

## 2 PROPERTY DESCRIPTION AND MANAGEMENT SETTING

This chapter describes the existing geographic setting of the Yolo Bypass Wildlife Area, including the Wildlife Area boundaries, associated management units, and existing easements. Existing infrastructure and its management (i.e., water delivery and management, roads, levees, utilities, and houses and other structures) are also discussed. This chapter also describes the existing management setting of the Yolo Bypass Wildlife Area, including legal constraints and existing agreements.

### 2.1 GEOGRAPHICAL SETTING

The Yolo Bypass Wildlife Area is located within the historic Yolo Basin of the Sacramento Valley and is part of the California Department of Fish and Game's (DFG's) Bay-Delta Region. It lies almost entirely within the Yolo Bypass in Yolo County, between the cities of Davis and West Sacramento (Exhibits 1-1 and 1-2).

### 2.2 PROPERTY BOUNDARIES AND EASEMENTS

Exhibit 2-1 depicts the boundaries of the approximately 16,770-acre Yolo Bypass Wildlife Area. The northern boundary of the Yolo Bypass Wildlife Area is generally formed by the Union Pacific Railroad (UPRR) (formerly Southern Pacific Railroad) tracks that run parallel to and north of Interstate 80 (I-80). There is, however, a 182-acre portion of Yolo Bypass Wildlife Area that abuts the UPRR tracks on the north side. The eastern boundary is shaped largely by the East Toe Drain, which runs inside of the east levee of the Yolo Bypass (which is also the west levee of the Sacramento River Deep Water Ship Channel). This eastern boundary is the centerline of the open water in the East Toe Drain, except in an area approximately 3 miles due south of I-80 where the boundary turns west to avoid a small area of privately owned land. The western boundary of the Yolo Bypass Wildlife Area is generally defined by the west levee of the Yolo Bypass, except that the boundary also encompasses two properties outside of the Bypass levee. The southern boundary is approximately 8.7 miles south of I-80 on the east side and approximately 10 miles south of I-80 on the west side of the wildlife area (Exhibit 2-1).

The primary entrance to the Yolo Bypass Wildlife Area, which can be reached via the East Chiles Road exit of I-80, is approximately 2 miles east of Davis and 4 miles west of West Sacramento. The entry driveway intersects County Road 32B (aka east Chiles Road) at the west levee of the Yolo Bypass, immediately west of the west end of the Yolo Causeway (I-80 Bridge).

The Yolo Bypass Wildlife Area is composed of 17 separate management units throughout its approximately 16,770 acres (Exhibit 2-1). A brief description of each management unit is provided below.

#### 2.2.1 UNIT DESCRIPTIONS

Existing cover types within the Yolo Bypass Wildlife Area include wetlands, riparian areas, grasslands and other uplands, vernal pools, open-water, and agricultural lands. There are flowage easements covering all of the Yolo Bypass Wildlife Area units within the Yolo Bypass that allow for water to be diverted from the Sacramento River during high flows for flood protection purposes. As a result, most of the Yolo Bypass Wildlife Area has been inundated by Bypass flows in approximately 71% of water years (as measured at the Lisbon Weir) (Yolo Basin Foundation 2001). Management units outside of the Bypass include an approximately 130-acre portion of the Northwest Unit called the Geiberson Ranch and the Pacific Flyway Center Unit (Exhibit 2-1). A general description of each management unit is provided below. Management units are organized by primary acquisitions/previous ownership (i.e., Causeway Ranch, Original Yolo Bypass Wildlife Area, Los Rios Farms Complex, and Tule Ranch). Descriptions of the most recent acquisitions, the Parker Unit and the Cowell Pond Unit, are included in the Los Rios Farms Complex discussion. Descriptions of existing infrastructure, i.e., water management and delivery, roads, levees, utilities, and houses and other structures, are provided separately under Section 2.3,

“Existing Infrastructure.” Table 2.2-1 specifies the area and primary land use/cover type for each of the management units in the Yolo Bypass Wildlife Area. Additional details regarding planning influences and considerations, agricultural resources, soils and climate, hydrology and water resources, biological resources, cultural resources, and recreation and public access are provided in Chapter 3, “Environmental Setting.”

## **CAUSEWAY RANCH**

### **Causeway Ranch Unit (North)**

The Causeway Ranch Unit (North) is approximately 182 acres and is located north of the UPRR trestle. This unit has two productive farm fields with a total of approximately 160 farmable acres. The balance of this unit consists of roads, ditches, and a narrow strip of trees and vegetation along the UPRR trestle on the eastern point of this unit. The same tenant has been farming this unit for many years. Recent crops have been sunflower, safflower, and corn.

### **Causeway Ranch Unit (Main)**

The Causeway Ranch Unit (Main) is approximately 1,966 acres and is located immediately south of I-80 and, combined with the 1,000 Acres Unit described below, has 24 productive farm fields totaling approximately 2,785 acres and one field of approximately 22 acres dedicated exclusively to wildlife habitat. Crops grown in these two units have consisted of corn, hay, safflower, tomatoes, rice, wild rice, milo, and wheat. Planted acres have ranged from 1,837 acres to 2,760 acres with a 4-year average of 2,434 acres. A significant amount of this area has recently been planted in wildlife food plots and shorebird management areas in rotation with rice production.

The most notable feature of this unit is the approximately 25-acre Green’s Lake. The lake is surrounded by riparian vegetation and is one of the very few mature riparian woodland areas existing within the Yolo Bypass. Green’s Lake appears to be the remnant of a hydraulic connection between the historic north fork of Putah Creek and Lake Washington in West Sacramento.

### **1,000 Acres Unit**

As its name implies, the 1,000 Acres Unit is approximately 1,000 acres. This management unit is located immediately south of the Causeway Ranch Unit (Main). Crops grown in these two units are described above under “Causeway Ranch Unit (Main).” In addition to supporting agricultural crops, portions of the 1,000 Acres Unit have also been managed specifically as shorebird habitat on a 3-year rotational basis (see Chapter 3, “Environmental Setting,” for additional detail).

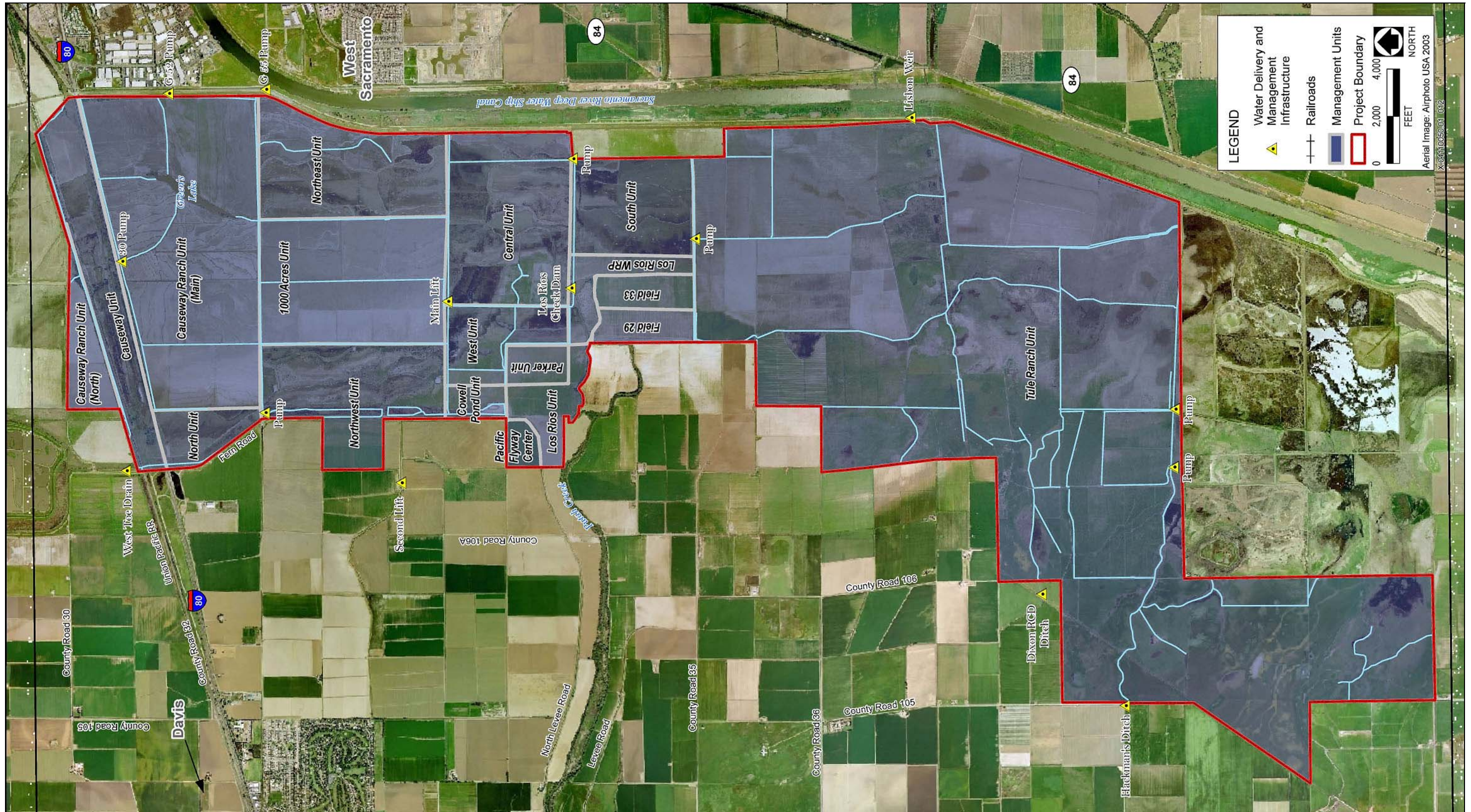
## **ORIGINAL YOLO BYPASS WILDLIFE AREA**

The original Yolo Bypass Wildlife Area includes a series of early acquisitions that formed the original Yolo Bypass Wildlife Area.

### **Causeway Unit**

The Causeway Unit is approximately 420 acres and lies between the UPRR trestle and I-80. The property consists of approximately 205 acres of grassland and riparian vegetation communities, approximately 95 acres of fallow land, and approximately 120 acres of farmable land on the eastern portion of this property. There is one permanent pond that was restored in 1996 by the U.S. Army Corps of Engineers (USACE). There is also an





Source: Department of Fish and Game, City of Davis 2005, CaSIL 1993

**Yolo Bypass Wildlife Area**

**Exhibit 2-1**



**Table 2.2-1  
Management Units in the Yolo Bypass Wildlife Area**

| Management Unit (Subunit)  | Area (acres) <sup>1</sup> | Land Use/Cover Type(s)   |
|--|---------------------------|--|
| <b>Causeway Ranch</b>  |                           |  |
| Causeway Ranch Unit (North)  | 182                       | Farmland   |
| Causeway Ranch Unit (Main)   | 1,966                     | Farmland; Green's Lake; seasonal wetland and riparian vegetation communities                                   |
| 1,000 Acres Unit   | 1,000                     | Farmland   |
| <b>Original Yolo Wildlife Area</b>   |                           |  |
| Causeway Unit  | 420                       | Farmland; grassland and riparian vegetation communities  |
| North Unit   | 182                       | Seasonal wetland, grassland, and riparian vegetation communities   |
| Northwest Unit <sup>2</sup>  | 683                       | Seasonal and permanent wetland, farmland, grassland, and riparian vegetation communities                       |
| West Unit  | 255                       | Seasonal wetland and grassland vegetation communities  |
| Northeast Unit   | 759                       | Seasonal and permanent wetland, grassland, and riparian vegetation communities                                 |
| Central Unit   | 892                       | Seasonal and permanent wetland, grassland, and riparian vegetation communities                                 |
| South Unit   | 488                       | Seasonal and permanent wetland, and grassland vegetation communities   |
| <b>Los Rios Farms Complex</b>  |                           |  |
| Los Rios Unit  | 230                       | Farmland   |
| Los Rios WRP   | 153                       | Seasonal and permanent wetland, grassland, and riparian vegetation communities                                 |
| Cowell Pond Unit   | 119                       | Seasonal and permanent wetland, grassland, and riparian vegetation communities                                 |
| Pacific Flyway Center  | 69                        | Seasonal and permanent wetlands, riparian, and grassland communities; farmland and other                       |
| Parker Unit  | 100                       | Farmland   |
| Field 29   | 132                       | Farmland   |
| Field 38   | 140                       | Farmland   |
| <b>Tule Ranch</b>  |                           |  |
| Tule Ranch Unit  | 9,000                     | Farmland; pasture; seasonal and permanent wetland, grassland, vernal pool, and riparian vegetation communities |
| <b>Total (approximate)</b>   | <b>16,770</b>             |  |
| <p>Note: WRP = Wetland Reserve Program</p> <p><sup>1</sup> Areas are based on assessor's parcel number records obtained from DFG and calculated from property boundaries in geographic information system (GIS) database (compiled by EDAW in 2006), which reflect land area shown in 2003 aerial photography.</p> <p><sup>2</sup> Includes additional 160 acres that was part of the Glide acquisition.</p> |                           |  |

extensive area of natural seasonal wetlands in the center of the unit. The balance of this land consists of scattered remnants of the old causeway structure, the structural foundation of the current I-80 Causeway, and the UPRR trestle. The farmed portion of this unit has recently supported sunflower and corn crops. DFG holds a conservation easement on the eastern half of this unit. California Department of Transportation (Caltrans) retains ownership of the property for 30 years as a potential borrow site. The landmark eucalyptus grove is located on the west side of the unit. A complex web of underground pipeline and fiber optic cable easements crosses the unit making active management for wildlife habitat difficult. Additionally, the numerous concrete slabs that were once part of a previous incarnation of the Yolo Causeway lie shallowly buried over several acres, making the area unmanageable and a potential hazard to vehicles and pedestrians.

### **North Unit**

The North Unit is approximately 182 acres. Located immediately south of the Causeway Unit and adjacent to the west levee of the Yolo Bypass, this unit serves as the primary entry point into the Yolo Bypass Wildlife Area. It consists of approximately 131 acres of seasonal wetland, 10 acres of permanent wetland, and 38 acres of grassland vegetation communities with sparse areas of riparian scrub and woodland. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1995 as part of the USACE Yolo Basin Wetlands project. California Waterfowl Association (CWA) completed a habitat improvement project in fall of 2005 using funds from a North American Wetlands Conservation Act (NAWCA) grant. The west side of the unit is a low area that was created when the levees were constructed decades ago, resulting in established wetlands. This existing wetland habitat pre-dates the establishment of the Wildlife Area. Parking Lot A is located on the north end of the unit.

### **Northwest Unit**

The Northwest Unit is approximately 683 acres and is located south of the North Unit, adjacent to and largely within the west levee of the Yolo Bypass. Approximately 523 acres of this unit are part of the original Yolo Bypass Wildlife Area; the remaining 160 acres (130 acres of which are outside of the Yolo Bypass [aka the Geiberson Ranch]) were purchased as part of the Glide Ranch acquisition. The primary portion of the unit (i.e., the portion within the Bypass) consists of approximately 314 acres of seasonal wetlands with 57 acres of permanent wetland, 5 acres of riparian, and 55 acres of grassland vegetation communities. The auto tour loop is located within this unit. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1995 as part of the USACE Yolo Basin Wetlands project. The southwest corner of this unit contains a 15-acre of restored riparian habitat with 1,500 trees that were planted by the USACE in 1995. CWA completed an extensive habitat improvement project in fall of 2005 using funds from a NAWCA grant. The approximately 130-acre parcel outside the Yolo Bypass was part of the 2001 Glide acquisition and was known as the Giberson Ranch. This parcel is currently being farmed under a lease, as accepted by DFG as a condition of the sale. The west side north of the riparian area contains low-land tule marsh habitat that pre-dates the establishment of the Wildlife Area. The northwest side of the unit receives the agricultural and stormwater runoff from the South Davis Drain. Parking lots B, C, and D are located along the perimeter of this unit.

### **West Unit**

The West Unit is approximately 255 acres. Located immediately south of the Northwest and 1,000 Acres units, this unit is part of the original Yolo Bypass Wildlife Area. It consists of approximately 196 acres seasonal wetland and 53 acres grassland vegetation communities. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1995 as part of the USACE Yolo Basin Wetlands project. DU completed an extensive habitat improvement project in summer 2005 using funds from a NAWCA grant. This unit is part of the current hunt zone and contains one of the original Putah Creek Sinks.

## **Northeast Unit**

The Northeast Unit is approximately 759 acres and is located immediately south of the Causeway Ranch Unit and east of the 1,000 Acres Unit. The eastern boundary of the Northeast Unit, the centerline of the East Toe Drain, is the same as a portion of the western Yolo Bypass Wildlife Area boundary. This unit is part of the original Yolo Bypass Wildlife Area and consists of approximately 476 acres of seasonal and 80 acres of permanent wetland, 127 acres of grassland, and sparse riparian vegetation communities. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1995 as part of the USACE Yolo Basin Wetlands project. CWA completed an extensive habitat improvement project in fall 2003 using funds from a NAWCA grant. Hunting is allowed in this unit, featuring 16 double concrete pit blinds located on islands in seasonal wetlands. Parking lot H is located on the southwest corner of this unit. The Northeast Unit is also accessed from Parking lot F, located in the northeast corner of the Central Unit.

## **Central Unit**

The Central Unit is approximately 892 acres and is located immediately south and east of the Northwest Unit. The cross canal defines the north border. This unit is part of the original Yolo Bypass Wildlife Area and consists of approximately 356 acres seasonal wetlands, 54 acres of permanent wetlands, and 354 acres grassland vegetation communities. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1995 as part of the USACE Yolo Basin Wetlands project. DU completed an extensive habitat improvement project in fall 2004 using funds from a NAWCA grant. Hunting is allowed in this unit. Parking Lot F is located on the north east corner of this unit, lot G is located at the south east corner of this unit and lot E is located on the west side of this unit.

## **South Unit**

The South Unit is approximately 488 acres and is located immediately south of the Central Unit. This unit is part of the original Yolo Bypass Wildlife Area and consists of approximately 272 acres of seasonal and 19 acres of permanent wetland, and 48 acres of grassland vegetation communities. This unit was originally restored from fallow agricultural land to seasonal wetlands in 1994 as part of the USACE Yolo Basin Wetlands project. The entire unit has been primarily managed as sanctuary with no public use allowed.

## **LOS RIOS FARMS COMPLEX**

### **Los Rios Unit**

The Los Rios Unit is approximately 230 acres and is located north and south of Putah Creek within the Yolo Bypass. This unit, combined with several other parts of the Los Rios Complex, includes nine productive fields with a total of approximately 696 farmable acres. Recent crops in these units have been corn, barley, sorghum, safflower, melon, seed, and tomatoes.

### **Los Rios WRP Unit**

The Los Rios WRP Unit is approximately 153 acres and is located east of the Los Rios Unit. The previous owner of this unit entered into a perpetual easement with the Wetland Reserve Program (WRP) of the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS). The unit currently consists of restored seasonal and permanent wetland, riparian, and grassland vegetation communities. CWA completed this restoration project in fall of 2005. Riparian vegetation will be planted in summer 2006. Hydraulic analysis was used to determine the extent of riparian vegetation allowable under the State Reclamation Board permit. This unit will be available for hunting beginning in the 2006–07 season. Putah Creek is the north boundary of this unit and often overflows its channel on the west side of this unit during high flows.

## **Cowell Pond Unit**

The Cowell Pond Unit is approximately 119 acres and is located immediately south of the Northwest Unit and west of the West Unit. This unit is adjacent to the west levee of the Yolo Bypass. DFG had a long-term easement for wildlife habitat in this area before it purchased the land from Pacific Gas & Electric (PG&E). This unit contains a large but shallow holding pond that is part of the Mace Ranch Irrigation System. Water for the irrigation system moves out of the Bypass in a culvert through the west levee from this pond. This unit has not been farmed since the WCB purchased the conservation easement for the property in 1991. Over the years there has been annual cattle grazing activity.

## **Pacific Flyway Center Unit**

The Pacific Flyway Center Unit is approximately 69 acres. Located outside of the Yolo Bypass levee, to the south and west of the Cowell Pond Unit, this unit has been identified as the preferred site for the proposed Pacific Flyway Center. The Pacific Flyway Center project involves construction of a visitor and environmental education center along with associated infrastructure and support facilities, restoration of 45 acres of habitat, and construction of a new site access road. DFG would operate and maintain the site as a visitor/educational center; the site could also serve as the main entrance to the Wildlife Area and would include facilities for administration of the Yolo Bypass Wildlife Area. (See Chapter 3, "Environmental Setting," and Chapter 4, "Compatible Resource Management and Public Use," for additional information on the Pacific Flyway Center.) Forty five acres of this unit were recently restored to seasonal and permanent wetland habitat and will be also managed for riparian and grass land communities. Approximately 15 acres of the site will remain in agricultural production. About 9 acres has been graded as a building site and parking lot. CEQA compliance for these activities was completed in early 2006 (California Department of Fish and Game 2006).

## **Parker Unit**

The Parker Unit is approximately 100 acres and is located west and north of the Los Rios Unit. This unit has been farmed as part of the Los Rios Complex. It may possibly be restored to wetland habitat by CWA in the summer/fall of 2007 with NAWCA funds. This unit is not currently in the hunting zone.

## **Field 29 Unit**

The Field 29 Unit is approximately 132 acres and is located south of a portion of the Los Rios WRP Unit. The western boundary of this unit forms a portion of the western boundary of the Yolo Bypass Wildlife Area. This unit has been farmed as part of the Los Rios Complex. A fork of Putah Creek forms the north boundary of this unit and another fork serves as the west boundary. This unit has recently been used to grow tomatoes, safflower or sudan and is currently within the hunting area.

## **Field 38 Unit**

The Field 38 Unit is approximately 140 acres and is located south and west of the Los Rios WRP Unit. This unit has been farmed as part of the Los Rios Complex and lies within the hunting area.

## **TULE RANCH**

### **Tule Ranch Unit**

The Tule Ranch Unit is approximately 9,000 acres and is located completely within the Yolo Bypass, generally between County Road 105 and the Sacramento Deep Water Channel and approximately 4.5 miles south of I-80 to 10 miles south of I-80 in the southeastern portion of Yolo County. This unit has a maximum width (east/west) of 4.25 miles and maximum length (north/south) of 6 miles. The unit consists of a combination of annual rye grass pasture, row and field crops, wetlands, vernal pools, and riparian vegetation located along the waterways and in

wetland areas. These waterways are extensive and are generally associated with the existing wetlands and/or ponds. Near the western boundary, along the natural shoreline of the Yolo Basin, uplands predominate in a landscape which still contains the natural topography of the region. These southern portions of the Tule Ranch Unit contain a fine assemblage of plants typical of vernal pools and playas. There are numerous swales that are often crossed by roads in this area. When this condition occurs, water can be impounded at these roads, creating vernal pool conditions. The property is currently leased for farming and cattle grazing; DFG assumed ownership of these leases as a condition of sale. The property contains numerous improvements, including a main residence, a garage, shop, a second residence, sheds, four barns, several storage buildings, fuel tanks, fencing, and corrals, all of which are located in the southwest quadrant and related to the cattle lease operation.

## **2.2.2 EASEMENTS AND RIGHTS-OF-WAY**

Easements and rights-of-way are legally recorded documents that run with the deed of the property, and are, therefore, transferred with the property from owner to owner. Easements typically preserve the rights of an entity other than the landowner. Within the Yolo Bypass Wildlife Area there are generally three different types of easements. The first type includes easements for accessing levees, utilities, roadways, pipelines, etc. These easements exist for the purpose of maintaining, repairing, replacing, and installing levees, roads, railroads, power lines, utility lines, and pipelines needed for regional public works. The second type of easement that exists within the Yolo Bypass Wildlife Area is the conservation easement. A conservation easement is a legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land to protect its conservation values. A discussion of each easement and/or right-of-way is provided below. Exhibit 2-2 depicts easements and rights-of-way within or running through the Yolo Bypass Wildlife Area. Easements and rights-of-way are discussed further under Section 2.4.1, “Legal Constraints and Existing Agreements,” below. The third type of easement is a flowage easement.

### **FLOWAGE EASEMENTS**

The Yolo Bypass Wildlife Area lands located within the Yolo Bypass are restricted by easements held by the State Reclamation Board. These easements grant the state the right to inundate the land with floodwaters. They prevent landowners from building structures, berms, or growing vegetation that would significantly obstruct flow conveyance. The easement language varies slightly (Yolo Basin Foundation 2001). Reclamation Board regulations regarding vegetation maintenance standards for floodways and bypasses throughout the state include the following (CCR Title 23, Section 131 (g)).

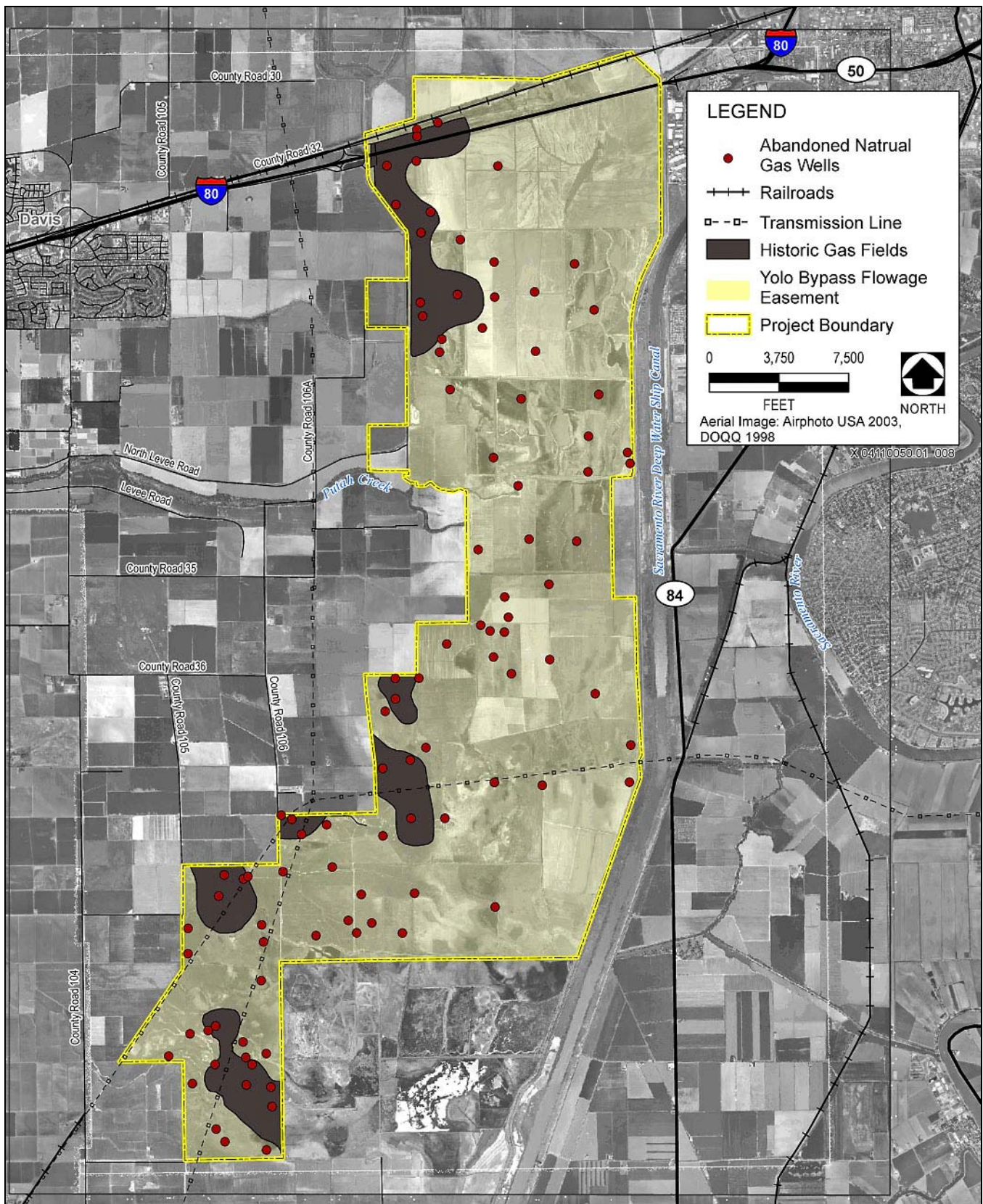
- ▶ Invasive or difficult-to-control vegetation, whether naturally occurring or planted, that impede or misdirect flood flows is not permitted to remain on a berm or within the floodway or bypass.
- ▶ The Reclamation Board may require clearing or pruning of trees and shrubs planted within floodways in order to minimize obstruction of flood flows.

DFG is required to obtain an encroachment permit from the Reclamation Board for projects such as building a pump tower, creating new wetlands, and proposing the planting of riparian vegetation. The permitting process may include conducting hydraulic modeling of the project to confirm the project would not adversely affect the conveyance of flood flows.

### **LEVEE EASEMENTS**

The DWR and State Reclamation Board maintain easements for accessing levees. Both agencies conduct inspections on levees bounding the Yolo Bypass Wildlife Area. The DWR maintains the west side Bypass levees and Reclamation Districts 900, 899, 765, and 999 maintain portions of the east side levees (see Exhibit 2-4).





Source: Department of Fish and Game, SACOG 1005, City of Davis 2005, CASIL 1993

## Easements and Rights-of-Way

## Exhibit 2-2

## **UNION PACIFIC RAILROAD RIGHT-OF-WAY**

UPRR holds a right-of-way along the tracks that run through the Causeway Ranch Unit (North). Management activities in the UPRR right-of-way or modification of the trestle require UPRR approval.

## **CALIFORNIA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY**

Caltrans holds a right-of-way along the I-80 causeway and projects located in the right-of-way (Causeway Unit) may require Caltrans approval and/or an encroachment permit.

## **WETLAND RESERVE PROGRAM CONSERVATION EASEMENT**

The prior owner of the Los Rios WRP Unit entered into a conservation easement with the WRP of the USDA NRCS on December 31, 2000. The WRP conservation easement is intended to perpetually restore and protect wetlands and precludes the use of this land for commercial agriculture.

## **PG&E EASEMENT**

PG&E holds easements through the North Unit, Causeway Unit, Los Rios Farms Unit, Pacific Flyway Center Unit, and Tule Ranch Unit to allow for placement and necessary maintenance of transmission lines. Management activities in the PG&E easements area may require PG&E approval.

## **NATURAL GAS WELL EASEMENTS**

There are numerous abandoned natural gas wells located throughout the Yolo Bypass Wildlife Area (Exhibit 2-2). All mineral, oil, and gas rights in the Causeway Ranch and Tule Ranch units have been retained by the previous owner (i.e., Colby Glide estate) (see below). The field location and easements of the wells and infrastructure must be determined prior to conducting substantial management activities in these areas. Additionally, an approved surface access agreement must be negotiated prior to accessing any mineral resources at the Yolo Bypass Wildlife Area.

## **OTHER EASEMENTS**

In addition to UPRR and Caltrans rights-of-way, there are a number of gas pipelines and fiber optic cables running through the Causeway Unit. Gas pipelines such as the Kinder Morgan line are located in other units throughout the Yolo Bypass Wildlife Area. There is a Sacramento Metropolitan Utilities District (SMUD) pipeline along much of the east-side Toe Drain as far south as Lisbon.

## **2.3 EXISTING INFRASTRUCTURE**

Existing infrastructure within the Yolo Bypass Wildlife Area includes water delivery and management facilities, roads, levees, utilities, houses and other structures. A discussion of each of these infrastructure components is provided below.

### **2.3.1 WATER RIGHTS, DELIVERY, AND MANAGEMENT**

Water delivery and management in the Yolo Bypass Wildlife Area is largely dictated by existing water rights, delivery and easement agreements, and infrastructure. The delivery system is a complex system of canals, ditches, pumps including elevated pumps and control gates (Exhibit 2-1).

## **WATER RIGHTS AND DELIVERY AGREEMENTS**

### **Water Rights**

The primary sources of irrigation water for the Yolo Bypass Wildlife Area are the East Toe Drain and Putah Creek. Information on water rights associated with use of East Toe Drain and Putah Creek water by the original Yolo Bypass Wildlife Area (see Exhibit 1-4) can be found in the 1990 *Hydrologic Analysis of the Mace Ranch Portion of the Proposed Yolo Basin Wildlife Area* (Central Valley Habitat Joint Venture 1990) and two delivery and easement agreements.

### ***Delivery and Easement Agreements***

#### March 25, 1991 “Mace Ranch Irrigation System Grant of Easements and Water Delivery Agreement (see Appendix D)”

This purpose of the agreement between Los Rios Farms, Inc., and Alhambra Pacific Joint Venture (now AKT) is to 1) allocate “pro rata” capacity in the Yolo Bypass Wildlife Area irrigation system, which functions both as a delivery and drainage system, 2) provide for the continued operation of the Mace Ranch Irrigation System, and 3) to allocate operation and maintenance (O&M) expenses and responsibility.

Los Rios Farms and Alhambra Pacific Joint Venture (now AKT) and the Department of Fish and Game collectively own the Mace Ranch Irrigation System, which obtains water from the Toe Drain, Putah Creek, and various groundwater wells. Los Rios Farms is responsible for Irrigation System O&M, with parties to the agreement sharing in the capacity limitations. Sharing of available Putah Creek water is based on estimated annual water use. Each of the parties to the Agreement is to rely solely on their individual ground or surface water rights or contracts as the basis for their water diversions into the Irrigation System. Parties agree to maintain all their riparian, appropriative, or other water rights.

Prior to each irrigation season, the Yolo Bypass Wildlife Area’s manager estimates annual summer irrigation needs and coordinates with Los Rios Farms in order to determine shared irrigation system capacity for the coming irrigation season.

#### December 30, 1991 “Agreement and Grant of Easements”

This purpose of this agreement between Alhambra Pacific Joint Venture (now AKT) and DFG is to convey, by Grant Deed, the property listed in “Exhibit A” (of the agreement) from PG&E to DFG for use as wildlife habitat, and to grant easements from DFG allowing PG&E to collect, transport, and use water and water rights retained by PG&E. As owner of the property, DFG is subject to the 3-25-91 “Mace Ranch Irrigation System Grant of Easements and Water Delivery Agreement.” A series of DFG easements grant PG&E the ability to construct, access, maintain, and operate the Irrigation Facilities (including roads, wells, and ditches), the Second Putah Creek Dam, and other water conveyance facilities. Term 5 allows PG&E to extract groundwater and use or sell it on or off the property, while Term 9 states that PG&E has transferred to DFG all water rights to “Exhibit A” properties, or other Yolo Bypass properties DFG acquires which have a “proprietary or cooperative management interest”, which are “reasonably necessary for wildlife habitat purposes.” PG&E reserves that amount of water not used by DFG as reasonably necessary for wildlife habitat purposes.



DFG use of water is conditioned by the following:

- Term 9(a) allows DFG use of water for wildlife habitat purposes on other property within the Yolo Bypass.
- Term 9(b) requires DFG to use surface water first and only then allows use of groundwater. Groundwater can be pumped if there is a surface water delivery failure, or if surface supplies are insufficient or unsuitable, but cannot be pumped due to inadequate capacity in the existing surface water delivery facilities.
- Term 9(c) allows PG&E to deliver groundwater to DFG in lieu of DFG using surface water, and to use, sell, or transfer an equal amount of surface water.
- Term 9(d) allows DFG construction and operation of wells for domestic and “similar” uses.
- Term 9(e) states that if DFG requires groundwater for habitat purposes under 9(b), the wells and conveyance facilities listed in Exhibit B (existing Well Sites C1, C2, C3, 49SW, 57NW, 57SW, and proposed Well Sites #1 through #8) and Exhibit C (Putah Creek Temporary Dam and associated lands) can be used, with DFG responsible for payment of power costs and a prorated sum for well wear and tear.

The previous terms restrict the use of water by DFG from the Mace Ranch Irrigation System to wildlife habitat purposes only on those properties purchased from Alhambra Pacific Joint Venture in 1992 and any adjacent properties. These rights are now held by their successor, AKT Properties. This lien precludes DFG’s use of Mace Ranch Irrigation System water for agricultural purposes anywhere on the Yolo Bypass Wildlife Area. Additionally, the DFG may not use the 10 described wells located on DFG property. For these reasons, irrigation systems have been developed to independently deliver water for agricultural uses on the Wildlife Area.

### ***Riparian Rights***

The DFG has a riparian right to pump from the east side Toe Drain. This is accomplished at several pump stations. Other farmers in the area also receive irrigation water from the same source which is lifted into the Mace Ranch Irrigation System. As stated above, each of the parties to this system still retains their water rights to Putah Creek or the Toe Drain that they had prior to entering this agreement. In addition to the Toe Drain, DFG also has a riparian right on Putah Creek.

The approximately 9,000-acre Tule Ranch Unit has riparian water rights from the East Toe Drain, which is located at the eastern boundary of the unit. The water is delivered via a series of canals and lift pumps to all areas of the unit.

The Los Rios Farms Complex has a licensed appropriative water right issued by the State Water Resources Control Board (application No. 17201, Permit No. 10867, License No. 9707) for diversion of 196 acre-feet per annum (afa) from South Fork Putah Creek from April 1 to September 15 of each year for use on 120 acres within the southwest 1/4 of Section 22.

As additional wetlands are developed, there will be a need to develop additional water delivery systems to fully utilize the water available to the Wildlife Area, while being respectful of the water needs of local farmers.

### **Water Delivery and Management**

A complex system of canals, elevated pumps, submersible pumps, and various other water control structures is maintained and used to flood and drain wetlands within the original Yolo Bypass Wildlife Area units according to

established prescriptions. These actions are designed to generally mimic the natural flooding and drainage that once occurred in the Yolo Basin.

The primary source of irrigation water for the Yolo Bypass Wildlife Area is the East Toe Drain. The East Toe Drain pool is tidal water that is trapped behind the Lisbon Weir; it also includes limited amounts of drainage water from the Willow Slough Bypass and the Tule Canal.



**Lisbon Weir, looking north (upstream) the East Toe Drain**

The Lisbon Weir maintains the water level in this pool. The Lisbon Weir is located approximately 6.75 miles south of I-80 along the east levee of the Yolo Bypass. The Lisbon Weir has existed in one form or another for several decades. It currently consists of a porous rock berm and series of flap gates that pass water north during high tides and trap this water at low tide.

Water is diverted from the East Toe Drain and Putah Creek into the original Yolo Bypass Wildlife Area at the following three points (see Table 2.3-1):

- ▶ *Northeast Submersible Pump Station:* Three submersible pumps (50 horsepower [hp] each) lift water into the ditch that runs across the top of the northeast section. This provides water to the Northeast Unit of the Yolo Bypass Wildlife Area.
- ▶ *Main Lift Pump Station:* Four elevated low lift pumps (one at 75 hp and three at 60 hp) located at the Main Lift Station, lift water into the central ditch (aka the cross canal). This water is augmented by the Putah Check Dam when it is in place. This portion of the system feeds the Central Unit, the Northwest Unit, the West Unit and after a second lift (the 180 pump), the North and Causeway Units. This system also feeds the South Unit downstream of the Putah Creek Check Dam. The West Unit also has a low lift pump which is used for drainage. As previously discussed this Main Lift Station is an integral part of the Mace Ranch Irrigation System and the DFG is precluded from utilizing this water for agricultural purposes.

- ▶ *South Submersible Pump Station:* Two submersible pumps (50 hp each) pump water into the Central Unit and the South Unit. This pump station is used when the Los Rios Check Dam has been removed or to augment Putah Creek flows.
- ▶ *180 Pump Station:* One 20 hp elevated low lift pump floods wetlands in the North Unit, the Causeway Unit and also supplements wetland areas at the north end of the northwest unit. This pump is fed from the Mace Ranch Irrigation System along the western toe drain of the west exterior levee.

| Unit Name             | Primary Water Source  | Water Pumped from                        | Water Supply Augmented by          |
|-----------------------|---|--|------------------------------------|
| <b>Causeway Unit</b>  | East Toe Drain  | East Toe Drain pool                      | --                                 |
| <b>North Unit</b>     | North Pump  | Cross Canal connecting to West Toe Drain | 180 Pump Station                   |
| <b>Northeast Unit</b> | Northeast Pump Station  | East Toe Drain                           | --                                 |
| <b>Northwest Unit</b> | Central Pump Station<br>Los Rios Check Dam                            | Cross Canal connecting to East Toe Drain | 180 Pump Station                   |
| <b>West Unit</b>      | Main Lift Station<br>Putah Creek Check Dam                            | Cross Canal connecting to East Toe Drain | Drainage of unit through west pump |
| <b>Central Unit</b>   | Main Lift Station<br>Putah Creek Check Dam<br>South Pump Station      | Cross Canal connecting to East Toe Drain | --                                 |
| <b>South Unit</b>     | Main Lift Pump Station<br>Putah Creek Check Dam<br>South Pump Station | --                                       | --                                 |

Source: California Department of Fish and Game 2001

Water also enters the Yolo Bypass Wildlife Area directly from Putah Creek via the Putah Creek Check Dam. The dam is typically operated from April through the end of November. This water flows by gravity to the Northwest, Central, West, and South Units of the Yolo Bypass Wildlife Area.

Approximately 0.2 mile north of I-80 at the east level, the tenant uses a diesel pump to lift water from the Willow Slough Bypass. This water irrigates agricultural fields on the Causeway North Unit.

In addition to the pump stations described above, there are ten existing groundwater wells, none of which is currently in production. Only one has a motor, and this has been submerged during flood events. The status of the wells is currently unknown. Use of these wells was retained by the former owner of the property as a condition of sale as previously described. Water availability for the original Yolo Bypass Wildlife Area can become limited during the spring and summer months when adjacent agricultural lands are irrigated for crop production. This makes it difficult for DFG to irrigate seasonal wetlands quickly. Strategies to address this issue are presented in Chapter 5, “Management Goals.”

**Causeway Ranch Unit (North).** The sources of irrigation water for the Causeway Ranch (north) are the Willow Slough Bypass and the west toe drain of the Yolo Bypass. The water from these sources enters a borrow ditch along the UPRR trestle and flows east toward the East Toe Drain. Approximately 1 mile east of the west levee, the tenant uses a diesel pump to lift water from the borrow ditch for irrigation. The water level in the ditch is controlled using an earthen dam with a culvert and flashboard riser located on or adjacent to the Yolo Bypass Wildlife Area, approximately 1.6 miles east of the west levee. This pool of water is also used by the Swanston properties located north of the Yolo Bypass Wildlife Area. The lease tenant on this unit maintains the pump, dam,



and ditches on this unit. DFG is not required to participate in any of the maintenance. It may be possible to receive delivered water from the Yolo County Flood Control and Water Conservation District through the Willow Slough Bypass.

**Causeway Ranch (Main) and 1,000 Acres Units.** The primary source of irrigation water for the Causeway Ranch (Main) and 1,000 Acres Units is the East Toe Drain, facilitated by the Lisbon Weir. Two primary pumping plants (G 52 and G 55) and two secondary pumping plants (G 32 and the 180 pump) serve the two units. The northernmost pumping plant (G 52 in the East Toe Drain) serves approximately 609.5 acres in the northeastern corner of the Causeway Ranch Unit. The G 55 pumping plant serves the balance of the approximately 1,847 acres in the two units. This pumping plant can serve approximately 940 acres by gravity. The balance of the two units is irrigated out of the Green's Lake pool by means of secondary pumping plants. The north-central portion of the Causeway Ranch Unit, comprising approximately 637 acres, is served by pumping plant G 32. The southwestern 80 acres of the 1,000 Acres Unit is served by the Mace Ranch Irrigation System making it unavailable for agricultural activities.

Since the DFG purchase of the Glide Ranch, significant improvements have been made to ensure that irrigation could continue on this property. These improvements were necessary to ensure adequate water for both agriculture and managed wildlife habitat and to increase land management options restricted by aforementioned agreements with the previous land owners.. The first improvements made were to the pump stands at pumping plants G 32 and G 52. These improvements consisted of new elevated permanent pump stands installed in fall 2002 and spring 2003 to raise the electrical panels above the floodplain (as required by PG&E). In fall 2003, new pumps were added to these pump stands to replace the seasonally installed pumps that were previously being rented from Los Rios Farms. These improvements allow for the post harvest flooding of rice, attracting thousands of migratory waterfowl and shorebirds on an annual basis.

Extensive improvements have been made to the irrigation delivery system in addition to the installation of replacement pump stations. These improvements have consisted of enlarging and cleaning the irrigation ditches and installing new turnouts, drainpipes, and rice boxes. The improvements to the ditches and control structures were necessary for the system to deliver and drain water in a timely manner, thus enabling proper water control. The proper control of water is critical for rice production and seasonal wetland flooding and minimizes the potential for production of mosquitoes. These improvements were financed largely by the rice rent revenues from 2002 and 2003. Furthermore, the lease tenant provided operators, fuel, and maintenance in exchange for the use of DFG's excavator, tractor, and scraper to accomplish several components of these improvements.

**Los Rios Farms Complex.** The Los Rios Farms complex consists of several properties that were owned by Los Rios Farms, PG&E Properties, and L. Parker. The source of water on these properties historically has been a combination of groundwater wells and Putah Creek. These properties are located on the north and south sides of Putah Creek and adjacent to the original Yolo Bypass Wildlife Area and include the following management units: Los Rios, Los Rios WRP, Cowell Pond, Parker, Field 29, and Field 38. Irrigation water is drawn from Putah Creek in several locations to serve these lands. The easternmost lift pump is located on Putah Creek approximately 1.65 miles west of the East Toe Drain and 0.8 mile north of the Tule Ranch Unit's northern boundary. This pump provides water to approximately 350 acres of land south of Putah Creek. Adjacent to this low lift pump is a well, which supplies water to the same acreage. On the north side of Putah Creek, there are three fields (parcels) inside the levee. The two eastern fields have been served either by a well (currently non-operational) or by a lift pump located approximately 1 mile upstream of the Los Rios Check Dam.

**Tule Ranch.** The Tule Ranch Unit consists of two distinct subunits in regard to agriculture and water management. The northeastern subunit consists of a mixture of irrigated crops and dry pasture and the southwestern subunit consists of irrigated pasture and dry pasture.

**Tule Ranch (Northeastern Subunit).** The northern portion of the northeastern subunit has historically received water from the East Toe Drain pool (above the Lisbon Weir) through a series of two lift pumps. The first lift

station was located approximately 0.9 mile west of the East Toe Drain along the unit's north boundary, and the second was located approximately 1.65 miles west of the East Toe Drain along the unit's north boundary. Currently there are no lift pumps at either of these locations. A duck stamp proposal has been submitted and approved to rebuild the first lift station and should be completed in 2006 or 2007. Once the water is lifted, it will flow through a series of highline ditches to surrounding fields. The current lease tenant has constructed a ditch from the Los Rios Check Dam pool approximately .8 mile upstream of the dam to deliver water to the Tule Ranch. A lift pump located on Putah Creek approximately 1.65 miles west of the East Toe Drain and approximately 0.8 mile north of the Tule Ranch Unit's north boundary is lifting the water into the ditch. This lift station is described above as part of the Los Rios Farms system. The ditch has enabled parts of the northeastern subunit to be irrigated from the Mace Ranch irrigation system pool.

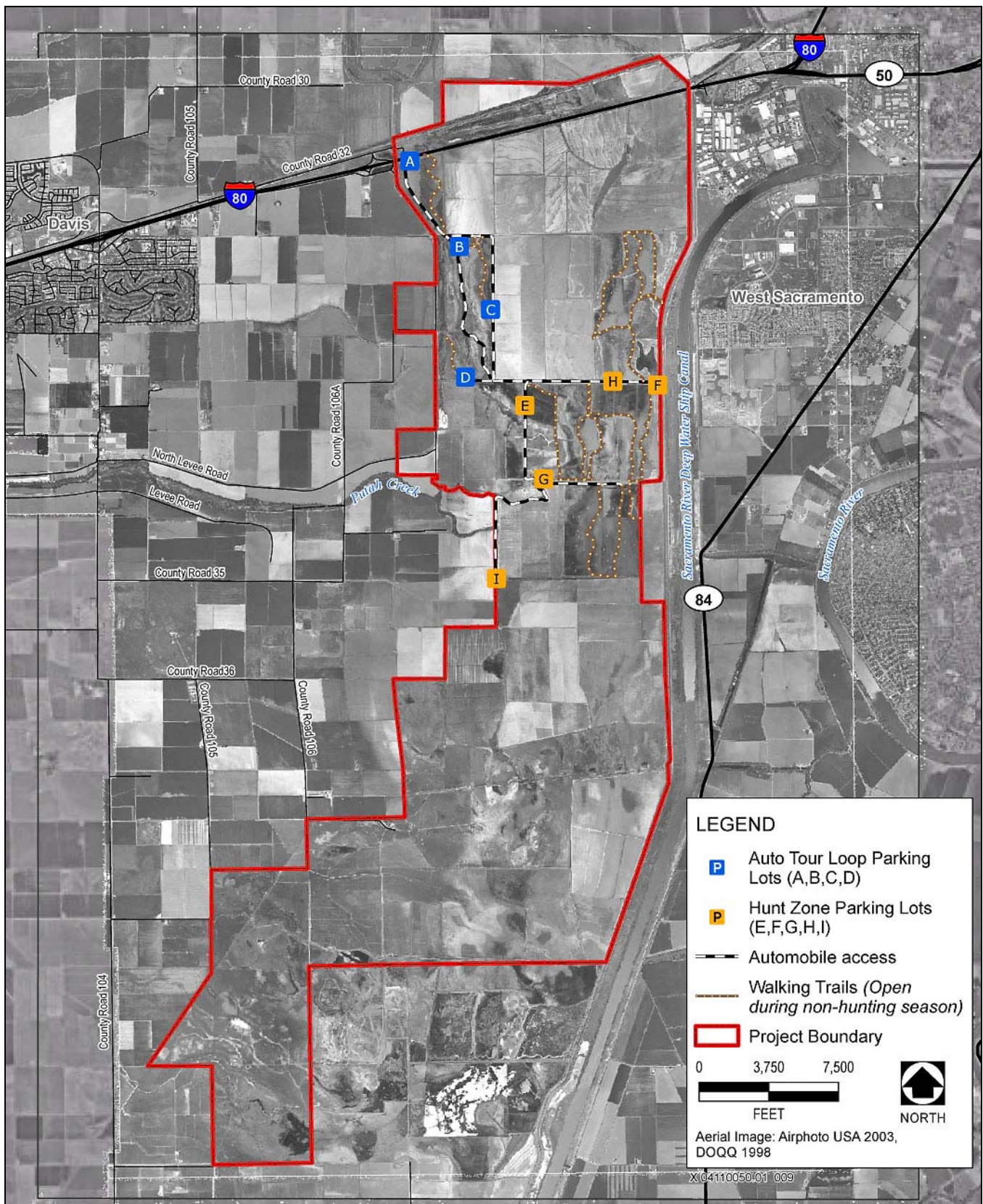
The northeastern subunit also has historically received water from the East Toe Drain below the Lisbon Weir. This southern portion of the northeastern subunit had two lift stations in the southern pool (as described below). These lifts were located approximately 0.2 mile and 1.65 miles west of the East Toe Drain, respectively. Currently only remnants of the western lift station remain. It is uncertain how long this facility has been out of use. No irrigated crops have been planted on this portion of the Tule Ranch Unit in recent years.

**Tule Ranch (Southwestern Subunit).** The southwestern subunit consists of irrigated and dry pasture. The irrigation water is first lifted directly from the East Toe Drain below the Lisbon Weir. The first lift station consists of two electric pumps located approximately 8.8 miles south of I-80 and 5 miles east of County Road 104. The first lift pumps water into a 2.5-mile canal that flows west to the second lift. The second lift consists of two pumps located approximately 8.8 miles south of I-80 and 2.5 miles east of County Road 104, respectively. These pools also receive drainage water from farms west of the Yolo Bypass Wildlife Area from the lands within Reclamation District (RD) 2068 and the Dixon Resource Conservation District (Dixon RCD). While the volume of water varies over the irrigation season, this drainage water reduces the total amount pumped from the East Toe Drain. Water from this system irrigates approximately 764 acres of pasture on the Tule Ranch.

In addition, water is provided to the Bull Sprig Outing, Senator Outing, H-Pond, Skyrakers, and Glide-In Ranch duck clubs per agreements that DFG inherited when it purchased the Tule Ranch. The water usage of the duck clubs approximates 330 acres of permanent wetlands and 1,290 acres of seasonal wetlands. Maintenance and power costs for the first and second lift stations and maintenance costs for approximately 3.3 miles of canals is shared by the DFG's southwest Tule Ranch Unit lease tenant and the duck clubs. Water usage ratios have been developed to determine the share for each property. A discussion of water delivery agreements for the duck clubs is provided below in Section 2.4.1, "Legal Constraints and Existing Agreements."

### **2.3.2 ROADS**

Access to the Yolo Bypass Wildlife Area is provided via gravel roads. Nine miles of gravel roads are currently available for public use on the Yolo Bypass Wildlife Area, when Bypass flow water is not present. The gravel roads lead to nine parking lots (i.e., lots A-I) that allow access to the hiking trails and hunting sites in the Yolo Bypass Wildlife Area (Exhibit 2-3). All roads within the Yolo Bypass Wildlife Area are currently maintained by DFG. Approximately 10 miles of gravel roads on the Tule Ranch also provide access to several duck clubs located south of the Yolo Bypass Wildlife Area (see Section 2.4.1, "Legal Constraints and Existing Agreements," for additional information on access agreements). These clubs, as well as the south west Tule Ranch tenant will share in any future maintenance costs of these roads.



Source: Department of Fish and Game, City of Davis 2005, CaSIL 1993

### Current Roads, Trails, and Parking Lots

### Exhibit 2-3



### **2.3.3 LEVEES**

The Yolo Bypass is the largest feature of the SRFCP (Exhibit 2-4). In addition to 980 miles of levees along the Sacramento, Feather, and American Rivers and a number of smaller creeks and rivers, the SRFCP includes three flood relief structures and five overflow weirs that shunt excess flows from the main Sacramento River channel into the Butte Basin and two flood bypasses (Sutter and Yolo). Runoff from the entire Sacramento Valley watershed reaches the Sacramento–San Joaquin Delta via the lower Sacramento River and the Yolo Bypass. The design capacity of the Yolo Bypass (500,000 cubic feet per second at the southern end) is approximately 4.5 times greater than the capacity of the lower Sacramento River; consequently, the Yolo Bypass is relied upon as the principal means of draining the Sacramento Valley during major floods.

The Yolo Bypass is approximately 41 miles long and is bounded on the east side and along most of the west side by levees constructed by the U.S. Army Corps of Engineers (USACE). Construction of the levees began in 1917, and the Sacramento and Fremont Weirs (the two spillways that release water from the Sacramento River into the Bypass) were built in 1917 and 1924, respectively. The height and grade of the levees are designed to match the calculated water-surface profile of the design flow, with an extra allowance for freeboard. An 8-mile segment along the western boundary of the Yolo Bypass between the South Fork of Putah Creek and 1 mile north of County Road 155 has no levee. The natural ground elevation in this area is close enough to the design flood stage that a levee was considered unnecessary.

The conveyance capacity of the southern half of the Yolo Bypass (including the area within the Yolo Bypass Wildlife Area) was decreased by construction of the Sacramento River Deep Water Ship Channel. The channel was completed in 1963. Dredged material excavated during construction of the 30-foot-deep channel was used to build a second levee along the west side of the channel adjacent to the East Toe Drain. This levee extends from near the I-80 causeway (i.e., Causeway Ranch Unit) to the southern tip of Prospect Island. The second levee of the Sacramento River Deep Water Ship Channel is classified as a navigation levee and is not constructed or maintained to flood control levee standards. However, because it is higher than the original federal flood control levee on the east side of the channel, it constitutes the new east levee of the Yolo Bypass for practical purposes.

Berms and interior levees within the Yolo Bypass could potentially obstruct the conveyance of diverted river flows. Land grading within the Bypass is restricted by the State Reclamation Board. Interior or restricted-height levees have historically been allowed within the Yolo Bypass to prevent inundation of selected areas from tidal fluctuations and small floods; however, the height of those levees, most of which existed when the Bypass was constructed, is limited to minimize flow obstruction during large floods. Generally berms no taller than 3 feet are allowed within the Yolo Bypass. Higher berms are approved on a case-by-case basis. Other major earthen berms, more or less perpendicular to flow, include the berms that support about half of the length of the I-80 causeway and the nearby UPRR causeway (Causeway Ranch Unit [North]) and portions of the embankment for the abandoned SNRR line that cuts diagonally across the Yolo Bypass a few miles to the south (Tule Ranch Unit).

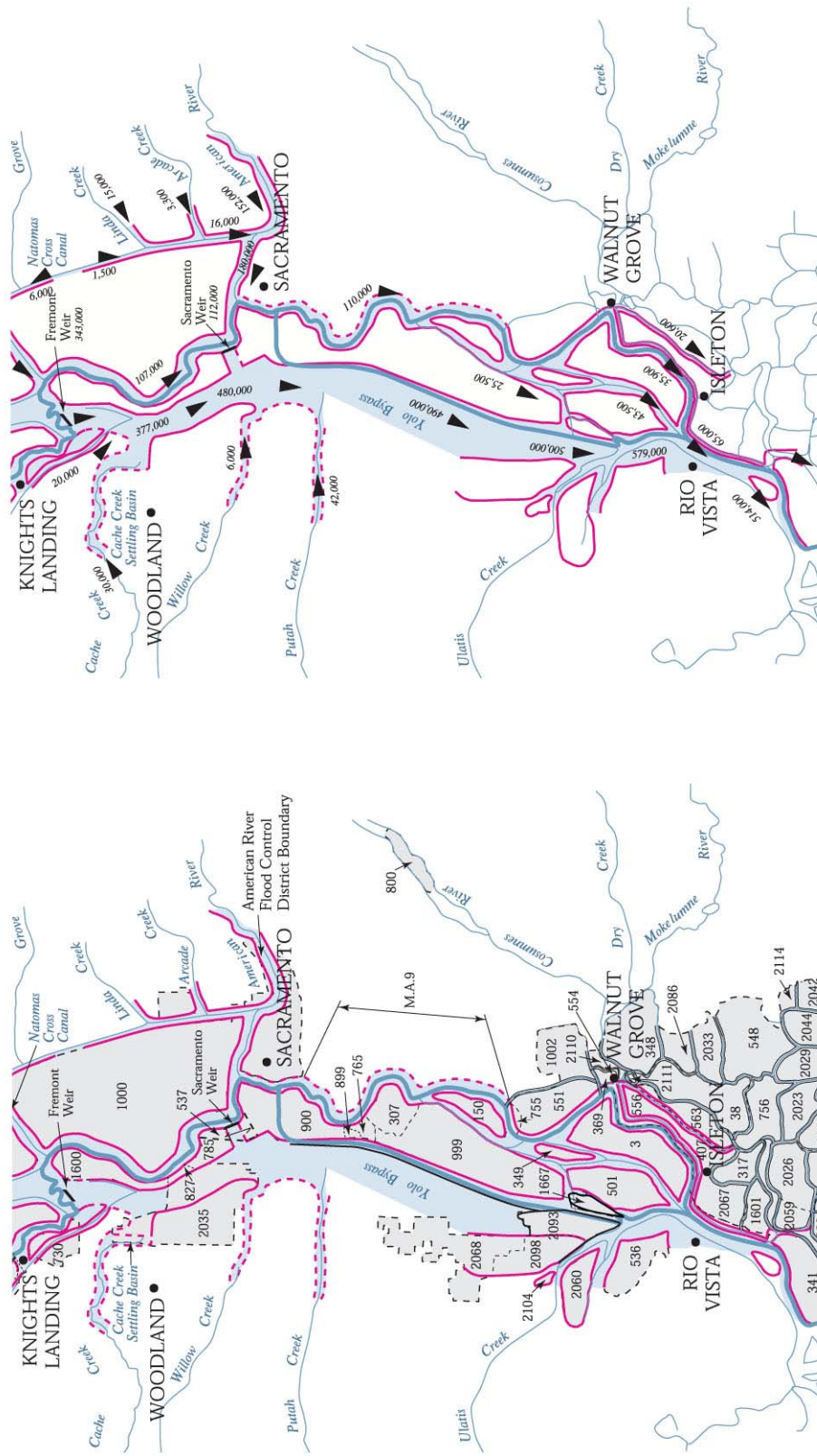
### **2.3.4 UTILITIES**

Utilities are limited throughout the Yolo Bypass Wildlife Area. The primary utilities located throughout the Yolo Bypass Wildlife Area include PG&E transmission lines running along the UPRR and SNRR track right-of-ways through the Causeway and Tule Ranch unit, respectively. An additional PG&E transmission line runs from north to south through the southwest portion of the Tule Ranch Unit. Exhibit 2-2 depicts utilities running through the Yolo Bypass Wildlife Area. Additional utilities include the several fiber optic cable and gas pipelines running through the Causeway Unit, lower voltage transmission lines running throughout several units to serve pump stations, the Kinder Morgan petroleum pipeline running through several units, and a SMUD pipeline running adjacent to much of the East Toe Drain on the east boundary of the Yolo Bypass Wildlife Area.

# SACRAMENTO VALLEY FLOOD CONTROL SYSTEM

Estimated Channel Capacity (in cubic feet per second)

Reclamation and Levee Districts



- Reclamation and Levee Districts
- Project Levees Maintained by Department of Water Resources
- Project Levees Maintained by Reclamation, Levee, and Drainage Districts and Municipalities
- Non-Project Levees

NORTH  
NOT TO SCALE

G 04110050.01 006

Source: California Department of Water Resources

## Sacramento River Flood Control Project

## Exhibit 2-4

## **2.3.5 HOUSES AND OTHER STRUCTURES**

There are four residences in the Yolo Bypass Wildlife Area (including the headquarters complex). Two residences are located at the historic Tule Ranch Headquarters on the Tule Ranch Unit. One of these homes date back to at least the early 1900's and may have some historical significance. The ranch headquarters also has a complex of corrals used to process livestock. Also found in the Tule Ranch Unit is a large barn (Umbrella Barn) thought to have been constructed in the 1930s. This barn could be used as an educational facility for interpretation of the adjacent vernal pools. The Tule Ranch headquarters may also serve as an interpretive facility that could allow students to experience the role that agriculture has played in the Yolo Basin. The third residence is located in the Pacific Flyway Center Unit and will be retained for use as a caretaker's residence. This house is currently being remodeled. A fourth residence is located within the headquarters complex on County Road 32B (see below).

Other structures in the Yolo Bypass Wildlife Area include a hunters' check station that is operated during the fall and winter hunting season. A trailer currently serves as the check station. The trailer is transported and placed on-site at the south end of the auto tour route near parking lot D, and removed with the onset of potential winter flooding. Portable toilets are placed in some parking lots of the Yolo Bypass Wildlife Area during the appropriate seasons. They are removed prior to flooding. Heavy concrete picnic tables are currently located at lots B, C, D, F and G. These can safely withstand flooding.

In addition, the Yolo Bypass Wildlife Area is currently administered from the DFG headquarters complex on Chiles Road 1 mile west of the Yolo Bypass. This 13-acre complex includes a 3-acre demonstration wetland, the aforementioned residence, maintenance shop, office building with a conference room, restrooms, display area and office space for employees of both DFG and the Yolo Basin Foundation. Three sheds provide space for storage of educational materials and miscellaneous supplies. Additionally, the site is the home of the Yolo Fish Screen shop, whose function is to fabricate, install, and maintain fish screen structures throughout the northern California area.

## **2.4 MANAGEMENT SETTING**

This section describes the existing management setting of the property. The current management of the Yolo Bypass Wildlife Area operates under several legal constraints and existing agreements. These constraints and agreements are discussed in detail below.

### **2.4.1 LEGAL CONSTRAINTS AND EXISTING AGREEMENTS**

#### **SACRAMENTO RIVER FLOOD CONTROL PROJECT—PROJECT MODIFICATION AGREEMENT**

DFG, DWR, the State Reclamation Board, and USACE have a management agreement (in lieu of an encroachment permit) that allows for project modifications as long as they are compatible with flood control. Under this agreement signed in 1994, DFG assumes responsibility for all claims of damage or liability. DFG is responsible for maintenance of lands within the boundaries of the project modification (i.e., The Yolo Bypass Wildlife Area). This maintenance is consistent with the purposes of public safety and is detailed in the draft USACE Operating Manual. In this agreement, the following statement appears: "DFG will endeavor to manage the Project Modification in a manner that will be compatible with agricultural practices" (U.S. Army Corps of Engineers 2003).

#### **AGREEMENT UNDER SECTION 8618 OF THE CALIFORNIA WATER CODE**

For purposes of managing the Yolo Bypass Wildlife Area, DFG entered into an agreement with the State Reclamation Board under Water Code Section 8168, for maintenance of the Yolo Bypass floodway. This agreement make the Department of Fish and Game responsible for maintaining the Wildlife Area in a condition that is compatible with the flood control function of the Yolo Bypass.



Section 8618 of the California State Water Code states:

All political subdivisions, agencies of the State, and municipal and quasi-municipal corporations may make agreements with the board obligating themselves to do or perform those things which are required of the State, political subdivisions thereof, or other local agencies by the act of Congress approved June 22, 1936, or any acts amending or adding to it, now or hereafter adopted.

When an elimination, modification, or alteration of any authorized plan of flood control is made at the request of a political subdivision, agency of the State, or municipal or quasi-municipal corporation, the political subdivision, agency of the State, or municipal or quasi-municipal corporation may, in agreements made pursuant to this section, assume responsibility for all claims of damage or liability made against the State and its agencies or the United States and arising from the requested elimination, modification, or alteration of the authorized plan of flood control.

### **GLIDE RANCH/LOS RIOS FARMS ACQUISITION**

Several assurances were conveyed to the Delta Protection Commission and the Yolo County Board of Supervisors during the 2001 acquisition of the Glide Ranch and Los Rios Farms. These assurances are as follows:

- ▶ Land Management Plan commitments:
  - In recognition of the importance of developing an LMP appropriate to local, state, and federal goals for the area, DFG committed to wide public involvement and an open process including coordination and involvement and input from stakeholder groups such as the Yolo Bypass Working Group (see Chapter 1 for a discussion on the planning process and Appendix A for a summary on public outreach).
  - No land use changes will be made until a land management plan is completed.
  - Upon acquisition (in 2001), existing agricultural leases will be maintained until the LMP is completed. At this time, the state will enter into a bid process to begin the renegotiation of the agricultural leases.
  - The management plan will be subject to treatment under the California Environmental Quality Act (CEQA) prior to DFG consideration.
  - The property will be managed in strict compliance with any conditions of the State Reclamation Board (see below for additional discussion).
  - There is no desire or intent to transfer any of the water associated with the property outside of Yolo County.
  - The payment of appropriate in-lieu fees is prescribed by state law. These include payments for county taxes and irrigation, drainage and reclamation district assessments. In addition, the DFG pledges to work with mosquito abatement districts and other special districts to address their concerns.
- ▶ All mineral, oil, and gas rights on the Glide Ranch properties (Tule Ranch and Causeway Ranch) will be retained by the previous owner (i.e., Colby Glide estate).
- ▶ Water delivery and road access agreements shall be maintained with neighboring duck clubs south of the Yolo Bypass Wildlife Area (see below for additional discussion).

## **Tule Ranch–Duck Club Agreements**

Two types of existing agreements with duck clubs (located to the south of the Tule Ranch) were conveyed as part of the Wildlife Conservation Board's (WCB's) acquisition of the Tule Ranch. The first type of agreement allows the Bull Sprig and Skyrakers duck clubs to use the Yolo Bypass Wildlife Area road and to receive water from the Yolo Bypass Wildlife Area irrigation system. The second type of agreement allows H Pond and Channel Ranch duck clubs access to the appropriate Yolo Bypass Wildlife Area road. Two additional clubs, the Senator Outing Duck Club and the Glide-In Ranch Duck Club, did not appear to have agreements with the Glide Colby estate; however, they do use the Yolo Bypass Wildlife Area road and receive water from the Yolo Bypass Wildlife Area irrigation system. Agreements with each of these clubs will be updated and executed as soon as possible.

### ***Tule Ranch–Bull Sprig Duck Club Agreement***

The Bull Sprig Duck Club consists of approximately 120 acres, of which 100 acres are irrigated from the Yolo Bypass Wildlife Area irrigation system. This club receives both summer and fall water. Summer usage is typically 1 acre-foot per acre (af/acre) and fall water is typically 5 af/acre. The water is delivered to this club just west of the second lift station described above. The agreement states that the "Duck Club shall pay its pro rata share (based on percentage of total usage by all duck clubs) of all electric bills and its pro rata share of all expenses associated with regular maintenance of said pumps." The percentage of use, and thereby the pro rata share, for the duck club shall be determined relative to the overall water use in the Tule Ranch southwestern subunit. These percentages shall then be applied to the electricity and maintenance costs as outlined in the agreement.

The agreement also requires the duck club to pay its pro rata share of all expenses required to maintain its road access. The distribution of road maintenance costs needs to be considered in greater detail to determine the basis for the pro rata shares.

### ***Tule Ranch—Skyrakers Duck Club Agreement***

The Skyrakers Duck Club consists of approximately 340 acres, of which 240 acres are irrigated from the Yolo Bypass Wildlife Area irrigation system. This club receives both summer and fall water. Summer usage is typically 1 af/acre and fall water use is typically 5 af/acre. The water is delivered to this club just west of the second lift station. As with the Bull Sprig Duck Club, the agreement with the Skyrakers Duck Club requires the duck club to pay its pro rata share of electric bills and expenses associated with pump maintenance and road access (although road maintenance cost distribution needs to be considered in greater detail).

### ***Tule Ranch–Channel Ranch Duck Club Agreement***

The Channel Ranch Duck Club consists of approximately 191 acres. This duck club does not receive water directly from the Yolo Bypass Wildlife Area irrigation system but is at the downstream end of the drainage system of the various clubs. The agreement pertains to road access and requires that the duck club pay its pro rata share of all expenses required to maintain their road access. As with agreements with other duck clubs, the distribution of road maintenance costs needs to be considered in greater detail to determine the basis for the pro rata shares.

### ***Tule Ranch–H Pond Duck Club Agreement***

The H Pond Duck Club consists of approximately 480 acres, of which 250 acres receive water from the Yolo Bypass Wildlife Area irrigation system. The agreement also requires that the duck club pay its pro rata share of all expenses required to maintain their road access. As with agreements with other duck clubs, the distribution of road maintenance costs needs to be considered in greater detail.

### ***Tule Ranch–Senator Outing Duck Club***

The Senator Outing Duck Club consists of approximately 480 acres, of which 360 acres are irrigated from the Yolo Bypass Wildlife Area irrigation system. This club receives both summer and fall water; summer usage is typically 1 af/acre and fall water is typically 5 af/acre. The water is delivered to this club just west of the second lift station.

DFG has been unable to locate a previous agreement with the Glide Colby Estate to cover the use of the irrigation system or the road. Payment of a pro rata share should be handled as described above for other duck clubs. The club currently uses the Yolo Bypass Wildlife Area road to access the property; however, there appears to be no agreement to cover this use or maintenance of the road.

### ***Tule Ranch–Glide In Ranch Duck Club***

The Glide In Ranch Duck Club consists of approximately 1,160 acres, of which 340 acres are irrigated from the Yolo Bypass Wildlife Area irrigation system. This club receives only fall water. Fall usage is typically 5 af/acre. The water is delivered to this club from a new lift station just east of the second lift station. As with the other duck clubs, the agreement with the Glide In Ranch Duck Club requires the duck club to pay its pro rata share of electric bills and expenses associated with pump maintenance. The club currently uses the Yolo Bypass Wildlife Area road to access the property; however, there appears to be no agreement to cover this use or maintenance of the road.

### **Williamson Act Contracts**

Before the Glide Ranch was acquired by the WCB, portions of the ranch (i.e., Tule Ranch and Causeway Ranch) were under Williamson Act contract (entered into by Peggy Glide Colby and Thorton Glide on September 6, 1972). (The Geiberson Ranch portion of the Glide Ranch was not under Williamson Act contract.) Because the land was acquired by the State of California (i.e., WCB), a new Williamson Act contract was not required (pursuant to California Government Code Section 51295). However, as stated in Government Code Section 51292, it is the policy of the state that public agencies cannot locate public improvements in agricultural preserves unless specific findings can be made:

The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve. (*Section 51292[a]*)

If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement. (*Section 51292[b]*)

The first finding was made (by Yolo County Planning and Public Works Department), as the selection of the properties was based on their historic wetland nature and their location relative to the original Yolo Bypass Wildlife Area. The properties represented an expansion of the Yolo Bypass Wildlife Area and contain interrelated water systems and accesses.

This second required finding was also supported, as the purpose of the acquisition is both preservation of historic wetlands and expansion of the existing Yolo Bypass Wildlife Area, and the selected property is within the Bypass, is contiguous with the original Yolo Bypass Wildlife Area, and contains habitat acceptable for DFG's needs for species of concern. Another location would not have met these criteria (Yolo County Planning and Public Works Department 2001).

## **Local Fees**

A suite of fees have been requested from the DFG for the operation of the Yolo Bypass Wildlife Area. The current status of these requests are discussed below.

**Yolo County Tax Assessments** – DFG supports payment of County in lieu fees and budget requests have been made to make such payments; however, these budgetary requests have not been passed in the state legislature. DFG will continue to make budgetary requests to cover in-lieu fees for County taxes.

**Yolo County Flood Control and Water Conservation District (Southeast Davis Drainage and Maintenance District [SDDMD])** – DFG has committed to make payment for benefits and services provided by SDDMD.

**Yolo County Fire Assessments** – The DFG has paid Yolo County Fire Assessment fees for the period from 1997-2003 based on commitments made at the time of the land acquisition. Assessments for years beyond the initial time period, however, are evaluated as to their validity under Proposition 218, including whether such assessments meet the “special benefit” requirement of California Constitution Article 13D Section 4(a) or are precluded from assessment as a general governmental service such as those designated in Article 13D Section 6(b)(5).

**North Delta Water Agency Assessments** – In Wildlife Management Areas, Fish and Game Code provides, by statute, for the payment of irrigation, drainage, or reclamation district assessments. (CA Fish and Game Codes, section 1504(a).) However, North Delta Water Agency’s assessment does not fit into these statutorily pre-approved payment categories. Additionally, North Delta Water Agency’s contract with DWR is unique and this makes any assessments unique as well. As a result, no conditions or commitments to pay these assessments were made at the time of the land acquisition. DFG will carefully analyze the legal and equitable grounds under which the DFG would owe such an obligation.

## **MEMORANDA OF UNDERSTANDING**

### **Memoranda of Understanding Regarding Threatened and Endangered Species**

The Yolo Bypass Wildlife Area Memorandum of Understanding (MOU) between DFG, the State Reclamation Board, DWR, and the U.S. Fish and Wildlife Service (USFWS) articulates an agreement between these agencies on construction and maintenance of the Yolo Bypass Wildlife Area within flood control constraints, as well as constraints of the federal and California Endangered Species Acts. The MOU states that “management of the Yolo Bypass Wildlife Area will take into consideration the specific habitat requirements of the giant garter snake and Swainson’s hawk, but the area will not be specifically managed for any other listed or candidate species” (State Reclamation Board 1995). A copy of this MOU is provided in Appendix D. This agreement will be updated to add all the additional acreage acquired since 1994 within the Yolo Bypass.

### **Memorandum of Understanding between the California Department of Fish and Game and the Yolo Basin Foundation**

In June 1997 the Foundation signed a MOU with DFG recognizing their long-term partnership to provide public outreach and educational programs. The MOU allows the Foundation use of the DFG facilities for office space and as a base for programs related to the Yolo Bypass Wildlife Area (California Department of Fish and Game 1997). A copy of this MOU is provided in Appendix D. Updating this agreement to reflect the current state of the partnership has been identified as a task in Chapter 5, “Management Goals.”

## **SACRAMENTO-YOLO MOSQUITO AND VECTOR CONTROL DISTRICT**

The Yolo Bypass Wildlife Area lies within the jurisdictional boundaries of the Sacramento-Yolo Mosquito and Vector Control District (SYMVCD). The SYMVCD is responsible for mosquito abatement and control of other



vectors in the district. While a formal agreement or understanding does not exist between the DFG/ Yolo Bypass Wildlife Area and SYMVCD, the two parties do actively coordinate and collaborate regarding management activities. The SYMVCD was involved in the establishment of the Wildlife Area and developed a set of “best management practices” for the Wildlife Area, which included design and operations criteria. In consultation with SYMVCD, DFG implements a mosquito control plan that applies these and other best management practices (BMPs) including water management practices, vegetation management practices, wetland infrastructure maintenance, wetland restoration and enhancement features, and biological controls (Kwasny et al. 2004) and the California Rice Commission’s BMPs for mosquito control in flooded agricultural lands. In addition, SYMVCD coordinates with DFG regarding treatments and other activities that may occur on the Yolo Bypass Wildlife Area to avoid conflicts with public uses including school groups and other public activities. In reciprocation, DFG also informs SYMVCD of all water management activities throughout the year. Additional discussion on mosquito control and management is provided in Chapter 3, “Environmental Setting,” and Chapter 5, “Management Goals.”

## **DIXON RESOURCE CONSERVATION DISTRICT**

At the time of the Glide/Los Rios acquisition, DFG committed to maintaining the existing leases on the Yolo Bypass Wildlife Area. An agreement was forged with the Dixon RCD to manage the existing agricultural leases in the Yolo Bypass Wildlife Area (see Appendix D). Dixon RCD manages contracts, annual reports, collects rents, and makes funds available for use in the Yolo Bypass Wildlife Area. The Dixon RCD retains 15% of the rental income for these services. This has proven to be an invaluable source of funding for the operation of the Yolo Bypass Wildlife Area. Additionally, it has allowed the DFG to maintain and actually increase the agricultural productivity of the property. This unique situation has inspired a renaissance of ideas to help integrate agriculture into the long term management of the Yolo Bypass Wildlife Area. At a time when the Yolo Bypass Wildlife Area budget was severely challenged, DFG was able to generate additional monies for the management of the Wildlife Area, while increasing agricultural productivity of the land, experimenting with wildlife friendly agricultural techniques, and immersing the wildlife area into the local agricultural community.

## **FARM SERVICE AGENCY**

The USDA Farm Service Agency (FSA) administers farm commodity and conservation programs for farmers and makes and guarantees farm emergency, ownership, and operating loans. FSA’s responsibilities are organized into five areas: farm credit, farm programs, commodity operations, management, and state operations.

Currently there are six FSA farm designations on the Yolo Bypass Wildlife Area and there are four farm tenants. Under the new LMP, DFG plans to combine the six FSA farms into one FSA farm. Combining the FSA farms would make additional money available to the tenants based on the program history from the existing Yolo Bypass Wildlife Area. The goal of DFG would be to make 100% of the FSA program payments available to the tenants.

Upon the expenditure of federal North American Waterfowl Conservation Act (NAWCA) grants, property can no longer be used for commercial agricultural production. This, in turn, results in a reduction in income for the Wildlife Area. For this reason, NAWCA habitat restoration funds must be used judiciously with full knowledge of the long term impacts to the operation of the Yolo Bypass Wildlife Area.

## **FISH AND GAME CODE 1602 STREAMBED ALTERATION AGREEMENT**

DFG regulates actions that substantially divert or obstruct the natural flow or that change the bed, channel, or bank of any river, stream, or lake, or use material from a streambed (California Fish and Game Code Sections 1600–1607). Los Rios Farms holds a Section 1602 Streambed Alteration Agreement for conducting routine maintenance of the Lisbon Weir on the East Toe Drain.

## PUTAH CREEK WATER ACCORD

The seasonal instream flow and release pattern of Putah Creek from Monticello Dam to the East Toe Drain is regulated through the May 2000 Putah Creek Settlement Agreement (aka Water Accord) (Sacramento County Superior Court 2000). The Accord is intended to balance the competing uses for water between supply, demand, and maintenance of aquatic and riparian resource functions. The purpose of the Accord is to create as natural a flow regime as feasible and to maintain a living stream for the benefit of fish, wildlife, and plants from the Putah Diversion Dam to the connection at the East Toe Drain in the Yolo Bypass. The Accord focuses on the protection and enhancement of native resident and anadromous fish populations. It includes six primary elements, including four functional flow requirements. The four flow requirements pertain to rearing flows, spawning flows for native resident fishes, supplemental flows for anadromous fishes, and drought-year flows. The six Accord elements are as follows:

- ▶ Flows for resident native fish, which include important spawning and rearing components and guarantee a continuous flow to I-80;
- ▶ Flows that will attract and support salmon and steelhead;
- ▶ A drought schedule that provides enough water to maintain Putah Creek as a living stream but provides water users relief from other flow requirements;
- ▶ Creation of the Lower Putah Creek Coordinating Committee (LPCCC);
- ▶ Habitat restoration and monitoring funds for the creek;
- ▶ Creation of a Streamkeeper position for Putah Creek; and
- ▶ A requirement that Solano County Water Agency (SCWA) notify riparian water users of the amount of riparian water available in any given year and prevent illegal water diversions in excess of the amount of riparian water available.

SCWA is required to coordinate with the Yolo Bypass Wildlife Area regarding release of the fall anadromous fish attraction flows to allow DFG to remove the check boards at the Los Rios Check Dam within the Yolo Bypass Wildlife Area. Removing the check boards in coordination with the fall attraction flows helps to attract and enable salmon to migrate up into Putah Creek from the East Toe Drain. Additional information on the Accord is provided in Chapter 3, “Environmental Setting.”