SECTION 9.0
IRONHOUSE SANITARY DISTRICT
WASTEWATER SERVICE

9.1 Overview

The Ironhouse Sanitary District (ISD) provides sewage collection, treatment and disposal services to the City of Oakley, the unincorporated area of Bethel Island, and other unincorporated areas including the East Cypress Corridor Specific Plan Area. ISD also provides oversight of the trash collection and hauling franchise (Garaventa) that serves the City of Oakley, unincorporated Bethel Island, and portions of unincorporated east Contra Costa County and monitors compliance with the requirements of AB939 for solid waste diversion on behalf of the City of Oakley and the County. ISD is bounded by the San Joaquin River to the north, the Delta Diablo Sanitation District to the west, the City of Brentwood to the south and unincorporated area in the Holland Tract to the east.

ISD originated with the Oakley Sanitary District that was formed in 1945. In the mid 1960's a Joint Powers Agreement was established between the Oakley Sanitary District and County Sanitation District No. 15 to address septic system issues in the Hotchkiss Tract. In 1977, a Joint Powers Agreement was signed between the Oakley Sanitary District and Bethel Island to establish the Oakley-Bethel Island Wastewater Management Authority. In January 1992, Oakley Sanitary District annexed Bethel Island, the JPA was dissolved, and the District merged with Oakley-Bethel Island Wastewater Management Authority and County Sanitation District No. 15. The district was renamed the Ironhouse Sanitary District.

ISD now serves an estimated population of 32,324 residents in a service area of approximately 37 square miles. ISD's sphere of influence (SOI) encompasses an additional 2.4 square miles and includes areas adjacent to the District's southern boundary. The largest area in the SOI is the Veale Tract adjacent to the southeast corner of the District.

ISD's infrastructure includes gravity and pressure pipelines, pumping stations, the Ironhouse Wastewater Treatment Plant (IWWTP) and lands on the mainland and Jersey Island that are used for effluent disposal. The IWWTP is located on 285 acres adjacent to the south side of Big Break and the San Joaquin River; the District also owns approximately 3,500 acres on Jersey Island. The IWWTP has a current treatment capacity of 2.7 mgd with average dry weather flows of 2.6 mgd, so it is approaching 96 percent of capacity. Increasingly stringent regulatory requirements for effluent quality, groundwater concerns, and growth within the District are requiring that a new treatment process be used and a new disposal facility be added. The District is planning to construct a new IWWTP adjacent to the existing facility by 2010; the new plant will have an initial capacity of 4.3 mgd with an ultimate capacity of 8.6 mgd. The District is also

pursuing a disposal alternative that will maximize land application on Jersey Island and then discharge highly treated effluent into the San Joaquin River on the north side of Jersey Island.

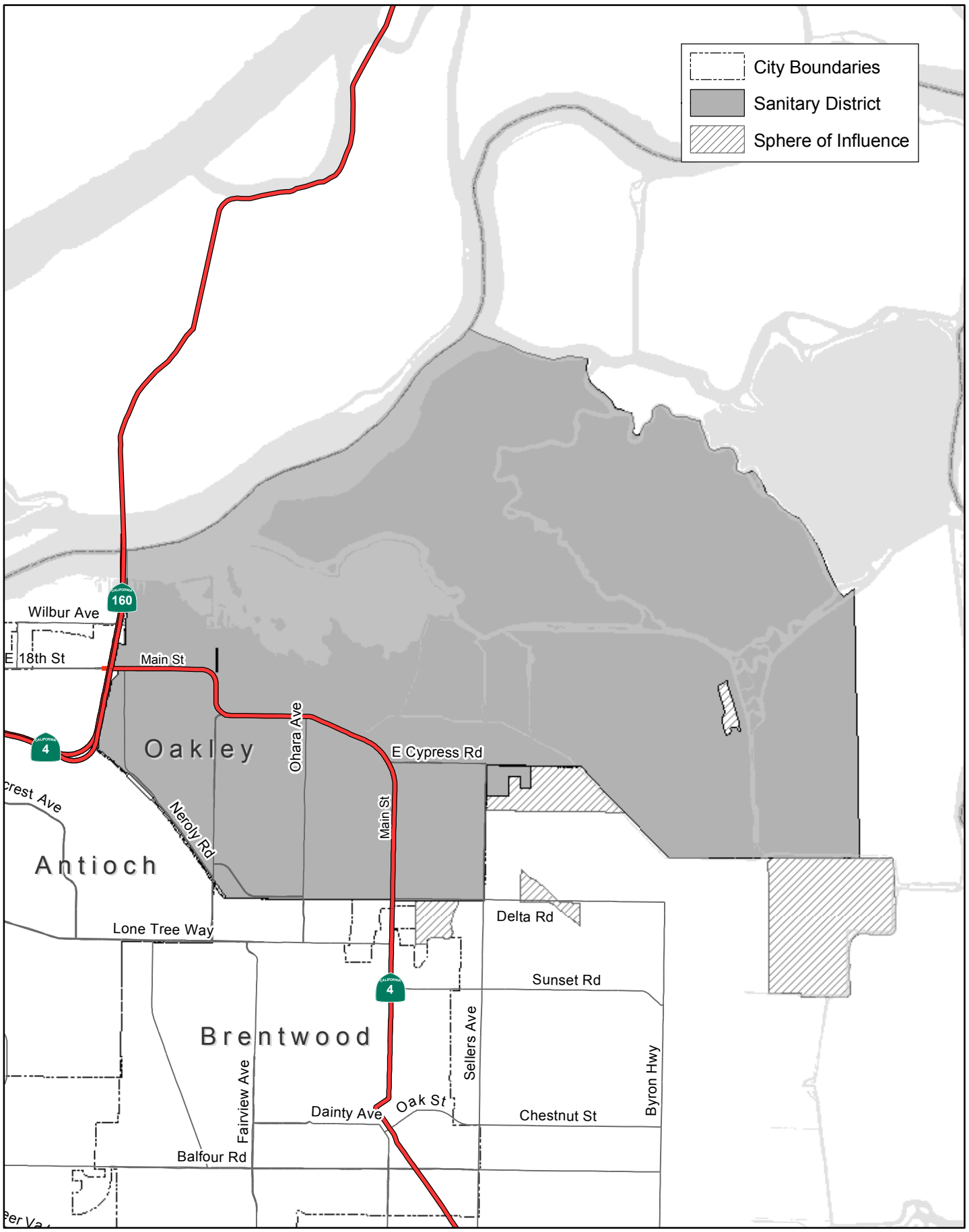
The District's profile for wastewater service is shown in *Table 9.1* and a map of the District's boundary and current SOI are shown in *Figure 9.1*.

Table 9.1
Ironhouse Sanitary District
Wastewater Service Information

Service Area / Financial Summary	
District Office	450 Walnut Meadows Drive Oakley, CA 94561 (925) 625-2279 www.ironhousesanitarydistrict.com
Service Area:	~37 square miles
Population:	32,324 (Year 2007) / 43,441 (Year 2030) Average Annual Growth Rate = 1.5%
Operating Budget (FY 2007-2008):	Revenues / Expenditures: $6,915,875 / $6,885,190 Net Assets at June 30, 2006: $32,106,610
Wastewater Service Data	
Services	Wastewater Collection, Conveyance, Treatment, Disposal
Number of Service Accounts	~10,400
Miles of Sewer Main / Number of Pump Stations	120 miles / 34 pump stations
Average Age of Collection System	23
Average Dry Weather Flow to Treatment Plant	2.7 mgd
Wastewater Treatment Plant Capacity	Current: Design 2.7 mgd Planned Improvements: to 4.3 mgd Ultimate Capacity: 8.6 mgd
Disposal	Current: to agricultural lands on mainland and Jersey Island for irrigation Planned: to agricultural lands on Jersey Island with remainder discharged to San Joaquin River on north side of Jersey Island
RWQCB Region	Region 5 – Central Valley
Orders	Order No. R5-2001-237 – Waste Discharge Requirements for Ironhouse Sanitary District Order No. 2006-0003 – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

Figure 9.1

Ironhouse Sanitary District and Sphere of Influence



Map created 10/1/2007
by Contra Costa County Community Development, GIS Group
651 Pine Street, 4th Floor North Wing, Martinez, CA 94553-0095
37:59:48.455N 122:06:35.384W

0 0.5 1 2 Miles

9.2 Growth and Population Projections

ISD serves the City of Oakley, unincorporated Bethel Island, and other unincorporated areas including the East Cypress Corridor Specific Plan Area. The District's boundaries encompass approximately 37 square miles with mixed land uses, including urban and agricultural areas. The current estimated population for this service area is 32,324; it is expected to reach 43,441 by 2030 with an average annual growth rate of 1.5 percent. In FY 2004/05 the District had 500 new connections, and in FY 2005/06 there were 900 new connections.

In November 1998, local voters approved an incorporation effort and created the City of Oakley on July 1, 1999. The predominant land use within the City of Oakley is residential, with agricultural uses such as vineyards and orchards in the surrounding area. It offers a waterfront marina, recreational or public and semi-public land use, and small industrial parks. Although still imbued with a "small town character", City leaders are encouraging the development of new industries to employ the growing local workforce.

Significant development has and is expected to occur within ISD's boundaries. The City of Oakley's General Plan provides for future development over the next 10 to 20 years within the City's current boundaries and within the City's larger Planning Area that was used for the General Plan. This Planning Area encompasses an additional 2,700 acres east of the city and includes the Cypress Corridor Expansion Area and the proposed Cypress Lakes project. This area is within the current boundaries of ISD.

Given the current urban land uses and anticipated growth, there will be an increased need for wastewater services within the ISD service area. The District will be responsible for providing adequate infrastructure for collection, conveyance, treatment, and disposal. This will require that the District implement phased improvements to the IWWTP, its disposal facilities, some pump stations, force mains, and other pipelines as identified in the District's Sewer Master Plan (January 2004) and Wastewater Facilities Plan Update (May 2005). These improvements will ensure that there are no service impacts to existing customers.

9.3 Infrastructure Needs or Deficiencies

ISD provides wastewater services for residential, commercial, and industrial customers within its service area. The current customer base is approximately 95 percent residential and 5 percent non-residential. The District's wastewater infrastructure consists of a collection system, with conveyance, treatment and disposal facilities. The District is within the jurisdictional boundaries of the Central Valley Regional Water Quality Control Board (RWQCB) (Region 5). *Table 9.2* summarizes ISD's existing wastewater system facilities:

Table 9.2
Ironhouse Sanitary District
Wastewater System Overview

	Quantity
Sewer Connections	~10,400
Sewer Mains	120 miles
Pump Stations	34
Average Age of Collection System	23 years
Average Dry Weather Flow to Treatment Plant:	2.6 million gallons per day
Plant Design Capacity	Current: 2.7 mgd Planned: 4.3 mgd Ultimate: 8.6 mgd
Water Reclamation & Effluent Disposal	Current: 114 mg treated effluent storage; applied to agricultural lands on mainland and Jersey Island Planned: 114 mg treated effluent storage; applied to agricultural lands on Jersey Island with balance discharged to San Joaquin River north of Jersey Island

9.3.1 Collection and Conveyance System

ISD's collection and conveyance system consists of 95 miles of gravity pipeline, 25 miles of pressure pipelines, and 34 pumping stations. The wastewater is conveyed to the Ironhouse Wastewater Treatment Plant (IWWTP) in northern Oakley. The District's 2004 Sewer Master Plan identified two areas within the system with capacity deficiencies under current average flow conditions. One area contains 6-inch pipes that are undersized for the flow volumes sent by a pumping station. The second deficiency is related to a below-standard slope of some installed 15-inch pipelines. The deficiencies are noted in the pipelines near the IWWTP and improvements will be needed to serve future development. Under wet weather loading (build out conditions), the system will be deficient in a low slope area of the O'Hara Avenue trunk sewer, low slope regions of the 8-inch and 12-inch Rose Avenue gravity sewer system, and the entire 18-inch Highway 4 trunk sewer after its junction with the Cypress Lakes/Bethel Island force main. All improvements will be funded through the Trunk Line Capacity fee charged for all new connections.

Planning information for Bethel Island is limited; therefore the District was unable to accurately evaluate which lines will require improvements to serve future development. Two existing pipelines are designed to convey 1.71 mgd, which is above the average flows for Bethel Island. Any necessary improvements will be a condition of development; if the development will generate wastewater flows in excess of the remaining capacity in the sewer collection system, the developer will be responsible for all necessary capacity improvements.

Currently the District operates 34 pumping stations, with six more anticipated at build-out. Some of the more critical lift stations are equipped with backup pump motors powered by natural gas. All of the stations are on the District's Supervisory Control and Data Acquisition system, which provides the District staff with early warning of power failure, high water, and low water at each station.

Three existing pumping stations have been identified in the Sewer Master Plan as requiring future capacity upgrades: Ironwood, Quail Valley, and Marsh Creek. A fourth station, Laurel Heights, was installed as a temporary facility to serve the central portion of the District. It is problematic during wet weather flows. The Master Plan recommends improvements in conjunction with future development. Fees from new development will pay for the improvements.

The ISD service area has a relatively high water table and groundwater infiltration increases flows. This is particularly true in the Bethel Island area and vicinity. For example, for planning purposes the District's 2004 Sewer Master Plan assumes that areas with a low groundwater table have groundwater infiltration of 50 gallons per acre per day while areas with a high groundwater table have infiltration of 300 gallons per acre per day. The District's 2005 Wastewater Facilities Plan Update notes that ISD does not have a large infiltration/rainwater inflow problem and a standard peaking factor of 2 for average dry weather flow to peak wet weather flow has been used for planning purposes.

The projected wastewater flows are shown in *Table 9.3* and the pump station flows are shown in *Table 9.4.*

Table 9.3
Ironhouse Sanitary District
Projected Wastewater Flows (mgd)

Condition	Current Flows	Future Flows
Dry Weather Flow		
City of Oakley	1.74	7.36
Bethel Island	0.43	1.27
Total	2.17	8.63

Source: 2004 ISD Sewer Master Plan

Table 9.4
Ironhouse Sanitary District
Future Pumping Station Flows (gpm)

Pumping Station	Peak Dry Weather Flow
Hoffman	325
Ironwood	1,510
Quail Valley	350
Bridgehead	40
Bethel Island Main and WEB-14	1,340
Marsh Creek	350
Off-Island Regional	4,490
Cypress Corridor	1,300

Source: 2004 ISD Sewer Master Plan

The 2004 Sewer Master Plan serves as the District's Capital Improvement Plan (CIP). The design criteria used includes the following:

- Recommended pipe sizes are based on the ultimate build out flow levels using a maximum allowable percent full of 90 percent.
- No pipelines under 12-inches are included in the Master Plan as those pipelines are not eligible for ISD (fee based) funding. (Smaller pipelines are constructed to District standards and are paid for by the developer or property owner(s).)

The CIP includes nine projects with an estimated cost of $12.9 million (2003 dollars). The projects include the following: an extension of the 15-inch trunk line from Highway 4; an off-island regional pumping station to receive flows from Bethel Island and mainland regions east of Jersey Island Road; a Cypress Corridor pumping station; improvements to correct deficiencies in the Ruby Street/Duarte Avenue sewer; rerouting flows from the Ironwood Pump Station; a relief sewer in Carol Lane; Second Street sewer improvements to correct deficiencies; installation of a new 36-inch trunk sewer to relieve capacity issues in the 18-inch Highway 4 pipeline; and various pump station improvements. As noted above, these improvements will be funded solely by new development through the Trunk Line Capacity Fee collected at the time a new connection is made. In FY 2006/2007 the District budgeted for several projects to upgrade the collection and conveyance system.

The State Water Resources Control Board (SWRCB) maintains an online database, the California Integrated Water Quality System (CIWQS), where permit violations and sewer system overflows are reported. In 2006, the SWRCB adopted the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-003-DWQ) and ISD (as part of the Central Valley Region) must begin reporting all sewer system overflows (SSOs) to the CIWQS

by September 2, 2007. The database does not list any SSOs for ISD, and the District indicated in its response to this service review that there were no major SSOs to report.

ISD has a Spill Prevention and Control Plan (2000), a Sanitary Sewer Overflow Response Plan (2001), a Sanitary Sewer Overflow and Prevention Maintenance Plan (2002) and a Mosquito Abatement Plan (2002). These plans meet certain requirements of the District's Waste Discharge Requirements Order (No. R5-2001-237) and are intended to ensure that adequate safeguards are in place to avoid and control spills and that District facilities do not create environmental or health hazards.

9.3.2 Treatment Plant and Disposal

The existing ISD Wastewater Treatment Plant (IWWTP) is located at 450 Walnut Meadows Drive north of Highway 4 in Oakley. It was constructed in the early 1980s and has a design treatment capacity of 3.0 mgd. Due to an excess concentration of Biochemical Oxygen Demand, the effective treatment capacity of the IWWTP is 2.7 mgd. The IWWTP is receiving average dry weather flows of 2.6 mgd, consisting of base water flow and groundwater infiltration. Projected flows based on land use incorporated in the City of Oakley's General Plan and Contra Costa County planning data for Bethel Island and other unincorporated areas within the District's boundaries are shown below in *Table 9.5* below:

Table 9.5
Ironhouse Sanitary District
Projected Flows to IWWTP (mgd)

Description	Flow
Existing flows from current development	2.17
Future flow from Bethel Island	0.80
Future flow from low groundwater regions	2.59
Future flow from high groundwater regions	3.07
Total Flow	8.63

Source: 2005 Wastewater Facilities Plan Update

The current IWWTP provides secondary treatment using two stage aerated ponds. The disposal process includes treated effluent storage ponds, disinfection, and application to agricultural lands. Four aerated treatment ponds cover approximately 7.5 acres and two effluent storage ponds cover approximately 50 acres. The effluent storage ponds have a total capacity of approximately 114 million gallons. The effluent is applied to approximately 166 acres on the mainland and 425 acres on Jersey Island.

Jersey Island is below the flow level of the San Joaquin River. Reclamation District 830 dewaters the island to maintain a water table depth of approximately two to four feet. During the

winter, the water table is only one foot below the surface in some parts of the island and the District cannot irrigate with recycled water in these areas until the water table drops.

Some groundwater quality degradation has occurred around the IWWTP and below the mainland irrigated lands. ISD has therefore determined land application of the treated effluent on the mainland must be phased out to prevent potential future impacts. The District estimates that 3,875 gross acres are required to dispose of the projected 8.6 mgd in effluent flows; however only 510 net acres on Jersey Island are suitable for year-round irrigation. Therefore an alternative disposal method is necessary.

ISD recently studied alternatives for increasing treatment capacity and other disposal methods that are intended to address treatment capacity limitations, obsolete treatment technology, and RWQCB requirements regarding effluent quality. In January 2007, ISD adopted findings for the *Supplemental Environmental Impact Report (SEIR) for the Ironhouse Sanitary District Wastewater Treatment Plant Expansion* (State Clearing House No. 2004082035). The SEIR evaluated four alternatives equally:

- **Alternative A:** Expansion of existing ISD treatment capacity on ISD's mainland property in two phases to 8.6 mgd; nitrified tertiary treatment with disinfection; and disposal through land applications and discharge into the San Joaquin River off the north shore of Jersey Island
- **Alternative B:** Conveyance of raw sewage from ISD via new pipelines to the DDSD WWTP for treatment; upgrade DDSD treatment and disposal facilities to accommodate up to 8.6 mgd average dry weather flow from ISD; secondary treatment with disinfection; and construction of a new outfall to supplement existing DDSD outfall to New York Slough
- **Alternative C:** Expansion of existing ISD treatment capacity on ISD's mainland property in two phases to 8.6 mgd; nitrified secondary treatment with disinfection; construction of new facilities to convey treated effluent from Brentwood WWTP to ISD facilities (Brentwood being solely responsible for this segment of construction) and construction of a pump station and pipelines to convey ISD/Brentwood treated effluent to new outfall in New York Slough (Brentwood and ISD sharing the costs of this segment of construction).
- **Alternative D:** Expansion of existing ISD treatment capacity on ISD's mainland property in two phases to 8.6 mgd; nitrified secondary treatment with disinfection; construction of new facilities to convey treated effluent from Brentwood WWTP to ISD facilities (Brentwood being solely responsible for this segment of construction) and construction of a pump station and pipelines to convey ISD/Brentwood treated effluent to new outfall in Sacramento River (Brentwood and ISD sharing the costs of this segment of construction).

The District selected Alternative A with a new wastewater treatment plant to be constructed in two phases on District property adjacent to the existing plant. The first phase will have a treatment capacity of 4.3 mgd; the second phase will increase the capacity to 8.6 mgd and will be constructed when necessary to meet demands. Additional storage ponds with up to 217 mg of storage capacity will be constructed on 152 acres of District land on the mainland. The District will maximize land application of treated effluent to the maximum extent possible, using it for agricultural irrigation on approximately 510 acres of District property on Jersey Island. The remainder will be discharged to the San Joaquin River off the north shore of the island. The conveyance pipelines and outfall will be constructed to handle peak flows at build out; the pump stations will be physically constructed to handle build out peak flows but pumping capacity will be installed to meet current projected flows with pumps added or upgraded as needed. The District determined that this alternative was one of the most cost-effective and feasible in terms of construction and permitting, and that it was environmentally superior.[1]

Under the build out conditions of 8.6 mgd, the river discharge will require the construction of a second 24-inch pipeline from the IWWTP, across Dutch Slough, to the north end of Jersey Island. The first phase condition of 4.3 mgd will require the extension of an existing 24-inch pipeline from the southern end of Jersey Island to the northern end. Both pipelines would converge in a 30-inch pipeline near the levee, cross the levee in the vicinity of the existing island dewatering pump station, and would extend approximately 550 feet into the San Joaquin River for discharge. The river outfall would accommodate build out flows of 8.6 mgd. The end of the outfall would be approximately 550 feet from the river shoreline at a depth of 20 feet mean sea level. A new NPDES permit will be obtained from the RWQCB for disposal into the San Joaquin River.

The District will be incorporating tertiary treatment in the expansion that will provide recycled water for agricultural irrigation, landscape irrigation, and/or industrial uses. The District is currently participating in the effort to develop an East Contra Costa County Regional Industrial Recycled Water Facilities Plan. Other participants include DDSD, CCWD, Central Contra Costa Sanitary District, Pittsburg, Antioch, and the Mirant Corporation. The intent of the planning effort is to cooperatively analyze and develop a master plan to fully utilize recycled water resources to the maximum extent practicable for industrial and irrigation purposes. ISD's tertiary treated wastewater will be suitable for use in cooling towers, and the District's 114 mg ponds could provide seasonal storage that would help with peak demand in other areas.

[1] Contra Costa Times. "District Picks Wastewater Plant Site". March 30, 2007

9.3.3 Summary

ISD's 2004 Sewer Master Plan includes an evaluation of the District's collection and conveyance system with respect to current and future flows based on land use within the City of Oakley's General Plan, the Contra Costa County General Plan, and planning data for Bethel Island. The Master Plan indicates that certain areas need improvements to alleviate surcharging based on existing flows. Several sewer mains, trunk lines, and pump stations will need to be improved to serve future growth.

ISD's wastewater treatment plant is nearing its treatment capacity, and the treatment technology in use is becoming obsolete due to increasingly stringent effluent quality regulations. In January 2007, the District completed its environmental review of four alternatives to increase treatment capacity and provide a new method of disposal. The District selected the alternative that includes the following: a new 8.6 mgd treatment plant on District land adjacent to the existing plant (the first phase will have capacity of 4.3 mgd); 114 mg of existing storage capacity for treated effluent; up to 510 acres of year-round irrigation lands and a new discharge to the San Joaquin River off the north shore of Jersey Island.

The District's current disposal of treated effluent through land application will not be adequate as flows increase. The District estimates that 3,875 acres are needed to adequately serve flows of 8.6 mgd. However, mainland applications must be phased out to prevent degradation of groundwater and only 510 acres on Jersey Island are suitable for year round application.

The District must obtain regulatory approval from the State for its proposed project; this may require increased treatment levels and adequate diffusion at the outfall due to water quality criteria in the San Joaquin River near the discharge. ISD has considered these factors in project development.

The District is working to obtain regulatory approval and financing. Due to limited remaining capacity and limitations on land application, this will remain an infrastructure need until the District receives these approvals.

9.4 Financing Constraints and Opportunities

ISD's primary revenue sources are fees and connections charges. The District also receives revenue from its hay and cattle operations on Jersey Island, connection and capacity fees from new development, and franchise fees to manage the solid waste collection contract and waste reduction program. The District receives a portion of the one percent property tax. *Table 9.6* summarizes the financial history of the District.

Table 9.6
Ironhouse Sanitary District
Financial Summary

	FY 2004/2005 Actual	FY 2005/2006 Actual	FY 2006/2007 Projected	FY 2007/2008 Budgeted
Operating Revenues	$4,454,844	$5,915,525	$5,680,160	$6,915,875
Operating Expenses	$5,560,917	$6,049,720	$5,303,839	$6,885,190
Net Non-operating Revenues / (Expenses)	$1,949,968	$3,189,026	$307,039	$245,300
Change in Net Assets	$843,895	$3,054,831	$683,360	$275,985
Net Assets, Beg of Year	$28,207,884	$29,051,779	$32,106,610	$32,789,970
Net Assets, End of Year	$29,051,779	$32,106,610	$32,789,970	$33,065,955

At June 30, 2006, the District had $1.7 million in unrestricted net assets, with $18.1 in cash reserves. As a comparison, the District had $1.7 million in unrestricted net assets at June 30, 2005 with $16.7 million in cash reserves.

ISD maintains several restricted funds to fund capital projects that will maintain and improve the infrastructure serving existing users as well as expand the system for new development. These funds have designated uses. They had a combined estimated balance of $17,275,682 at June 30, 2007 and earned approximately $567,850 in interest in FY 2006/2007. The District's reserve funds are summarized below in *Table 9.7*.

Table 9.7
Ironhouse Sanitary District
Summary of Reserve Funds

Fund	Use	Funding Source	Fund Balance June 30, 2007 estimated
Replacement Reserve	Replace existing infrastructure	User fees	$2,176,013
Expansion Reserve	Capacity Expansion benefiting existing users	User fees	$9,323,899
Expansion Reserve	Increase Treatment Capacity	New development – Plant Capacity Fees	$1,612,876
Expansion Reserve	Buy-in Costs; Benefiting existing users	New development – Connection Fees	$149,394
Trunk Line Capacity Reserve	Increase Trunk Line Capacity	New development – Trunk Line Capacity Fees	$2,765,062
Royalty Reserve	Not specified - determined by Board	Oil and gas lease on Jersey Island	$832,951
EPA Reserve	Mandatory reserve for State loan	District operating revenue	$124,307
Sewer Use – Existing Users	Rate set-aside used for debt service repayment	Portion of annual sewer service charge	$291,181
Total Reserves			$17,275,682

The new wastewater treatment plant and discharge facilities (including design, permitting, consulting, and construction costs) are estimated to cost $78 million. The ultimate cost will depend on a number of factors, including regulatory requirements for effluent treatment and discharge. Based on allocations of the 4.3 mgd capacity, approximately 46.5 percent (2.0 mgd) of the plant expansion project will be funded through fees from new development and 53.5 percent (2.3 mgd) will be funded through existing user fees. The District is looking at various financing options and plans to use restricted funds for both existing users and new development to fund a significant portion. In one scenario, approximately $27.2 million will be funded through reserves and fees and the balance will be financed through a State Revolving Fund loan of $50.8 million.

In order to pursue a loan from the State Revolving Fund, federal and state regulations require ISD to prepare a wastewater revenue program to demonstrate that ISD's rates and charges will adequately fund projected annual operating and maintenance expenses, including the costs of repairs and replacements as well as debt service and other financial obligations of the loan. In addition, the costs must be recovered equitably from ISD's customers in proportion to the cost of collecting and treating each customer's wastewater discharge. The District finalized their Revenue Program in March 2007 and updated it in August 2007; the financial projections indicate that ISD would need to increase rates substantially over the next five years to adequately fund projected debt service payments and maintain the reserve level required per the loan agreement. Increased operating revenue will also be needed as the new treatment facility will have higher operating costs. ISD adopted a new rate structure effective July 1, 2007 which establishes a cap of $215 per equivalent service unit for User Charge increases over the next four years (see *Section 9.6* below). ISD plans to fund expansion capacity in the new plant through Plant Capacity Fees paid by new development. However, ISD will be legally required to raise rates as necessary to meet the contractual requirements of its loan in the event that Plant Capacity Fee revenue is lower than projected.

State Revolving Fund loans offer low subsidized interest rates; the effective interest rate for a 20 year loan is currently near 0.0 percent for loans with 16.67 percent matching funds. The District is financially positioned and plans to provide the necessary matching funds to secure the lowest interest rate. The first debt service payment would be due one year following project start up, which allows the District to build financial resources and phase in necessary rate increases. Estimated annual debt service on a $50.8 million loan with a near 0.0 percent interest rate would be $3.05 million.

The District is embarking on a major capital improvement project that will require significant financial resources and long-term financial commitments. The District is implementing the recommended rate structure changes to ensure that operating revenues and reserves are sufficient to construct and operate the new wastewater treatment plant and discharge facilities.

9.5 Cost Avoidance Opportunities

ISD participates in programs that help to offset costs through efficiencies with other agencies, as noted below:

- ISD currently recycles 100 percent of its treated effluent as irrigation water for non-human consumption crops (hay) on land owned by the District and markets and sells the hay for increased revenue. In addition, ISD raises cattle on District land to help control vegetation and is able to market and sell the cattle for after expenses profits. The profit from the cattle operation supplies the District with significant increased revenues. The District also leases oil and gas rights that generate significant royalties that the District will use to offset some of the costs associated with the planned expansion facilities. These activities maximize the use of District land, reduce maintenance costs, and generate non-user based revenue.

- By agreement, ISD provides a good percentage of the levee maintenance services on behalf of Reclamation District No. 830 Jersey Island (RD-830) to protect the District's assets and other interests on the island. ISD is reimbursed by the Reclamation District for the cost of labor, equipment and materials, which helps offset ISD administrative and overhead costs.

- ISD oversees the franchise for solid waste disposal within its service area and receives an annual franchise fee for this service. This franchise fee, again, serves to increase its revenue.

- Through ISD's participation in the East County Integrated Regional Water Management Planning Group, ISD shared in the development of a Proposition 50 Chapter 8 grant proposal which resulted in an award of $12.5 million to help implement high priority projects included in the Integrated Regional water Management Plan. ISD's share of this grant is approximately $1,000,000 which will be used to help pay for portions of the facilities expansion.

In the future there may be potential for regional wastewater recycling programs to provide cost savings and efficiency improvements. Over the past few years ISD and DDSD had several communications on regional approaches for treatment and disposal. As noted in *Section 9.3*, ISD considered alternatives for the treatment plant expansion that would include shared facilities with DDSD and Brentwood. ISD completed a detailed cost analysis and selected the alternative that was one of the most cost-effective and feasible in terms of construction and permitting.

ISD, DDSD, CCWD, Central Contra Costa Sanitary District, Pittsburg, Antioch, and the Mirant Corporation have begun studying the possibilities for regional wastewater recycling for industrial

and irrigation uses to help offset the cost of developing recycled water. This approach would leverage existing recycled water treatment capacity and storage facilities and address peak demand and reliability issues.

The projected growth in eastern Contra Costa County, increasingly stringent water quality regulations and related treatment requirements, and impacts of increasing amounts of effluent discharging to the waters of the Delta present opportunities for potential cost avoidance through regional programs. In the future, the agencies providing wastewater treatment and disposal within this region should partner on evaluating regional alternatives where appropriate to ensure that adequate due diligence is performed and the benefits to ratepayers from avoided costs and shared facilities are fully evaluated.

9.6 Opportunities for Rate Restructuring

ISD's wastewater service rate structure includes four components: User Charge Fee, Trunk Line Capacity Fee, Plant Capacity Fee, and Connection Fee. The User Charge Fee is charged annually on the property tax bill. The Trunk Line Capacity Fee, Plant Capacity Fee, and Connection Fee are paid one time when permits are taken out for new construction based on an Equivalent Service Unit (ESU).

- The Plant Capacity Fee recovers the cost of expansion capacity in the District's planned new wastewater treatment facility and disposal system.
- The Trunk Line Capacity Fee funds the cost of future sewer trunk lines, pump stations, and other infrastructure that will be constructed to serve new development.
- The Connection Fee recovers a pro-rata share of the value of existing facilities that provide benefit to new development.

The ESU equates to the average amount of water consumed by a residential unit (300 gpd). The annual service charge for residential customers is based on one ESU, while non-residential customers are assigned a multiplier of factor of an ESU based on wastewater loading and projected volume, to determine their total annual charge.

Due to the significant infrastructure improvements that are planned, the District is implementing periodic rate increases to avoid a large future rate spike and build reserves that can be used for a substantial amount of pay-as-you-go funding and help reduce debt financing needs. ISD adopted the first rate increase in June 2006. In June 2007, the District's Board of Directors set a multi-year rate increase in place, where sewer use rates per Equivalent Service Unit (ESU) can increase by as much as $215 to a maximum of $680 through FY 2011/2012. While the rate is a multi year rate with a maximum limit, annual increases must still go through a public hearing process

prior to adoption. If the rate were to increase to $680 by 2011, the rate will have increased by 65 percent within six years.

In a related action, the Board approved increases to the Trunk Line Capacity Fee and Plant Capacity Fee. The previous fee increases were implemented in November 2006, along with an increase in the Connection Fee from $275 to $1,392. The District completed a Capacity Fee Update in August 2006. The update factored in new capital costs identified in the District's 2004 Sewer Master Plan, 2005 Wastewater Facilities Master Plan, and other infrastructure needs for new development.

Table 9.8 summarizes ISD's fees:

Table 9.8
Ironhouse Sanitary District
Wastewater Fee Summary
(per ESU)

Year	Residential User Fee (annual)	Connection Fee	Trunk Line Capacity Fee	Plant Capacity Fee	Total for New Connection
2007-08	$465	$1,392	$973.40	$5,468.40	$7,833.80
2006-07	$412	$1,392	$903	$5,073.00	$7,368.00
2005-06	$360	$275	$758	$3,323.50	$4,356.50
2004-05	$300	$275	$736	$3,230.50	$4,241.50

During the public hearing process for the rate change in June 2007, the District received approximately 30 written protests, some from senior citizens, regarding the rate increase. The concern expressed by these ratepayers was that a single rate for homeowners is inequitable. The seniors argued that an older couple in a single-family dwelling without children in the home used less water than a large family in a single-family dwelling. News accounts of the issue reported that the Board of Directors would look at possible rate breaks for seniors on a fixed income and other low-income ratepayers in the future, possibly when the next rate increase is considered.

Current service fees, based on average consumption per household, may require future study to address concerns raised by ratepayers prior to the most recent rate increase. The District should consider further study to see if they can coordinate with the Diablo Water District, where appropriate, to help gauge average consumption for various home types. ISD might also consider opportunities to develop a metering model of their own to determine the average waste discharge for various home types, and construct a service fee for residential accounts that more accurately reflects today's home environment.

9.7 Opportunities for Shared Facilities

ISD currently shares facilities with several agencies, as noted below:

- ISD accepts and recycles drinking water process sludge from the Contra Costa Water District (CCWD), per the terms of a fee agreement and ISD's Waste Discharge Requirements Order.
- ISD processes treated groundwater discharged into the ISD sewer system from PG&E (maximum 20 gpm).
- ISD performs levee maintenance services for Reclamation District No. 830 (Jersey Island); the Reclamation District reimburses ISD for the costs.
- ISD permits the public to use Jersey Island for recreation, with certain limitations.
- ISD permits the Contra Costa County Mosquito & Vector Control District to operate a Sentinel Chicken Coop on ISD property for the early detection of West Nile Virus.
- By agreement with the City of Oakley and Contra Costa County, ISD provides oversight of the trash collection and hauling franchise (Garaventa) that serves the City of Oakley, unincorporated Bethel Island, and portions of unincorporated east Contra Costa County. ISD monitors compliance with the requirements of AB939 for solid waste diversion on behalf of the City of Oakley and the County.
- ISD participates in the regional agreement through which the Delta Diablo Sanitation District (DDSD) operates the Household Hazardous Waste Facility for residents of eastern Contra Costa County.
- ISD, CCWD, DWD, and East Bay Regional Park District have a four-party partnership for the construction of a grade-separated railroad crossing which would eliminate four at-grade crossings. This underpass will jointly serve all four districts and their customers when accessing their offices and facilities. This partnership, with ISD as the lead agency, has been working closely with Caltrans and the BN&SF Railroad for grant funding, agreements, and easements.

As noted in *Section 9.5*, in the future there may be potential for regional wastewater recycling programs to provide cost savings and efficiency improvements. ISD, DDSD, CCWD, Central Contra Costa Sanitary District, Pittsburg, Antioch, and the Mirant Corporation have begun studying the possibilities for regional wastewater recycling for industrial and irrigation uses that would leverage existing recycled water treatment capacity and storage facilities and address peak demand and reliability issues.

9.8 Evaluation of Management Efficiencies

The District periodically plans and evaluates its sewer system and financial capacity for providing service and maintenance of the system. The District uses the 2004 Sewer System Master Plan, 2005 Wastewater Facilities Master Plan Update, and budgeting process to guide district operations.

9.9 Government Structure Options

ISD provides wastewater services for the City of Oakley, Bethel Island, and some unincorporated areas within eastern Contra Costa County. The District indicated that it is planning to provide service to a new high school proposed for the southwest corner of Delta Road and Sellers Avenue; this site is adjacent to the District's southern boundary although this use was not factored into the District's recent master plans. Due to urbanization and projected growth, there will be an increased need for the services provided by the District, and the District has planned for service needs through its master plans for the sewer system and wastewater facilities. The District's western boundary is contiguous to the boundary for the Delta Diablo Sanitation District and a portion of its southern boundary is contiguous to the boundary for the City of Brentwood. Three government structure options were identified:

- Maintain the status quo
- Annex the Liberty Union High School District site
- Consolidate with the Delta Diablo Sanitation District

Maintain the status quo: The District is currently providing wastewater services for residents and businesses within its boundaries. The District is providing adequate service, maintains its infrastructure, and is financially sound. The District has planned for a major expansion of its wastewater treatment facilities to accommodate the projected increase in service demands and changing regulatory requirements. The benefits of this option are continuation of service and economies that benefit ratepayers for wastewater service.

Annex the Liberty Union High School District site: A new high school is being proposed for the southwest corner of Sellers Avenue and Delta Road. ISD indicated that it plans to serve this facility, although it is in an area that the City of Brentwood identified for a potential sphere of influence expansion. This type of land use was not factored into the District's 2004 Sewer Master Plan or 2005 Wastewater Facilities Plan. Further study would be needed to determine the wastewater flows and construction timing to ensure that ISD's collection, conveyance and treatment facilities have the capacity to adequately serve the site. In addition, the CEQA document being prepared by the School District will need to address the impacts of providing sewer service to the site.

Consolidate with the Delta Diablo Sanitation District: ISD and DDSD are providing similar services within their boundaries. The principal act for ISD is the Sanitary District Act of 1923 (Health & Safety Code §6400 et seq.) and DDSD's principal act is the County Sanitation District Act (Health & Safety Code §4700 et seq.). Government Code §56826.5 includes provisions for the consolidation of two or more special districts formed under different principal acts.

The advantages of this option may include economies of scale due to operational efficiencies. However, the wastewater collection and conveyance systems of the two agencies are designed to leverage the use of gravity and proximity to permitted discharge facilities. ISD has significant land resources on Jersey Island that allow for significant land application of treated effluent and provide the opportunity for a deep water outfall within the San Joaquin River. DDSD has a deep water outfall in New York Slough, but it does not have excess capacity for ISD's flow. The Districts are focused on serving the needs of the communities within their service area. A consolidation could result in increased costs, loss of efficiency, and loss of local control regarding capital improvements. As noted above in *Sections 9.5* and *9.7*, there may be opportunities to effectively avoid costs and share facilities through a regional approach to wastewater recycling efforts; this could be accomplished through a joint powers authority that would not affect the government structure. Consolidation would require further study to determine whether there would be real operational efficiencies as well as the potential benefits and costs.

9.10 Local Accountability and Governance

The Ironhouse Sanitary District operates under the oversight and guidance of a Board of Directors that includes five voting members. The Directors are elected at large and serve staggered four-year terms. The last contested election was in 2000. The District's governance is summarized in *Table 9.9* below.

Table 9.9
Ironhouse Sanitary District Governance

Date Formed:	1945 (as Oakley Sanitary District) Name legally changed to Ironhouse Sanitary District in 1992		
Statutory Authorization:	Sanitary District Act of 1923 (Health and Safety Code §6400 et seq.)		
Board Meetings:	District Office, 1st Tuesday of each month at 7:30 pm		
Member	**Title**	**Term Expires**	**Compensation***
Lenny Byer	President	2010	$170/mtg
Doug Hardcastle	Director	2008	
Chris Lauritzen	Director	2010	
Don Lew	Director	2008	
Michael Painter	Director	2008	

** Directors are also eligible to receive health, vision, and dental insurance. The District pays 100% of vision and dental insurance and up to $950 for health insurance.*

District meetings are open to the public. Meeting notices and agendas are posted at least 72 hours in advance at the District office and on the District's website (www.ironhousesanitarydistrict.com). The website also includes information on rates, capital projects, and how to access Jersey Island for recreation. ISD publishes a newsletter for its customers three times each year.

9.11 Sphere of Influence Recommendations

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCO review and update the sphere of influence (SOI) for each of the special districts and cities within the county.[2]

ISD provides wastewater collection, conveyance, treatment, and disposal services for the City of Oakley, unincorporated Bethel Island, and other unincorporated areas including the East Cypress Corridor Specific Plan Area. One area west of Marsh Creek overlaps with the SOI for the City of Brentwood. Due to urbanization and projected growth, there will be an increased need within this area for the services provided by the District. The District has planned to serve this need through its master plans, budgets, wastewater revenue program, capacity fee analysis, and rate structure.

The District's SOI currently includes area adjacent to the District's southern boundary, including the Veale Tract. This area is outside the County Urban Limit Line approved by the voters in 2006, and is designated as Delta Recreation and Resources with land uses such as agriculture, wildlife habitat, and low intensity recreational use. These land uses would typically not need wastewater service from ISD. However, visitor serving recreational facilities could potentially need wastewater service to avoid the use of septic systems.

As discussed in *Section 9.9*, the District has indicated that it plans to serve the proposed new high school at the corner of Sellers Avenue and Delta Road. This site is outside the boundaries of the City of Oakley Planning Area used for the District's 2004 Sewer Master Plan. In addition, it is outside the County Urban Limit Line approved by the voters in 2006. The area is designated as agriculture, open space, parks, and other non-urban uses on the County's land use map. In November 2006, the voters did not approve the bond issue for the school, and the project has been delayed. Additional analysis will be needed to support the public services to this facility.

Consolidation of ISD and DDSD was identified as a government structure option in *Section 9.9*. Further study would be needed to determine whether operational efficiencies, costs savings, and other benefits would be achieved. The systems are separate and are designed to meet local conditions and use gravity flow where possible. Each has planned for treatment capacity and

[2] State of California Government Code Section 56425 et seq.

disposal methods that are efficient and cost effective for their service area. An in-depth evaluation of efficiencies and cost savings would be necessary before determining if this is a viable alternative.

Given these considerations, two potential options have been identified for the ISD SOI:

- **Reduce ISD's SOI to eliminate overlap with the City of Brentwood SOI:** If LAFCO determines that the existing government structure is appropriate, then the one area of overlap should be removed from ISD's SOI. With the exception of one area south of Delta Road and west of Marsh Creek, Delta Road serves as the current SOI limit between the City of Brentwood and the City of Oakley, ISD and the Diablo Water District. The remainder of ISD's existing SOI should be retained.

- **Remove the Veale Tract from ISD's SOI:** The Veale Tract is outside the voter approved County Urban Limit Line and is designated as Delta Recreation on the County's General Plan Land Use map. This area will not need services from ISD in the foreseeable future.

SOI Recommendation

It is recommended that LAFCO reduce ISD's sphere of influence to eliminate the area south of Delta Road and west of Marsh Creek that overlaps with the City of Brentwood SOI and to remove the Veale Tract southeast of the District. The District provides the wastewater conveyance, treatment, and disposal services for the City of Oakley, Bethel Island, and other unincorporated areas including the East Cypress Corridor Specific Plan Area. The District uses the General Plans for the City of Oakley and Contra Costa County, and other planning efforts to plan for the future service needs of the area. The District is planning to construct a new wastewater treatment plant and discharge facility to ensure adequate capacity to handle flows generated by future growth. The District has adequately planned to serve this area.

The analysis of SOI issues is included in *Table 9.10* below.

Table 9.10
Ironhouse Sanitary District
SOI Issue Analysis

Issue	Comments
SOI Update Recommendation	Reduce SOI to eliminate overlap with Brentwood and Veale Tract; retain remainder of current SOI
Services authorized to provide	Wastewater collection, conveyance, treatment, disposal
Existing and Planned Land Uses and Policies	The District has no land use authority for the area where it provides wastewater collection, conveyance, and treatment services. County and city plans include land uses and population growth that will need increased wastewater services.

Table 9.10
Ironhouse Sanitary District
SOI Issue Analysis

Issue	Comments
	County and city policies support the provision of adequate wastewater service for residents and businesses.
Potential effects on agricultural and open space lands	Although there are agricultural and open space lands within the District's SOI and boundaries, wastewater services do not by themselves induce growth on agricultural or open space lands. No Williamson Act contracts would be affected.
Opportunity for Infill Development rather than SOI expansion	The District has no land use authority and has no control over the location of infill development.
Projected Growth in the Affected Area	Population is expected to increase by 34% over the next 23 years to 43,441 residents. There will be an increased need for comprehensive wastewater services.
Services to be Provided to any areas added to the SOI	No areas are proposed to be added to the ISD SOI.
Service Capacity and Adequacy	The District is providing adequate service, is financially stable, and has the capacity to continue to provide services within its boundaries. The District has planned for capital needs based on projected growth and is implementing projects to extend the life of existing infrastructure and increase capacity where necessary. However, treatment capacity and disposal will remain an infrastructure need until the District receives regulatory approval and has financing in place for the new treatment plant and discharge facility in the San Joaquin River.
Location of Facilities, Infrastructure and Natural Features like rivers and ridgelines	The District provides services within the City of Oakley, Bethel Island, and other unincorporated areas, including the East Cypress Corridor Specific Plan Area. ISD is bounded to the north by the San Joaquin River, to the west by DDSD, to the south by the City of Brentwood and to the east by unincorporated area. The District's offices and treatment plant are located in northern Oakley. The District currently discharges treated effluent to District-owned agricultural lands on the mainland and Jersey Island, which is wholly owned by the District except for 50 acres.
Effects on Other Agencies	Reducing the District's SOI to eliminate the overlap with Brentwood's SOI will eliminate confusion over planning responsibilities for services to that area.
Potential for Consolidations or other Reorganizations when Boundaries Divide communities	The District's current boundaries do not divide any communities. Consolidation with an adjacent sanitation district is an option that would require additional study.
Social or economic communities of interest in the area	The District was formed in 1945 as the Oakley Sanitary District. In 1992 the District annexed Bethel Island and consolidated with County Sanitation District No. 15. The District collects service charges from existing users and fees for new

Table 9.10
Ironhouse Sanitary District
SOI Issue Analysis

Issue	Comments
	development; the District also receives a portion of the 1% property tax. Property owners within the area and ratepayers have an economic interest in receiving services from this investment.
Willingness to serve	The District wishes to continue to provide services within its boundary.

9.12 Determinations

9.12.1 Growth and Population

Purpose: *To evaluate service needs based upon existing and anticipated growth patterns and population projections.*

ISD serves an area that includes the City of Oakley, Bethel Island, and other unincorporated areas in eastern Contra Costa County. The current estimated population for this service area is 32,324. The population is expected to reach 43,441 by 2030 with an average annual growth rate of 1.5 percent.

The District provides wastewater collection, conveyance, treatment, and disposal for residential, commercial, and industrial properties within its boundaries. Given the current level of urbanization and expected growth within the District's boundaries, there will be an increased need for the services provided by the District in the future.

To serve this growth the District will need to continue to maintain the existing infrastructure and implement phased improvements to some pump stations, force mains, and the treatment plant as addressed in the District's master plans for the sewer system and wastewater facilities. These improvements will ensure that there are no service impacts to existing customers.

9.12.2 Infrastructure Needs or Deficiencies

Purpose: *To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities, and service quality.*

ISD owns and operates a wastewater system for domestic, commercial, and industrial wastewater. The District's wastewater system infrastructure includes a collection system, a series of pumping stations, conveyance pipelines, a wastewater treatment plant, and discharge facilities on the mainland and on Jersey Island, which is wholly owned by ISD except for 50 acres. The Wastewater Treatment Plant has a current treatment capacity of 2.7 mgd; average daily flows are 2.6 mgd. The District is planning to construct and operate a new treatment plant and disposal facilities that use land application to the maximum extent practicable on Jersey

Island combined with an outfall in the San Joaquin River. The District is working to obtain regulatory approval and financing. Due to limited remaining capacity and limitations on land application, this will remain an infrastructure need until the District receives these approvals.

The District's 2004 Sewer Master Plan identifies deficiencies in certain sewer mains and trunk lines under existing and future conditions. Improvements will be needed to maintain adequate service levels with future development.

9.12.3 Financing Constraints and Opportunities

Purpose: To evaluate a jurisdiction's capacity to finance needed improvements and services.

ISD's primary sources of revenue are service charges and fees. The District receives a portion of the one-percent property tax. Slower growth will reduce the revenue from Connection Fees, Trunk Line Capacity Fees, and Plant Capacity Fees that are used to fund capital projects for system expansion.

The District uses a pay-as-you-go approach to fund capital projects to the extent feasible. The District is in the process of obtaining low interest financing for the treatment plant and discharge facilities. The District has implemented rate increases in accordance with the Wastewater Revenue Program and Capacity Fee Update to ensure that adequate financial resources are available for debt service and for pay-as-you-go funding on certain projects. The District is financially stable and has substantial reserves.

9.12.4 Cost Avoidance Opportunities

Purpose: To identify practices or opportunities that may help eliminate unnecessary costs.

ISD is controlling costs by maximizing the use of its land assets, management capabilities, and cooperative partnerships; these activities generate non-user based revenue that offset costs in other areas.

There may be opportunities to avoid costs through a regional approach to wastewater recycling for industrial and irrigation uses. The agencies providing wastewater treatment and disposal within eastern Contra Costa County should partner on evaluating regional alternatives where appropriate to ensure that adequate due diligence is performed and the benefits to ratepayers from avoided costs and shared facilities are fully evaluated.

9.12.5 Opportunities for Rate Restructuring

Purpose: To identify opportunities to impact rates positively without decreasing service levels.

ISD's service rates are based on the underlying costs to operate the system and provide for capital improvements. The District has a flat rate structure for residential properties; non-residential properties pay rates based on estimated wastewater volume and loading. The District is incrementally increasing rates over the next four years to build reserves for the treatment plant project and to avoid a major rate spike in the future. In June 2007, the District adopted a four year cap of $215 in rate increases. Rate increases within that limit are expected over the next four fiscal years.

The District should consider further study to see if they can coordinate with the Diablo Water District and other agencies to gauge more accurate consumption and construct a service fee for residential accounts based on more representative flow volumes that reflect the wide variety of housing types now within the District boundaries.

9.12.6 Opportunities for Shared Facilities

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

ISD currently shares facilities with a number of agencies. This increases the use of its resources and land assets and provides benefit to its ratepayers.

Opportunities for shared facilities may be available through a regional approach to wastewater recycling. The wastewater agencies within this region should partner on evaluating regional alternatives where appropriate to ensure that adequate due diligence is performed and the benefits to ratepayers from avoided costs and shared facilities are fully evaluated.

9.12.7 Evaluation of Management Efficiencies

Purpose: To evaluate management efficiencies of the jurisdiction.

ISD periodically plans and evaluates their wastewater system and financial capacity for providing service and maintenance for the system.

9.12.8 Government Structure Options

Purpose: To consider the advantages and disadvantages of various government structures to provide public services.

ISD provides wastewater services for the City of Oakley, unincorporated Bethel Island, and other unincorporated areas including the East Cypress Corridor Specific Plan Area. Three government structure options were identified:

Maintain the status quo: The District is currently providing wastewater services for residents and businesses within its boundaries. The District is providing adequate service, maintains its infrastructure, and is financially sound. The benefits of this option are continuation of service and economies that benefit ratepayers for wastewater service and water service.

Annex the Liberty Union High School District site: A new high school is being proposed for the southwest corner of Sellers Avenue and Delta Road. ISD indicated that it plans to serve this facility. Further study would be needed to determine the wastewater flows and construction timing to ensure that ISD could adequately serve the site. In addition, the CEQA document being prepared by the School District will need to address the impacts of providing sewer service for the site.

Consolidate with the Delta Diablo Sanitation District: ISD and DDSD are providing similar services within their boundaries. The advantages of this option may include economies of scale due to operational efficiencies. However, a consolidation could result in increased costs, loss of efficiency, and loss of local control regarding capital improvements. This option would require further study to determine the potential benefits and costs.

9.12.9 Local Accountability and Governance

Purpose: To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management process.

ISD is governed by a five-member Board of Directors elected at large by voters within the District. The District meets monthly at the District offices in Oakley. Meetings are open to the public, and information on the District is available on its website.