FINAL

Functional Equivalent Document (FED)

Amendments to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

February 24, 2005

STATE WATER RESOURCES CONTROL BOARD California Environmental Protection Agency

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INTRODUCTION

The State Water Resources Control Board (SWRCB) periodically reviews its policies as described in California Water Code (CWC) section 13143. Clean Water Act (CWA) section 303(c)(1) also requires states to review water quality standards and policies affecting their implementation every three years. Water quality standards and applicable implementation policies must be approved by the U.S. Environmental Protection Agency (USEPA). To comply with these mandates, SWRCB solicited comments on potential revisions to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) in October 2002. A letter was sent to the public to request input on any potential revisions to the SIP. Comments were received in late December 2002. Twenty-six individuals and organizations responded. Staff reviewed, evaluated, and wrote responses to all 313 comments. Staff then assembled lists of recommended changes, subjects in need of further evaluation, and topics that are best addressed through mechanisms external to the SIP.

In October 2003, four potential revisions where discussed in a SWRCB workshop/hearing. The SWRCB directed staff to begin working on the following revisions to the SIP: (1) clarify SIP provisions for implementing Water Quality Control Plans (Basin Plans) for the nine Regional Water Quality Control Boards (RWQCBs) narrative toxicity objectives; (2) allow for Water Effects Ratio (WER) to be established as part of the permit process; (3) eliminate the reasonable potential trigger for situations where ambient background concentrations are greater than criteria and the pollutant is not detected in the effluent; and (4) clean-up non-regulatory language. Three of these four items will be addressed in this Functional Equivalent Document (FED). The changes to the language regarding toxicity objectives will be handled separately.

BACKGROUND

In 1994, SWRCB and USEPA agreed to a coordinated approach to address priority toxic pollutants in inland surface waters, enclosed bays, and estuaries of California. In March 2000, SWRCB adopted the SIP to implement priority toxic pollutant criteria contained in the California Toxics Rule (CTR). The CTR was promulgated by USEPA in May 2000. Additionally, the SIP provides an implementation mechanism for all other priority toxic pollutant criteria and objectives for point source, non-ocean water discharges.

Under CWA § 303(c), USEPA reviewed and approved SIP Sections 1.1 (Applicable Priority Pollutant Criteria and Objectives), 1.4.2 (Mixing Zones and Dilution Credits), 2 through 2.2.1 (Compliance Schedules, excluding section 2.1.B and those parts of 2.1 and 2.2.1 that refer to 2.1.B), 5.2 (Site-Specific Objectives), 5.3 (Exceptions), Appendix 1, and Appendix 3. Accordingly, sections must be considered during a triennial review. In addition, SWRCB has chosen to review non-water quality standards sections on its own initiative.

EXISTING REGULATORY CONDITIONS

The SIP was adopted by the SWRCB on March 2, 2000 and by the Office of Administrative Law on March 16, 2000. USEPA, Region 9 subsequently approved all aspects of the SIP, except the Total Maximum Daily Load (TMDL) Compliance Schedule provisions and other portions outside USEPA's approval authority. The SIP contains implementation provisions for 126 priority toxic pollutant criteria found within the National Toxics Rule, the CTR, and for priority pollutant objectives found in Basin Plans established by the RWQCBs. The SIP applies to discharges of toxic pollutants and allows for a standardized approach for permitting and maintaining statewide consistency.

PROJECT DESCRIPTION

Project Definition

This project includes triennial review revisions to the SIP by:

- (1) Establishing WERs as part of the permitting process;
- (2) Eliminating the reasonable potential trigger for situations when the ambient background concentration of a pollutant is greater than a criterion and the pollutant is not detected in the effluent; and
- (3) Making corrections to non-regulatory language by eliminating, rephrasing, or adding sentences to improve clarity.

Statement of Goals

The SWRCB's goals for this project are to:

- (1) Adopt language allowing RWQCBs to establish WERs during the permitting process;
- (2) Adopt language modifying reasonable potential trigger two and replace it with effluent monitoring requirements; and
- (3) Adopt non-regulatory language changes throughout the SIP

ENVIRONMENTAL SETTING

California encompasses a variety of environmental conditions ranging from the Sierra Nevada to deserts (with a huge variation in between these two extremes) to the Pacific Ocean.

For water quality management, section 13200 of the Porter-Cologne Water Quality Control Act (Porter-Cologne) divides the State into nine different hydrologic regions. Brief descriptions of the Regions and the water bodies addressed by this FED are presented below. The information provided in this section comes from the Basin Plans.

North Coast Region (Region 1)

The North Coast Region comprises all regional basins, including Lower Klamath Lake and Lost River Basins, draining into the Pacific Ocean from the California-Oregon state line southern boundary and includes the watershed of the Estero de San Antonio and Stemple Creek in Marin and Sonoma Counties (Figure 1). Two natural drainage basins, the Klamath River Basin and the North Coastal Basin, divide the Region. The Region covers all of Del Norte, Humboldt, Trinity, and Mendocino Counties, major portions of Siskiyou and Sonoma Counties, and small portions of Glenn, Lake, and Marin Counties. It encompasses a total area of approximately 19,390 square miles, including 340 miles of coastline and remote wilderness areas, as well as urbanized and agricultural areas.

Beginning at the Smith River in northern Del Norte County and heading south to the Estero de San Antonio in northern Marin County, the Region encompasses a large number of major river estuaries. Other North Coast streams and rivers with significant estuaries include the Klamath River, Redwood Creek, Little River, Mad River, Eel River, Noyo River, Navarro River, Elk Creek, Gualala River, Russian River, and Salmon Creek (this creek mouth also forms a lagoon). Northern Humboldt County coastal lagoons include Big Lagoon and Stone Lagoon. The two largest enclosed bays in the North Coast Region are Humboldt Bay and Arcata Bay (both in Humboldt County). Another enclosed bay, Bodega Bay, is located in Sonoma County near the southern border of the Region.

Distinct temperature zones characterize the North Coast Region. Along the coast, the climate is moderate and foggy with limited temperature variation. Inland, however, seasonal temperature ranges in excess of 100°F (Fahrenheit) have been recorded. Precipitation is greater than for any other part of California, and damaging floods are a fairly frequent hazard. Particularly devastating floods occurred in the North Coast area in December 1955, December 1964, and February 1986. Ample precipitation in combination with the mild climate found over most of the North Coast Region has provided a wealth of fish, wildlife, and scenic resources. The mountainous nature of the Region, with its dense coniferous forests interspersed with grassy or chaparral covered slopes, provides shelter and food for deer, elk, bear, mountain lion, fur bearers, and many upland bird and mammal species. The numerous streams and rivers of the Region contain anadromous fish, and the reservoirs, although few in number, support both cold water and warm water fish.

Tidelands and marshes are extremely important to many species of waterfowl and shore birds, both for feeding and nesting. Cultivated land and pasturelands also provide supplemental food for many birds, including small pheasant populations. Tideland areas along the north coast provide important habitat for marine invertebrates and nursery areas for forage fish, game fish, and crustaceans. Offshore coastal rocks are used by many species of seabirds as nesting areas.

North Coast Region (1) NORTH COAST HYDROLOGIC BASIN PLANNING AREA (NC)



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 1: North Coast Region Hydrologic Basin

Major components of the economy are tourism and recreation, logging and timber milling, aggregate mining, commercial and sport fisheries, sheep, beef and dairy production, and vineyards and wineries. In all, the North Coast Region offers a beautiful natural environment with opportunities for scientific study and research, recreation, sport, and commerce.

Approximately two percent of California's total population resides in the North Coast Region. The largest urban centers are Eureka in Humboldt County and Santa Rosa in Sonoma County.

San Francisco Bay Region (Region 2)

The San Francisco Bay Region comprises San Francisco Bay, Suisun Bay beginning at the Sacramento River, and San Joaquin River westerly, from a line which passes between Collinsville and Montezuma Island (Figure 2). The Region's boundary follows the borders common to Sacramento and Solano Counties and Sacramento and Contra Costa Counties west of the Markely Canyon watershed in Contra Costa County. All basins west of the boundary, described above, and all basins draining into the Pacific Ocean between the southern boundary of the North Coast Region and the southern boundary of the watershed of Pescadero Creek in San Mateo and Santa Cruz Counties are included in the Region.

The Region comprises most of the San Francisco Estuary to the mouth of the Sacramento-San Joaquin Delta. The San Francisco Estuary conveys the waters of the Sacramento and San Joaquin Rivers to the Pacific Ocean. Located on the central coast of California, the Bay system functions as the only drainage outlet for waters of the Central Valley. It also marks a natural topographic separation between the northern and southern coastal mountain ranges. The Region's waterways, wetlands, and bays form the centerpiece of the fourth largest metropolitan area in the United States, including all or major portions of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

The San Francisco Bay RWQCB has jurisdiction over part of the San Francisco Estuary, which includes all of the San Francisco Bay segments extending east to the Delta (Winter Island near Pittsburg). The San Francisco Estuary sustains a highly dynamic and complex environment. Within each section of the San Francisco Bay system lie deepwater areas that are adjacent to large expanses of very shallow water. Salinity levels range from hypersaline to fresh water and water temperature varies widely. The San Francisco Bay system's deepwater channels, tidelands, marshlands, fresh water streams, and rivers provide a wide variety of habitats within the Region. Coastal embayments including Tomales Bay and Bolinas Lagoon are also located in this Region. The Central Valley RWQCB has jurisdiction over the Delta and rivers extending further eastward.

The Sacramento and San Joaquin Rivers enter the San Francisco Bay system through the Delta at the eastern end of Suisun Bay and contribute almost all of the fresh water inflow into the San Francisco Bay. Many smaller rivers and streams also convey fresh water to the San Francisco Bay system. The rate and timing of these fresh water flows are among the most important factors influencing physical, chemical, and biological conditions in the San Francisco Estuary. Flows in the Region are highly seasonal, with more than 90 percent of the annual runoff occurring during the winter rainy season between November and April.



San Francisco Bay Region (2) SAN FRANCISCO BAY HYDROLOGIC BASIN PLANNING AREA (SF)

Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 2: San Francisco Bay Region Hydrologic Basin

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The San Francisco Estuary is made up of many different types of aquatic habitats that support a great diversity of organisms. Suisun Marsh in Suisun Bay is the largest brackish-water marsh in the United States. San Pablo Bay is a shallow embayment strongly influenced by runoff from the Sacramento and San Joaquin Rivers.

The Central Bay is the portion of the San Francisco Bay most influenced by oceanic conditions. The South Bay, with less freshwater inflow than the other portions of the San Francisco Bay, acts more like a tidal lagoon. Together, these areas sustain rich communities of aquatic life and serve as important wintering sites for migrating waterfowl and spawning areas for anadromous fish.

Central Coast Region (Region 3)

The Central Coast Region comprises all basins (including Carrizo Plain in San Luis Obispo and Kern Counties) draining into the Pacific Ocean from the southern boundary of the Pescadero Creek watershed in San Mateo and Santa Cruz Counties; to the southeastern boundary of the Rincon Creek watershed, located in western Ventura County (Figure 3). The Region extends over a 300-mile long by 40-mile wide section of the State's central coast. Its geographic area encompasses all of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties as well as the southern one-third of Santa Clara County, and small portions of San Mateo, Kern, and Ventura Counties. Included in the region are urban areas such as the Monterey Peninsula and the Santa Barbara coastal plain; prime agricultural lands such as the Salinas, Santa Maria, and Lompoc Valleys; National Forest lands; extremely wet areas such as the Santa Cruz mountains; and arid areas such as the Carrizo Plain.

Water bodies in the Central Coast Region are varied. Enclosed bays and harbors in the Region include Morro Bay, Elkhorn Slough, Tembladero Slough, Santa Cruz Harbor, Moss Landing Harbor, San Luis Harbor, and Santa Barbara Harbor. Several small estuaries also characterize the Region, including the Santa Maria River Estuary, San Lorenzo River Estuary, Big Sur River Estuary, and many others. Major rivers, streams, and lakes include San Lorenzo River, Santa Cruz River, San Benito River, Pajaro River, Salinas River, Santa Maria River, Cuyama River, Estrella River, and Santa Ynez River; San Antonio Reservoir, Nacimiento Reservoir, Twitchel Reservoir, and Cuchuma Reservoir. The economic and cultural activities in the basin have been primarily agrarian. Livestock grazing persists but has been combined with hay cultivation in the valleys. Irrigation, with pumped local groundwater, is very significant in intermountain valleys throughout the basin. Mild winters result in long growing seasons and continuous cultivation of many vegetable crops in parts of the basin.

While agriculture and related food processing activities are major industries in the Region, oil production, tourism, and manufacturing contribute heavily to its economy. The northern part of the Region has experienced a significant influx of electronic manufacturing; while offshore oil exploration and production have heavily influenced the southern part. Total population of the Region is estimated at 1.22 million people.

Central Coast Region (3) CENTRAL COAST HYDROLOGIC BASIN PLANNING AREA (CC)



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 3: Central Coast Region Hydrologic Basin Water quality problems frequently encountered in the Central Coastal Region include excessive salinity or hardness of local groundwaters. Increasing nitrate concentration is a growing problem in a number of areas, in both groundwater and surface water. Surface waters suffer from bacterial contamination, nutrient enrichment, and siltation in a number of watersheds. Pesticides are a concern in agricultural areas and associated downstream water bodies.

Los Angeles Region (Region 4)

The Los Angeles Region comprises all basins draining into the Pacific Ocean between the southeastern boundary of the watershed of Rincon Creek, located in western Ventura County, and a line which coincides with the southeastern boundary of Los Angeles County, from the Pacific Ocean to San Antonio Peak, and follows the divide, between the San Gabriel River and Lytle Creek drainages to the divide between Sheep Creek and San Gabriel River drainages (Figure 4).

The Region encompasses all coastal drainages flowing into the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the drainages of five coastal islands (Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente). In addition, the Region includes all coastal waters within three miles of the continental and island coastlines. Two large deepwater harbors (Los Angeles and Long Beach Harbors) and one smaller deepwater harbor (Port Hueneme Harbor) are contained in the Region. There are small craft marinas within the harbors, as well as tank farms, naval facilities, fish processing plants, boatyards, and container terminals. Several small-craft marinas also exist along the coast (Marina del Rey, King Harbor, Ventura Harbor); these contain boatyards, other small businesses, and dense residential development.

Several large, primarily concrete-lined rivers (Los Angeles River, San Gabriel River) lead to unlined tidal prisms which are influenced by marine waters. Salinity may be greatly reduced following rains since these rivers drain large urban areas composed of mostly impermeable surfaces. Some of these tidal prisms receive a considerable amount of freshwater throughout the year from publicly-owned treatment works discharging tertiary-treated effluent. Lagoons are located at the mouths of other rivers draining relatively undeveloped areas (Mugu Lagoon, Malibu Lagoon, Ventura River Estuary, and Santa Clara River Estuary). There are also a few isolated coastal brackish water bodies receiving runoff from agricultural or residential areas.

Santa Monica Bay, which includes the Palos Verdes Shelf, dominates a large portion of the open coastal water bodies in the Region. The Region's coastal water bodies also include the areas along the shoreline of Ventura County and the waters surrounding the five offshore islands in the region.

Central Valley Region (Region 5)

The Central Valley Region includes approximately 40 percent of the land in California stretching from the Oregon border to the Kern County/Los Angeles county line. The Region is divided into three basins. For planning purposes, the Sacramento River Basin and the San Joaquin River basin are covered under one Basin Plan and the Tulare Lake Basin is covered under a separate distinct one.

Los Angeles Region (4) Los Angeles hydrologic basin planning area (LA)



Base map prepared by the Division of Water Rights, Graphics Services Unit

Figure 4: Los Angeles Region Hydrologic Basin

The Sacramento River Basin covers 27,210 square miles and includes the entire area drained by the Sacramento River (Figure 5). The principal streams are the Sacramento River and its larger tributaries: the Pitt, Feather, Yuba, Bear, and American Rivers to the East; and Cottonwood, Stony, Cache, and Putah Creeks to the west. Major reservoirs and lakes include Shasta, Oroville, Folsom, Clear Lake, and Lake Berryessa.

The San Joaquin River Basin covers 15,880 square miles and includes the entire area drained by the San Joaquin River (Figure 6). Principal streams in the basin are the San Joaquin River and its larger tributaries: the Consumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno Rivers. Major reservoirs and lakes include Pardee, New Hogan, Millerton, McClure, Don Pedro, and New Melones.

The Tulare Lake Basin covers approximately 16,406 square miles and comprises the drainage area of the San Joaquin Valley south of the San Joaquin River (Figure 7). The planning boundary between the San Joaquin River Basin and the Tulare Lake Basin is defined by the northern boundary of Little Pinoche Creek basin eastward along the channel of the San Joaquin River to Millerton Lake in the Sierra Nevada foothills, and then along the southern boundary of the San Joaquin River drainage basin. Main rivers within the basin include the King, Kaweah, Tule, and Kern Rivers, which drains the west face of the Sierra Nevada Mountains. Imported surface water supplies enter the basin through the San Luis Drain-California Aqueduct System, Friant-Kern Channel, and the Delta Mendota Canal.

The two northern most basins are bound by the crests of the Sierra Nevada on the east and the Coast Range and Klamath Mountains on the west. They extend about 400 miles from the California-Oregon border southward to the headwaters of the San Joaquin River. These two river basins cover about one fourth of the total area of the State and over 30 percent of the State's irrigable land. The Sacramento and San Joaquin Rivers furnish roughly 50 percent of the State's water supply.

Surface water from the two drainage basins meet and form the Delta, which ultimately drains into the San Francisco Bay.

The Delta is a maze of river channels and diked islands covering roughly 1,150 square miles, including 78 square miles of water area. Two major water projects located in the South Delta, the Federal Central Valley Project and the State Water Project, deliver water from the Delta to Southern California, the San Joaquin Valley, Tulare Lake Basin, the San Francisco Bay Area, as well as within the Delta boundaries. The legal boundary of the Delta is described in CWC section 12220.

Lahontan Region (Region 6)

The Lahontan Region has historically been divided into North and South Lahontan Basins at the boundary between the Mono Lake and East Walker River watersheds (Figures 8 and 9). It is about 570 miles long and has a total area of 33,131 square miles. The Lahontan Region includes the highest (Mount Whitney) and lowest (Death Valley) points in the contiguous United States. The topography of the remainder of the Region is diverse. The Region includes the eastern slopes of the Warner, Sierra Nevada, San Bernardino, Tehachapi, and San Gabriel Mountains and all or part of other ranges including the White, Providence, and Granite Mountains. Topographic depressions include the Madeline Plains, Surprise, Honey Lake, Bridgeport, Owens, Antelope, and Victor Valleys.



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 5: Central Valley Region, Sacramento Region Hydrologic Basin

Central Valley Region (5) SAN JOAQUIN HYDROLOGIC BASIN PLANNING AREA (SJ)











Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 7: Central Valley Region, Tulare Lake Hydrologic Basin



Figure 8: Lahontan Region, North Lahontan Hydrologic Basin

The Region is generally in a rain shadow; however, annual precipitation amounts can be high (up to 70 inches) at higher elevations. Most precipitation in the mountainous areas falls as snow. Desert areas receive relatively little annual precipitation (less than 2 inches in some locations), but this can be concentrated and lead to flash flooding. Temperature extremes recorded in the Lahontan Region range from -45°F at Boca (Truckee River watershed) to 134 °F in Death Valley. The varied topography, soils, and microclimates of the Lahontan Region support a corresponding variety of plant and animal communities. Vegetation ranges from sagebrush and creosote bush scrub in the desert areas to pinyon-juniper and mixed conifer forest at higher elevations. Subalpine and alpine communities occur on the highest peaks. Wetland and riparian plant communities, including marshes, meadows, "sphagnum" bogs, riparian deciduous forest, and desert washes, are particularly important for wildlife, given the general scarcity of water in the Region.

The Lahontan Region is rich in cultural resources (archaeological and historic sites), ranging from remnants of Native American irrigation systems to Comstock mining era ghost towns, such as Bodie, and 1920s resort homes at Lake Tahoe and Death Valley (Scotty's Castle).

Much of the Lahontan Region is in public ownership, with land use controlled by agencies, such as the U.S. Forest Service (USFS), National Park Service, Bureau of Land Management, various branches of the military, the California State Department of Parks and Recreation, and the City of Los Angeles Department of Water and Power. While the permanent resident population (about 500,000 in 1990) of the Region is low, most of it is concentrated in high-density communities in the South Lahontan Basin. In addition, millions of visitors use the Lahontan Region for recreation each year. Rapid population growth has occurred in the Victor and Antelope Valleys and within commuting distance of Reno, Nevada. Principal communities of the North Lahontan Basin include Susanville, Truckee, Tahoe City, South Lake Tahoe, Markleeville, and Bridgeport. The South Lahontan Basin includes the communities of Mammoth Lakes, Bishop, Ridgecrest, Mojave, Adelanto, Palmdale, Lancaster, Victorville, and Barstow. Recreational and scenic attractions of the Lahontan Region include Eagle Lake, Lake Tahoe, Mono Lake, Mammoth Lakes, Death Valley, and portions of many wilderness areas. Segments of the East Fork Carson and West Walker Rivers are included in the State Wild and Scenic River system. Both developed (e.g., camping, skiing, day use) and undeveloped (e.g., hiking, fishing) recreation are important components of the Region's economy. In addition to tourism, other major sectors of the economy are resource extraction (mining, energy production, and silviculture), agriculture (mostly livestock grazing), and defense-related activities. There is relatively little manufacturing industry in the Region, in comparison to major urban areas of the State. Economically valuable minerals, including gold, silver, copper, sulfur, tungsten, borax, and rare earth metals have been or are being mined at various locations within the Lahontan Region.

The Lahontan Region includes over 700 lakes, 3,170 miles of streams and 1,581 square miles of groundwater basins. There are twelve major watersheds (called "hydrologic units" under the Department of Water Resources' mapping system) in the North Lahontan Basin. Among these are the Eagle Lake, Susan River/Honey Lake, Truckee, Carson, and Walker River watersheds. The South Lahontan Basin includes three major surface water systems (the Mono Lake, Owens River, and Mojave River watersheds) and a number of separate closed groundwater basins. Water quality problems in the Lahontan Region are largely related to nonpoint sources (including erosion from

Lahontan Region (6) SOUTH LAHONTAN HYDROLOGIC BASIN PLANNING AREA (SL)



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 9: Lahontan Region, South Lahontan Hydrologic Basin construction, timber harvesting, and livestock grazing), storm water, acid drainage from inactive mines, and individual wastewater disposal systems.

Colorado River Basin Region (Region 7)

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in the southeastern portion of California (Figure 10). It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It shares a boundary for 40 miles on the northeast with the State of Nevada, on the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain ranges, on the west by the San Bernardino, San Jacinto, and Laguna Mountain ranges, on the south by the Republic of Mexico, and on the east by the Colorado River and State of Arizona. Geographically, the Region represents only a small portion of the total Colorado River drainage area, which includes portions of Arizona, Nevada, Utah, Wyoming, Colorado, New Mexico, and Mexico. A significant geographical feature of the Region is the Salton Trough, which contains the Salton Sea and the Coachella and Imperial Valleys. The two valleys are separated by the Salton Sea, which covers the lowest area of the depression. The trough is a geologic structural extension of the Gulf of California.

Much of the agricultural economy and industry of the Region is located in the Salton Trough. There are also industries associated with agriculture, such as sugar refining as well as increasing development of geothermal industries. In the future, agriculture is expected to experience little growth in the Salton Trough, but there will likely be increased development of other industries (such as construction, manufacturing, and services). The present Salton Sea, located on the site of a prehistoric lake, was formed between 1905 and 1907 by overflow of the Colorado River. The Salton Sea serves as a drainage reservoir for irrigation return water and storm water from the Coachella Valley, Imperial Valley, and Borrego Valley and also receives drainage water from the Mexicali Valley in Mexico. The Salton Sea is California's largest inland body of water and provides a very important wildlife habitat and sportfishery. Development along California's 230 mile reach of the Colorado River, which flows along the eastern boundary of the Region, includes agricultural areas in Palo Verde Valley and Bard Valley, urban centers at Needles, Blythe, and Winterhaven, several transcontinental gas compressor stations, and numerous small recreational communities. Some mining operations are located in the surrounding mountains. Also the Fort Mojave, Chemehuevi, Colorado River, and Yuma Indian Reservations are located along the River.

The Region has the driest climate in California. The winters are mild and summers are hot. Temperatures range from below freezing to over 120°F. In the Colorado River valleys and the Salton Trough, frost is a rare occurrence and crops are grown year round. Snow falls in the Region's higher elevations, with mean seasonal precipitation ranging from 30 to 40 inches in the upper San Jacinto and San Bernardino Mountains. The lower elevations receive relatively little rainfall. An average four inches of precipitation occurs along the Colorado River, with much of this coming from late summer thunderstorms moving north from Mexico. Typical mean seasonal precipitation in the desert valleys is 3.6 inches at Indio and 3.2 inches at El Centro. Precipitation over the entire area occurs mostly from November through April, and August through September, but its distribution and intensity are often sporadic. Local thunderstorms may contribute all the average seasonal precipitation at one time, or only a trace of precipitation may be recorded at any locale for the entire season.



Colorado River Basin Region (7) COLORADO RIVER HYDROLOGIC BASIN PLANNING AREA (CR)

Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 10: Colorado River Region Hydrologic Basin

The Region provides habitat for a variety of native and introduced species of wildlife. Increased human population and its associated development have adversely affected the habitat for some species, while enhancing it for others. Large areas within the Region are inhabited by animals tolerant of arid conditions, including small rodents, covotes, foxes, birds, and a variety of reptiles. Along the Colorado River and in the higher elevations of the San Bernardino and San Jacinto Mountains where water is more abundant, deer, bighorn sheep, and a diversity of small animals exist. Practically all of the fishes inhabiting the Region are introduced species. The most abundant species in the Colorado River and irrigation canals include largemouth bass, smallmouth bass, flathead and channel catfish, yellow bullhead, bluegill, redear sunfish, black crappie, carp, striped bass, threadfin shad, red shiner, and, in the colder water above Lake Havasu, rainbow trout. Grass carp have been introduced into sections of the All American Canal system for aquatic weed control. Fish inhabiting agricultural drains in the Region generally include mosquito fish, mollies, red shiners, carp, and tilapia, although locally significant populations of catfish, bass, and sunfish occur in some drains. A considerable sportfishery exists in the Salton Sea, with orangemouth corvina, gulf croaker, sargo, and tilapia predominating. The Salton Sea National Wildlife Refuge and State waterfowl management areas are located in or near the Salton Sea. The refuge supports large numbers of waterfowl in addition to other types of birds. Located along the Colorado River are the Havasu, Cibola and Imperial National Wildlife Refuges. The Region provides habitat for certain endangered/threatened species of wildlife including desert pupfish, razorback sucker, Yuma clapper rail, black rail, least Bell's vireo, yellow billed cuckoo, desert tortoise, and peninsular bighorn sheep.

Santa Ana Region (Region 8)

The Santa Ana Region comprises all basins draining into the Pacific Ocean between the southern boundary of the Los Angeles Region and the drainage divide between Muddy and Moro Canyons, from the ocean to the summit of San Joaquin Hills; along the divide between lands draining into Newport Bay and Laguna Canyon to Niguel Road; along Niguel Road and Los Aliso Avenue to the divide between Newport Bay and Aliso Creek drainages; and along the divide and the southeastern boundary of the Santa Ana River drainage to the divide between Baldwin Lake and Mojave Desert drainages; to the divide between the Pacific Ocean and Mojave Desert drainages (Figure 11). The Santa Ana Region is the smallest of the nine regions in the State (2800 square miles) and is located in southern California, roughly between Los Angeles and San Diego. Although small geographically, the Region's four-plus million residents (1993 estimate) make it one of the most densely populated regions. The climate of the Santa Ana Region is classified as Mediterranean: generally dry in the summer with mild, wet winters. The average annual rainfall in the region is about fifteen inches, most of it occurring between November and March. The enclosed bays in the Region include Newport Bay, Bolsa Bay (including Bolsa Chica Marsh), and Anaheim Bay. Principal Rivers include Santa Ana, San Jacinto, and San Diego. Lakes and reservoirs include Big Bear, Hemet, Mathews, Canyon Lake, Lake Elsinore, Santiago Reservoir, and Perris Reservoir.

San Diego Region (Region 9)

The San Diego Region comprises all basins draining into the Pacific Ocean between the southern boundary of the Santa Ana Region and the California-Mexico boundary (Figure 12). The San Diego

Santa Ana Region (8) SANTA ANA HYDROLOGIC BASIN PLANNING AREA (SA)



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 11: Santa Ana Region Hydrologic Basin

San Diego Region (9) SAN DIEGO HYDROLOGIC BASIN PLANNING AREA (SD)



Base map prepared by the Division of Water Rights, Graphics Services Unit Figure 12: San Diego Region Hydrologic Basin Region is located along the coast of the Pacific Ocean from the Mexican border to north of Laguna Beach. The Region is rectangular in shape and extends approximately 80 miles along the coastline and 40 miles east to the crest of the mountains. The Region includes portions of San Diego, Orange, and Riverside Counties. The population of the Region is heavily concentrated along the coastal strip. Six deepwater sewage outfalls and one across the beach discharge from the new border plant at the Tijuana River and empty into the ocean. Two harbors, Mission Bay and San Diego Bay, support major recreational and commercial boat traffic. Coastal lagoons are found along the San Diego County coast at the mouths of creeks and rivers.

Weather patterns are Mediterranean in nature with an average rainfall of approximately ten inches per year occurring along the coast. Almost all the rainfall occurs during wet cool winters. The Pacific Ocean generally has cool water temperatures due to upwelling. This nutrient-rich water supports coastal beds of giant kelp. The cities of San Diego, National City, Chula Vista, Coronado, and Imperial Beach surround San Diego Bay in the southern portion of the Region.

San Diego Bay is long and narrow, 15 miles in length and approximately one mile across. A deep-water harbor, San Diego Bay has experienced waste discharge from former sewage outfalls, industries, and urban runoff. Up to 9,000 vessels may be moored there. San Diego Bay also hosts four major U.S. Navy bases with approximately 80 surface ships and submarines. Coastal waters include bays, harbors, estuaries, beaches, and open ocean. Deep draft commercial harbors include San Diego Bay and Oceanside Harbor and shallower harbors include Mission Bay and Dana Point Harbor. Tijuana Estuary, Sweetwater Marsh, San Diego River Flood Control Channel, Kendal-Frost Wildlife Reserve, San Dieguito River Estuary, San Elijo Lagoon, Batiquitos Lagoon, Agua Hedionda Lagoon, Buena Vista Lagoon, San Luis Rey Estuary, and Santa Margarita River Estuary are the important estuaries of the Region.

There are thirteen principal stream systems in the Region originating in the western highlands and flowing to the Pacific Ocean. From north to south, these are Aliso Creek, San Juan Creek, San Mateo Creek, San Onofre Creek, Santa Margarita River, San Luis Rey River, San Marcos Creek, Escondido Creek, San Dieguito River, San Diego River, Sweetwater River, Otay River, and the Tijuana River. Most of these streams are interrupted in character having both perennial and ephemeral components due to the rainfall pattern in the region. Surface water impoundments capture flows from almost all the major streams.

ANALYSIS OF ISSUES AND ALTERNATIVES

REVISIONS TO SECTION 1.2 TO ALLOW ADJUSTMENT OF CRITERIA FOR METALS WITH DISCHARGE-SPECIFIC WATER EFFECT RATIOS

I. PRESENT STATE POLICY

Currently, the SIP allows for the development of site-specific objectives (SSOs) to modify applicable priority pollutant criteria or objectives. One method for deriving SSOs is USEPA's Water Effects Ratio (WER) procedure. Implementation procedures for the development and use of SSOs are contained in Section 5.2 of the SIP. The SIP does not allow discharge-specific WERs for metals to be used in permits. Rather, the SIP currently recognizes application of WERs for metals on a watershed basis only as part of SSO development.

II. ISSUE DESCRIPTION

SSOs are objectives that are derived to be specifically appropriate to the biological and/or chemical water quality conditions at a site. They do not change the intended level of protection of the aquatic life at the site. SSOs can be lower or higher than national criteria. Scientifically defensible methods appropriate to the situation must be used to derive the SSO.

The WER Procedure is a method that takes into account the ratio of the toxicity of a chemical in the site water and in laboratory dilution water (which is used when the national criteria or objectives are developed). In 1994, USEPA issued "Interim Guidance on the Determination and Use of Water-Effect Ratios for Metals." This guidance was issued as "interim" in order to allow for changes suggested by users. The CTR allows the use of WERs to adjust the criteria for 11 metals, provided that the WERs were developed using this guidance or other scientifically defensible methods adopted by the state.

The SIP presently allows the adjustment of the criteria/objectives for pH and hardness but not for WERs, unless an SSO is developed. The SIP can be modified to allow for the approval of WERs as part of the permitting process. The State would need to amend the SIP to provide a formal procedure, which includes: derivation of WERs, appropriate definition of sites, and enforceable monitoring provisions to assure that designated uses are protected.

III. ALTERNATIVES FOR SWRCB ACTION

Alternative 1. <u>No action</u>. Under this alternative, RWQCBs would continue to address the issue of WERs in their Basin Plans according to the SSO process outlined in the SIP. The application of WERs in permits would be delayed. This could result in some permit limits being applied using objectives that may not be appropriate for a discharge site, which could potentially result in increased compliance costs.

Alternative 2. <u>Modify the language of the SIP to allow RWQCBs to use discharger-specific</u> <u>WERs in the National Pollutant Discharge Elimination System (NPDES) permitting process.</u> Under this alternative, RWQCBs would address the issue of WERs in the permitting process. The development of WERs would still have to use USEPA guidance or other scientifically defensible protocols, but the approvals of WERs by the SWRCB and USEPA through the adoption of a Basin Plan provision would not be required. The WER would be approved in the permitting process. The SWRCB and USEPA would still be involved in the development of the WER through the public review process of the NPDES permit containing the proposed SSO and associated effluent limit.

IV. STAFF RECOMMENDATION

Adopt Alternative 2.

REVISIONS TO SECTION 1.3 DETERMINATION OF PRIORITY POLLUTANTS REQUIRING WATER QUALITY-BASED EFFLUENT LIMITATIONS

I. PRESENT STATE POLICY

The SIP 2000 states that the RWQCB shall conduct an analysis for each priority pollutant with an applicable criterion or objective to determine if a water quality-based effluent limitation is required in the discharger's permit. The information from the analysis is used to determine if a discharge may cause, have reasonable potential to cause, or contribute to an excursion above any applicable priority pollutant criterion or objective.

Section 1.3 of the SIP outlines the steps for determining if a water quality-based effluent limitation is required for a priority pollutant, a procedure known as establishing reasonable potential. There are three triggers in the reasonable potential analysis: (1) effluent verses criteria, (2) background verses criteria, and (3) best professional judgement. Step 6 is the background verses criteria trigger where the reasonable potential process requires a comparison of the ambient background concentration of a pollutant to its criterion or objective. If the ambient background concentration is greater than the criterion or objective, reasonable potential is assumed, and an effluent limitation is required.

II. ISSUE DESCRIPTION

According to Step 6 of Section 1.3, reasonable potential can be established based solely on water quality conditions. When a pollutant's ambient background concentration is greater than its applicable criterion or objective, the potential for water quality impairment exists. Further additions of the pollutant may potentially contribute to such impairments. Including an effluent limitation for pollutants with ambient concentration greater than or equal to a criterion or objective is a proactive means to ensure no further impairment occurs. However, this approach could be maintained by requiring dischargers to monitor for the presence of the pollutant in their effluent. Effluent data from this type of monitoring can then be used for determining reasonable potential. It must be emphasized that reasonable potential will be established by the pollutant present in the discharge and not based solely on the pollutant found in the ambient background concentration.

III. ALTERNATIVES FOR SWRCB ACTION

Alternative 1. <u>No action</u>. In this alternative, RWQCB permit writers would continue to assess each priority pollutant using ambient background concentrations as a basis for establishing water quality-based effluent limitations. This would result in effluent limitations for pollutants that exist in concentrations that exceed water quality criteria or objectives in a water body, when all other steps (1-8) would not show reasonable potential. Using ambient background concentrations to determine reasonable potential could result in establishing unnecessary effluent limitations in permits, even though the pollutant may not have been detected in the effluent.

Alternative 2. Modify the language of Step 6 of reasonable potential analysis.

In this alternative, the language would be changed to make the trigger apply only to situations where ambient background concentrations are greater than the water quality criterion or objective and the pollutant is detected in the effluent. Language would also be added to require monitoring in situations where ambient background concentrations are greater than the water quality criterion or objective, and the pollutant is <u>not</u> detected in the effluent.

Alternative 3. <u>Reconstruct reasonable potential process.</u>

Under this alternative, the use of ambient background concentrations could be eliminated altogether and a new method for determining reasonable potential could be used. For example, the California Ocean Plan (Ocean Plan) is identifying a statistical method to determine reasonable potential that is less complex while providing scientific defensibility.

IV. STAFF RECOMMENDATION

Adopt Alternative 2.

REVISIONS OF NON-REGULATORY LANGUAGE

I. PRESENT STATE POLICY

The SIP establishes: implementation provisions for priority toxic pollutants promulgated by USEPA and for priority pollutant objectives established by the RWQCBs; monitoring requirements for 2,3,7,8-TCDD equivalents; and toxicity control provisions. The stated goal of the SIP is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency. However, some language in the SIP is unclear and therefore subject to inconsistent or incorrect interpretation.

II. ISSUE DESCRIPTION

RWQCB permit writers and the regulated community have indicated that some provisions in the SIP are unclear, which makes the permit-writing process more complicated. Where such a lack of clarity exists, it is possible that SIP provisions could be applied incorrectly. The lack of clarity could also result in permit requirements being inconsistent among Regions. The changes that are necessary to improve the clarity of the SIP involve adding references to applicable sections of the SIP, rephrasing sentences, and clarifying words with incorrect, vague, or multiple meanings.

III. ALTERNATIVES FOR SWRCB ACTION

Alternative 1. <u>No Action</u>. In this alternative, the SIP would retain language that could potentially be misleading and cause RWQCB permit writers to draft inappropriate provisions in permits or to misapply the SIP. The goal of statewide consistency among permit requirements will likely not be met.

Alternative 2. <u>Modify language to improve clarity</u>. In this alternative, the changes would improve clarity and provide a better understanding of how SIP provisions are to be applied in permits. The changes would also reduce inconsistencies in permits written by different RWQCBs.

- 1. Page 1 of the Introduction was changed to delete the words "the issuance or waiver of waste discharge requirements (WDR)" from paragraph 1, sentence 2. This change further clarifies that the SIP applies only to NPDES discharges to inland surface waters, enclosed bays, and estuaries, and does not apply to nonpoint sources, storm water, or ocean discharges.
- 2. Page 1 of the Introduction was changed to update the applicable procedural decisions and statewide general permits noted in Footnote 1.
- 3. Section 1.3 was changed to clarify that values for metals are to be expressed as total recoverable, rather than dissolved.
- 4. Section 1.3 was changed to clarify that the word "adjust" in Steps 1, 3, and 6 refers to adjusting the value for hardness and/or pH.
- 5. Section 1.3 was changed to add language to Step 8 that would bring finality to the reasonable potential evaluation process.

- 6. Section 2.2.2 has been reserved (language has been deleted and set aside for future amendments) because the allotted time originally provided to collect data pursuant to the interim monitoring requirements, has expired. Section 2.2.2 requirements are no longer applicable.
- 7. Section 2.4 was changed to replace the term "Reported Minimum Level" with "Reporting Levels." This change was made to prevent confusion of the term "Reported Minimum Level" with "Minimum Level."
- 8. Section 2.4.1 was changed to acknowledge the update for 40 CFR Part 136 from May 14, 1999 to July 3, 1999.
- 9. Section 5.1 is reserved, due to the release of the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, which covers the issues originally discussed in this section.
- 10. Section 5.3 was changed to clarify that the section on categorical exceptions includes "mutual water companies" as one of the entities to which the exception applies.

IV. STAFF RECOMMENDATION

Alternative 2.

ADDITIONAL IMPROVEMENTS TO THE SIP BASED ON PUBLIC HEARING COMMENTS RECEIVED ON JANUARY 25, 2005

APPENDIX 1 – Definition of Terms

<u>DISCHARGER-SPECIFIC WER</u> is a WER that is applied to individual pollutant limits in an NPDES permit issued to a particular permit holder. A discharger-specific WER applies only to the applicable limits in the discharger's permit. Discharger-specific WERs are distinguished from WERs that are developed on a waterbody or watershed basis as part of a water quality standards action resulting in adoption of an SSO.

<u>MUTUAL WATER COMPANY</u> is defined in the Public Utilities Code, section 2725 as: "any private corporation or association organized for the purpose of delivering water to its stockholders and members at cost, including use of works for conserving, treating and reclaiming water.

<u>WATER EFFECT RATIOS</u> is an appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

SECTION 1.2 – Data Requirements and Adjustments

Additional reference "...or Streamlined Water-Effect Ration Procedure for Discharges of Copper (EPA-822-R-01-005)..." was added per comments received before the February 24, 2005 Board Meeting.

SECTION 1.3 – Determination of Priority Pollutants Requiring Water Quality-Based Effluent Limitations

Step 7 was unintentionally stricken from the original draft revisions. Therefore, language stating proceed to Step 7 will be add to existing language in Step 6 and will read:

Step 6: Adjust the B from *Step 5* for hardness and/or pH, if applicable, as described in section 1.2. Compare the B from *Step 5* or the adjusted B to the C from *Step 1*. If the B is greater than the C and the pollutant is detected in the effluent, and effluent limitation is required and the analysis for the subject pollutant is complete. If B is greater than the C and the pollutant was not detected in any of the effluent samples, effluent monitoring is required (as described in *Step 8*), proceed with *Step 7*. If the B is less than or equal to the C, proceed with *Step 7*.

SECTION 5.1 – Nonpoint Source Discharges

In the original draft revisions this section was deleted and reserved. However, due to confusion on how nonpoint discharges are to be regulated the following language will be added:

It is the intent of the SWRCB, in adopting this Policy, that the implementation of the priority pollutant criteria/objectives and other requirements of this Policy for nonpoint source discharges shall be consistent with the State's "Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program, 2004" policy.

ENVIRONMENTAL EFFECTS

Economic Considerations

The SWRCB is required to consider the economic impacts of water quality planning decisions under certain circumstances. When the SWRCB adopts or revises a water quality objective, it must consider several factors, including economics, under CWC section 13241. Second, under the California Environmental Quality Act (CEQA) when the SWRCB adopts a performance standard or treatment requirement, it must conduct an environmental analysis of the reasonably foreseeable methods of compliance with the standard or requirement. The analysis must take into account economic factors. (Public Resources Code section 21159). Finally, the CEQA Guidelines provide that a project's economic effects shall not be treated as significant environmental effects but that they may be used to determine whether a project's physical changes are significant (California Code of Regulations, title 14, section 15131).

In these SIP revisions, the SWRCB is not proposing to adopt or revise water quality objectives. Neither is the SWRCB proposing to adopt a performance standard or treatment requirement. The SWRCB has not identified any physical changes in the environment that may result from adoption of the proposed amendments. Therefore, the SWRCB is not required to consider economics prior to adopting the amendments under either CWC section 13241 or CEQA.

Nevertheless, the SWRCB has considered whether any economic impacts will result from adoption of the revisions. The SWRCB has not identified any. The proposed amendment to allow WERs to be considered when permits are adopted or revised simply provides another route to achieve a result that is already allowed through the basin planning process. The deletion of the background reasonable potential trigger will reduce costs to dischargers because it will obviate the need for monitoring pollutants, which would have received effluent limits under this trigger. The remaining revisions are minor and will not have associated economic impacts.

ENVIRONMENTAL CHECKLIST

Environmental Checklist Form

- 1. Project title: Amendments to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), 2000.
- 2. Lead agency name and address: State Water Resources Control Board Division of Water Quality 1001 I Street, 15th Floor Sacramento, California 95814
- 3. Contact person and phone number: Gerald Bowes 916-341-5567
- Description of project: Revisions to Sections 1.3, 5.2, and non-regulatory language throughout portions of the SIP. Specific recommended changes can be found in the FED portion of this document.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

Aesthetics	Agriculture Resources		Air Quality
Biological Resources	Cultural Resources		Geology /Soils
Hazards & Hazardous Materials	Hydrology / Water Quality		Land Use / Planning
Mineral Resources	Noise		Population / Housing
Public Services	Recreation		Transportation/Traffic
Utilities / Service Systems	Mandatory Findings of Sigr	nifican	ce

EVALUATION OF ENVIRONMENTAL IMPACTS:

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS Would the project:				
a) Have a substantial adverse effect on a scenic vista?				~
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		٦		~
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	٦			•
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	٦	٦		•
The revisions to the SIP will not impact designated scenic vistas or highways or have a demonstrable negative aesthetic affect or result in increased glare.				
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?			٦	~
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?		٦	٦	~



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c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

The proposed revisions will not convert any land, including farmland, change existing zoning for agricultural use, or change any existing environment due to its location or nature that could result in the conversion of farmland to nonagricultural use.

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

The proposed SIP revisions will not adversely affect air quality, result in increase exposure to sensitive species through the air pathway, or result in changes in temperature, humidity, precipitation, winds, cloudiness, or other atmospheric conditions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the				
t, either ations, on any ensitive, or gional plans, California J.S. Fish and	٦	٦		~
t on any atural gional plans, California JS Fish and	٦	٦		~
t on federally ection 404 of tt not limited) through ll interruption,	٦	٦		~
novement of sh or wildlife resident or pede the use of	٦	٦		V
or ordinances ch as a tree				~
n adopted l Community red local, ion plan?	٦			V

IV. BIOLOGICAL RESOURCES project:

a) Have a substantial adverse effect directly or through habitat modifica species identified as a candidate, se special status species in local or reg policies, or regulations, or by the C Department of Fish and Game or U Wildlife Service?

b) Have a substantial adverse effect riparian habitat or other sensitive na community identified in local or re policies, and regulations or by the Department of Fish and Game or U Wildlife Service?

c) Have a substantial adverse effect protected wetlands as defined by S the Clean Water Act (including, bu to, marsh, vernal pool, coastal, etc. direct removal, filling, hydrologica or other means?

d) Interfere substantially with the n any native resident or migratory fis species or with established native r migratory wildlife corridors, or imp native wildlife nursery sites?

e) Conflict with any local policies protecting biological resources, suc preservation policy or ordinance?

f) Conflict with the provisions of an Habitat Conservation Plan, Natural Conservation Plan, or other approv regional, or state habitat conservati

The revisions proposed in this document are not expected to cause any adverse effects to plants and animals, including rare, threatened, or endangered species. Protection of biological species has not been altered.

V. CULTURAL RESOURCES -- Would the

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
project:		-		
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	٦	٦		~
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	٦			~
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		٥	٦	~
d) Disturb any human remains, including those interred outside of formal cemeteries?			٦	~
The proposed revisions will have no direct or indirect impact on any cultural resources.				
VI. GEOLOGY AND SOILS Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				~
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				~
ii) Strong seismic ground shaking?				V
iii) Seismic-related ground failure, including liquefaction?				V
iv) Landslides?				~
b) Result in substantial soil erosion or the loss of topsoil?				~
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading,				~

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
subsidence, liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		٥	٦	~
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	٦		٦	~
The proposed revisions will not affect any geologic or soil conditions.				
VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	٦	٦		•
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	٦		٦	~
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			٦	~
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	٦		٦	~
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				~
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	٦		٥	~

Potentially Less Than Less Than No Significant Significant with Significant Impact Impact Mitigation Impact Incorporation g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? The proposed revisions will have no impact to the above areas. VIII. HYDROLOGY AND WATER QUALITY -- Would the project: a) Violate any water quality standards or waste discharge requirements? b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site? d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? f) Otherwise substantially degrade water quality? g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				~
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Ο	٦	٦	~
j) Inundation by seiche, tsunami, or mudflow?				V
The revisions will not affect absorption rates, drainage patterns, surface runoff, flooding quantity or quality of surface or groundwater, surface water currents, or groundwater flow or supply. These revisions do not change the protection of water quality compared to the original SIP.				
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				~
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	٦	٦	٦	~
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		٦	٥	~
The proposed revisions will not require specific property to be used in any way or prohibit property use.				

X. MINERAL RESOURCES -- Would the

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
project:		•		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				~
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	٦	٦		~
The proposed revisions will not result in the loss, recovery, or interfere with a plan regarding mineral resources.				
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			٦	~
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			٦	~
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			٦	~
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			٦	~
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	٦		٦	~
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	٦		٥	~
The proposed revisions will not result in an increase in existing noise levels or cause exposure of people to severe noise levels.				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?		٦		~
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	٦	٦		~
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	٦	٦		~
The revisions will not affect population growth, development patterns, or existing housing.				
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				~
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓
The proposed revisions will not result in any adverse impacts to fire, policy.				

in any adverse impacts to fire, policy, schools, parks, or other public facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	٦	٦	٦	~
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	٦	٦	٦	~
The proposed revisions will not increase the use of parks or recreational facilities or require construction or expansion of recreational facilities that would physically effect the environment.				
XV. TRANSPORTATION/TRAFFIC Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				~
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	٦	٦	٦	~
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	٦	٦	٦	~
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	٥	٦	٦	~
e) Result in inadequate emergency access?				V

Potentially Less Than Less Than No Significant Significant with Significant Impact Impact Mitigation Impact Incorporation f) Result in inadequate parking capacity? g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? The proposed revisions will not impact existing transportation or traffic circulation patterns. XVI. UTILITIES AND SERVICE SYSTEMS -Would the project: a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? b) Require or result in the construction of new ٦ water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? d) Have sufficient water supplies available to ٦ serve the project from existing entitlements and resources, or are new or expanded entitlements needed? e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments? f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs? g) Comply with federal, state, and local statutes and regulations related to solid waste?

The proposed revisions will not impact any utility or service systems.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
	0	٦	V
	٦	٦	V
			~

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed revisions will not degrade the quality of the environment, substantially reduce fish or wildlife habitat, cause fish or wildlife population to drop below selfsustaining levels, or threaten to eliminate a plant or animal community. The revisions will not cause effects on human beings directly or indirectly.