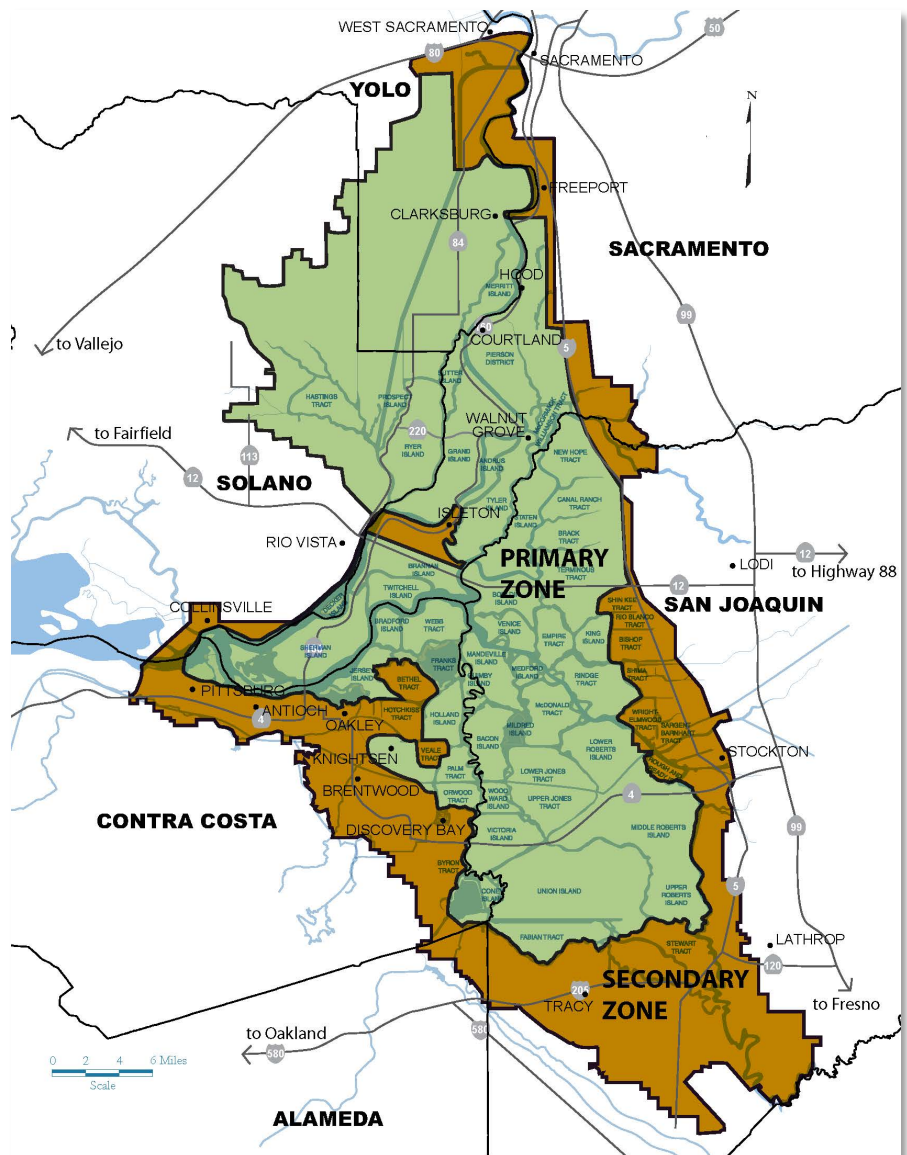


# DELTA PROTECTION COMMISSION

## Land Use and Resource Management Plan for the Primary Zone of the Delta

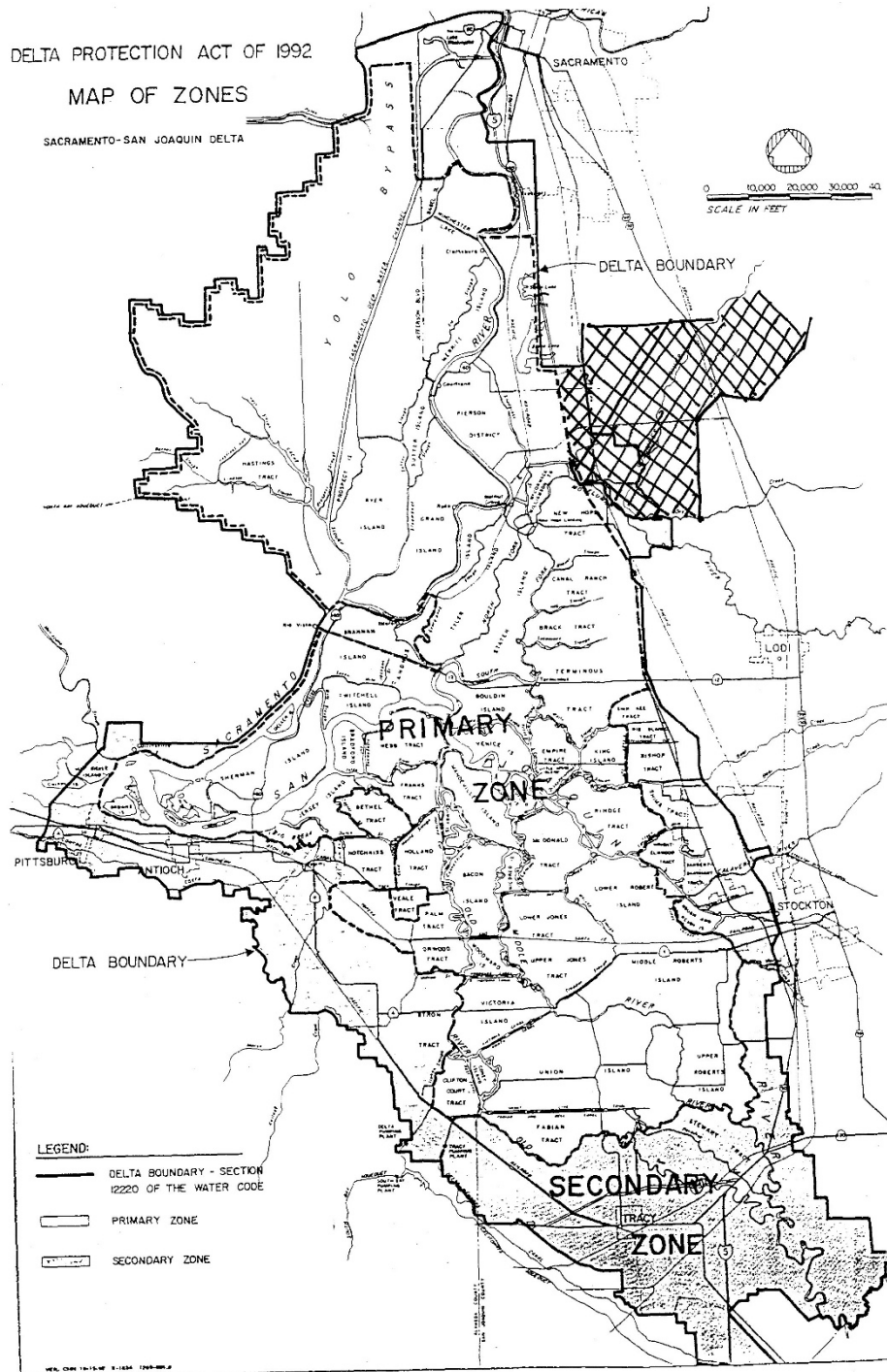
Adopted February 25, 2010



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# Map of the Primary and Secondary Zones of the Sacramento- San Joaquin Delta adopted under the Delta Protection Act



# Introduction

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## Introduction

The Delta Protection Act of 1992 (Act) established the Delta Protection Commission, a State entity to plan for and guide the conservation and enhancement of the natural resources of the Delta, while sustaining agriculture and meeting increased recreational demand. The Act defines a Primary Zone, which comprises the principal jurisdiction of the Delta Protection Commission. The Secondary Zone is the area outside the Primary Zone and within the "Legal Delta"; the Secondary Zone is not within the planning area of the Delta Protection Commission. The Act requires the Commission to prepare and adopt a Land Use and Resource Management Plan for the Primary Zone of the Delta, which must meet specific goals. This document constitutes the Land Use and Resource Management Plan for the Primary Zone of the Delta (Plan), as adopted in 1995 and will be updated in 2010.

The Act (Public Resources Code Section 29760 et. seq.) requires the Commission to prepare and adopt and thereafter review and maintain a comprehensive long-term Resource Management Plan for land uses within the Primary Zone of the Delta ("Resource Management Plan"). The Resource Management Plan is to set forth a description of the needs and goals for the Delta and a statement of the policies, standards, and elements of the Resource Management Plan. Within 180 days of the adoption of the Resource Management Plan or any amendments by the Commission, all local governments, as defined in Public Resources Code Section 29725, shall submit to the Commission proposed amendments to their general plans. The amendments shall cause the general plans to be consistent with the criteria in Public Resources Code Section 29763.5 with respect to land located within the Primary Zone. Those criteria include a requirement that the general plan be consistent with the Resource Management Plan (Plan). This introduction and the following policies of the Plan constitute the regulatory portion of the Plan.

The Primary Zone of the Sacramento-San Joaquin Delta (Delta) includes approximately 500,000 acres of waterways, levees and farmed lands extending over portions of five counties: Solano, Yolo, Sacramento, San Joaquin and Contra Costa. The rich peat soil in the central Delta and the mineral soils in the higher elevations support a strong agricultural economy. The Delta lands currently have access to the 1,000 miles of rivers and sloughs lacing the region. These waterways provide habitat for many aquatic species and the uplands provide year-round and seasonal habitat for amphibians, reptiles, mammals, and birds, including several rare and endangered species. The area is extremely popular for many types of recreation including fishing, boating, hunting, wildlife viewing, water-skiing, swimming, hiking, and biking.

The goals of the Plan, as set out in the Act, are to "protect, maintain, and where possible, enhance and restore the overall quality of the Delta environment, including but not limited to agriculture, wildlife habitat, and recreational activities; assure orderly, balanced conservation and development of Delta land resources and improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety."

As specified in the Act, the Delta Protection Commission is not authorized to exercise any jurisdiction over matters within the jurisdiction of, or to carry out its powers and duties in conflict with, the powers and duties of any other State agency. The Plan also provides guidance to State agencies undertaking activities in the Primary Zone. The Plan, therefore, applies to development subject to approval by the Delta counties (Contra Costa, Sacramento, San Joaquin, Yolo and Solano). Should Cities propose to expand into the Delta Primary Zone, or acquire land in the Primary Zone for utility or infrastructure facility development, those actions are to be carried out in conformity with the Delta Protection Act of 1992.

The Plan consists of three sections. Part I, the Introduction, describes the planning program and the Plan objectives. Part II includes the Plan's individual elements. Part III describes the program for implementing the Plan. A map that shows the boundary of the Primary and Secondary Zones of the Delta is attached.

This Plan will be updated in 2010 following a collaborative planning process. The Delta Protection Commission established a Planning Advisory Committee (Committee) that began meeting in September 2008 which represented a broad spectrum of Delta interests. The Committee met and prepared a Draft Plan in December 2008. The Draft Plan was presented at public workshops throughout the Delta in order to receive input from the public and integrate the public's comments into the Draft Plan. The Draft Plan was presented to the Delta Protection Commission in March 2009 and the Commission held subsequent meetings to consider any updates to the Plan.

A wide variety of reference materials were used in the preparation of this Plan. The primary reference materials used to prepare the introductory sections of the individual elements included the following: *Status and Trends of Delta-Suisun Services* prepared by URS Corporation for the California Department of Water Resources, May 2007; *CALFED Bay-Delta Program Programmatic Record of Decision* August 28, 2000; *Delta Protection Commission Land Use and Resource Management Plan for the Primary Zone of the Delta Update 2008 - Profiles of Ongoing Planning Processes and Planning Documents for Consideration* prepared by the Delta Protection Commission staff, July 24, 2008; *Our Vision for the California Delta* prepared by the Governor's Delta Vision Blue Ribbon Task Force, January 29, 2008 (Second Printing); and the *Delta Vision Strategic Plan* prepared by the Governor's Delta Vision Blue Ribbon Task Force, October 2008.

Each element includes an introductory discussion that provides the context for the element's goals and policies. The introductory discussions provide the framework from which the goals and policies of the individual elements are derived. Policies are the directions for action the local governments must embrace and support through amendments to local General Plans, if necessary. It is important to note, however, that in the implementation of both the goals and policies of this Plan, the Act specifically prohibits the exercise of the power of eminent domain unless requested by the landowner.

The Commission will be required to take into consideration projected climate change effects in their implementation of this Land Use and Resource Management Plan. Many of the assets of the Delta are at risk from climate change. In 2006, the California Climate Change Center published a report that stated a historical rise in sea level of 7 inches and projected an additional rise of 22 to 35 inches by the end of the century. Since that time numerous other studies have published projected ranges of 7 to 23 inches (*The International Panel on Climate Change, 4<sup>th</sup> Assessment on Climate Change*, 2007), 20 to 55 inches (Rahmstorf, *Science*, 2007), and 32 to 79 inches (Pfeffer, *Science*, 2008) of sea level rise during this same period, with the differences in these projections attributed to how glacier ice melt is included in the calculation. Damage from sea level rise could be exacerbated by other aspects of climate change, which include an increase in the frequency and intensity of extreme weather events and increased frequency of large wildfires.

The term "shall" in these regulations is mandatory; the terms "may", "should", and "can" are advisory.

This document should be considered in its entirety.

Every five (5) years the Commission will consider revising the Plan.

# Land Use

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## Land Use

### Overview

The patterns of settlement in the Delta reflect the history of immigration into the State in the late 19th century. The settlement pattern was historically, and remains to this day, closely associated with the rivers, sloughs, and waterways of the Delta, and with the configuration of agricultural lands. One incorporated city, Isleton, and portions of other incorporated cities including Stockton, Antioch, Oakley, Sacramento, West Sacramento, Elk Grove, Tracy, Lathrop and Pittsburg, are located within or just outside of the Secondary Zone; and Rio Vista is located partially within the Primary Zone, but not within the Secondary Zone. Unincorporated towns lying along the Sacramento River in the Primary Zone include Clarksburg, Courtland, Hood, Locke, Walnut Grove, and Ryde. These towns serve as social and service centers for the surrounding farms and historically served as shipping sites for products. These rural communities reflect the diverse heritage of the Delta.

The five Delta counties (Solano, Yolo, Sacramento, San Joaquin, and Contra Costa) designate Primary Zone lands for agriculture or special Delta resources in their respective general plans. The zoning codes for the five Delta counties allow a variety of uses in the Primary Zone including agriculture and agriculturally-oriented uses; outdoor recreation; wildlife habitat; public facilities; and limited areas for commercial, industrial, and rural residential development.

The two Delta ports, Sacramento and Stockton, own hundreds of acres of land along their respective shipping channels. Some of these lands are used for dredge material disposal and some have been or will be used for habitat mitigation sites.

Sherman Island, Twitchell Island, Staten Island, portions of the Yolo Bypass (e.g., Vic Fazio Wildlife Area) and McCormack-Williamson Tract are held as conservation lands and are currently operated as farmlands. A number of conservation easements and mitigation banks will also be created under local Habitat Conservation Plans and Natural Communities Conservation Plans. Since 1990, urban and other land uses in the Secondary Zone have gained substantial acreage while agricultural land use has declined. Other land uses within the Secondary Zone include conservation areas, low-density rural developments, natural areas not suitable for livestock grazing, and other non-agricultural areas.

The periphery of the Delta is undergoing rapid urbanization associated with substantial population growth. Current and future population growth increases the demand for developable land, particularly in areas near the Bay area, Stockton, and Sacramento. This demand results in the conversion of open space, primarily agricultural land, to residential and commercial uses. Increasing concern exists regarding the potential for urbanization and projects in the secondary zone to impact the Primary Zone.

In addition to numerous local, national and international factors affecting the profitability of farming in the Delta, the acquisition of farmed land and subsequent retirement of that

land affects the economic base for farm support industries; the economic base for community businesses that rely on patronage from citizens working in farm or farm support industries; the tax and assessment base for special districts, counties, and the State; and the existing wildlife use patterns that have adapted to agricultural land use patterns.

## **Goals**

Protect the unique character and qualities of the Primary Zone by preserving the cultural heritage, strong agricultural/economic base, unique recreational resources, and biological diversity of the Primary Zone. Direct new non-agriculturally oriented non-farmworker residential development within the existing unincorporated towns (Walnut Grove, Clarksburg, Courtland, Hood, Locke, and Ryde).

Encourage a critical mass of farms, agriculturally-related businesses and supporting infrastructure to ensure the economic vitality of agriculture within the Delta.

## **Policies**

### **P-1.**

The rich cultural heritage, strong agricultural/economic base, unique recreational resources, and biological diversity of the Delta shall be preserved and recognized in public/private facilities, such as museums, recreational trails, community parks, farm stands, community centers, and water access facilities within the Delta.

### **P-2.**

Local government general plans, as defined in Government Code Section 65300 et seq., and zoning codes shall continue to promote and facilitate agriculture and agriculturally-supporting commercial and industrial uses as the primary land uses in the Primary Zone; recreation and natural resources land uses shall be supported in appropriate locations and where conflicts with agricultural land uses or other beneficial uses can be minimized.

### **P-3.**

New non-agriculturally oriented residential, recreational, commercial, habitat, restoration, or industrial development shall ensure that appropriate buffer areas are provided by those proposing new development to prevent conflicts between any proposed use and existing adjacent agricultural parcels. Buffers shall adequately protect integrity of land for existing and future agricultural uses and shall not include uses that conflict with agricultural operations on adjacent agricultural lands. Appropriate buffer setbacks shall be determined in consultation with local Agricultural Commissioners, and shall be based on applicable general plan policies and criteria included in Right-to-Farm Ordinances adopted by local jurisdictions.

**P-4.**

Direct new non-agriculturally oriented non-farmworker residential development within the existing unincorporated towns (Walnut Grove, Clarksburg, Courtland, Hood, Locke, and Ryde).

**P-5.**

Local government general plans shall address criteria under which general plan amendments in the Primary Zone will be evaluated under Public Resources Code Section 29763.5. Proposed amendments to local government general plans for areas in the Primary Zone shall be evaluated in terms of consistency of the overall goals and policies of the Land Use and Resource Management Plan.

**P-6.**

Subsidence control shall be a key factor in evaluating land use proposals. Encourage agricultural, land management, recreational, and wildlife management practices that minimize subsidence of peat soils. Local governments should utilize studies of agricultural and land management methods that minimize subsidence and should assist in educating landowners and managers as to the value of utilizing these methods.

**P-7.**

New structures shall be set back from levees and areas that may be needed for future levee expansion consistent with local reclamation district regulations and, upon adoption, with the requirements to be identified in the California Department of Water Resources Central Valley Flood Control Plan.

**P-8.**

Local government policies regarding mitigation of adverse environmental impacts under the California Environmental Quality Act may allow mitigation beyond county boundaries, if acceptable to reviewing fish and wildlife agencies and with approval of the recipient jurisdiction, for example in approved mitigation banks or in the case of agricultural loss to mitigation. Mitigation in the Primary Zone for loss of agricultural lands in the Secondary Zone may be appropriate if the mitigation program supports continued farming in the Primary Zone. California Government Code Section 51256.3 (Assembly Bill 797) specifically allows an agricultural conservation easement located within the Primary or Secondary Zone of the Delta to be related to Williamson Act contract rescissions in any other portion of the secondary zone without respect to County boundary limitations.

**P-9.**

The implementation of the policies contained in the resource management plan shall not be achieved through the exercise of the power of eminent domain unless requested by the landowner.

**P-10.**

Maintain sites for the storage of dredged material from channels within the Delta and discourage the conversion of existing sites to other uses, as appropriate. Soil that is

suitable for levee rehabilitation and raising Delta lowlands should remain within the Delta.

***P-11.***

Local governments may develop programs to cluster residential units that allow property owners to engage in limited property development in order to ensure the efficient use and conservation of agricultural lands, support open space values, and protect sensitive environmental areas in the Primary Zone. Clustered development occurs when contiguous or non-contiguous parcels are developed to cluster lots for residential use. The purpose of clustered development is to provide a mechanism to preserve agricultural land and open space, to locate housing in areas that can readily be served by public services and utilities, and provide the agricultural community an alternative to transfer of development rights. Clustered development programs shall ensure that the number of clustered lots created does not exceed the allowable density requirement for the zoning of the sum of the parcels. Clustered development may only be used one time. Neither the clustered lots nor the remainder lots may be further subdivided. Residential development shall be consistent with local General Plan policies and zoning regulations and standards.

***P-12.***

Local governments may develop transfer of development rights (TDR) programs that allow land owners to transfer the development right from one parcel of land to another. The purpose of these TDR programs would be to ensure the efficient use and conservation of agricultural lands, to support open space values, and to protect sensitive environmental areas within the Primary Zone. This purpose would be achieved by relocating development rights within the Primary Zone to more suitable areas such as adjacent to or within existing urban areas within or outside of the Primary Zone, or to provide expanded opportunities for affordable farm worker housing. TDR programs shall ensure that the transferred development density does not exceed the development density identified for the zoning for the sending parcel, and that any farm worker housing is restricted and regulated for that purpose. The land upon which the development rights are transferred from would be restricted with a permanent conservation easement. Receiving areas must have the infrastructure capacity, public services and utilities to absorb the new development.

***P-13.***

Support the implementation of appropriately located agricultural labor camps and housing that serve agricultural operations, which are constructed and sited consistent with Sections 17021.5 and 17021.6 of the California Health and Safety Code and consistent with the requirements of local building codes.

***P-14.***

The conversion of an agricultural parcel, parcels, and/or an agricultural island for water impoundment, including reservoirs, water conveyance or wetland development may not result in the seepage of water onto or under the adjacent parcel, parcels, and/or island. These conversions shall mitigate the risks and adverse effects associated with seepage, levee stability, subsidence, and levee erosion, and shall be consistent with the goals of this Plan.

# Agriculture

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# Agriculture

## Overview

Delta agricultural lands were “reclaimed” through construction of levees and drainage of the marshy islands of the area. In less than 100 years, from 1850 to 1930, hundreds of thousands of acres of land went into agricultural production due in large part to the high productivity of the peat soils in the central Delta and the mineral soils in the higher elevations. The farmers and landowners represented a cross section of the new Americans—Slavs, Dutch, German, English, and others. Many groups of immigrants first labored in the fields, then went on to become landowners or tenant farmers including Portuguese, Chinese, Japanese, Filipinos, and Hindus.

Early crops were grains, fruits, and vegetables marketed in the nearby cities. Early specialty crops included wheat, barley, beans, and potatoes. Later asparagus, sugar beets, tomatoes, and celery grew in popularity. Currently, the Delta counties raise a variety of crops including grains, fruits, field crops, nuts, seeds, pasture and alfalfa, wine grapes, vegetables, olives and blueberries.

In the recent past, thousands of acres of agricultural lands were developed for residential and other urban uses. Between 1990 and 2004, approximately 39,000 acres of agricultural land was converted to urban and other uses in the larger Delta-Suisun Marsh area (*Status and Trends of Delta-Suisun Service*, California Department of Water Resources, May 2007). New markets to sell crops, including new crop uses such as the conversion to fuel sources, will continue to keep agriculture an important land use in the Delta and California.

Agricultural lands within the Delta are highly productive and well suited for ongoing agricultural operations. Delta counties have recognized the value of the agriculture economy and have clearly delineated Delta lands for long-term agricultural use. Local governments use specific land use tools to protect the agricultural way of life within the Delta. These tools are the inclusion of agricultural elements in their general plans, the adoption of urban limit lines, the establishment of buffers between agriculture and other approved uses, the adoption of Right-to-Farm ordinances, full support of the Williamson Act programs, the control of land subdivision and land use types allowed within agricultural areas, the establishment of minimum agricultural parcel sizes, and the establishment of limits on General Plan land use designation changes. Also pursuant to the Act, to the extent that any of the requirements specified in this Land Use and Resource Management Plan are in conflict, nothing in this Plan shall deny the right of the landowner to continue the agricultural use of the land.

Some agricultural lands provide rich seasonal wildlife habitat. Thousands of acres of agricultural lands are flooded after harvest and provide feeding and resting areas for resident and migratory birds and other wildlife. This practice of seasonal flooding helps maximize the wildlife values of agricultural areas and lessen opportunities for agricultural pests.

## **Goals**

To support long-term viability of agriculture and to discourage inappropriate development of agricultural lands.

Support the continued capability for agricultural operations to diversify and remain flexible to meet changing market demands and crop production technology. Promote the ability for agriculture operations to change the crops or commodities produced to whatever is most economically viable at the time. Support the use of new crop production technologies that keep Delta agricultural operations competitive and economically sustainable.

The priority land use of areas in the Primary Zone shall be oriented toward agriculture and open space. If agriculture is no longer appropriate, land uses that protect other beneficial uses of Delta resources and that would not adversely affect agriculture on surrounding lands or the viability or cost of levee maintenance, may be permitted. If temporarily taken out of agriculture production due to lack of adequate water supply or water quality, the land shall remain reinstatable to agriculturally-oriented uses for the future.

## **Policies**

### ***P-1.***

Support and encourage agriculture in the Delta as a key element in the State's economy and in providing the food supply needed to sustain the increasing population of the State, the Nation, and the world.

### ***P-2.***

Conversion of land to non-agriculturally-oriented uses should occur first where productivity and agricultural values are lowest.

### ***P-3.***

Promote recognition of the Delta as a place by educating individuals about the rich agricultural heritage, the unique recreational resources, the biological diversity, and the ongoing value of maintaining a healthy agricultural economy in the Delta.

### ***P-4.***

Support agricultural programs that maintain economic viability and increase agricultural income in accordance with market demands, including but not limited to wildlife-friendly farming, conservation tillage and non-tillage.

### ***P-5.***

Local governments shall encourage implementation of the necessary plans and ordinances to: maximize agricultural parcel size; reduce subdivision of agricultural lands; protect agriculture and related activities; protect agricultural land from conversion to non-agriculturally-oriented uses. An optimum package of regulatory and incentive programs

could include: (1) an urban limit line; (2) minimum parcel size consistent with local agricultural practices and needs; (3) strict subdivision regulations regarding subdivision of agricultural lands to ensure that subdivided lands will continue to contain agriculturally-oriented land uses; (4) require adequate buffers between agricultural and non-agricultural land uses particularly residential development outside but adjacent to the Primary Zone; (5) an agriculture element of the general plan; (6) a Right-to-Farm ordinance; and (7) a conservation easement program.

**P-6.**

Encourage acquisition of agricultural conservation easements from willing sellers as mitigation for projects within each county. Promote use of environmental mitigation in agricultural areas only when it is consistent and compatible with ongoing agricultural operations and when developed in appropriate locations designated on a countywide or Deltawide habitat management plan.

**P-7.**

Encourage management of agricultural lands which maximize wildlife habitat seasonally and year-round, through techniques such as fall and winter flooding, leaving crop residue, creation of mosaic of small grains and flooded areas, wildlife friendly farming, controlling predators, controlling poaching, controlling public access, and others.

**P-8.**

Encourage the protection of agricultural areas, recreational resources and sensitive biological habitats, and the reclamation of those areas from the destruction caused by inundation.

**P-9.**

Support agricultural tourism and value-added agricultural production as a means of maintaining the agricultural economy of the Delta.



# Natural Resources

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# Natural Resources

## Overview

The Delta is a unique geographic area in the State of California, a low-lying region of rich mineral and peat soils, composed of islands created largely by humans as they diked and drained the prehistoric marshes of the region. The geology of the region created this unique “Delta”. Sediments trapped inland of the rocky neck of the Carquinez Straits resulted in the creation of this 1,100 square-mile area. Based on the geological characteristics of the Delta, there is potential for seismic activity in the region.

The peat soils of the central and western Delta have oxidized, resulting in subsidence of land surfaces of up to 20 feet. Original peat soil depths varied substantially from area to area and even within a given island. Subsidence has slowed to about one-third of an inch a year in many areas.

Flood threats are compounded by the low elevations of the Delta and by subsidence. Twice in each approximately 25-hour period the elevation of the Sacramento River rises and falls about three feet due to the tidal cycle. The threat of flooding is generally associated with periods of high winter rainfall and periods of rapid spring snow melt in the watersheds draining into the Delta. The most critical conditions occur when upstream dams are full and the resulting high rates of river flow combine with high tides and strong winds.

The lush wetland habitats surrounded by riparian woodlands have been replaced by agricultural lands including cultivated and irrigated croplands as well as irrigated and non-irrigated pasture lands. Remnants of natural habitat are located largely along some sloughs and rivers and on small channel islands. Pockets of wooded or wetland habitat exist on some islands.

The aquatic habitats historically ranged from fresh to brackish and were home to both resident and migratory fish. Modern aquatic habitats are affected by flows released from upstream dams, seasonal drainage from agricultural lands, and year-round drainage from sources outside the Primary Zone. Several large, freshwater lakes are located on the eastern edge of the Delta, providing year-round wetland habitat.

Species native to the Delta evolved within an ecosystem that was much different than today. Many of the indigenous species have declined because of ecosystem changes over the past 150 years including:

- Loss of habitat.
- Loss of access to upstream habitat for anadromous fish from construction of dams.
- Diking and draining of Delta lands to convert marshes to farms.
- Urbanization.

- Changes in river flows.
- Construction of levees that separate rivers from their floodplains thereby eliminating channel meander and riparian habitat.
- Invasion by non-native species.
- Alterations in hydrology, particularly the elimination of variability in seasonal flow patterns.
- Reduction in seasonal and annual variability in salinity.
- Introduction of numerous toxic substances.
- Export pumping in the South Delta.

Flow patterns in the Delta are governed by inflows, large water diversions, and tidal flows. The relative importance of these flows varies with season and location. Net— tidally averaged— flows depend on inflows from the rivers and export pumping in the southern Delta. Sometimes the combination of inflows and exports causes “reverse flow,” or a situation when flow moves upstream rather than downstream. These flows can cause young fish, including eggs and larvae, to be entrained at the pumping facilities of the State Water Project and the Central Valley Project.

The Delta provides substantial habitat for resident and migratory waterfowl and shorebirds. The abundance of these birds declined precipitously in the Delta because of land reclamation, although subsequent changes in cropping patterns have allowed populations of some species to increase.

The Delta supports hundreds of fish, plants, mammals, amphibians, reptiles, and invertebrates. Many of the native species have declined in abundance and in range, leading to the listing of several species under the California and/or federal Endangered Species Acts. Early species declines were caused by loss or isolation of physical habitat when the Delta islands were drained. However, due to the information collected as a result of monitoring activities that occurred in the 1960’s through the 1980’s, it is clear that species declined due to a variety of causes including changing climate; effects of toxic substances; alteration of habitat; introduction of non-native species that consume, compete with, or alter the habitat of native species; water diversions/exports; and changes in hydrology.

In the past few years, the abundance of several pelagic (open water) fish species inhabiting the Delta, such as delta smelt and longfin smelt, have declined to record-low levels. The reasons for this pelagic organism decline are multiple and are the subject of intense investigation. The loss of pelagic species in the Delta seems to be a function of poor conditions for food conditions, invasive species, degraded water quality, losses to export pumping, and other potential negative influences, such as toxins. The populations

of salmon that migrate through the Delta and are dependent on Delta resources have also experienced precipitous declines, which have adversely affected the fishing industry.

Long-term trends for the ecosystem depend on the severity of climate change and the future physical structure and salinity of the Delta. Large mammals, such as bear and elk, which historically lived in and around the Delta have either been eliminated or reduced to extremely low numbers. Aquatic mammals, including beaver and otter still remain. Some resident and migratory birds have adapted to the agricultural practices in the Delta, particularly the small grain fields which are flooded in fall and winter months. Migratory birds include ducks, geese, swans, cranes, and shorebirds. Hawks and eagles forage in the Delta fields. The Primary Zone, with its large open expanses of farmland, mosaic of small grain crop residues and shallow flooded fields, permit wildlife to feed and rest, thereby providing high quality wildlife habitat.

It is recognized that Habitat Conservation Plans and Natural Community Conservation Planning (HCP/NCCP) efforts within the Delta, including the CALFED Ecosystem Restoration Program Plan (ERPP) 4, must be acknowledged in the administration of the policies of the Plan as these programs include agreements and/or contracts that have long-term provisions to sustain a durable program.

## **Goals**

Preserve and protect the natural resources of the Delta. Promote protection of remnants of riparian and aquatic habitat. Encourage compatibility between agricultural practices and wildlife habitat.

## **Policies**

### ***P-1.***

Preserve and protect the natural resources of the Delta. Promote protection of remnants of riparian and aquatic habitat. Encourage compatibility between agricultural practices, recreational uses and wildlife habitat.

### ***P-2.***

Encourage farmers to implement management practices to maximize habitat values for migratory birds and other wildlife. Appropriate incentives, such as: purchase of conservation easements from willing sellers or other actions, should be encouraged.

### ***P-3.***

Lands managed primarily for wildlife habitat should be managed to maximize ecological values. Appropriate programs, such as "Coordinated Resource Management and Planning" (Public Resources Code Section 9408(c)) should ensure full participation by local government and property owner representatives.

**P-4.**

Support the non-native invasive species control measures being implemented by the California Department of Fish and Game, the California Department of Boating and Waterways, the California Emergency Management Agency, the California Department of Food and Agriculture, the State Water Resources Control Board, the Central Valley and San Francisco Bay Regional Water Quality Control Boards, and the Agricultural Commissioners for the five Delta Counties (Yolo, Solano, Sacramento, San Joaquin, and Contra Costa), which include controlling the arrival of new species into the Delta.

**P-5.**

Preserve and protect the viability of agricultural areas by including an adequate financial mechanism in any planned conversion of agricultural lands to wildlife habitat for conservation purposes. The financial mechanism shall specifically offset the loss of local government and special district revenues necessary to support public services and infrastructure.

**P-6.**

Support the implementation of appropriate buffers, management plans and/or good neighbor policies (e.g. safe harbor agreements) that among other things, limit liability for incidental take associated with adjacent agricultural and recreational activities within lands converted to wildlife habitat to ensure the ongoing agricultural and recreational operations adjacent to the converted lands are not negatively affected.

**P-7.**

Incorporate, to the maximum extent feasible, suitable and appropriate wildlife protection, restoration and enhancement on publicly-owned land as part of a Delta-wide plan for habitat management.

**P-8.**

Promote ecological, recreational and agricultural tourism in order to preserve the cultural values and economic vitality that reflect the history, natural heritage and human resources of the Delta including the establishment of National Heritage Area designations.

**P-9.**

Protect and restore ecosystems and adaptively manage them to minimize impacts from climate change and other threats and support their ability to adapt in the face of stress.

**P-10.**

Ensure that design, construction, and management of any flooding program to provide seasonal wildlife and aquatic habitat on agricultural lands, duck club lands and additional seasonal and tidal wetlands, shall incorporate "best management practices" to minimize vectors including mosquito breeding opportunities, and shall be coordinated with the local vector control districts, (each of the four vector control districts in the Delta provides specific wetland/mosquito management criteria to landowners within their district.)

# Recreation & Access: Including Marine Patrol, Boater Education, and Safety Programs

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## **Recreation & Access: Including Marine Patrol, Boater Education, and Safety Programs**

### **Overview**

The Delta is a unique geographic region that provides exceptional recreational opportunities including boating, fishing, hunting, hiking, biking, camping, and wildlife viewing. Recreational users originate from both within and outside of the Delta. Many of the visitors value the wide expanses of open land, interlaced waterways, historic towns, and the feeling of a slower pace of life within the Delta.

Navigable waterways in the Delta-Suisun area are publicly accessible and currently constitute the majority of the recreational opportunities within the Delta. Boating use totals more than 6.4 million visitor days annually, composed of 2.13 million annual boat trips in the larger Delta-Suisun area (*Status and Trends of Delta-Suisun Service*, California Department of Water Resources, May 2007). The Aquatic Recreation Component of the Delta Recreation Strategy Plan prepared by the Delta Protection Commission forecasts demand for boating recreation through 2020 and identifies a deficit of facilities.

Most of the recreational facilities within the Delta are provided through private marinas. Several thousand boat berths are located in the Primary Zone, almost equally allocated among Contra Costa, Sacramento, and San Joaquin counties. Private facilities also provide launching facilities, recreational vehicle and tent camping, picnicking, restaurants, and bait and tackle shops. Waterskiing and riding Personal Water Craft (PWC) are popular water-oriented activities.

The majority of the land within the Delta is privately owned, which reduces the availability of land-based recreation. Five fishing access/launching facilities owned by the California Department of Fish and Game and managed by Sacramento and Yolo counties are located within the Delta. San Joaquin County provides land and water access at Westgate Park. Brannan Island State Recreation Area provides boat launching, camping, swimming, nature interpretation, and wind surfing. Hunting occurs mainly on private lands; although some hunting is allowed on State- and federally-owned lands and waterways.

Concerns regarding existing and future recreational activities within the Delta include compatibility with agricultural operations and other private property uses, funding availability for the long-term maintenance and supervision of existing recreational facilities and for the development of new recreational facilities, compatibility with wildlife uses and levee maintenance requirements, overuse of existing facilities and popular waterways, the abandonment of vessels and other debris within Delta waterways, and increased demands on law enforcement and other emergency response providers.

Opportunities are available for new recreational facilities to be provided within the Delta on publicly-owned land. Examples include pedestrian access on publicly-owned levees adjacent to Brannan Island State Recreation Area; construction of new visitor facilities,

interpretive facilities and trails at the Stone Lake National Wildlife Refuge; and pedestrian trails, visitor facilities, and water access facilities at State Park's Delta Meadows Project.

In addition, Senate Bill 1556, signed by the Governor in September 2006, creates a California Delta Trail and requires the Delta Protection Commission to create a plan for designing, constructing, and maintaining this trail. The California Delta Trail is planned to be a bike, pedestrian and equine trail system and recreation corridor along more than 1,000 miles of Delta waterfront that will connect with the 450-mile San Francisco Bay Trail.

## **Goals**

To promote continued recreational use of the land and waters of the Delta; to ensure that needed facilities that support such uses are constructed, maintained, and supervised; to protect landowners from unauthorized recreational uses on private lands; and to maximize public funds for recreation by promoting public-private partnerships and multiple use of Delta lands.

## **Policies**

### ***P-1.***

Ensure appropriate planning, development and funding for expansion, ongoing maintenance and supervision of existing public recreation and access areas.

### ***P-2.***

Encourage expansion of existing privately-owned, water-oriented recreation and access facilities that are consistent with local General Plans, zoning regulations and standards.

### ***P-3.***

Assess the need for new regional public and private recreation and access facilities to meet increasing public need, and ensure that any new facilities are prioritized, developed, maintained and supervised consistent with local, state, and federal laws and regulations. Ensure that adequate public services are provided for all existing, new, and improved recreation and access facilities.

### ***P-4.***

Encourage new regional recreational opportunities, such as Delta-wide trails, which take into consideration environmental, agricultural, infrastructure, and law enforcement needs, and private property boundaries. Also, encourage opportunities for water, hiking, and biking trails.

### ***P-5.***

Encourage provision of publicly funded amenities such as picnic tables and boat-in destinations in or adjacent to and complimentary to private facilities, particularly if the private facility will agree to supervise and manage such amenities, thus lowering the long-term cost to the public.

### ***P-6.***

Support multiple uses of Delta agricultural lands, such as seasonal use for hunting and provision of wildlife habitat.



**P-7.**

Support improved access for bank fishing along State highways, county roads, and other appropriate areas where safe and adequate parking, law enforcement, waste management and sanitation facilities, and emergency response can be provided and where proper rights-of-access have been acquired.

**P-8.**

Ensure, for the sake of the environment and water quality, the provision of appropriate restroom, pump-out and other sanitation and waste management facilities at new and existing recreation sites, including marinas; encourage the provision of amenities including but not limited to picnic tables and boat-in destinations.

**P-9.**

Encourage the development of funding and implementation strategies by appropriate governing bodies for the surrender and/or removal of water-borne debris and dilapidated, unseaworthy and abandoned vessels from waterways, to minimize navigational and environmental hazards.

**P-10.**

Promote and encourage Delta-wide communication, coordination, and collaboration on boating and waterway-related programs including but not limited to marine patrols, removal of debris and abandoned vessels, invasive species control and containment, clean and safe boating education and enforcement, maintenance of existing anchorage, mooring and berthing areas, and emergency response in the Delta.

**P-11.**

Recognizing existing laws, encourage establishment of Delta-wide law enforcement protocols on local public nuisance and safety issues, such as trespassing, littering, and theft.

**P-12.**

Support and encourage programs for waterways that provide opportunities for safe boating and recreation, including removal of floating and sunken debris and abandoned vessels from Delta waterways in collaboration with appropriate agencies.

**P-13.**

Support the development of a strategic plan, in consultation with all law enforcement agencies having jurisdiction in the Delta, to improve law enforcement and the use of available resources to ensure an adequate level of public safety. The strategic plan shall identify resources to implement the plan.

# Water

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# Water

## Overview

In California, rainfall runoff and snowmelt are captured in reservoirs to redistribute to urban and agricultural customers while meeting environmental requirements. About 75 percent of the State's water originates north of the Delta; and about 75 percent of the State's water needs occur south of the Delta.

Water bound for distribution through both the State Water Project (SWP) and the federal Central Valley Project (CVP) is taken from the south Delta. The CVP has contracts to divert 3.3 million acre feet per year, which supplies primarily agricultural land south of the Delta but also supplies urban areas and wildlife refuges. In addition, water to serve some Bay area urban users is taken from the Delta. The SWP has contracts to divert 4.2 million acre feet per year from the Delta, which supplies primarily urban uses but also supplies agricultural uses south of the Delta. On average, the projects export a total of about 5 million acre feet annually.

About two-thirds of the State's population gets at least a portion of its drinking water from the Delta. In addition, Delta farmers and irrigation districts have rights to irrigate with water taken directly from Delta sloughs and channels.

Because the Delta drains the Sacramento River and San Joaquin River watersheds, urban stormwater runoff and waste discharges from upstream and adjacent areas enter Delta waterways and cause water quality problems. Low-flow years generally carry higher concentrations of waste discharges and agricultural runoff and drainage than do wet years.

Some treated municipal and industrial wastewater, untreated urban storm water, and agricultural runoff and drainage enter the Delta directly. Other urban and agricultural discharges from upstream in the watershed enter the Delta along with the river flows. Seepage onto Delta islands from adjacent channels and drainage from the agricultural lands are released back to the Delta channels at hundreds of locations.

The Central Valley Regional Water Quality Control Board (Board) has identified the Delta as impaired by a number of pollutants, including some pesticides, low dissolved oxygen, electrical conductivity (salinity), and mercury (naturally occurring in the Cache Creek watershed, as well as a legacy of the large-scale hydraulic mining of the Sierra Nevada in the late 1800s). Designation as an impaired water body by the Board, relevant to certain water quality criteria or other stressors, is variable depending on portions of the watershed within the Delta. Delta fish have elevated levels of methylmercury, which poses a risk to humans and wildlife that eat the fish on a regular basis. As of 2009, the Board has adopted a threshold called a total maximum daily load (TMDL) for dissolved oxygen and is developing a TMDL for methylmercury in the Delta.

The daily tidal cycles and the San Joaquin River contribute most of the salinity to the Delta. During periods of high Delta inflows, salinity is low; during periods of low Delta

inflows, the salinity level rises. Salinity in the Delta is managed by a mix of releases from upstream reservoirs, Cross Channel Gate operations, Delta outflow, and exports from the Delta. The Delta is governed by water quality standards for municipal and industrial uses, agricultural uses, and fish and wildlife, all of which are currently under review by the State Water Resources Control Board. The combination of organic matter (decaying vegetation), bromide in the seawater, and disinfectants used in water treatment plants produce disinfection byproducts that may pose health risks.

The State Water Resources Control Board and the Regional Boards designate beneficial uses of the State's waters. In the Delta, beneficial uses include: municipal and domestic supply; agriculture; industry; groundwater recharge; navigation; recreation; wildlife habitat; fish migration and spawning; and preservation of rare and endangered species.

## **Goals**

Protect and enhance long-term water quality in the Delta for agriculture, municipal, industrial, water-contact recreation, and fish and wildlife habitat uses, as well as all other beneficial uses.

## **Policies**

### ***P-1.***

State, federal and local agencies shall be strongly encouraged to preserve and protect the water quality of the Delta both for in-stream purposes and for human use and consumption.

### ***P-2.***

Ensure that Delta water rights and water contracts are respected and protected, including area of origin water rights and riparian water rights.

# Levees

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# Levees

## Overview

The Delta is the natural drain for a watershed that includes the Central Valley and the western slope of the Sierra Nevada from Fresno to Mount Shasta. Existing flood management and water supply facilities (dams, levees, and bypasses) throughout the watershed influence flood flows to the Delta. Settlers began to farm the rich lands of the Delta by the 1850s. They built low levees to allow land to be drained for farming. Few of these levees were built using modern engineering techniques, and many rest on peat foundations that have settled with the added weight.

The main flood management facilities in the Delta include the approximately 1,100 miles of levees and the Yolo Bypass. The Yolo Bypass, with about 500,000 cubic feet per second (cfs) capacity, was designed to flood occasionally to relieve high water stages on the Sacramento River. Easements held by the Central Valley Flood Protection Board provide the right to inundate the land, including some islands such as Liberty Island, with floodwaters. The lower Sacramento ship channel and the Stockton ship channel provide some flood-carrying capability. Dredging to enlarge and clean Delta channels use to be an important element of flood management.

Levees can fail for various reasons including the burrowing activities of animals, erosion, overtopping, deferred maintenance, seepage through sand layers underlying levee foundations, slope stability and other causes.

Delta levees face risk of high water overtopping during the wet season (winter and spring), particularly when large storms coincide with high tides. Storms contribute to the levee overtopping risk by increasing water levels in the rivers and creating wind-induced waves. In addition, the low barometric pressures associated with large storms raise water surface levels in Delta and Suisun Marsh channels. In many cases, the flooding of the islands has been costly to local residents and farmers and to the state as a whole. Damage to levees could also occur due to sea level rise and other aspects of climate change.

## Goals

Support the improvement, emergency repair, and long-term maintenance of Delta levees and channels.

Promote levee maintenance and rehabilitation to preserve the land areas and channel configurations in the Delta as consistent with the objectives of the Act.

## Policies

### ***P-1.***

Local governments shall carefully and prudently carry out their responsibilities to regulate new construction within flood hazard areas to protect public health, safety, and welfare. These responsibilities shall be carried out consistent with applicable regulations

concerning the Delta, as well as the statutory language contained in the Delta Protection Act of 1992. Increased flood protection shall not result in residential designations or densities beyond those allowed under zoning and general plan designations in place on January 1, 1992, for lands in the Primary Zone.

**P-2.**

Support programs for emergency levee repairs and encourage coordination between local, State, and federal governments. The programs may include but are not limited to: interagency agreements and coordination; definition of an emergency; designation of emergency funds; emergency contracting procedures; emergency permitting procedures; and other necessary elements.

**P-3.**

Support efforts to address levee encroachments that are detrimental to levee maintenance.

**P-4.**

Support funding assistance for existing unincorporated towns within the Delta to improve levees up to a 200-year flood protection level.

**P-5.**

Support stockpiling rock in the Delta for levee emergency response.

**P-6.**

Support a multi-year funding commitment to maintain and restore both project and non-project levees in the Delta.

**P-7.**

Encourage the beneficial reuse of dredged material, as appropriate, for levee maintenance and rehabilitation, and the maintenance of instream flows. Support and advocate for the Delta Long-Term Management Strategy (LTMS).

**P-8.**

Seek funding for and support programs to make cost-effective levee investments in order to preserve the economy and character of the Delta.

**P-9.**

Support a minimum Delta-specific levee design standard as established by state and federal regulations.

# Utilities & Infrastructure

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## Utilities & Infrastructure

### Overview

Due to the Delta's location between major population areas, its unique resources, especially water and natural gas, and its flat terrain and general lack of development, the Delta has high value as a utility and transportation corridor.

Utilities located in the Delta include: radio, cellular telephone and television transmission towers; electrical transmission lines including Pacific Gas and Electric (PG&E), Sacramento Municipal Utility District, and Western Area Power Administration lines; natural gas pipelines, serving local gas fields and regional pipelines; petroleum transportation pipelines; and water transportation canals and pipelines transporting water from the Delta to regional users and to the State and federal water projects.

The regional electrical transmission lines carry power within California as well as between regions of the western United States. More than 500 miles of transmission lines and more than 60 substations lie within the Delta boundaries. Several electrical peaking plants surrounding the Delta depend on these transmission lines. Within the larger Delta- Suisun Marsh area are approximately 240 operation gas wells. Natural gas pipelines serve local gas fields and regional pipelines. PG&E's underground natural gas storage area under McDonald Island provides up to one-third of the peak natural gas supply for its service area. Pipelines carry gasoline and aviation fuel across the Delta from Bay Area refineries to depots in Sacramento and Stockton for distribution to Northern California and Nevada. They provide approximately 50 percent of the transportation fuel used in that region. The Mokelumne Aqueduct, consisting of three pipelines, is the main municipal water conveyance facility for 1.3 million people in the East Bay Municipal Utility District. The aqueduct crosses five Delta islands/tracts (Orwood Tract, Woodward Island, Jones Tract, Roberts Island, and Sargent-Barnhart Tract) protected by levees.

Local governments regulate the utilities that serve Delta residents and visitors including potable water, sewage disposal, and solid waste disposal. Most potable water is obtained from groundwater through local wells. Most wastewater from homes and businesses is treated in on-site septic tanks. Some of the larger communities and developments have self-contained wastewater treatment facilities. Communities outside the Primary Zone currently are anticipated to continue to release treated wastewater into Delta waterways (though wastewater discharge requirements issued by the regional water board), onto constructed wetlands, or onto agricultural lands. Most solid waste generated in the Delta is disposed of at facilities outside the area.

Transportation systems traversing around and through the Delta include several railroads and freeways, state highways, and county roads. Three interstate freeways (Interstate 5, Interstate 80, and Interstate 580) provide major transportation and trucking routes that pass the periphery of the Delta. The three major state highways in the Delta (State Routes 4, 12, and 160) are typically two lanes, sometimes built on top of levees. Originally meant for lower traffic volumes at moderate speeds, the state highways are now heavily

used for regional trucking, recreational access, and commuting. More than 50 bridges, including approximately 30 drawbridges, span the navigable channels of the Delta. Regional rail traffic between the Bay Area and the Central Valley passes through the Delta. The Amtrak San Joaquin route from Bakersfield to Sacramento/Oakland, which crosses through the Delta, had nearly 800,000 riders in 2006. In addition, companies such as the Sierra Northern Railway use existing short-line tracks for inter-regional freight and passenger services.

Two major ports lie north and east of the Primary Zone, the Ports of Sacramento and Stockton, respectively. The Stockton and Sacramento Deep Water Ship channels traversing the Delta were constructed in 1933 and 1963, respectively. The Stockton channel is 35 feet deep and can handle 55,000-ton class vessels with full loads. More than 300 ships and barges used the channel in 2005. The Sacramento ship channel is 30 feet deep with plans underway to increase its depth to 35 feet. Both ports are likely to expand in the future, which would result in an increase in ship and barge traffic through the Delta. Several million tons of diversified products are shipped through the Delta each year.

Airports in the Primary Zone of the Delta primarily serve individual land-owners, agriculture-serving businesses and small air operations.

## **Goals**

Ensure that the construction of new utility and infrastructure facilities is appropriate and the impacts of such new construction on the integrity of levees, wildlife, recreation, agriculture and Delta communities are avoided, minimized and mitigated.

## **Policies**

### ***P-1.***

Impacts associated with construction of transmission lines and utilities can be mitigated by locating new construction in existing utility or transportation corridors, or along property lines, and by minimizing construction impacts. Before new transmission lines are constructed, the utility should determine if an existing line has available capacity. To minimize impacts on agricultural practices, utility lines shall follow edges of fields. Pipelines in utility corridors or existing rights-of-way shall be buried to avoid adverse impacts to terrestrial wildlife. Pipelines crossing agricultural areas shall be buried deep enough to avoid conflicts with normal agricultural or construction activities. Utilities shall be designed and constructed to minimize any detrimental effect on levee integrity or maintenance, agricultural uses and wildlife within the Delta. Utilities shall consult with communities early in the planning process for the purpose of creating an appropriate buffer from residences, schools, churches, public facilities and inhabited marinas.

**P-2.**

Ensure that new houses built in the Delta agricultural areas but outside of the Delta's unincorporated towns continue to be served by independent potable water and wastewater treatment facilities and/or septic systems. Agricultural uses that require wastewater treatment shall provide adequate infrastructure improvements or pay to expand existing facilities, and not overburden the existing limited community resources. The appropriate governing body shall ensure that new or expanded construction of agriculturally-oriented wastewater disposal systems meet the appropriate standards/conditions and are not residentially growth inducing. Independent treatment facilities should be monitored to ensure no cumulative adverse impact to groundwater supplies.

**P-3.**

Ensure that new municipal sewage treatment facilities (including storage ponds) that support development or business outside of the Delta Primary Zone are not located within the Delta Primary Zone. The Rio Vista project, as described in the adopted Final Environmental Impact Report for such project, and the Ironhouse Sanitary District use of Jersey Island for disposal of treated wastewater and biosolids are exempt from this policy.

**P-4.**

Encourage recycling programs for metals, glass, paper, cardboard, and organic materials in order to minimize waste generation. Recycling facilities for these materials should be suitably located to serve Delta residents, visitors, and businesses. High groundwater tables and subsiding soil make the Delta an inappropriate location for solid waste disposal.

**P-5.**

Maintain roads within the Delta to serve the existing agricultural uses and supporting commercial uses, recreational users, and Delta residents. Promote the maintenance and enhancement of major thoroughfares already used as cross-Delta corridors.

**P-6.**

Allow air transportation in the Delta to continue to serve Delta residents and agriculture-related businesses. Due to subsidence, transmission lines, high winds, fog, and high raptor and waterfowl use, the Primary Zone is not an appropriate location for new or expanded general aviation airports.

**P-7.**

Encourage the provision of infrastructure for new water, recreational, and scientific research facilities.

# Glossary

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## Glossary

**Act** - The Delta Protection Act of 1992.

**Agricultural Conservation Easements** – A deed restriction landowners voluntarily place on their property to protect agricultural land. The landowner either sells or donates the development rights (some or all) of the property to a qualified conservation organization or public agency to protect the agricultural use of the land in perpetuity.

**Agricultural Labor Camps** – The Agricultural Labor Camp refers to any living unit occupied by seven (7) or more farm workers and their families occurring exclusively in association with agricultural labor. Typical uses include labor camps and labor supply camps.

**Buffer** – The area of land which serves to mitigate potential conflicts between different types of land uses.

**CALFED Bay-Delta Program** – The CALFED Bay-Delta Program was established in May 1995 and includes a consortium of 25 state and federal agencies with management and regulatory responsibilities in the Bay-Delta estuary. The mission of the Program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the San Francisco Bay/Sacramento-San Joaquin Delta.

**Channel Islands** – Unleveed islands within the Delta with riparian habitat that in many cases has not changed in over 150 years and are good examples of original habitat. Sometimes referred to as ‘guard levees’ as they minimize wake action and flow erosion from affecting the main levees.

**Commission** – The Delta Protection Commission created by Section 29735 of the California Public Resources Code.

**Conservation Easement** – A restriction placed on a piece of property to protect its associated resources. The easement is either voluntarily donated or sold by the landowner and constitutes a legally binding agreement that limits certain types of uses or prevents development from taking place on the land in perpetuity while the land remains in private hands.

**Critical Mass of Farms** – Concept based on idea that economies of scale exist in input and output businesses which are essential to agriculture, meaning that certain quantities of farms are necessary for the farm supply and agricultural related businesses to remain competitive and continue to be low cost producers and service providers.

**Delta** – The Sacramento-San Joaquin Delta, as defined in Section 12220 of the Water Code, for all provisions of this division, other than Chapter 3 (commencing with Section

29735). For the purposes of Chapter 3, (commencing with Section 29735), "Delta" means the area of the Delta minus the area contained in Alameda County.

**Development –**

- a. "Development" means on, in, over, or under land or water, the placement or erection of any solid material or structure; discharge of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivisions pursuant to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), and any other division of land including lot splits, except where the land division is brought about in connection with the purchase of the land by a public agency for public recreational or fish and wildlife uses or preservation; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes.
- b. "Development" does not include any of the following:
  1. All farming and ranching activities, as specified in subdivision (e) of Section 3482.5 of the Civil Code.
  2. The maintenance, including the reconstruction of damaged parts, of structures, such as marinas, dikes, dams, levees, riprap (consistent with Chapter 1.5 (commencing with Section 12306) of Part 4.8 of Division 6 of the Water Code, breakwater, causeways, bridges, ferries, bridge abutments, docks, berths, and boat sheds. "Maintenance" includes, for this purpose, the rehabilitation and reconstruction of levees to meet applicable standards of the United States Army Corps of Engineers or the Department of Water Resources.
  3. The construction, repair, or maintenance of farm dwellings, buildings, stock ponds, irrigation or drainage ditches, water wells, or siphons, including those structures and uses permitted under the California Land Conservation Act of 1965 (Chapter 7 (commencing with Section 51200) of Part I of Division I of Title 5 of the Government Code).
  4. The construction or maintenance of farm roads, or temporary roads for moving farm equipment.
  5. The dredging or discharging of dredged materials, including maintenance dredging or removal, as engaged in by any marina, port, or reclamation district, in conjunction with the normal scope of their customary operations, consistent with existing federal, state, and local laws.
  6. The replacement or repair of pilings in marinas, ports, and diversion facilities.
  7. Projects within port districts, including, but not limited to, projects for the movement, grading, and removal of bulk materials for the purpose of activities related to maritime commerce and navigation.

8. The planning, approval, construction, operation, maintenance, reconstruction, alteration, or removal by a state agency or local agency of any water supply facilities or mitigation or enhancement activities undertaken in connection therewith.
9. Construction, reconstruction, demolition, and land divisions within existing zoning entitlements, and development within, or adjacent to, the unincorporated towns of the Delta, as permitted in the Delta Area Community Plan of Sacramento County and the general plan of Yolo County, authorized prior to January 1, 1992.
10. Exploration or extraction of gas and hydrocarbons.
11. The planning, approval, construction, repair, replacement, alteration, reconstruction, operation, maintenance, or removal of oxidation and water treatment facilities owned by the City of Stockton or the City of Lodi, or facilities owned by any local agency within or adjacent to the unincorporated towns of the Delta consistent with the general plan of the County of Sacramento or the County of Yolo, as the case may be.

**Farm Worker Housing** – “Farm Employee Housing” means any housing accommodation, including single-family dwellings and farm labor mobilehomes, for six (6) or fewer farm employees.

**Flood Protection** – Methods or structural measures used to mitigate flooding or reduce flooding hazards and risks.

**Good Neighbor Policies** – Policies which set forth to avoid negative impacts on agricultural land as a result of habitat enhancements. The goals of these policies should be to avoid negative impacts, address and resolve unavoidable impacts, and foster good communication and relationships among neighbors and communities. These policies should apply to all land use changes including changes in land use where habitat is actively developed, where habitat develops naturally, and where habitat is converted to agricultural or other uses. Example policies could include the implementation of Best Management Practices on the converted lands that minimize vectors (e.g., mosquito breeding opportunities), the introduction of invasive species, water quality degradation, and/or the erosion of productive soils. The policies may also include the establishment of safe harbor agreements that among other things, limit liability for incidental take associated with agricultural and recreational activities adjacent to converted wildlife lands.

**Habitat Conservation Plans (HCPs)** – Planning documents that are required when applying to the U.S. Fish and Wildlife Service for an incidental take permit under the federal Endangered Species Act. An applicant is required to apply for an incidental take permit if a proposed activity would result in the “incidental take” of a listed wildlife species. HCPs describe the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the HCP is to be funded.

**Local Agency** – Any local agency, other than a local government, formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries or which maintains facilities within the Delta. "Local agency" includes, but is not limited to, a port, water agency, flood control district, county service area, maintenance district or area, improvement district or improvement area, mosquito abatement district, resource conservation district, sanitary or sewer district, or any other zone or area, formed for the purpose of designating an area within which either an assessment or a property tax rate will be levied to pay for a service or improvement benefiting that area or a special function will be carried out within that area.

**Local Government** – The Counties of Contra Costa, Sacramento, San Joaquin, Solano, and Yolo, and the Cities of Sacramento, Stockton, Tracy, Antioch, Pittsburg, Isleton, Lathrop, Brentwood, Rio Vista, West Sacramento, and Oakley, and any other cities that may be incorporated in the future in the Primary Zone.

**Mitigation Banks** – A Mitigation Bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources under Section 404 of the federal Clean Water Act or a similar State or local wetland regulation.

**National Heritage Area** – A place designated by the United States Congress where natural, cultural, historic and recreational resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of human activity shaped by geography. These areas tell nationally important stories about our nation and are representative of the national experience through both the physical features that remain and the traditions that have evolved within them.

**Natural Community Conservation Plan** – A plan prepared pursuant to a planning agreement entered into in accordance with Section 2810 of the Natural Community Conservation Planning Act (California Fish and Game Code Sections 2800 - 2835) that identifies and provides for the regional or area wide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.

**Non-Agriculturally Oriented Non-Farmworker Residential Development** – Development of buildings consisting only of dwelling units that are not supporting agricultural operations and are not farm worker housing.

**Open Space** - As defined in Section 65560 of the Government Code.

**Pacific Flyway** – The identified migratory bird flight path, including feeding and nesting habitat, as described in the Central Valley Habitat Joint Venture component of the North American Waterfowl Management Plan (NAWMP-1986).

**Personal Water Craft** – General term for a broad range of small, powered boats that typically carry one or two persons, and are popularly known by registered tradenames such as Jet Ski, Ski Doo, etc.



**Plan** – Land Use and Resource Management Plan for the Primary Zone of the Delta.

**Primary Zone** – The Delta land and water area of primary state concern and statewide significance which is situated within the boundaries of the Delta, as described in Section 12220 of the Water Code, but that is not within either the urban limit line or sphere of influence line of any local government's general plan or currently existing studies, as of January 1, 1992. The precise boundary lines of the Primary Zone includes the land and water areas as shown on the map titled "Delta Protection Zones" on file with the State Lands Commission. Where the boundary between the Primary Zone and Secondary Zone is a river, stream, channel, or waterway, the boundary line shall be the middle of that river, stream, channel, or waterway.

**Reclamation Districts** – A form of special-purpose districts which are responsible for reclaiming and/or maintaining land that is threatened by permanent or temporary flooding for agricultural, residential, commercial, or industrial use. The land is reclaimed by removing and/or preventing water from returning via systems of levees, dikes, drainage ditches, and pumps.

**Restoration** – Actions which return a degraded or deteriorated area to a level of increased productivity, environmental quality, or beneficial values.

**Right-to-Farm-Ordinance** – Refers to the concept that conduct of agricultural operations takes precedence over the need to prevent agricultural operations from negatively affecting nearby non-agricultural users.

**Secondary Zone** – All the Delta land and water area within the boundaries of the Delta not included within the Primary Zone, subject to the land use authority of local government, and that includes the land and water areas as shown on the map titled "Delta Protection Zones" on file with the State Lands Commission.

**Special District** – A type of district differing from general-purpose districts like municipalities, counties, etc., in that they only serve one or a few specialized services only to those persons who live within them. They possess fiscal and administrative autonomy and often are empowered to tax residents of the district. Examples include emergency services districts, reclamation districts, school districts and vector control districts.

**Subsidence** – The gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Drainage of Delta plains, results in aeration of soil which leads to oxidation of its organic components, such as peat, and this decomposition process may cause significant land subsidence.

**Suisun Marsh** – The largest brackish marsh on the west coast of the United States of America. The marsh is immediately west of the Sacramento-San Joaquin Delta as well as part of the San Francisco Bay estuary. It includes the water-covered areas, tidal marsh,

diked-off wetlands, seasonal marshes, lowland grasslands, upland grasslands, and cultivated lands identified in the Suisun Marsh Preservation Act (California Public Resources Code 29000-29612) including both the primary and secondary management areas as shown on the Suisun Marsh Protection Plan Map. It also includes the entire right-of-way of any state highway that is designated as a portion of the boundary of the marsh.

**TMDL** (total maximum daily load) – A calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.

**Transfer Development Rights** – A type of zoning ordinance that allows owners of property zoned for low-density development or conservation use to sell development rights to other property owners. The development rights purchased permit the landowners to develop their parcels at higher densities than otherwise. The system is designed to provide for low-density uses, such as historic preservation, without unduly penalizing some landowners.

**200-year Levee Standards** – Levees which are developed to achieve protection from the 200-year flood (the flood event that has a 0.5% chance of occurring in any year).

**Unincorporated Towns** – The communities of Walnut Grove, Clarksburg, Courtland, Hood, Locke, and Ryde.

**Urban** – Of, relating to, characteristic of, or constituting a city. Urban areas are generally characterized by moderate and higher density residential development (i.e., three or more dwelling units per acre), commercial development, and industrial development, and the availability of public services required for that development, specifically central water and sewer, an extensive road network, public transit, and other such services (e.g., safety and emergency response). Development not providing such services may be "non-urban" or "rural."

**Urban Limit Line** – general plan line established and approved by any local government within the Delta which delineates boundaries beyond which urban development is not publicly proposed by local government, as of January 1, 1992.

**Water Trail** – A stretch of river, a shoreline, or an ocean that has been mapped out with the intent to create an educational, scenic, and challenging experience for recreational canoers and kayakers.

**Williamson Act** – Also known as the California Land Conservation Act of 1965 which enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.