERTIES
35	017-030-094	MURPHY JOHN P
36	017-030-095	MURPHY JOHN P
37	017-030-096	MURPHY JOHN P
38	017-030-054	MURPHY JOHN P
39	017-030-055	MURPHY JOHN P

LINE LEGEND

	PARCEL LINE
	PROPOSED ANNEXATION
	PROPOSED SOI
	EXISTING CITY LIMITS
	EXISTING SOI

California Engineering Company is not responsible for the accuracy or completeness of reproductions of this document generated by others from electronic media.

A. Level of Service

The development plan is to provide for a phased approach whereby progressive improvements are made to the public infrastructure. Currently there is a basic level of service, i.e. “back bone” infrastructure within the annexation area. These improvements are currently owned and operated by the Colusa Industrial Park. It’s anticipated that over the next 3-5 years some of the infrastructure will be transferred to the City of Colusa or an associated Community Facilities District. Future development within the proposed annexed area is planned to connect to the existing infrastructure where appropriate and new infrastructure will be installed as needed to provide service. As new infrastructure is contemplated, it will be designed and sized to handle current and future development, which means that in some instances there will be some oversizing.

The CIP areas contains its own WWTP, which is designed to accommodate the various industrial entities that exist on the property. This facility will likely remain and continue to function to serve industrial users on the property, however, newer commercial and residential development may be diverted to the City’s WWTP. A new sewer mainline is planned to be installed along the south side of Country Club Subdivision, connecting this area to the Wescott Road Sewer Lift Station.

Currently, CIP provides water service to industrial and commercial customers in the area. CIP owns and operates two municipal wells. A new water main is presently planned to be installed along a portion of the south border of the Country Club Subdivision, which will connect the cities existing system with the CIP water system. The water wells, contain variable speed drives and serve as the source supply for both domestic needs and fire flows.

It is anticipated that funding and governance for the annexation area could begin with the formation of a new Community Services District.

A Summary of the Infrastructure Analysis

Infrastructure and Services	Summary of Improvements, Modifications, Upgrades and New Infrastructure and Services
Wastewater Collection	Keep the existing system which includes collection and transport and a permitted WWTP to treat the current industrial users. Install a new trunk main line between the CIP Area and the sewer lift station along Wescott Road. The remainder of the system will connect to this line. Ultimately, all new residential and commercial development will be serviced by the new sewer line and the Cities treatment plant.
Wastewater Treatment and Disposal	Keep the existing system which includes collection and transport and a permitted WWTP to treat the current industrial users. As new development occurs and connects to the Cities WWTP, eventually the impact fees will be leveraged to expand the City’s WWTP to handle new development.

Water Supply and Storage	Water source supply shall be from the same source as currently utilized which is via two municipal groundwater wells. There is no above ground storage planned for this area.
Water Distribution	The water distribution network will remain throughout the existing area. Ultimately within the next 3-5 years an interconnection is planned to connect the CIP system to the City's system which will provide better reliability. No significant distribution plans are necessary at this time.
Drainage and Flood Control	The CIP currently has a self-sufficient storm water collection, detention, and pumping facility. This facility actually collects storm water runoff from a large portion of the City of Colusa and discharges it to the 2047 Canal. There are no current planned underground infrastructure pipe lines and limited curb and gutter to be installed within the existing area. New development will be designed to work with the existing system that is currently in place.
Circulation	There are three main entry points to the annexation area from Highway 20, via Sunset Avenue and Farinon Road and Niagara Road. Roadways within the annexation area are for the most part already developed and utilized. Currently all roadways are privately owned and maintained by CIP, and it's not clear if this will continue or if the City will ultimately take over ownership operations and maintenance. Additionally, the annexed area includes the Colusa Airport for air transportation. This airport also services the local agricultural industry providing a facility for crop dusters.
Fire Protection	Fire protection shall be provided by continued service from the Sacramento River Fire Protection District who serve the area currently. Within the existing roadways and developed area CIP owns, operates and maintains a municipal water system which provides fire protection to the existing development.
Power	Power shall continue to be provided by PG&E. Most of the existing area currently has power.
Parks and Recreation	Currently the Colusa 9-hole golf course is located very near the annexation area and offers recreational opportunity.
Law Enforcement	The City of Colusa Police Department already works with the County Sheriffs office in this area and will ultimate became the main provider of law enforcement once annexed.
Telecommunications and Cable	Telecommunications are anticipated to remain as currently provided with CaTV and AT&T providing telephone services.
Governance	Possibly form a new community service district.

IV. INFRASTRUCTURE ANALYSIS

A. Water System:

The CIP has been supplying water to its tenants for many years. They have applied for and obtained the required permits from the State of California in order to do so. According to CIP staff, there has never been a problem with water quality or quantity.

Existing Facilities

Currently, the CIP provides water to its existing tenants by using two wells with a combined capacity of 1,750 gallons per minute (gpm). Well Number One has a 60 Hp submersible pump capable of producing 650 gpm. Well Number Two has a 75 Hp U.S. Motor driven turbine pump capable of producing 1,100 gpm. The pumps in each well work in conjunction with a 5,000-gallon pressure tank to provide adequate pressure in the system. CIP staff has indicated that Well Number one is approximately 430 feet deep and Well Number Two is approximately 610 feet deep. The well site was constructed in 1982 and contains a 50,000-gallon Fire Water Storage Tank, with an associated fire pump engine with the capability to produce 2,500 gpm. The only treatment the system provides is chlorination.

According to CIP staff, the water main within the CIP has been constructed using a combination of ductile iron pipe and Polyvinyl Chloride (PVC) C-900 water pipe. Approximately 270 lineal feet of 14-inch main connects the well site to a 10-inch main (Point E1 on Figure 1-4) that runs about 1000± feet north to the end of Sunrise Blvd. (Point E2 on Figure 1-4), and about 1000± feet south (Point E4 on Figure 1-4). The main reduces to an 8-inch pipe as it continues 2700 feet south, between Colusa Bean and Colusa Rice, into the heart of the existing industrial facilities (Point E5 on Figure 1-4). The 8-inch main runs 600± feet north on Niagara Ave. (Point E6 on Figure 1-4) and 1500 ± feet south on Niagara (Point E7 on Figure 1-5). From the north end of the 10-inch main, near the end of Sunrise Blvd., an 8-inch main provides water to the businesses adjacent to the intersection of Sunrise Blvd and Davison Ct. (Point E3 on Figure 1-4). The CIP provides water to the existing golf course club house through a 2" pipe running from the north end of Davison Court to the clubhouse.

According to CIP staff, the CIP owns, operates and maintains the existing water system within the park. Any future improvements to the system would be constructed by licensed contractors, and owned by the CIP, and operated and maintained by CIP staff.

Existing Fire Flows/Pressures

Currently the Sacramento River Fire District provides fire service for a large area around the City and County of Colusa. This may be modified with the annexation. The CIP is within the service area of the District. The District performed a Fire Hydrant Flow Test in September of 2006 that provides data for static and residual pressure. The average

static pressure from the seven hydrants tested was 97 psi. The average residual pressure from the same seven hydrants was 66 psi. In all cases the flow was at or above 1,150 gpm. The Test data is included in Appendix A. According to Jeff Winters, Fire Chief for the Sacramento River Fire District, generally the minimum fire flow for the CIP is 1,250 gpm. He also stated that certain building construction methods as well as whether the building is sprinklered allows that value to decrease. A building is considered sprinklered when it contains an internal fire suppression system. Also, the type of industry can allow the value to decrease. For example, if a product being manufactured is not extremely flammable, the value may decrease. According to documentation from the Fire District to the CIP, the system was tested according to the National Fire Protection Association Standard 291 and was found to comply with said standard.

Although the CIP was found to comply with the standards, Fire Chief Winters stated that the test indicated the lowest flows and pressures at south end of the CIP. He recommended that looping of the existing system and/or a new well in the southern portion of the CIP be installed in order to maintain adequate fire flow at all times.

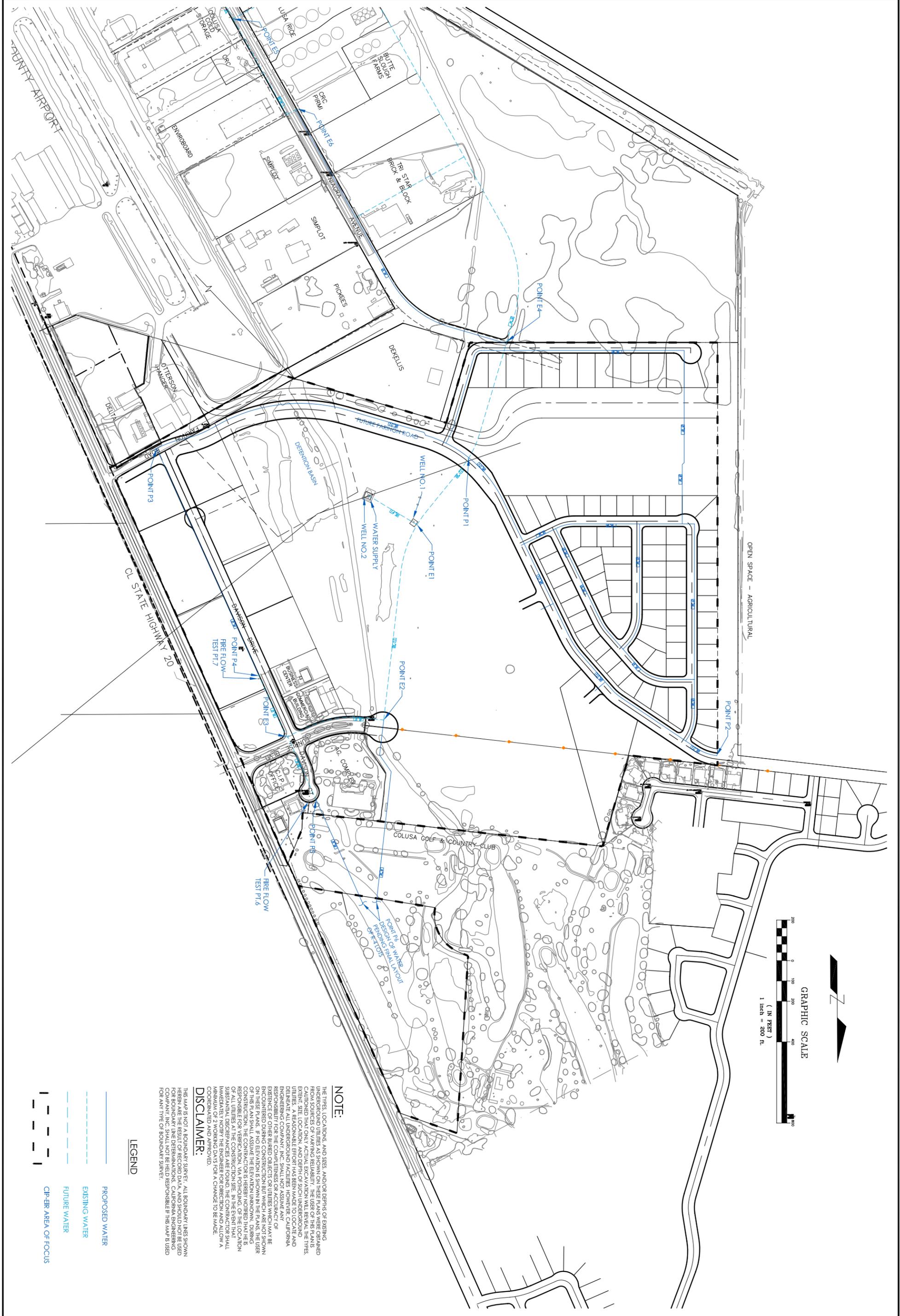
Water Quality

The CIP was issued a Domestic Water Supply Permit by the State of California on September 19, 2003. Historically, the quality of the water produced is such that it is within the constituent level parameters set by the State except for manganese as described in the permit report.

5. Water Conveyance System

Much of the CIP annexation area is already developed and contains infrastructure including a water conveyance system. Most of the system consist of 6” – 10” diameter PVC piping and fire hydrants. The system is supplied by two groundwater wells and system pressures range between 40-60 psi. It is planned to connect the existing CIP system to the City of Colusa System in the next 3-5 years, and that eventually the City of Colusa will become the owners and provide the operations and maintenance to the two CIP groundwater supply wells.

Future developments which does not have water infrastructure available, will be required to analyze it’s own impacts related to the existing system(s), depending on timing. Future development will be required to provide the necessary infrastructure and any upgrades to the existing system that are identified by the analysis of impacts and will perform this work under either a development agreement or other acceptable city agreement.



PROJECT NUMBER	06-207
SHEET	1 OF 2

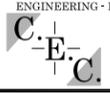
CIP - ER

FIGURE 1-4

CONCEPTUAL WATER MASTER PLAN

CALIFORNIA ENGINEERING COMPANY, INC.

ENGINEERING • PLANNING • SURVEYING • COMMUNITY DEVELOPMENT


 1110 CIVIC CENTER BLVD. STE. 404
 YUBA CITY, CA 95993
 (530) 751-9952 (PH)
 (530) 751-9953 (FAX)

DATE:	DECEMBER 8, 2006		
SCALE:	1"=200'		
DRAWN BY:	SMC		
DESIGNED BY:	SMC		
CHECKED BY:	SMC		
	NO.	DATE	DESCRIPTION

B. Storm Drainage

Background Information:

Storm waters from the City of Colusa and the surrounding areas drain to the 2047 Drain south and west of town. Drain water flows through a series of conveyance laterals to the 2047 Drain which then flows to the Sacramento River. Most of the City drains to the Powell Slough through a number of smaller sloughs and/ or roadside drains. The northeastern portion of the City also drains to the 2047 Drain, but only after it flows through a conveyance lateral that runs through the CIP.

While there are no written agreements between the CIP and the City of Colusa, historically the CIP has been taking drainage water from the northeast portion of the City. The CIP has been acting as an entity unto its self and adjacent agencies, handling its own drainage water and a portion from the City. Several years ago, an agreement was made between Caltrans and the CIP for a detention basin to be constructed on CIP lands for drainage from Hwy 20.

Existing Facilities

The CIP is drained primarily through a large conveyance lateral that runs the length of the CIP from north to south. Please refer to Figures 1-6 through 1-8. This conveyance lateral originates north of the CIP and captures drainage from the northeast portion of the City of Colusa, runs through the Country Club Estates, then runs through the Golf Course, through the CIP, to the Davis Ranch properties adjacent to the south end of the CIP, and back onto CIP properties as it runs west to the Wescott Levee.

According to Caltrans staff, the drainage from the northeast portion of the City is drained through a culvert under Highway 20 comprised of 2 24-inch Corrugated Metal Pipes (CMP). However, there is currently a large drainage project underway to alleviate flooding along Bridge Street/Highway 20 which installs parallel 48" diameter pipes the entire length of Bridge Street and transports storm water to an existing drainage ditch running along side Highway 20 eventually placing storm water into the aforementioned detention basin. The existing twin culvert pipes limit the flow to a total of 7± cubic feet per second (cfs). The area bounded by Hwy 20 and Wescott Road (Country Club Estates) along with the golf course contributes approximately 33 cfs. Please refer to Figure 1-6. North of Farinon Road, the conveyance lateral has the capacity to drain approximately 105 cfs, based on its cross-section and its physical properties. The drain water then continues south and west to a levee along Wescott Road. Low flows are conveyed under the levee by a 36-inch pipe. During times of high flow, the 36-inch pipe is closed off with a slide-gate and the water is pumped through the levee using a pump station operated by a PTO on a tractor. Once water crosses under or through the levee, it enters a borrow ditch that then conveys the water to the Colusa Trough (2047 drain) which ultimately ends at the Sacramento River.

When the 36-inch pipe is closed off, the CIP uses the lands immediately upstream of the pump station as a detention basin to store drain water. According to CIP staff, another consultant has done survey work to establish water surface elevations at the Niagara Avenue crossing of the conveyance lateral (See Figure 1-7). As a part of this survey, corresponding water surface elevations were established at the downstream pump station. During storm events, CIP staff periodically check the water surface gauge at the Niagara Avenue crossing. CIP staff can turn on the pump station once the water level reaches approximately elevation 42.0, depending on weather predictions.

The existing Industrial and Commercial properties within the CIP drain to this conveyance lateral through pipes ranging in diameter from 8-inch to 24-inch. According to CIP staff, these existing facilities drain adequately. Staff has indicated that during heavy storms, some ponding may occur adjacent to these facilities. However, nothing floods to the extent that buildings are damaged. This ponding can usually be eliminated by periodic checking of these facilities and clearing any clogging that may have occurred,

Detention Facilities

Near the intersection of Hwy 20 and Farinon Road, a detention basin has been constructed for the primary purpose of handling the flows from the Hwy 20 roadside drainage. The basin will take small flows from the south end of Davison Drive as well as from portions of Farinon Road. This detention has been designed in conjunction with Caltrans. According to the design calculations, the basin has a capacity of approximately 1.1 million cubic feet or about 25 acre-ft. The design flow to this facility is 150 cfs. Caltrans is currently under construction of a project whereby a large diameter pipe will convey some of the drainage from the northeast portion of the City south along the east side of Hwy 20 to this existing detention basin. This future infrastructure will not divert all of the flow from the City away from the conveyance lateral through the CIP. A pipe large enough to accomplish that task can not be constructed due to other utility constraints along the future alignment. However, it will alleviate the flows through the conveyance lateral through the CIP. The flow will end up back in the lateral just upstream from Farinon Road, but at a metered rate based on the outlet pipe from the basin.

New development will be required to independently analyze their impacts on the existing system, and provide engineered studies and hydraulic models to mitigate their flows. This will be done on a project by project basis. Currently it is planned the Colusa CIP will continue to own, operate and maintain the drainage system described herein.



NOTE:
 THE TYPES, LOCATIONS, AND SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE USER OF THIS PLAN'S EXTENT, SIZE, LOCATION, AND DEPTH OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNDERGROUND FACILITIES. HOWEVER, CALIFORNIA ENGINEERING COMPANY, INC. SHALL NOT ASSUME ANY OF THE RESPONSIBILITY FOR THE ACCURACY OF SUCH UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION BUT WHICH ARE NOT SHOWN ON THESE PLANS. IF NO ELEVATION IS SHOWN IN THE PLANS, THE USER OF THIS PLAN SHALL ASSUME THE ELEVATION UNKNOWN. DURING CONSTRUCTION, THE CONTRACTOR'S HEREBY NOTICED THAT THE EXISTENCE OF OTHER TYPES OF EXISTING UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION BUT WHICH ARE NOT SHOWN ON THESE PLANS. IF NO ELEVATION IS SHOWN IN THE PLANS, THE USER OF THIS PLAN SHALL ASSUME THE ELEVATION UNKNOWN. IN THE EVENT THAT SUBSTANTIAL DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR DIRECTION AND ALLOW A MINIMUM OF 2 WORKING DAYS FOR A CHANGE TO BE MADE COORDINATED AND APPROVED.

DISCLAIMER:
 THIS MAP IS NOT A BOUNDARY SURVEY. ALL BOUNDARY LINES SHOWN HEREIN ARE THE RESULT OF RECORD DATA, AND SHOULD NOT BE USED FOR ANY TYPE OF BOUNDARY SURVEY. CALIFORNIA ENGINEERING COMPANY, INC. SHALL NOT BE HELD RESPONSIBLE IF THIS MAP IS USED FOR ANY TYPE OF BOUNDARY SURVEY.

LEGEND

- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- CIP CONVEYANCE LATERAL
- PIPE SIZE & FLOW DIRECTION
- CIP-ER AREA OF FOCUS

PROJECT NUMBER	06-207
SHEET	3 OF 3

CIP - EIR

FIGURE 1-8

CONCEPTUAL DRAINAGE MASTER PLAN

CALIFORNIA ENGINEERING COMPANY, INC.

HQ J Q H H U I Q J H H E O D Q Q I Q J H H X U Z H \ I Q J H H P P X Q I N \ B H Y H O R S P H Q W

4443#121P#H0WHU#E0YG#WHH#P37
 \XED#P#M\#P#D#H#B#C#C#6
 #63.#84B#C#85#66K#
 #63.#84B#C#86#D#1#

DATE:	DECEMBER 3, 2006		
SCALE:	1"=200'		
DRAWN BY:	SMC		
DESIGNED BY:	SMC		
CHECKED BY:	SMC		
	NO	DATE	DESCRIPTION

C. Sewer Treatment, Collection and Transport

Background Information:

The CIP currently operates wastewater facilities at the south end of the park. Please refer to Figures 1-9 and 1-10. The proposed project includes construction of a package wastewater treatment facility to treat the domestic flows, as well as the infrastructure needed to transport the sewage from the proposed project to the treatment facility. According to the designer of the proposed treatment facility, it is capable of treating the sewage so that the effluent will comply with California Title 22 standards. The purpose of this master plan report is to identify potential opportunities and constraints to the project as proposed earlier in this report.

Existing Permit

The CIP currently operates a treatment and disposal system on site under Permit Order No. 05-01-250. The existing facility disposes of the effluent via land application. Solids are collected in septic tanks placed on each Industrial and Commercial parcel, while the “grey” water is pumped to a lined pond. Current permit limits are summarized as follows:

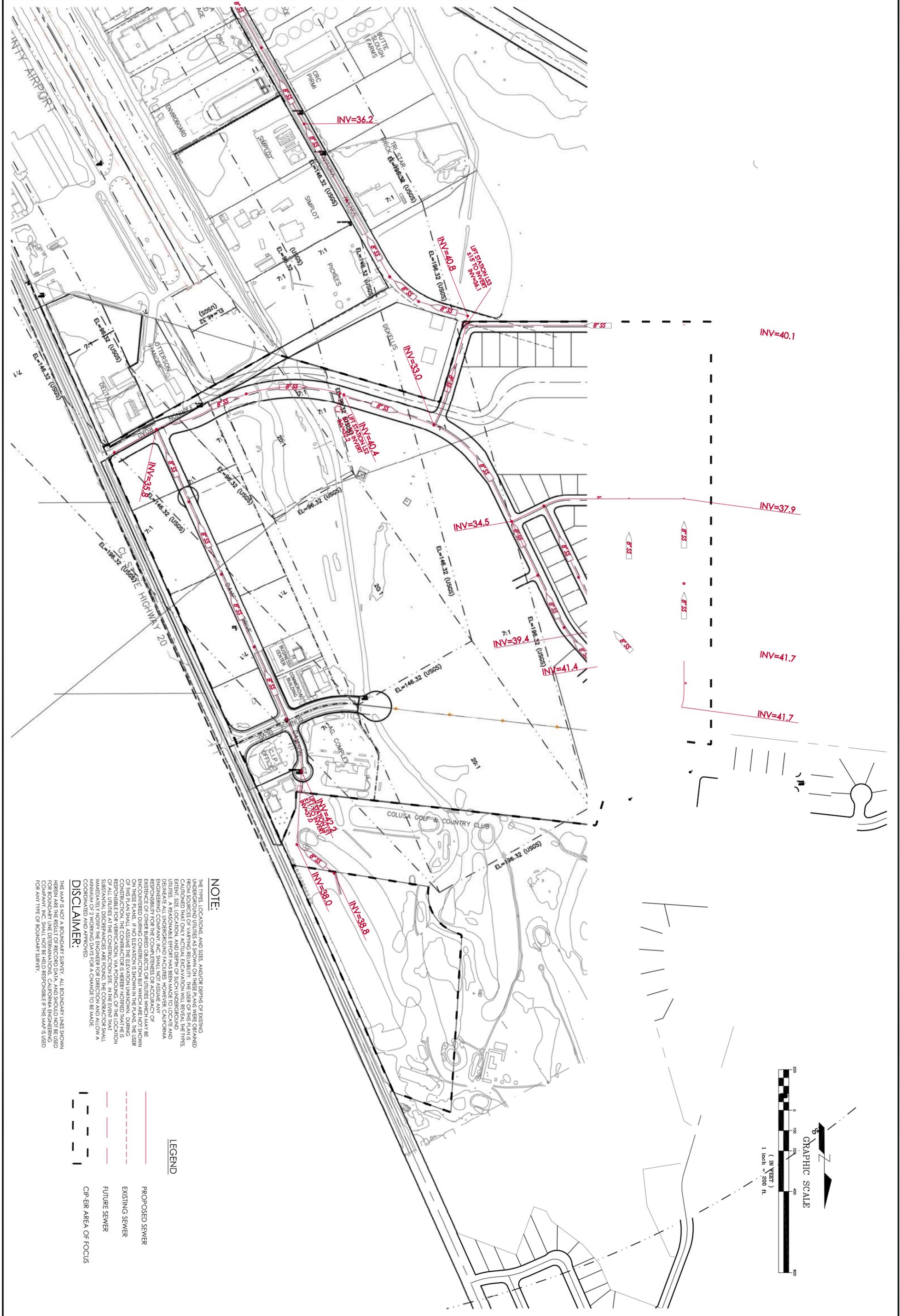
Average Dry Weather Flow Limit	3.4 to 4.1 million gallons per day
Average Dry Weather Flow Limit Nov. to April	27,000 gallons per day
Total Dissolved Solids	700 mg/l/day
BOD	300 lbs/ac/day
BOD	100 lbs/ac as 7-day ave.
Total Nitrogen	Not to exceed PAN rate
Ph	6.6 – 8.8

Existing Facilities

The existing facility infrastructure contains the following assets. Underground piping (PVC) that takes “grey” water to a domestic wastewater pond referred to as Pond #1. “Grey” water refers to the fluid portion of the wastewater from the septic tanks mentioned above while the solids remain in the septic tanks. Pond #2 is primarily used as an emergency overflow pond, however, the two ponds are not interconnected and overflow must be pumped from Pond #1 to Pond #2. Pond #1 is a lined evaporation pond and does not discharge. CIP maintains records of the domestic wastewater flowing to Pond #1. Example flow values for a year are in the following table.

Month	Monthly Flow (gpd)
August	758
September	739
October	702
November	602
December	517
January	452
February	308
March	451
April	516
May	432
June	506
July	320
August	557

The CIP project has approximately 627 acres of land available for land application of treated effluent. The disposal area is located in Section 8, T15N, R1W, MDB&M, County of Colusa, California. This area is located in the Colusa Drain Basin which discharges storm water into the 2047 drain, sometimes referred to as the Colusa Trough. The Colusa Trough drains into the Sacramento River. As described in the Storm Drain Master Plan above, part of the land application area can be used as a detention facility for storm water.



NOTE:

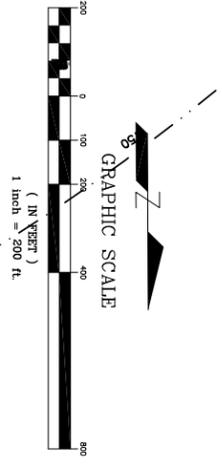
THE TYPES, LOCATIONS, AND SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE USER OF THIS PLAN IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXIST, SIZE, LOCATION, AND DEPTH OF SUCH UNDERGROUND UTILITIES. THE CONTRACTOR IS HEREBY NOTIFIED THAT HE IS RESPONSIBLE FOR VERIFYING THE LOCATION, DEPTH, AND TYPE OF ALL UTILITIES AT THE CONSTRUCTION SITE. IN THE EVENT THAT THE CONTRACTOR DISCOVERS ANY UTILITIES NOT SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY HIS SUPERVISOR AND THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND FOR THE REPAIR OF ANY DAMAGE TO SUCH UTILITIES. A MINIMUM OF 2 WORKING DAYS FOR A CHANGE TO BE MADE. COORDINATED AND APPROVED.

DISCLAIMER:

THIS MAP IS NOT A BOUNDARY SURVEY. ALL BOUNDARY LINES SHOWN HEREIN ARE THE RESULT OF RECORD DATA, AND SHOULD NOT BE USED FOR BOUNDARY LINE DETERMINATIONS. CALIFORNIA ENGINEERING COMPANY, INC. SHALL NOT BE HELD RESPONSIBLE IF THIS MAP IS USED FOR ANY TYPE OF BOUNDARY SURVEY.

LEGEND

- PROPOSED SEWER
- - - EXISTING SEWER
- · - · - FUTURE SEWER
- - - CIP-EIR AREA OF FOCUS



PROJECT NUMBER 06-207	CIP - EIR FIGURE 1-9	CALIFORNIA ENGINEERING COMPANY, INC. HQ J L Q H H U I Q J H B O D Q Q I Q J H M X U Z H I Q J H R P P X Q I W \ B H Y H O R S P H Q W 4443 H P I F P H O H W U O Y G W H H P 37 X E D H P T M \ R P D H H B C C 6 # 6 3 . 8 8 4 B C 8 5 8 6 E . # 6 3 . 8 8 4 B C 8 6 8 2 D I .	DATE: DECEMBER 8, 2006		
SHEET 1 OF 2	CONCEPTUAL SEWER MASTER PLAN		SCALE: 1"=200'		
			DRAWN BY: SMC		
			DESIGNED BY: SMC		
			CHECKED BY: SMC		
				NO. DATE DESCRIPTION	

D. Streets and Circulation:

Given the proximity and land uses associated with the proposed annexation the most common means of transportation in and around this area will be vial automobile. The residential components are anticipated to contain a certain amount of pedestrian, bicycle and regional bus traffic, however regarding the plans for future services will focus primarily on automobiles. Elements of this section of the plan for services were derived from the 2007 City of Colusa General Plan, the 2007 MEIR for the City of Colusa, and from the 2012 County of Colusa General Plan.

Existing Circulation Element

With the City being located at the intersection of two state highways, SR 20 and SR 45, these two corridors make up the main entry and exit into the community. The proposed annexation area lies adjacent to SR 20 south east of town, which would be used as the main corridor to the area. Wescott Road also serves as a major collector in the City, and Country Club Road which will ultimately play an important part of providing service to the proposed annexation area. Wescott Road and County Club Road also supports a large contingent of pedestrian traffic. According to the general plan, and ongoing meetings between the City and property owners, an interconnection between the annexation area and Wescott Road is planned which initially may be along an existing right of way that lies adjacent and South of the Country Club Estates Area, but also may be further enhanced via future development. See figure 1-11.

Other main arterial which will all supplement transportation to and from the proposed annexation site are as follows: Tenth Street, Fremont Street, Main Street and Third Street.

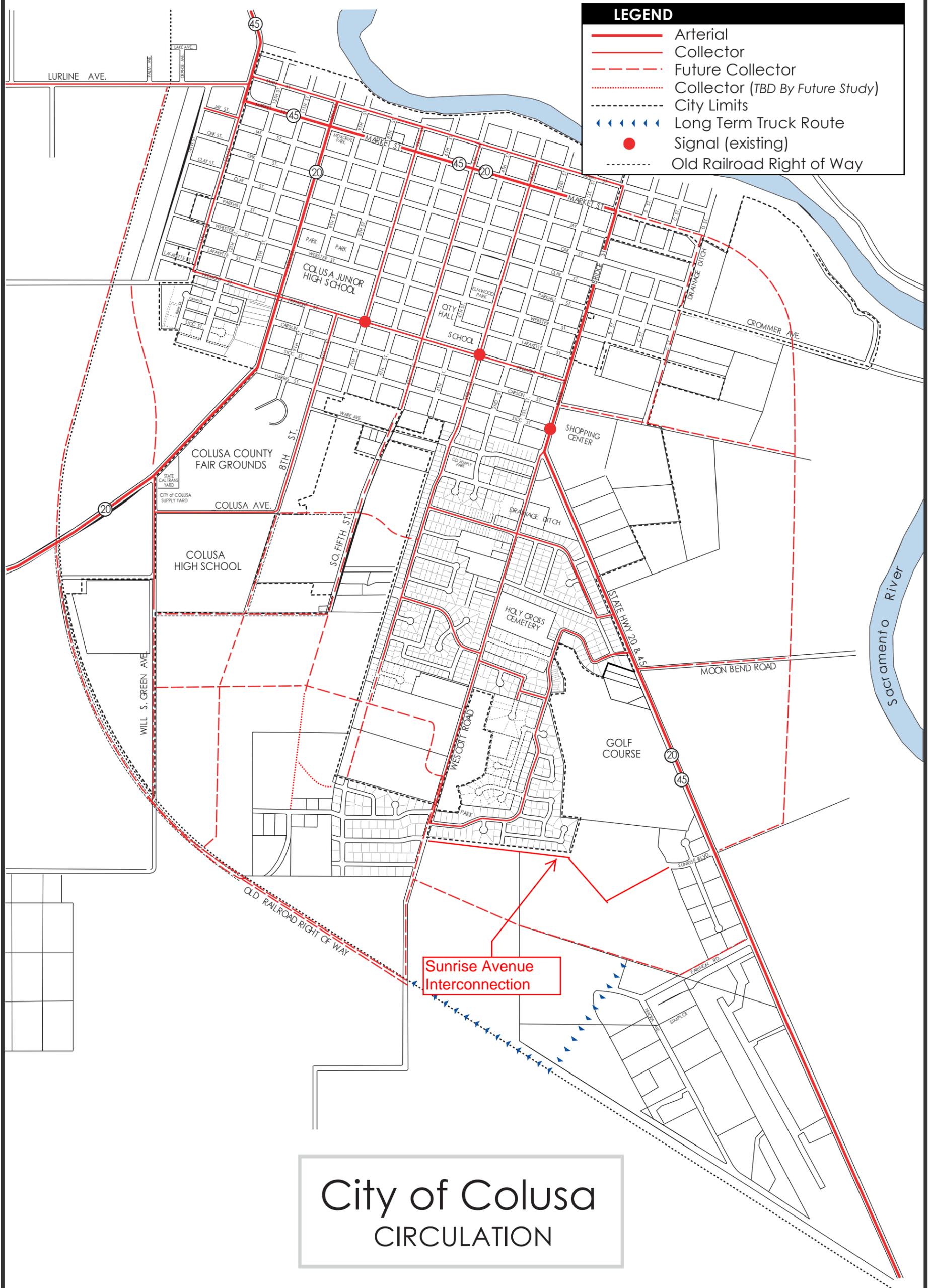
Most of the existing current development being proposed with this annexation was in existence during the General Plan update and MEIR plan preparation, along with contemplated future development opportunities. The levels of service we would anticipate were already factored into these analysis, for the most part, along with suggestions for mitigations and impacts assessments.

Airport

With this annexation proposal, city circulation and transportation will be supplemented by ownership of the existing Colusa County Airport. The airport provides general aviation services for the general public, and serves several agricultural industry users. The airport has a single paved runway and around 30+/- public/private hangars. The airport does not provide scheduled commercial passenger service, and given its size and development constraints, never will.

Services within this area are regulated by 4 agencies which must be considered within the regulatory framework of this plan for services and for consideration of annexation and new development; California Division of Aeronautics, California Department of Transportation, City of Colusa, and the Colusa County Airport Land Use Commission.

Draft Circulation Diagram



LEGEND

- Arterial
- - - Collector
- · - · - Future Collector
- · · · · Collector (TBD By Future Study)
- - - - - City Limits
- ◀◀◀◀◀◀ Long Term Truck Route
- Signal (existing)
- · - · - Old Railroad Right of Way

City of Colusa
CIRCULATION

Source:



FIGURE 1-11
CIRCULATION MAP

E. Dry Utilities:

1. Energy

Electricity and natural gas is provided to the City of Colusa by the Pacific Gas and Electric Company (PG&E). The necessary delivery infrastructure bringing natural gas and power to the City and to this area is already in place, and PGE can provide these services to newer development through their application and design process.

2. Telecommunications

Frontier Communications, provides local telephone service to the proposed Planning annexation area. Several companies provide long distance telephone services. Communication infrastructure facilities include both aerial and underground fiber and copper transmission lines. Internet is also provided through Frontier Communications along with other companies such as Comcast etc... Additionally several satellite companies also provide internet and phone “bundles”, to this area. As with power and gas, most of the main infrastructure is already in place serving the existing development thus communications and internet can generally be extended to service new customers upon application and request.

F. Public Services:

1. Police

The Colusa Police Department provides 24 hour police protection to residents and businesses within the City Limits of the City of Colusa. Occasionally, the Police Department extends its services to areas beyond the City limits as may be requested by the Colusa County Sheriffs department via a mutual aid agreement.

The Police Department currently operates one police station, located at 260 Sixth Street, which is very old, dated, and needs upgrading or relocation. It has staff positions for up to nine sworn officers. This hierarchy includes the following positions: Chief of Police, lieutenant, two sergeants and five officers.

Due to the relatively small size of the City of Colusa, response times are minimal, typically averaging 1 to 2 minutes per call.

The Colusa Police Department will assume the role of protection and patrolling the new annexation area, for the time being utilizing existing staff positions.

Colusa County Sheriffs Department

The Colusa County Sheriff's Department provides police protection services to the unincorporated areas of Colusa County, including those areas outside the Colusa city limits. The Sheriff's Department is located on and operates a single dispatch facility at 929 Bridge Street in the City of Colusa. Occasionally the Sheriff's department works with the Colusa Police Department upon request. The Sheriff's Department also oversees animal control and the Office of Emergency Service. The Colusa County Jail, located at 929 Bridge Street in the City of Colusa, houses both County and City of Colusa inmates. The facility has the ability to hold State and federally incarcerated inmates. The jail has a 96-person capacity.

California Highway Patrol

With two state highways intersecting and running through the City, there is interaction between the Colusa Police department and the California Highway Patrol. The California Highway Patrol (CHP), a State agency, provides traffic regulation enforcement, emergency accident management, and service and assistance on State roadways and other major roadways in and around the City. The CHP has an office in the City of Williams, nearby.

As development occurs and families and businesses move into the annexed area, there will be a natural increase in the need for deputies for patrol and response. The Department will hire as necessary, and as funds allow to maintain something close to their target deputy-to-population ratio

2. Fire Protection/Emergency Medical Services

The City of Colusa Fire Department provides firefighting and some first responder medical services within the City limits. The City of Colusa Fire Department also participates in a countywide mutual aid program with six other fire protection agencies within Colusa County. The current fire department will take over the main service of the annexation area, and as necessary and economically feasible add equipment and personnel. The current developed industrial park area, as sufficient fire fighting infrastructure in place to allow adequate protection, however, some of the area is undeveloped and if not properly maintained could present additional hazards due to agricultural or brush fires. It's expected and anticipated that the existing developed area will generate additional call outs from the fire department yearly.

Fire Department career staff consists of the Fire Chief, Assistant Fire Chief, Fire Captain/Mechanic, and two (2) Fire Apparatus Engineers (FAE). Volunteer staff consists of a Division Chief, four (4) captains, four (4) Driver/Operators, and 17 firefighters. Of the entire staff, 12 personnel are trained as Emergency Medical Technicians, and all other personnel are trained as First Responders. Shift personnel work 24-hour rotating shifts

year-round. The Fire Department has one fire station in the City of Colusa, located at 750 Market Street. Firefighting equipment consists of four engine pumpers (three with a capacity of more than 1,250 gallons per minute [gpm] and one with a capacity of 1,000 gpm), one ladder truck with a 1,500-gpm capacity and 500-gallon water tank, and one grass rig with a 300-gpm capacity and 500-gallon tank. One reserve ambulance is housed for emergency backup only, but it is rarely dispatched. Most ambulance service is handled by Enloe Hospital. According to the Fire Chief, the Fire Department can provide an average three- to four-minute response time to anywhere within the current service area. Access problems are slight throughout the City of Colusa, as most of the City's streets are configured in a grid pattern that facilitates emergency vehicle movement. Traffic is the primary issue the Fire Department considers when answering a service call. The Fire Department currently has an Insurance Services Office (ISO) rating of 3. An ISO rating is based on the public protection classification program, which rates a given city's fire service for water supply, equipment, personnel, alarm and dispatch, and training. A city's ISO rating is a prime factor in determining fire insurance rates within that community. The rating is on a scale of 1 to 10, with 1 representing the best level of fire protection.

3. Hospital and Emergency Medical Services

The City of Colusa's role in health services issues is somewhat limited. The City is not directly involved with the establishment or management of any health care facilities. The annexed area is already served by the health care facilities located in the City. Those facilities consist of a hospital, local doctors offices, and a small private clinic. The Colusa Regional Medical Center (CRMC), located at 199 East Webster Street, is a private, non-profit community facility. The Medical Center is a 48-bed acute care facility providing a 24-hour emergency room, an intensive care unit, a medical/surgical unit, skilled nursing facility, laboratory, pharmacy, home health services, rehabilitation services, diagnostic imaging, and other medical services. Trauma level care is provided via airlift to either UC Davis Medical Center in Sacramento or Enloe Medical Center in Chico. CRMC is currently evaluating the level of emergency care that will be required under

The annexation is not anticipated to increase the demand for services substantially, even once fully developed, however, according to the Cities General plan the size of the medical center and local facilities are already faced with shortages in facility space and staffing. At some point it is anticipated that the size of the emergency department will need to be increased in proportion to increases in population and emergency service calls. Consequently, the City and County will need to work cooperatively with the Medical Center to facilitate improved medical care for all residents of Colusa and the surrounding area.

4. Solid Waste

Currently, the City provides solid waste disposal services to City residents and businesses. Waste is collected and transported in compliance with County and State regulations governing solid waste disposal to the Ostrom Road Landfill in Yuba County. Solid Waste and Recycling in the City is provided by both a private company, Recology. The City provides pickup for newspaper and yard waste. Since the City is under a longer term franchise agreement for solid waste and recycling, we anticipate that the franchise agreement with Recology will extend and continue within the annexed area.