4.2 AGRICULTURAL AND FORESTRY RESOURCES

This section evaluates the impacts of the proposed Plan on agricultural and forestry resources.

4.2.1 EXISTING CONDITIONS

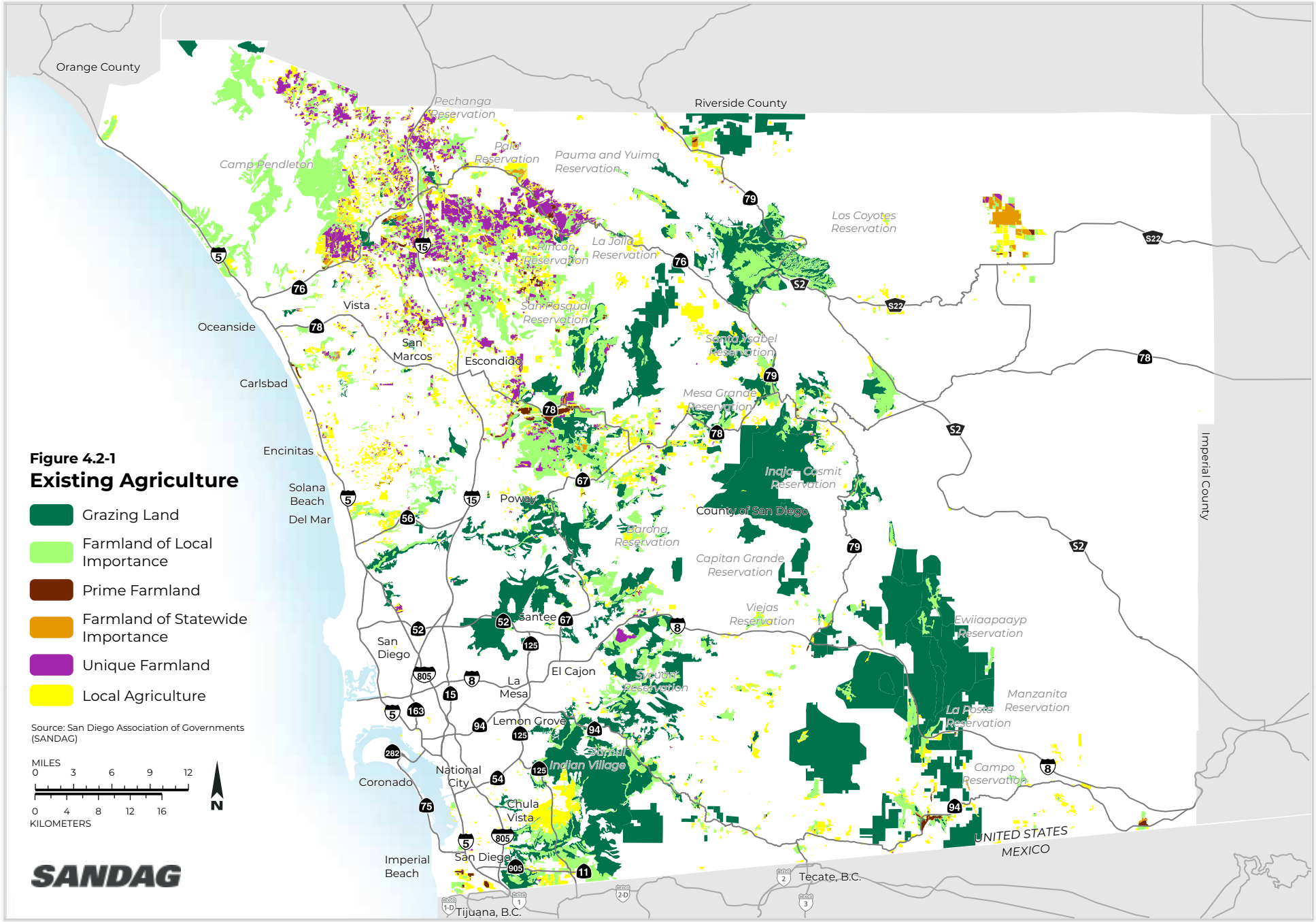
AGRICULTURAL RESOURCES

Agriculture is one of California's major industries, and the state produces a significant portion of the nation's food supplies (CDFA 2017). The San Diego region plays an important part, having the 12th largest farm economy among more than 3,000 counties nationwide (San Diego County Farm Bureau 2018). Farming in the San Diego region, however, differs from much of the rest of California, with more small farms than any other county (San Diego County Farm Bureau 2018). As the southwestern most part of the state, the San Diego region has a subtropical climate that optimizes production of a variety of crops that may be more difficult to produce elsewhere. The value of agricultural production in the San Diego region in 2016 was over $1.74 billion, with contributions from nursery and cut flower products, fruits and nuts, vegetables, and timber products, among others (County of San Diego 2016). In addition to production value, agriculture contributed a total of $2.88 billion to the economy of the San Diego region and supported 16,648 jobs (County of San Diego 2015).

Existing Agriculture and Farmlands

SANDAG compiled data available from the sources and years listed below to represent existing conditions for farmland in the San Diego region. Existing agricultural and farmlands parcels of all sizes are identified on Figure 4.2-1.

- SANDAG Land Use (2016) – this set of agricultural data resources includes grazing lands (field crops, grazing lands) and croplands (intensive agriculture, orchards and vineyards, and truck crops) (SanGIS 2016).
- San Diego County Agriculture Weights and Measures Agriculture Commodities Data (2020) – this database represents field border boundaries of agricultural commodity production sites throughout the region.
- Existing vegetation communities mapping described in Section 4.4, *Biological Resources,* and Appendix E of this EIR – these data include an agricultural lands category (SanGIS 2021).
- State of California Department of Conservation (DOC) FMMP (2016) – these data identify land classified under CEQA as "agricultural land", which includes the following land use categories: Prime Farmlands, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Lands.


Orange County
Riverside County
Imperial County
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Camp Pendleton
Los Coyotes Reservation
Rincon Reservation
La Jolla Reservation
San Pasqual Reservation
Santa Isabel Reservation
Mesa Grande Reservation
Inaja - Cosmit Reservation
County of San Diego
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Manzanita Reservation
La Posta Reservation
Campo Reservation
Sycuan Reservation
Sycuan Indian Village
UNITED STATES
MEXICO
Vista
Oceanside
San Marcos
Escondido
Carlsbad
Encinitas
Solana Beach
Del Mar
Poway
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
Tijuana, B.C.
Tecate, B.C.
Figure 4.2-1
Existing Agriculture
Grazing Land
Farmland of Local Importance
Prime Farmland
Farmland of Statewide Importance
Unique Farmland
Local Agriculture
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

As shown in Table 4.2-1, there are approximately 566,214 acres of existing agriculture and farmland in the San Diego region. Grazing lands account for about 281,461 acres (50 percent) of agricultural lands and are distributed throughout the San Diego region. General agriculture, field crops, and truck crops tend to be in the northern portion of the San Diego region and in the northeast portions of the unincorporated County. Orchard and vineyards are concentrated in the north along Interstate 15.

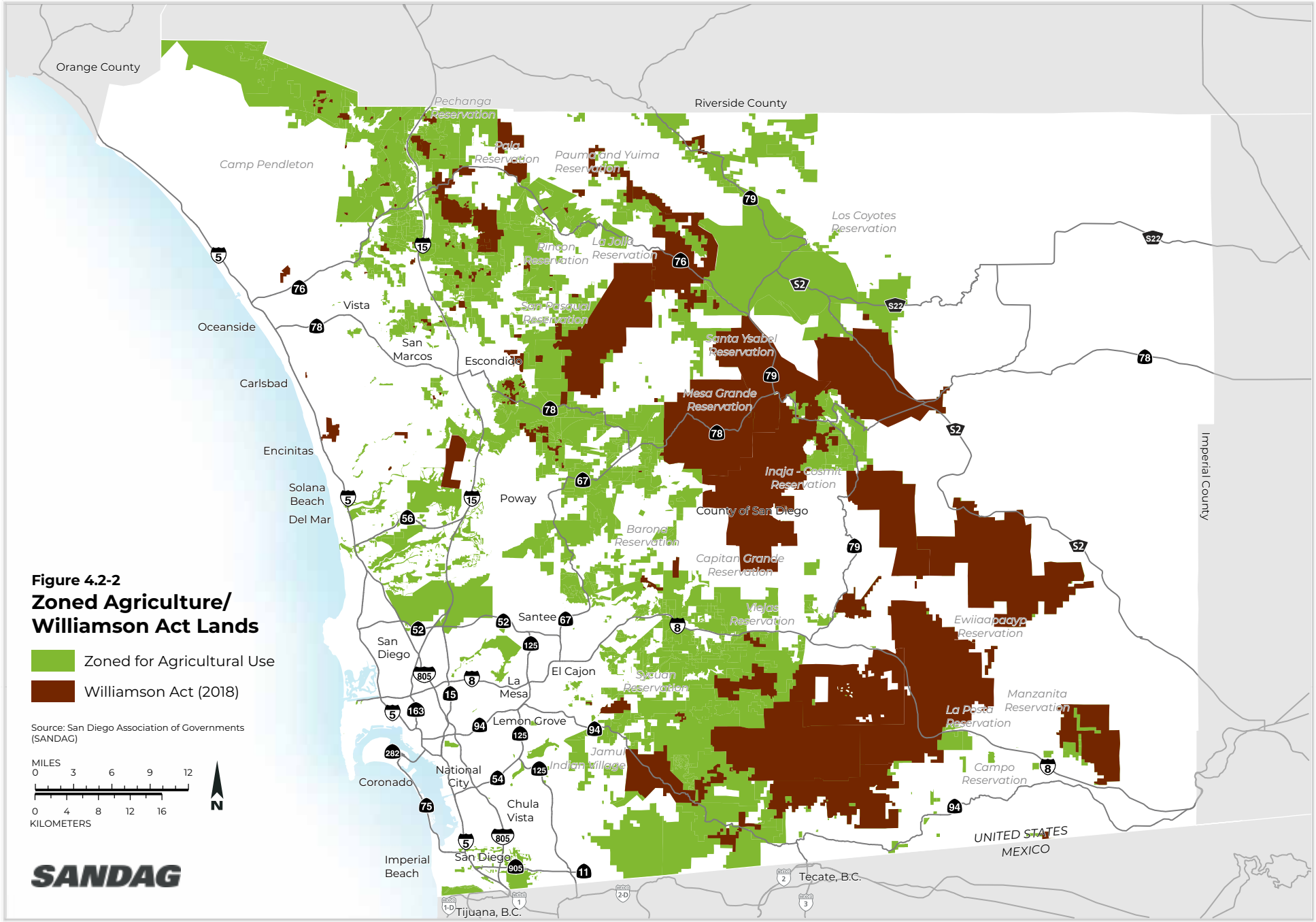
Table 4.2-1
Existing Agricultural Lands in the San Diego Region

Agricultural Category	Acreage
Prime Farmland	5,320
Farmland of Statewide Importance	7,431
Unique Farmland	40,986
Total FMMP-designated Agricultural Land Under CEQA	**53,737**
Farmland of Local Importance	157,682
Grazing Lands	281,461
Local Agricultural Land Outside of FMMP	73,334
Other Farmland	512,477
Total	**566,214**

Source: SANDAG 2021a, 2021b.

Existing Agricultural Zoning and Williamson Act Lands

Agricultural zoning and Williamson Act contracts help preserve agricultural lands in the region. Existing zoning information was obtained from applicable general plans, and includes lands allowed for various types of agricultural operations (Figure 4.2-2). There are 769,202 acres of lands zoned as agricultural in San Diego County (County of San Diego 2021).


Orange County
Riverside County
Imperial County
Camp Pendleton
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Los Coyotes Reservation
Rincon Reservation
La Jolla Reservation
San Pasqual Reservation
Santa Ysabel Reservation
Mesa Grande Reservation
Inaja - Cosmit Reservation
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Sycuan Reservation
Manzanita Reservation
La Posta Reservation
Campo Reservation
Jamul Indian Village
Vista
Oceanside
San Marcos
Escondido
Carlsbad
Encinitas
Solana Beach
Del Mar
Poway
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
Tijuana, B.C.
Tecate, B.C.
UNITED STATES
MEXICO
Figure 4.2-2
Zoned Agriculture/ Williamson Act Lands
Zoned for Agricultural Use
Williamson Act (2018)
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, 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 that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. As of 2017, the most recent available data, the San Diego region contains 80,572 acres of lands designated under the Williamson Act (SanGIS 2017). Figure 4.2-2 shows Williamson Act designated lands in the San Diego region (these lands are also zoned for agriculture). As shown on Figure 4.2-2, Williamson Act lands are generally located in the eastern portions of the County of San Diego along State Route (SR) 78, SR 79, and SR 76.

Public agencies may acquire Williamson Act contracted land for a wide range of public improvements. Common reasons for publicly acquiring contracted land include conversion to wildlife habitat, water resource management, public open space, and schools. Public acquisitions have been the second leading source of contract termination acreage over the current decade. Before acquiring contracted lands, a public agency must make findings that there is no other noncontracted land reasonably feasible for the purpose, and that the lower cost of contracted land is not a primary factor in its decision.

FORESTRY RESOURCES

Existing Timberland

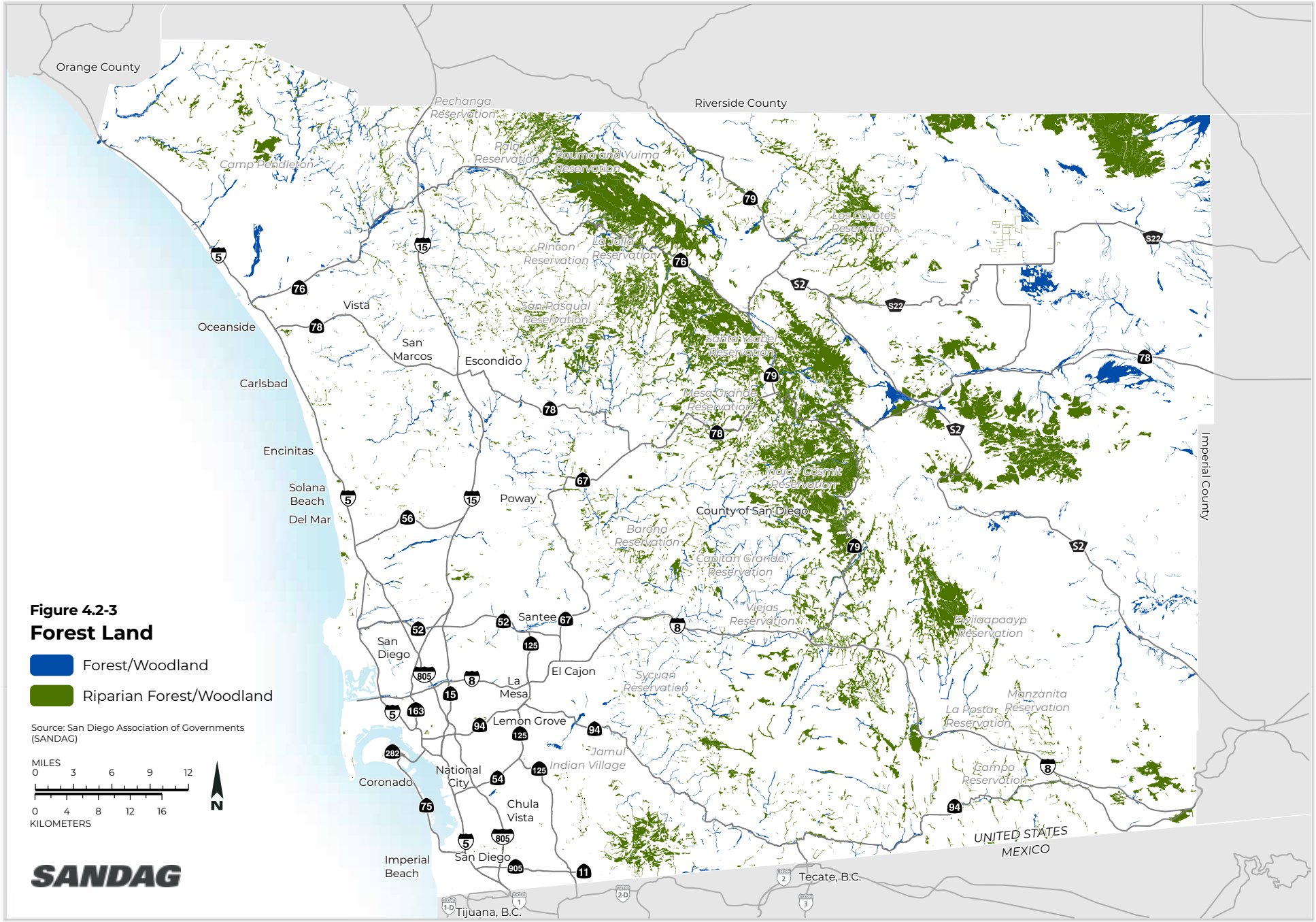
The California Timberland Productivity Act of 1982 (Government Code Section 51100 et seq.) defines timberland as privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre. A Timberland Production Zone (TPZ) is an area zoned and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. Compatible uses include those that do not significantly detract from the use of the property for, or inhibit, growing and harvesting timber.

The San Diego region does not contain any land designated as timberland or TPZ (County of San Diego 2006).

Existing Forest Land

California Public Resources Code (PRC) Section 12220(g) defines “forest land” as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Forest vegetation communities in the San Diego region include riparian forest/woodland and upland forest/woodland; these vegetation communities are located mainly in the coastal and montane subregions of the San Diego region.

Based on the most recent available vegetation data, the San Diego region contains a number of areas that are considered forest land, totaling 307,595 acres (County of San Diego 2021). Figure 4.2-3 shows lands designated as forest land in the San Diego region. A number of state and national parks in the region also contain designated forest land.


Orange County
Riverside County
Imperial County
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
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Oceanside
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Solana Beach
Del Mar
Poway
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Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Chula Vista
Coronado
Imperial Beach
Tijuana, B.C.
Tecate, B.C.
UNITED STATES
MEXICO
Figure 4.2-3
Forest Land
Forest/Woodland
Riparian Forest/Woodland
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

The majority of forest land is located in parks and vacant and undeveloped areas located east of incorporated cities and urbanized communities. A few areas with forest lands are also located near urban centers. National and state parks with forest resources include the Torrey Pines State Natural Reserve, Cleveland National Forest, Agua Tibia Wilderness, San Mateo Canyon Wilderness, Palomar Mountain State Park, and Cuyamaca Rancho State Park. The following sections describe national and state parks or preserved areas that contain designated forest land.

Torrey Pines State Natural Reserve

Torrey Pines State Natural Reserve, located within the City of San Diego, has more than 2,000 acres of rare native Torrey pine forest and southern maritime chaparral. Recreational uses are managed by the State Parks system. The trees themselves were identified in the mid-1800s as a separate species of pine, and one that grows naturally only along a small strip of coast from Del Mar to La Jolla and on Santa Rosa Island, which lies off the coast about 170 miles to the northwest. The Torrey pine is the rarest pine in the United States and one of the rarest pines in the world. All of the natural features in the reserve are protected by law (Torrey Pines State Natural Reserve 2018).

The Cleveland National Forest

The Cleveland National Forest is the southernmost National Forest in California. Consisting of 460,000 acres, the forest offers a wide variety of terrains and recreational opportunities. Portions of the Cleveland National Forest are located in the unincorporated areas of San Diego County, in three noncontiguous areas, as well as in Orange and Riverside counties. Damaging or removing any tree or forest product except as authorized by a special-use authorization, timber sale contract, or federal law or regulation is prohibited (USFS 2018a).Agua Tibia Wilderness

The Agua Tibia Wilderness is a 17,979-acre protected wilderness[1] area in Riverside and San Diego counties, mostly within the Palomar Ranger District of the Cleveland National Forest (Martin 1990). The Agua Tibia Wilderness comprises 480 acres of Bigcone Douglas-fir–canyon live oak forest. The Aqua Tibia Wilderness was set aside for the study of this forest type in the Peninsular Range province and with emphasis on forest succession, long-range ecological changes, and the effects of resource management practices.

San Mateo Canyon Wilderness

The San Mateo Canyon Wilderness contains 39,413 acres within San Diego and Orange Counties and is managed by the U.S. Forest Service (Aldo Leopold Wilderness Research Institute et al. 2018). The mountains in the wilderness are primarily covered by chaparral and coastal sage vegetation. The area includes several hiking and horse-riding trails with camping available (U.S. Forest Service 2018b).

[1] Wilderness is an official designation under the Wilderness Act of 1964. Wilderness areas are designated for preservation and protection and are managed by federal land management agencies such as the National Park Service and U.S. Forest Service (National Park Service 2018a, 2018b).

Palomar Mountain State Park

Coniferous forests cover much of the 1,862 acres of Palomar Mountain State Park, located in north San Diego County (CSP 2018a). Palomar Mountain State Park has a long history of use as a resort and camping destination, but logging operations have never been fully developed (Beckler and Brueggeman 2014).

Cuyamaca Rancho State Park

Cuyamaca Rancho State Park is a state park located 40 miles east of San Diego in the Laguna Mountains of the Peninsular Ranges. The park's 26,000 acres feature pine, fir, and oak forests, with meadows and streams that exist due to the relatively high elevation of the area compared to its surroundings. The park includes the 6,512-foot Cuyamaca Peak, the second highest point in San Diego County (CSP 2018b).

ANTICIPATED EFFECTS FROM CLIMATE CHANGE

The San Diego region is likely to experience sea level rise of up to 1.2 feet by 2050 and up to 4.6 feet by 2100, wetter winters and drier springs and autumns, a 12 percent decrease in runoff and streamflow due to less snowpack and greater evaporation, more intense heat waves and annual average temperatures increases of up to 4.8°F by 2050, and a longer and less predictable fire season (CEP and SDF 2015, Kalansky et al. 2018, OPC 2018). More details on future climate projections are available in Appendix C.

Climate change may limit the availability and viability of agricultural land due to higher temperatures, reduced availability of water for irrigation, changed pest regimes, and destructive events like wildfire. Forests could also be negatively affected by high temperatures and wildfire, especially when these effects are combined with land use changes and poor management. In addition to potentially reducing agricultural and forest viability and production rates, climate change impacts on plant growth and soil microbial communities may also negatively impact soil carbon storage rates and levels (Bradford et al. 2016, Ren et al. 2020).

Higher temperatures may worsen crop yield and quality, decrease the number of pollinators available, decrease the number of "chill hours" needed for some crops to grow, increase evapotranspiration, and increase the spread of crop pests and diseases (Gonzalez et al. 2018). Higher temperatures can also cause heat stress on livestock, spread livestock diseases, or require higher costs in cooling livestock; all these may reduce livestock and dairy production (Bright et al. 2018).

Water supplies and irrigation may be constrained in the San Diego region due to fewer rainy days and a decrease in runoff and streamflow, as well as longer and more intense droughts. Effects such as reduced snowpack and precipitation, as well as more precipitation falling as rain rather than snow in the mountains, can decrease water supplies coming from the mountain ranges. These effects reduce the amount of runoff and streamflow from melted snow, potentially decreasing this source of water. Such changes have already affected the Colorado River, which has seen a decline in streamflow by 16.5 percent between 1916 and 2014; over half of this decline can be attributed to warming temperatures (Xiao et al. 2018). A shift in the timing of melting snowpack can also affect supplies (CEP and SDF 2015). This snowpack usually melts in the spring and summer, releasing water when it is most needed; however, snow has melted earlier in recent years, reducing the amount of water available later in the year (Reidmiller et al. 2018). By 2100, snow water equivalent is expected to decline to less than one-half of its historical average under Representative Concentration Pathways (RCP) 4.5 and less than one-third of the historical average under RCP 8.5 (Bedsworth et al. 2018). This projected difference in seasonal water availability can affect crop yield and quality, especially for crops that are more sensitive to the timing of rainfall and irrigation (Gonzalez et al. 2018).

Using the Cal-Adapt wildfire tool, the County of San Diego estimates a 40 percent increase in annual average acres of burned land by 2100 compared to the annual average between 1950 and 2005 under a high-emissions scenario (County of San Diego 2018). Rainstorms are projected to be heavier by 2050, which may result in more soil erosion. Furthermore, the increase in atmospheric carbon dioxide from climate change could spread weeds (Reidmiller et al. 2018). Thus, climate change is expected to have a negative impact on agricultural resources in the San Diego region.

Impacts of climate change can also result in conversion, or loss, of forest land. Forest lands in the San Diego region face some of the same threats listed for agriculture, including higher temperatures, wildfire, pests, drought, and flooding (Bright et al. 2018). In California, land use and forest management practices have led to the growth of trees that are less resilient to drought and wildfire (Bright et al. 2018). Certain tree species in Southern California, such as conifer forests, are especially vulnerable—warmer and drier climates in the past have increased the burn area of these forests by 650 percent. Wildfires in the southwestern United States can also convert forest to woodland or grassland (Melillo et al. 2014) and may have a positive feedback cycle on climate change by decreasing levels of carbon sequestration. Forests in the United States absorb and hold about 16 percent of the carbon dioxide emitted in the country per year; burning this wood releases this carbon back into the atmosphere (Melillo et al. 2014). Warm temperatures and drought can also increase the spread of insect attacks, such as bark beetles, which have already killed off 102 million trees in California since 2010 (Bright et al. 2018). Although climate change is expected to have a negative impact on forestry resources in the San Diego region, these consequences have not yet been quantified.

4.2.2 REGULATORY SETTING

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

Farmland Protection Policy Act of 1981

Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the Farmland Protection Policy Act (FPPA) (7 U.S.C. 4202(a)), which is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The objective of the FPPA is to ensure that—to the extent possible—federal programs are administered to be compatible with state and local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every 2 years (USDA 2018).

Federal Forest Legacy Program

The objective of the Federal Forest Legacy Program is to identify and protect environmentally important forest lands that are threatened by present or future conversion to nonforest uses (USDA 2017). Priority is given to lands that can be effectively protected and managed and that have important scenic, recreational, timber, riparian, fish and wildlife, threatened and endangered species, and other cultural and environmental values. The program is entirely voluntary. Landowners who wish to participate may sell or transfer particular rights, such as the right to develop the property or to allow public access, while retaining ownership of the property and the right to use it in any way consistent with the terms of the easement. The agency or organization holding the easement is responsible for managing the rights it acquires and for monitoring compliance by the landowner. Forest management activities, including timber harvesting, hunting, fishing, and hiking are encouraged, provided that they are consistent with the program's purpose.

The Federal Forest Legacy Program is not solely a protection program. Eligible properties may be "working forests," where forest land is managed for the production of forest products and traditional forest uses are maintained. These forest uses will include both commodity outputs and non-commodity values. The purpose of these easements is to maintain these forests intact to provide such traditional forest benefits as timber production, wildlife habitat, watershed protection, and/or open space. These forests remain in private ownership, except for the restrictions on development or other uses conveyed by the conservation easement to the agency selected by the landowner.

STATE LAWS, REGULATIONS, PLANS, AND POLICIES

Right to Farm Act

The Right to Farm Act (Civil Code Section 3482.5) is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a "manner consistent with proper and accepted customs." The code specifies that established operations that have been in business for 3 or more years that were not nuisances at the time they began will not be considered a nuisance as a result of a new land use.

California Coastal Act

The California Coastal Act requires the protection of agricultural lands within the coastal zone. It does so by directly mandating that the maximum amount of prime agricultural land be maintained in production, and by supporting various techniques to limit threats to agricultural productivity. These include establishing stable urban-rural boundaries, agricultural buffers, development priority on lands not suitable for agriculture, subdivision restrictions, and public service expansion controls (PRC Section 30241).

California Farmland Conservancy Program

The California Farmland Conservancy Program (CFCP) (PRC Section 10200 et seq.) was formerly known as the Agricultural Land Stewardship Program, which began in 1995. The CFCP provides grants for agricultural conservation easements with the intent to encourage the long-term, private stewardship of agricultural lands through the voluntary use of agricultural conservation easements. The CFCP provides grants to local governments and qualified nonprofit organizations. Easements funded by the CFCP must be of a size and nature suitable for viable commercial agriculture. An agricultural conservation easement is a voluntary, legally recorded deed restriction placed on a property used for agricultural production. The easements are held by land trusts or local governments. The goal is to maintain agricultural land in active production by removing the development pressures from the land. Such easements prohibit practices that would damage or interfere with the agricultural use of the land. Because the easement is a restriction on the deed of the property, the easement remains in effect even when the land changes ownership. While other benefits may accrue because the land is not developed (scenic and habitat values, for example), the primary use of the land is agricultural.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act, better known as the Williamson Act, creates incentives designed to retain agricultural preserves, which can include areas devoted to agricultural use and related open space (Government Code Sections 51200–51297.4). The minimum term for Williamson Act contracts between the local government and participating landowners is 10 years (DOC 2018a). The initial term of 10 years renews automatically each year (local governments can establish initial contract terms for longer periods of time). Generally, any commercial agricultural use will be permitted within any agricultural preserve; however, the

Williamson Act also permits land devoted to recreational use and open space, as defined in Government Code Section 51201, within an agricultural preserve. Allowable recreational uses include walking, hiking, picnicking, camping, swimming, boating, fishing, hunting, or other outdoor games or sports available for public participation.

The Williamson Act also includes Farmland Security Zone (FSZ) provisions. An FSZ is an area created within an agricultural preserve by a local government upon request by one or more landowners. FSZ contracts offer landowners greater property tax reduction in return for an initial contract term of 20 years, with renewal occurring automatically each year. Land restricted by an FSZ contract is valued for property assessment purposes at 65 percent of its Williamson Act valuation, or 65 percent of its Proposition 13 valuation, whichever is lower. New special taxes for urban-related services must be levied at an unspecified reduced rate unless the tax directly benefits the land or living improvements. Cities and special districts that provide nonagricultural services are generally prohibited from annexing land enrolled under an FSZ contract. Similarly, school districts are prohibited from taking FSZ lands for school facilities.

Payments under the Open Space Subvention Act intended to provide for the partial replacement of local property tax revenue foregone as a result of participation in the Williamson Act have been suspended since 2010 due to revenue shortfalls.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is classified as Prime Farmland. The maps are updated every 2 years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources (DOC 2018b).

Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Sections 56000 et seq.) establishes procedures for local government changes of organization, including city incorporations, annexations to a city or special district, and city and special district consolidations. This act's policies provide that development or use of land for any purpose other than open space should be redirected from existing prime agricultural lands in open space use toward areas containing nonprime agricultural lands, unless that action would not promote the planned, orderly, efficient development of an area. In the San Diego Region, this act is implemented by the San Diego Local Agency Formation Commission (LAFCO).

California Department of Forestry and Fire Protection's Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection's (CAL FIRE's) Fire and Resource Assessment Program (FRAP) accesses the amount and extent of California's forest and rangelands. The program analyzes their condition and identifies alternative management and policy guidelines. The assessment links together State requirements for natural resource inventories and strategies and the federal government's desire to rely more heavily on these State programs in determining priorities for funding (CAL FIRE 2018a).

Open Space Subvention Act

The Open Space Subvention Act (OSSA, Government Code Sections 16140 et seq.) was enacted on January 1, 1972, to provide for the partial replacement of local property tax revenue foregone as a result of participation in the Williamson Act and other enforceable open space restriction programs. Through 2009, participating local governments received annual payments of foregone property tax revenues on the basis of the quantity (number of acres), quality (soil type and agricultural productivity), and, for FSZ contracts, location (proximity to a city) of land enrolled under eligible enforceable open space restrictions (DOC 2018c). However, these payments have been suspended since 2010 due to revenue shortfalls.

California Forest Legacy Act

The California Forest Legacy Act (CFLA, PRC Sections 12200 et seq.) was enacted in 2000 and extended in 2007. The CFLA allows CAL FIRE to acquire conservation easements, and permit federal agencies, State agencies, local governments, and nonprofit land trust organizations to hold conservation easements acquired pursuant to the California Forest Legacy Program. The California Forest Legacy Program provides funding for conservation easements, with the objective to protect the forest land base, as well as forest resources such as fish and wildlife habitat and water quality, while ensuring the continuance of traditional uses and protection of landowners' property rights. Landowners participating in the programs are required to prepare a multi-resource management plan that is the equivalent of, or more extensive than, a Forest Stewardship Plan (per U.S. Forest Service guidelines) (CAL FIRE 2018b).

REGIONAL AND LOCAL LAWS, REGULATIONS, PLANS, AND POLICIES

Cities in the proposed Plan Area and the County of San Diego, when applicable, have adopted general plans and zoning regulations that address agricultural lands and forestry. The local regulations, plans, and policies, related to preservation of lands designated for agricultural uses in the region are provided in Table 4.2-2.

Table 4.2-2
Local Agriculture Regulations, Policies, or Programs

Jurisdiction	Regulation, Policy, or Program
Carlsbad	The City of Carlsbad Local Coastal Program protects agricultural lands from premature conversion to urban land uses by establishing programs that require mitigation for conversion of agricultural property to urban uses. It also establishes methods to benefit agriculture in the community by providing financial assistance through cash programs. General Plan Policies 4-P.44 Allow and encourage farming operations to continue within the Cannon Road Open Space, Farming, and Public Use Corridor (such as the strawberry fields) as long as they are economically viable for the landowner. 4-P.45 Ensure the existing Flower Fields remain a farming and flower production use by utilizing all available methods and programs, including grants and other outside financial assistance. 4-P.46 Utilize available methods and resources to reduce the financial burdens on agricultural land, not only to prevent premature development, but also to encourage its continued use for agricultural purposes. 4-P.47 Ensure new development adjacent to an agricultural use is sensitive to the continuation of the agricultural use by requiring appropriate design criteria, such as site layout, use of vegetation and buffers.

Jurisdiction	Regulation, Policy, or Program
	4-P.48 Encourage soil and water conservation techniques in agricultural activities. 4-P.49 Ensure that the grading of agricultural lands is accomplished in a manner that minimizes erosion of hillsides and minimizes stream siltation and to maintain the appearance of natural hillsides and other land forms wherever possible. 4-P.50 Prevent agricultural run-off and other forms of water pollution from entering the storm drain system and polluting the city's water bodies. 4-P.51 Prior to the approval of new development within an existing or former agricultural area in Carlsbad, require a detailed soils testing and analysis report be prepared by a registered soils engineer and submitted to the city and the county health department for review and approval. This report shall evaluate the potential for soil contamination due to historic use, handling, or storage of agricultural chemicals restricted by the County of San Diego Department of Health Services. If hazardous chemicals are detected at concentrations in the soil that would have a significantly adverse effect on human health, the report shall identify a range of possible mitigation measures to remediate the significant public health impacts. The Carlsbad Community Forest Management Plan, provides guidance to conserve forest areas through proper design, maintenance and education. The document includes guidelines and procedures for planting, maintaining, removing, replacing and preserving trees within public areas.
Chula Vista	The Otay Ranch General Development Plan, approved jointly by the City of Chula Vista and County of San Diego for the future development of Otay Ranch, establishes goals, objectives, policies, and implementation measures relative to the protection of agricultural resources. The Range Management Plan for Otay Ranch recommendations and implementing actions are provided for ongoing managed grazing activities on conveyed lands if the activity is shown not to negatively affect biological resources. General Plan Policies: E 4.1 Allow historical agricultural uses to continue within planned development areas as an interim land use in accordance with the MSCP Subarea Plan. E 4.2 Allow agricultural uses on privately-owned property within the Chula Vista Greenbelt and elsewhere, provided the use is consistent with the provisions of the Chula Vista MSCP Subarea Plan, as well as the zoning of the property. E 4.3 Encourage the development of community gardens and similar related uses within appropriate, compatible locations throughout the City.
Coronado	No applicable agricultural regulations, policies, or programs. According to the General Plan, there are no agricultural lands under production in the city and no forests.
Del Mar	No applicable agricultural regulations, policies, or programs.
El Cajon	The City of El Cajon does not have any lands designated for agricultural use but allows limited agricultural uses in large residential zones and open space zones. According to the General Plan, there are no forests in the city.
Encinitas	The Agricultural Overlay Zone restricts development on properties presently under a Williamson Act contract and described on the city map delineating the Agricultural Overlay Zone to that which is necessary for agricultural operations. The Land Use Element of the General Plan contains a policy that specific plans will not be approved unless the exclusive agriculture use of the land is no longer feasible, or to allow development on portions of the plan area that will enhance the feasibility of agriculture use of the remaining portions of the area.

Jurisdiction	Regulation, Policy, or Program
	The Encinitas Ranch Specific Plan contains policies to ensure the economic viability of agricultural uses in the planning area and preserve sufficient land area so as to ensure the financial viability of agriculture on the property and the continued operation of the Paul Ecke Ranch.
Escondido	City of Escondido General Plan policies: Agricultural Resources Policy 4.1 Maintain large-lot residential land uses with appropriate zoning designations in agricultural areas that are compatible with preserving agricultural productivity. Agricultural Resources Policy 4.2 Require agricultural lands to be physically separated from more intensive urban development with intermediate land uses that are mutually compatible, and use landscape screening methods to minimize urban and agricultural conflicts. Agricultural Resources Policy 4.3 Explore a variety of techniques to preserve existing agricultural lands including: a) Agricultural Land Trusts designed as nonprofit corporations organized according to the Nonprofit Public Benefit Corporation Law of California and Section 501(c)(3) of the Internal Revenue Code. b) Transfer development rights from existing agricultural lands to other portions of the project or City-approved receiver sites, thereby preserving the agricultural lands in permanent open space, consistent with clustering policies. c) The "right to farm" in open space areas. Agricultural Resources Policy 4.4 Encourage the use of water conservation techniques in agricultural enterprises including the use of reclaimed water for irrigation. Agricultural Resources Policy 4.5 Support the operation of, and provide venues for, "Certified Farmer's Markets" to allow farmers in the area to sell their products on-site or off-site as designated locations. Agricultural Resources Policy 4.6 Permit the development of community gardens on vacant properties in commercial and industrial areas and multi-family neighborhoods, provided that they are managed and operated to prevent adverse impacts on adjoining uses.
Imperial Beach	No land within Imperial Beach is designated for agricultural use.
La Mesa	No applicable agricultural regulations, policies, or programs.
Lemon Grove	No applicable agricultural regulations, policies, or programs.
National City	The City of National City General Plan policies: OS-3.3: Encourage the development of unused land such as portions of parks and utility right of ways to be converted to productive space for growing food. OS-3.5: Identify potentially feasible site locations for urban agriculture, including locations for street conversions, and identify links between them. OS-3.8: Maintain an on-going dialogue with the community to ensure that its needs are being addressed by urban agriculture endeavors. OS-3.11: Explore opportunities for the planting of fruit trees and gardens in the public right-of-way, where feasible.
Oceanside	City of Oceanside General Plan policies: 2.5 B: Residential development shall be permitted provided such development does not interfere with existing agricultural operations and that the open space character of the area is preserved. Appropriate minimum lot areas shall be determined by the area's topography, adjacent land uses, and the availability of public services and utilities; however, under no circumstances shall lot areas be less than two and one-half (2½) acres. Lot configurations and dimensions shall

Jurisdiction	Regulation, Policy, or Program
	provide areas of sufficient size to conduct limited, low-intensity agricultural activities such as orchards, gardens, and the keeping of livestock. 2.5 C: The City shall, in all proposed actions converting agricultural lands to other land uses, consider the loss of those lands to the potential agricultural productivity to the community; and shall assure that land use compatibility to agricultural lands is fully defined and assured. 2.5 D: Land use compatibility is of primary importance to agricultural areas, since land use conflicts between agricultural and nonagricultural uses can force the economic non-viability of agricultural areas.
Poway	The City of Poway General Plan contains a policy to allow agriculture on lands designated Open Space – Resource Management (OS-RM) with approval of the City Council. The General Plan encourages the combination of agriculture and residential uses in High Valley and parts of Green Valley. The General Plan states that numerous areas are lightly developed with activities or facilities that serve the region as unique or outstanding recreational safety or managed production (agriculture, mineral extraction areas). These areas should be retained as open space and in some cases increased to serve the region's expanding needs.
City of San Diego	City of San Diego General Plan policies: CE-L.1. Manage agricultural activity to minimize soil erosion and minimize the release of contaminants into surface and groundwater resources. CE-L.2. Limit retail activity in agriculturally-designated areas to uses that are reasonably related to agriculture (e.g., sale of locally grown farm products). CE-L.3. Encourage agricultural operations such as community farms and gardens (especially on City-leased lands) to provide for educational experiences which demonstrate the history, importance and value of agricultural operations, and to provide more healthy, sustainable, local food options. CE-L.4. Continue water reclamation research programs to develop realistic methods of providing inexpensive means of leaching soils, irrigating crops and preventing salt water intrusion. CE-L.5. Integrate agriculture and sustainability principles that promote clean air and water, and healthy soils, habitats, and ecosystems. a. Encourage sustainable agricultural and water quality best management practices, such as tillage, use of grass filter strips, runoff detention basins, and organic farming, on all private land and require BMPs on new or renewed City land leased for agricultural purposes. Provide the minimum amount of flood control/channelization. b. Encourage sustainable agricultural operations, especially on City-leased lands, to offer more sustainable, local food choices. CE-L.6. Provide mechanisms to permit private land owners of prime agricultural lands to take advantage of the Williamson Act. CE-L.7. Balance the economic benefits provided by agricultural uses with the competing water resource, biological and cultural resource management and recreation priorities. See also Historic Preservation Element policies HP- A.2, A.3, and A.4 concerning historical and cultural resources, and government-to-government relationships with the Kumeyaay/Diegueno tribes of San Diego. See the Conservation Element Policy CE-B.1.e and Section G for policies pertaining to native plants and biological resources.

Jurisdiction	Regulation, Policy, or Program
	CE-L.8. Foster an urban agriculture system that is environmentally and economically sustainable. Encourage the use of urban agricultural techniques that require reduced land and water use as compared to conventional methods. • Recognize the cultural and economic benefits of providing opportunities for residents to grow healthy, affordable, culturally appropriate foods, and to augment their food budget through urban agriculture. • Reduce waste and increase agricultural productivity through increased composting of organic waste. • Recognize the essential role of honeybees and other pollinators in healthy ecosystems and in the food supply chain. Support safe and reasonable beekeeping. CE-L.9. Increase opportunities for urban agriculture. • Develop land development regulations that allow urban agriculture uses in appropriate locations, with parameters designed to control potential impacts on neighboring uses and properties. • Develop land development regulations that increase opportunities for farmers markets on public and private lands. • Monitor implementation of urban agriculture goals and policies. • Support rooftop gardens and the use of edible landscape materials. • Encourage the use of vacant land underutilized lots for urban agriculture. • Explore potential locations for urban agriculture uses as a part of long range plans and other projects.
San Marcos	No applicable agricultural regulations, policies, or programs.
Santee	The City of Santee allows agricultural use in lands designated as Open Space under special conditions (City of Santee 2003).
Solana Beach	No applicable agricultural regulations, policies, or programs (City of Solana Beach 1988).
Vista	The General Plan states that in Vista, where agricultural enterprises are small-scale, scattered, and surrounded by other land uses, it is appropriate to promote the retention of agricultural uses through land use designations that allow these uses, rather than designating the land as open space.
County of San Diego	County of San Diego Code of Regulatory Ordinances Sections 63.401 and 63.402, the Agricultural Enterprises and Notice to Prospective Homeowners Ordinance, defines and limits the circumstances under which agricultural enterprise activities, operations, and facilities will constitute a nuisance. The San Diego County Board of Supervisors Policy I-38, Support and Encouragement of Farming in San Diego County, sets forth policies for the implementation of the Williamson Act. The County of San Diego General Plan has the following policies: LU-5.3 Rural Land Preservation. Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi Rural Land Use Designations. LU-6.4 Sustainable Subdivision Design. Require that residential subdivisions be planned to conserve open space and natural resources, protect agricultural operations including grazing, increase fire safety and defensibility, reduce impervious footprints, use sustainable development practices, and, when appropriate, provide public amenities. [See applicable community plan for possible relevant policies.]

Jurisdiction	Regulation, Policy, or Program
	LU-7.1: Agricultural Land Development. Protect agricultural lands with lower density land use designations that support continued agricultural operations. LU-7.2: Parcel Size Reduction as Incentive for Agriculture. Allow for reductions in lot size for compatible development when tracts of existing historically agricultural land are preserved in conservation easements for continued agricultural use. COS-6.1 Economic Diversity. Support the economic competitiveness of agriculture and encourage the diversification of potential sources of farm income, including value added products, agricultural tourism, roadside stands, organic farming, and farmers markets. COS-6.2 Protection of Agricultural Operations. Protect existing agricultural operations from encroachment of incompatible land uses by doing the following: • Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations. • Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent nonagricultural land uses. • Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development. • Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture. • Supporting local and State right-to-farm regulations. • Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process. COS-6.3 Compatibility with Recreation and Open Space. Encourage siting recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses. COS-6.4: Conservation Easements. Support the acquisition or voluntary dedication of agriculture conservation easements and programs that preserve agricultural lands. COS-6.5 Best Management Practices. Encourage best management practices in agriculture and animal operations to protect watersheds, reduce GHG emissions, conserve energy and water, and utilize alternative energy sources, including wind and solar power. <u>In addition, as noted under Chula Vista, the Otay Ranch General Development Plan, approved jointly by the City of Chula Vista and County of San Diego for the future development of Otay Ranch, establishes goals, objectives, policies, and implementation measures relative to the protection of agricultural resources. The Range Management Plan for Otay Ranch recommendations and implementing actions are provided for ongoing managed grazing activities on conveyed lands if the activity is shown not to negatively affect biological resources.</u>

Sources: City of Carlsbad 2015, 2019a, 2019b; City of Chula Vista 2019, 2020; City of Coronado 2003; City of Del Mar 1985; City of El Cajon 2001; City of Encinitas 1995, 2019; City of Escondido 2012; City of Imperial Beach 2019; City of La Mesa 2013; City of Lemon Grove 1996; City of National City 2011; City of Oceanside 2002; City of Poway 1991; City of San Diego 2015, 2020; City of San Marcos 2012; City of Santee 2003; City of Solana Beach 1988; City of Vista 2014; County of San Diego 2015.

Local jurisdictions' adopted general plans, regulations, and policies also address the preservation and use of open space and biological resources, including forest lands. These plans include the County of San Diego's Multiple Species Conservation Program (MSCP) and associated municipality MSCP subarea plans, Multiple Habitat Conservation Program (MHCP), *TransNet* Environmental Mitigation Program, and other local biological resources regulations as described in Section 4.4.

4.2.3 SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines provides criteria for determining the significance of a project's environmental impacts, in the form of Initial Study checklist questions. Unless otherwise noted, the significance criteria specifically developed for this EIR are based on the CEQA Guidelines Appendix G checklist questions. In some cases, SANDAG has combined checklist questions, edited their wording, or changed their location in the document in an effort to develop significance criteria that reflect the programmatic level of analysis in this EIR and the unique characteristics of the proposed Plan.

Checklist questions for agricultural and forestry resources are provided in Section II of CEQA Guidelines Appendix G. To streamline the analysis, the CEQA Guidelines Appendix G questions have been combined and modified as appropriate. Criterion II (a) is addressed in AG-1, which is expanded to include all farmland, not just farmland mapped by the FMMP. Criteria (b) and (c) related to Williamson Act lands and lands zoned for agriculture are addressed in AG-2. Criteria (c) and (d) related to forestry resources are addressed in FR-1. Because no timberlands or timberland production zones exist in the proposed Plan Area, this resource is not addressed in the impact analysis below. Criterion (e) addressing other factors that may result in the conversion of agricultural and forestry resources is addressed in criteria AG-1, AG-2 and FR-1.

Implementation of the proposed Plan would have a significant agricultural and forestry resources impact if it would:

AG-1	Convert agricultural lands to nonagricultural use.
AG-2	Conflict with existing zoning for agricultural use, or a Williamson Act contract.
FR-1	Convert or result in the loss of "Forest Land" as defined in the California Forest Legacy Act of 2007 (Public Resources Code Section 12220(g)).

4.2.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

AG-1 CONVERT AGRICULTURAL LANDS TO NONAGRICULTURAL USE

ANALYSIS METHODOLOGY

This section analyzes the impacts on agricultural lands if implementation of the proposed Plan would convert agricultural lands to nonagricultural use. A significant impact on agricultural lands would occur if any agricultural lands were converted to nonagricultural use as a result of the regional growth and land use change or transportation network improvements under the proposed Plan. Impacts associated with the conversion of agricultural land are quantified and conversion projections include agricultural parcels of all sizes. In addition to impacts from direct conversion of land, the analysis also considers indirect effects on the viability of continued agricultural production in areas where regional growth and land use change or transportation network improvements would result in indirect impacts on these resources. Projects in proximity to agricultural lands could cause land use conflicts that indirectly result in additional agricultural land conversions. These conflicts include noise, odors, water rights and use, chemicals, and runoff. Urban

development near agricultural land increases the value of the agricultural land, which makes land purchase for agricultural expansion difficult, and provides more incentive to sell the property for nonagricultural use. Commercial, office, or industrial uses would also be incompatible when abutting lands with agricultural operations.

Any nonagricultural growth and land use change within existing agricultural lands is considered a direct impact on these resources. The direct impacts of regional growth and land use change are quantified using geographical information system (GIS) methods by overlaying forecasted regional growth and land use change onto the existing agricultural lands dataset described in Section 4.2.1, *Existing Conditions*. The analysis quantifies direct impacts on acres of existing agricultural lands using different approaches: (1) growth in land use categories other than Spaced Rural Residential and (2) growth in Spaced Rural Residential. Regional growth and land use changes resulting in Agricultural, Open Space Park. and Vacant land are assumed not to convert agricultural lands to non-agricultural use.

For growth and land use change (other than growth in the Spaced Rural Residential category), an impact on any part of an existing agricultural parcel is considered a 100 percent conversion of that parcel to a nonagricultural use. Impacts were calculated separately for each subcategory of agricultural land (e.g., orchards and vineyards, field crops). The analysis of growth in the Spaced Rural Residential land use category is based on a conversion factor that assumes subdivision of agricultural lands results in permanent conversion of 1.5 acres of agricultural lands to nonagricultural use per lot. This value was determined based on a review of past built-out subdivision projects on existing agricultural lands in unincorporated San Diego County, which calculated that, on average, subdivision of existing agricultural lands resulted in permanent conversion of 1.5 acres of agricultural lands to nonagricultural use per lot.

Transportation network improvements that would convert existing agricultural lands to nonagricultural use are considered 100 percent conversion, and are calculated for each project that would have a direct impact on existing agricultural lands. The direct impacts of transportation network improvements are evaluated through GIS methods by overlaying transportation improvement project footprints onto the existing agricultural lands dataset.

Agricultural land impacts were evaluated through GIS by overlaying transportation improvement project footprints onto the baseline dataset described in Section 4.2.1. Transportation improvement project impacts were calculated for each project that requires new construction in undeveloped areas. Transportation improvement project footprints are based on what is known about planned transportation network improvements contained in the proposed Plan at the time of analysis (see Appendix B).

The transportation network footprints are estimated though a coordinated effort by SANDAG transportation modeling, GIS, engineering, and planning staff. Buffer size assumptions are specific to each travel mode and rely on engineering plan estimates from similar project improvements to calculate footprint width using model input geographies. The assumptions for each travel mode were presented at a peer review and SANDAG staff are in agreement regarding the overall process and assumptions used.

Highway transportation and regional arterial improvement project footprints are defined by buffering line segment project geographies from the SANDAG highway model network. These layers are an early approximation of the dimensions of the planned improvements, which factor in lane width and buffer/movable barrier size assumptions from engineering drawings of similar projects, and the proposed number of lanes and auxiliary lanes from the SANDAG transportation model network. For highways, it was assumed that each travel lane is 12 feet wide, multiplied by the total number of proposed lanes. Shoulder widths added an additional 24

feet, accounting for a 12-foot outer shoulder and 12-foot inner shoulder in the highway footprint. Managed Lanes buffers are assumed to be 8 feet, or 4 feet in each direction. Where a movable barrier is assumed, another 4-foot buffer is applied. In addition, where there are ramps or connectors, it is assumed that each lane on the ramp or connector is 12 feet wide with an added 8 feet to account for inner and outer ramp shoulders. . For regional arterials, each lane is assumed to be 12 feet wide and a 4-foot buffer in each direction is assumed to account for sidewalks.

Rail transit improvement project footprints, specifically Trolley, LOSSAN, and SPRINTER lines only in areas where there are new extensions or alignment changes, are defined by a rail width buffer of 50 feet. Bus transit improvement footprints are not developed because routes would use existing or planned road or highway or managed lane segments. New bikeway footprints (i.e., active transportation elements) are estimated assuming bikeways are 14 feet wide. Bikeway footprints are not developed in situations where they would occur within existing or planned road or highway segments.

IMPACT ANALYSIS

2025

Regional Growth and Land Use Change

Regional growth and land use change between 2016 and 2025 would convert agricultural lands to nonagricultural use as shown in Figure 4.2-4, which would decrease the viability of agriculture on those lands. Table 4.2-3 shows that regional growth and land use categories other than Spaced Rural Residential would convert approximately 5,910 acres to nonagricultural use, including 558 acres of FMMP-designated agricultural land under CEQA (16 acres of Prime Farmland, 4 acres of Farmland of Statewide Importance, and 538 acres of Unique Farmland). Additionally, regional growth in the Spaced Rural Residential land use category would convert an estimated 491 acres to nonagricultural use, including about 152 acres of FMMP-designated agricultural land under CEQA. Impacts are primarily distributed throughout the northern half of the County, with the exception of concentrated impact areas in the vicinity of the Chula Vista and San Ysidro mobility hubs in the southern part of the County.

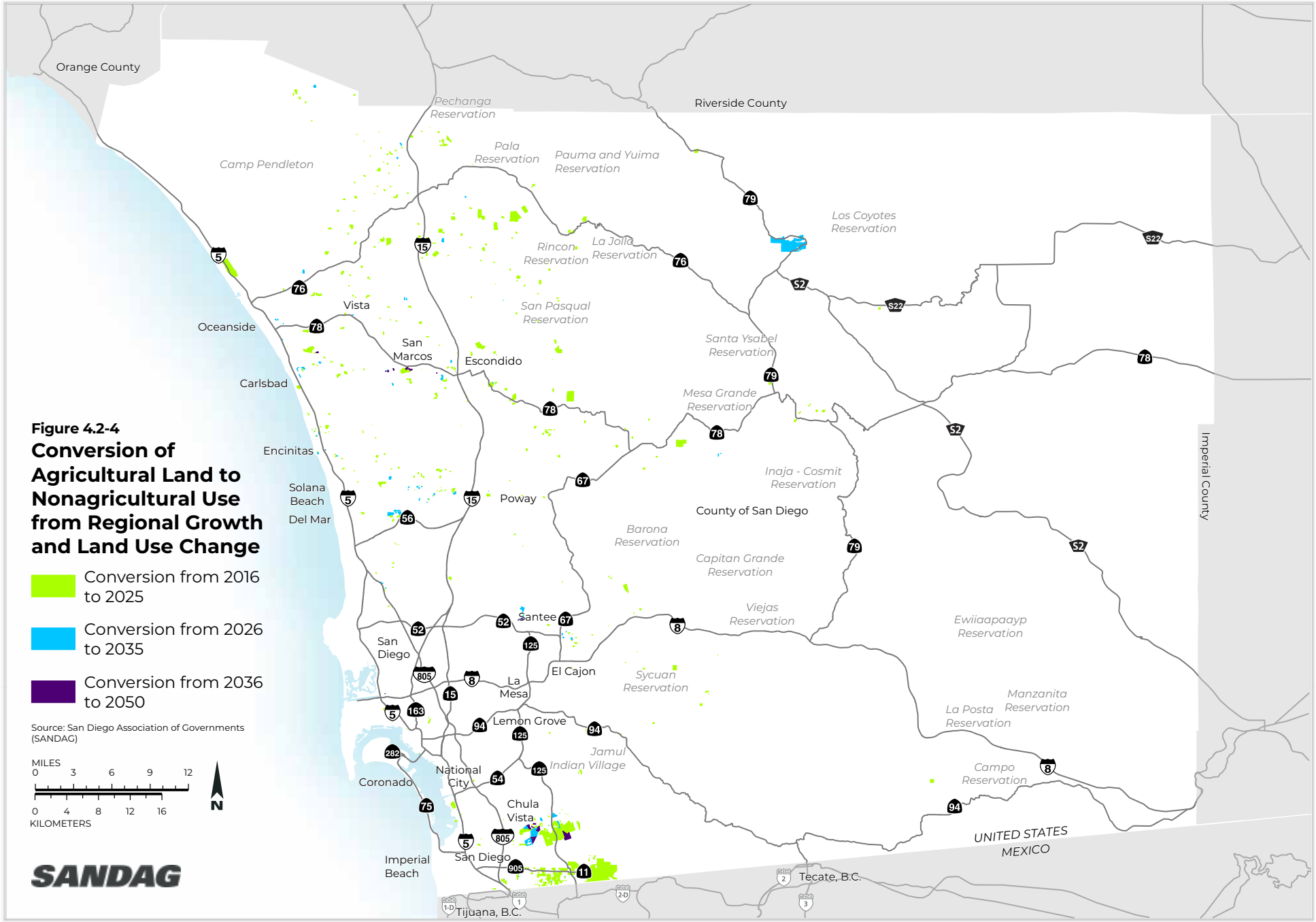
Approximately 6,401 acres of existing agricultural land (all parcel sizes) would be converted to nonagricultural uses between 2016 and 2025, including roughly 709 acres of FMMP-designated agricultural land.

Regional growth that occurs in proximity to agricultural lands would also cause land use conflicts that would indirectly result in additional agricultural land conversions. These conflicts include noise, odors, water rights and use, chemicals, and runoff. Urban development near agricultural land increases the value of the agricultural land, which makes land purchase for agricultural expansion difficult, and provides more incentive to sell the property for nonagricultural use. Commercial, office, or industrial uses would also be incompatible when abutting lands with agricultural operations.

Existing laws and programs described in Section 4.2.2, such as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 and policies of local jurisdictions, would protect some agricultural lands and reduce the pressure to convert agricultural lands to nonagricultural use. However, the proposed Plan's regional growth and land use changes would still convert agricultural lands to nonagricultural use, and this impact would be significant.

Table 4.2-3
Conversion of Agricultural Lands to Nonagricultural Use from Regional Growth and Land Use Change, 2016–2025

Agricultural Category	Agricultural Lands (acres)		Conversion to Nonagricultural Use (acres)		
	2016	2025	100 Percent	Spaced Rural Residential	Total
Prime Farmland	5,320	5,298	16	6	22
Farmland of Statewide Importance	7,431	7,417	4	11	14
Unique Farmland	40,986	40,315	538	135	673
FMMP-designated Agricultural Land Under CEQA	**53,738**	**53,029**	**558**	**152**	**709**
Farmland of Local Importance	157,682	154,359	3,166	157	3,323
Grazing Lands	281,461	280,176	1,223	62	1,286
Local Agricultural Land Outside of FMMP	73,334	72,250	963	120	1,083
Other Farmland	**512,476**	**506,785**	**5,352**	**339**	**5,692**
Total	**566,215**	**559,813**	**5,910**	**491**	**6,401**

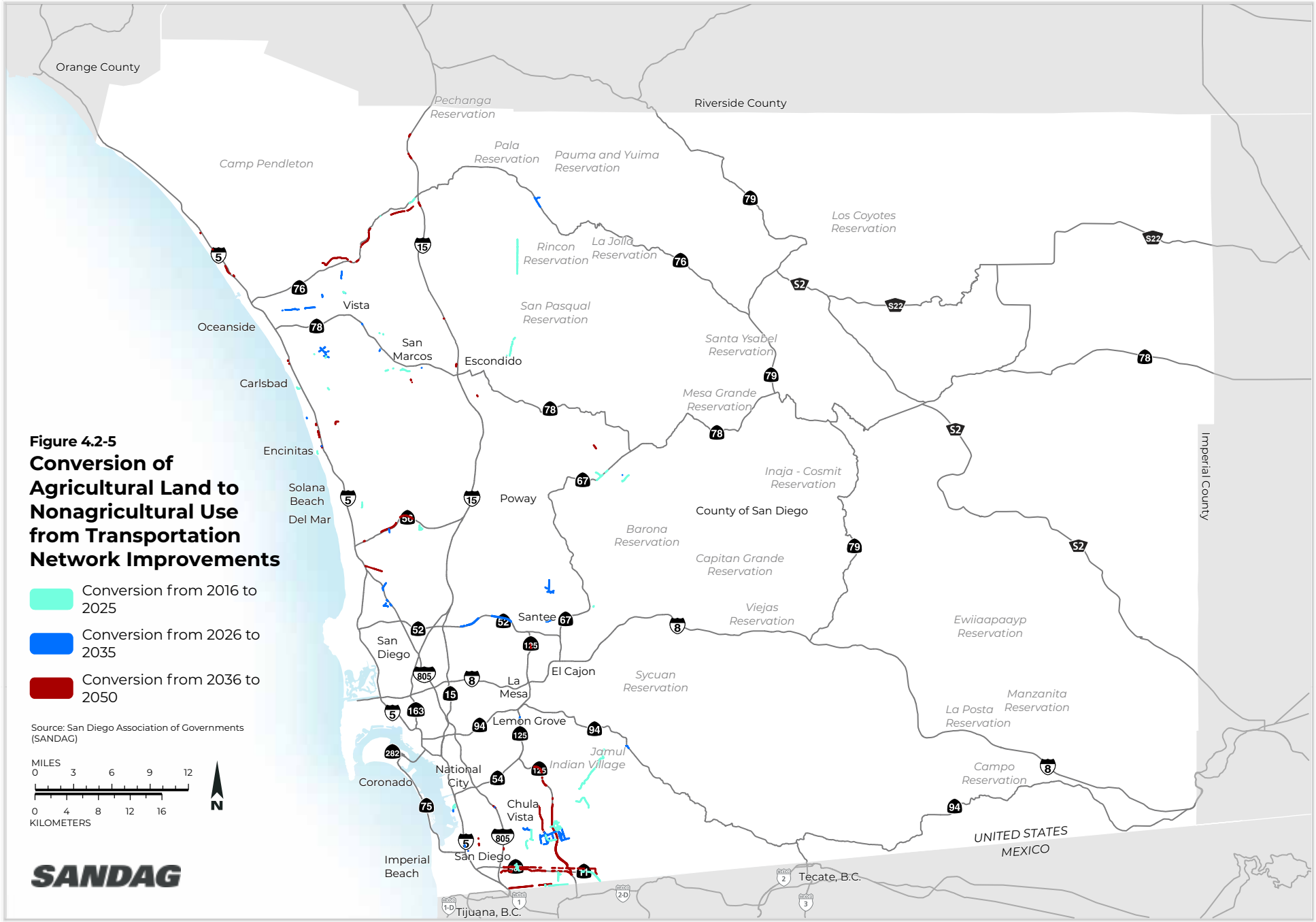

Orange County
Riverside County
Imperial County
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Camp Pendleton
Los Coyotes Reservation
Rincon Reservation
La Jolla Reservation
San Pasqual Reservation
Santa Ysabel Reservation
Mesa Grande Reservation
Inaja - Cosmit Reservation
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Sycuan Reservation
Manzanita Reservation
La Posta Reservation
Campo Reservation
Jamul Indian Village
Vista
Oceanside
San Marcos
Escondido
Carlsbad
Encinitas
Solana Beach
Del Mar
Poway
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
UNITED STATES
MEXICO
Tijuana, B.C.
Tecate, B.C.
Figure 4.2-4
Conversion of Agricultural Land to Nonagricultural Use from Regional Growth and Land Use Change
Conversion from 2016 to 2025
Conversion from 2026 to 2035
Conversion from 2036 to 2050
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

Transportation Network Improvements and Programs

As shown in Table 4.2-4, approximately 57 acres of existing agricultural land would be converted to nonagricultural use as a result of the transportation network improvements and programs planned between 2016 and 2025. This impact does not affect FMMP-designated agricultural land under CEQA. Impacts through 2025 are the result of a number of local roadway improvements throughout the County, as well as the SR 125 Connector from Bonita Road to the U.S.-Mexico border, and Complete Corridor Managed Lanes along SR 11. The proposed Plan's transportation network improvements and programs would convert agricultural lands to non-agricultural use, and this impact would be significant.

Table 4.2-4
Conversion of Agricultural Lands to Nonagricultural Use from Planned Transportation Network Improvements and Programs, 2016–2025

Agricultural Category	Agricultural Lands (acres)		Total Conversion to Nonagricultural Use (acres)
	2016	2025	
Prime Farmland	5,320	5,320	0
Farmland of Statewide Importance	7,431	7,431	0
Unique Farmland	40,986	40,986	0
FMMP-designated Agricultural Land Under CEQA	**53,738**	**53,738**	**0**
Farmland of Local Importance	157,682	157,647	35
Grazing Lands	281,461	281,447	14
Local Agricultural Land Outside of FMMP	73,334	73,325	9
Other Farmland	**512,476**	**512,419**	**57**
Total	**566,215**	**566,157**	**57**


Orange County
Riverside County
Imperial County
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Camp Pendleton
Rincon Reservation
La Jolla Reservation
Los Coyotes Reservation
San Pasqual Reservation
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Inaja - Cosmit Reservation
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Sycuan Reservation
Manzanita Reservation
La Posta Reservation
Campo Reservation
Jamul Indian Village
Vista
Oceanside
San Marcos
Escondido
Carlsbad
Encinitas
Solana Beach
Del Mar
Poway
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
UNITED STATES
MEXICO
Tijuana, B.C.
Tecate, B.C.
Figure 4.2-5
Conversion of Agricultural Land to Nonagricultural Use from Transportation Network Improvements
Conversion from 2016 to 2025
Conversion from 2026 to 2035
Conversion from 2036 to 2050
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

2025 Conclusion

Implementation of forecasted regional growth and land use change and planned transportation network improvements would convert approximately 6,458 acres of agricultural lands to nonagricultural use, including about 709 acres of FMMP-designated agricultural lands under CEQA. In addition, growth and land use change near agricultural lands would indirectly decrease the viability of agriculture production on those lands. Therefore, this impact (AG-1) in the year 2025 is significant.

2035

Regional Growth and Land Use Change

Regional growth and land use change between 2026 and 2035 would convert additional agricultural lands to nonagricultural use as shown in Figure 4.2-4. Table 4.2-5 shows that regional growth and land use categories other than Spaced Rural Residential would convert approximately 676 acres to nonagricultural use, including 49 acres of FMMP-designated agricultural land under CEQA (8 acres of Prime Farmland, 20 acres of Farmland of Statewide Importance, and 21 acres of Unique Farmland). Additionally, regional growth in the Spaced Rural Residential land use category would convert an estimated 48 acres to nonagricultural use, including about 2 acres of FMMP-designated agricultural land. Impacts between 2026 and 2035 are distributed in the northern half of the County with concentrations along SR 79 (north of SR 52), and in the vicinity of the Chula Vista Mobility Hub.

Approximately 724 acres of existing agricultural land (all parcel sizes) would be converted to nonagricultural uses between 2026 and 2035, including 51 acres of FMMP-designated agricultural lands. Between 2016 and 2035, about 7,125 total acres of existing agricultural land would cumulatively be converted to nonagricultural use, including 811 acres of FMMP-designated agricultural land.

As described above, regional growth in proximity to agricultural lands would also cause land use conflicts that would indirectly result in additional agricultural land conversions. Existing laws and programs would protect some agricultural lands and reduce the pressure to convert agricultural lands to nonagricultural use. However, the proposed Plan's regional growth and land use changes would still convert agricultural lands to nonagricultural use, and this impact would be significant.

Table 4.2-5
Conversion of Agricultural Lands to Nonagricultural Use from Regional Growth and Land Use Change, 2026–2035

	Agricultural Lands (acres)		Conversion to Nonagricultural Use (acres)			Cumulative Total 2016–2035		
Agricultural Category	2026	2035	100 Percent	Spaced Rural Residential	Total	100 Percent	Spaced Rural Residential	Total
Prime Farmland	5,298	5,290	8	0	8	25	6	31
Farmland of Statewide Importance	7,417	7,397	20	0	20	24	11	34
Unique Farmland	40,315	40,291	21	2	23	559	137	695
FMMP-designated Agricultural Land Under CEQA	**53,030**	**52,978**	**49**	**2**	**51**	**607**	**153**	**760**
Farmland of Local Importance	154,359	153,992	352	15	367	3,518	172	3,690
Grazing Lands	280,176	280,064	89	23	112	1,312	85	1,397
Local Agricultural Land Outside of FMMP	72,250	72,056	185	9	194	1,149	129	1,277
Other Farmland	**506,785**	**506,112**	**626**	**46**	**673**	**5,979**	**386**	**6,364**
Total	**559,813**	**559,090**	**676**	**48**	**724**	**6,586**	**539**	**7,125**

Transportation Network Improvements and Programs

As shown in Table 4.2-6, approximately 80 acres of existing agricultural land would be converted to nonagricultural use as a result of the transportation network improvements and programs planned between 2026 and 2035, including 7 acres of FMMP-designated agricultural land under CEQA (1 acre of Prime Farmland, and 6 acres of Unique Farmland). Impacts between 2026 and 2035 are the result of a number of local roadway improvements, as well as a number of active transportation trails, and Complete Corridors improvements along I-5, I-805, SR 52, SR 76, SR 78, SR 94 and SR 125. Between 2016 and 2035, about 138 total acres of existing agricultural land would cumulatively be converted to nonagricultural use, including 7 acres of FMMP-designated agricultural land. The proposed Plan's transportation network improvements and programs would convert agricultural lands to nonagricultural use, and this impact would be significant.

Table 4.2-6
Conversion of Agricultural Lands to Nonagricultural Use from Planned Transportation Network Improvements and Programs, 2026–2035

Agricultural Category	Agricultural Lands (acres)		Total Conversion to Nonagricultural Use (acres)	Cumulative Total 2016–2035
	2026	2035		
Prime Farmland	5,320	5,320	1	1
Farmland of Statewide Importance	7,431	7,431	0	0
Unique Farmland	40,986	40,980	6	6
FMMP-designated Agricultural Land Under CEQA	**53,738**	**53,731**	**7**	**7**
Farmland of Local Importance	157,647	157,636	11	45
Grazing Lands	281,447	281,393	54	68
Local Agricultural Land Outside of FMMP	73,325	73,316	9	17
Other Farmland	**512,419**	**512,346**	**74**	**131**
Total	**566,157**	**566,077**	**80**	**138**

2035 Conclusion

Implementation of forecasted regional growth and land use change and planned transportation network improvements from 2026 to 2035 would convert approximately 804 acres of agricultural lands to nonagricultural use, including 57 acres of FMMP-designated agricultural lands. Between 2016 and 2035, about 7,263 total acres of existing agricultural land would cumulatively be converted to nonagricultural use, including 767 acres of FMMP-designated agricultural land under CEQA. Growth and land use change near agricultural lands would also indirectly decrease the viability of agriculture production on those lands. Therefore, this impact (AG-1) in the year 2035 is significant.

2050

Regional Growth and Land Use Change

Regional growth and land use change between 2036 and 2050 would convert additional agricultural lands to nonagricultural use, as shown in Figure 4.2-4. Table 4.2-7 shows that regional growth and land use categories other than Spaced Rural Residential would convert approximately 461 acres to nonagricultural use, though no FMMP-designated agricultural land under CEQA would be affected. Regional growth in the Spaced Rural Residential land use category would not convert additional agricultural land. Impacts between 2036 and 2050 are distributed in the northern half of the County.

Approximately 461 acres of existing agricultural land (all parcel sizes) would be converted to nonagricultural uses between 2036 and 2050, with no FMMP-designated agricultural lands under CEQA being affected. Between 2016 and 2050, about 7,5860 total acres of existing agricultural land would cumulatively be converted to nonagricultural use, including 760 acres of FMMP-designated agricultural land.

As described above, regional growth in proximity to agricultural lands would also cause land use conflicts that would indirectly result in additional agricultural land conversions. Existing laws and programs would protect some agricultural lands and reduce the pressure to convert agricultural lands to nonagricultural use. However, the proposed Plan's regional growth and land use changes would still convert agricultural lands to nonagricultural use, and this impact would be significant.

Table 4.2-7
Conversion of Agricultural Lands to Nonagricultural Use from Regional Growth and Land Use Change, 2036–2050

	Agricultural Lands (acres)		Conversion to Nonagricultural Use (acres)			Cumulative Total 2016–2050		
Agricultural Category	2036	2050	100 Percent	Spaced Rural Residential	Total	100 Percent	Spaced Rural Residential	Total
Prime Farmland	5,290	5,290	0	0	0	25	6	31
Farmland of Statewide Importance	7,397	7,397	0	0	0	24	1	34
Unique Farmland	40,291	40,291	0	0	0	559	137	695
FMMP-designated Agricultural Land Under CEQA	**52,978**	**52,978**	**0**	**0**	**0**	**607**	**153**	**760**
Farmland of Local Importance	153,992	153,771	220	0	220	3,738	172	3,910
Grazing Lands	280,064	279,874	190	0	190	1,502	85	1,587
Local Agricultural Land Outside of FMMP	72,056	72,005	51	0	51	1,200	129	1,329
Other Farmland	**506,112**	**505,651**	**461**	**0**	**461**	**6,440**	**386**	**6,826**
Total	**559,090**	**558,629**	**461**	**0**	**461**	**7,047**	**539**	**7,586**

Transportation Network Improvements and Programs

As shown in Table 4.2-8, approximately 463~~2~~ acres of existing agricultural land would be converted to nonagricultural use as a result of the transportation network improvements and programs planned between 2036 and 2050, including 2 acres of FMMP-designated agricultural land under CEQA (1 acre of Farmland of Statewide Importance, and 1 acre of Unique Farmland). Impacts between 2036 and 2050 would primarily be caused by active transportation projects (including in the Encinitas to San Marcos corridor, the I-805 connector, the San Luis Rey River Trail, the SR 125 connector, and in the SR 905 corridor), Complete Corridor Managed Lanes projects (including along SR 125, SR 56, I-15, I-5, I-805 and SR 905), and commuter rail projects included in the Transit Leap (including Commuter Rail 582 and 583 and LRT 399 and 310). Between 2016 and 2050, about 601~~0~~ total acres of existing agricultural land would be cumulatively converted to nonagricultural use, including 9 acres of FMMP-designated agricultural land under CEQA. The proposed Plan's transportation network improvements would convert agricultural lands to non-agricultural use, and this impact would be significant.

Table 4.2-8
Conversion of Agricultural Lands to Nonagricultural Use from Planned Transportation Network Improvements, 2036–2050

Agricultural Category	Agricultural Lands (acres)		Total Conversion to Nonagricultural Use (acres)	Cumulative Total 2016–2050
	2036	2050		
Prime Farmland	5,320	5,320	0	1
Farmland of Statewide Importance	7,431	7,431	1	2
Unique Farmland	40,980	40,978	1	6
FMMP-designated Agricultural Land Under CEQA	**53,731**	**53,728**	**2**	**9**
Farmland of Local Importance	157,636	157,416	220	265
Grazing Lands	281,393	281,204	189	257
Local Agricultural Land Outside of FMMP	73,316	73,264~~5~~	52~~1~~	69~~8~~
Other Farmland	**512,346**	**511,885~~6~~**	**461~~0~~**	**592~~1~~**
Total	**566,077**	**565,614~~5~~**	**463~~2~~**	**601~~0~~**

2050 Conclusion

Implementation of planned transportation network improvements from 2036 to 2050 would convert approximately 924~~3~~ acres of agricultural lands to nonagricultural use, including approximately 2 acres of FMMP-designated agricultural land under CEQA. Between 2016 and 2050, about 8,187~~6~~ total acres of existing agricultural land would be cumulatively converted to nonagricultural use, including 769 acres of FMMP-designated agricultural land under CEQA. In addition, growth and land use change near agricultural lands would indirectly decrease the viability of agriculture production on those lands. Therefore, this impact (AG-1) in the year 2050 is significant.

Exacerbation of Climate Change Effects

Climate change impacts such as reduced precipitation, increased drought and evapotranspiration, and changes in snowpack melt timing could reduce imported and surface water sources and increase reliance on groundwater, resulting in depletion of groundwater supplies and reducing agricultural water supplies. Changed pest regimes and destructive events like wildfire could also adversely affect agricultural land. This depletion could remove irrigation supplies for land dependent on groundwater, making that land unsuitable for agriculture in the future. The proposed Plan could exacerbate this by converting even more agricultural land to non-agricultural use, further decreasing the amount of land suitable for agriculture.

MITIGATION MEASURES

AG-1 CONVERT AGRICULTURAL LANDS TO NONAGRICULTURAL USE.

2025, 2035, and 2050

AG-1a Preserve Existing Agricultural Lands. During project design and project-level CEQA review of transportation network improvements or development projects, SANDAG shall, and other transportation project sponsors, the County of San Diego, cities, and other local jurisdictions can and should, preserve existing agricultural lands by avoiding agricultural land conversion when feasible; if not feasible, measures to reduce conversion of agricultural lands to nonagricultural use include, but are not limited to, the following:

- Acquire or dedicate agricultural conservation easements (minimum acreage ratio of 1:1 of comparable quality land). If feasible, locate the easement within or close to the same city or community in which the conversion occurs. Where conversion occurs within the Coastal Zone, locate the easement within the Coastal Zone, if feasible.
- If a project requires cancellation of a Williamson Act contract, acquire or dedicate agricultural conservation easements (minimum acreage ratio of 1:1 of comparable quality land). If feasible, locate the easement within or close to the same city or community in which the cancellation occurs. Where the cancellation occurs within the Coastal Zone, locate the easement within the Coastal Zone, if feasible.
- Where agricultural conservation easements are acquired or dedicated, consider the suitability of a specific proposed easement on its ability to avoid or reduce fragmentation of agricultural land to enhance overall production value and operation viability.
- Where project-specific mitigation described above is not feasible, use other commensurate solutions, such as payment of an agricultural resource impact fee made pursuant to an approved in-lieu fee program.

AG-1b Reduce Transportation Network Improvement and Development Conflicts with Agricultural Operations. During project design and project-level CEQA review of transportation network improvements or development projects, SANDAG shall, and other transportation project sponsors, the County of San Diego, cities, and other local jurisdictions can and should, reduce conflicts with agricultural operations through the implementation of project design features and mitigation measures to protect surrounding agriculture, including, but not limited to, the following:

- Provide buffers, berms, setbacks, fencing, or other project design measures to protect surrounding agriculture, topographic features, and open space, and to reduce conflict between transportation network improvements and/or developments and farming.

- Minimize severance and fragmentation of agricultural land by constructing underpasses and overpasses at reasonable intervals to provide property access.
- Align corridors, incorporate buffer zones and setbacks, and design berms and fencing to avoid agricultural lands and to reduce conflicts between transportation projects and agricultural lands.

SIGNIFICANCE AFTER MITIGATION

2025, 2035, and 2050

Implementation of the proposed Plan would result in significant impacts on agricultural lands in 2025, 2035, and 2050. While mitigation measures AG-1a and AG-1b would reduce direct and indirect impacts associated with the conversion of agricultural lands to nonagricultural use, there is no assurance that the impacts of all development and transportation network improvement projects and programs included in the proposed Plan would be reduced to less-than-significant levels. There is also case law indicating that conservation easements alone are not adequate CEQA mitigation to reduce agricultural land conversion impacts to less than significant levels; see King & Gardiner Farms v County of Kern (2020) 45 CA5th 814. Therefore, agricultural land conversion impacts would remain significant and unavoidable.

AG-2 CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE OR A WILLIAMSON ACT CONTRACT

ANALYSIS METHODOLOGY

This section analyzes conflicts with lands zoned for agricultural use and lands under Williamson Act contracts. A significant impact would occur under AG-2 if any existing lands zoned for agricultural use or with a Williamson Act contract would be designated for a nonagricultural land use as a result of the regional growth and land use change or transportation network improvements under the proposed Plan. The method for identifying conflicts is the same as described for physical conversion under AG-1, except that for AG-2, 100 percent of the existing land zoned for agricultural use or under Williamson Act contract that would be redesignated as Spaced Rural Residential is identified as a conflict and a direct impact. Indirect impacts are analyzed qualitatively, and occur when growth near agricultural zoned uses would cause land use conflicts. For determining conflicts with Williamson Act contract lands, the analysis assumes that the existing boundaries of these contracts would remain constant during the life of the proposed Plan.

During the timeframe of the proposed Plan, climate change effects that are likely to result in agricultural zoning and Williamson Act contract land impacts are the same as those described for AG-1.

IMPACT ANALYSIS

2025

Regional Growth and Land Use Change

As shown in Table 4.2-9, regional growth and land use change between 2016 and 2025 would conflict with an estimated 1,162 acres of land zoned for agricultural use and about 732 acres of Williamson Act contract lands. The majority of these impacts are distributed in the northern and eastern portions of the County. See Figure 4.2-6 for locations of these conflicts.

Table 4.2-9
Conflicts with Existing Zoning for Agricultural Use or Williamson Act Contracts from Regional Growth and Land Use Change, All Years

	Acres of Conflict with Lands Zoned for Agriculture or Williamson Act Contracts				
	Conversion by Phase Years			Cumulative Impacts	
Agricultural Category	2016–2025	2026–2035	2036–2050	2016–2035	2016–2050
Land Zoned for Agricultural Use	1,162	171	0	1,333	1,333
Williamson Act Land	732	120	0	852	852

Regional growth that occurs in proximity to agricultural-zoned lands (as well as lands under Williamson Act contracts) would also cause land use conflict. These conflicts include, but are not limited to, noise, odors, water rights and use, chemicals, and runoff. Additionally, urban development near agricultural land increases the value of the agricultural land, which makes land purchase for agricultural expansion difficult, and provides more incentive to sell the property for nonagricultural use. Commercial, office, or industrial uses would also be incompatible uses when abutting lands with agricultural operations.

State and local policies and regulations described in Section 4.2.2, such as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, the Williamson Act, and policies outlined in the general plans of local jurisdictions, may reduce conflicts between regional growth and land use change, and lands zoned for agricultural use or under Williamson Act contract. However, these policies and regulations would be of limited effectiveness in substantially reducing these conflicts. Therefore, this is a significant impact.

Transportation Network Improvements and Programs

As shown in Table 4.2-10, the planned transportation network improvements and programs between 2016 and 2025 would conflict with an estimated 5 acres of existing lands zoned for agricultural use. No conflicts with Williamson Act contract lands would occur. These impacts are associated with a local roadway improvement in Ramona and one in Escondido. See Figure 4.2-6 for locations of these conflicts. The impact is significant.

Table 4.2-10
Conflicts with Existing Zoning for Agricultural Use or Williamson Act Contracts from Planned Transportation Network Improvements, All Years

	Acres of Conflict with Lands Zoned for Agriculture or Williamson Act Contracts				
	Conversion by Phase Years			Cumulative Impacts	
Agricultural Category	2016–2025	2026–2035	2036–2050	2016–2035	2016–2050
Land Zoned for Agricultural Use	5	4	18	9	27
Williamson Act Land	0	0	1	0	1

2025 Conclusion

Between 2016 and 2025, the proposed Plan's regional growth and land use changes and transportation network improvements and programs would conflict with approximately 1,167 acres of lands zoned for agricultural use and 732 acres of lands with Williamson Act contracts. Therefore, this impact (AG-2) in the year 2025 is significant.

2035

Regional Growth and Land Use Change

As shown in Table 4.2-9, regional growth land use change between 2026 and 2035 would conflict with an estimated 171 acres of land zoned for agricultural use and 120 acres of Williamson Act contract lands. These impacts are scattered around the northern part of the County, with one concentrated area along SR 79 north of SR 52. See Figure 4.2-6 for locations of these conflicts. Between 2016 and 2035, the proposed Plan's regional growth and land use changes would cumulatively conflict with about 1,333 total acres of land zoned for agricultural use and 852 acres of Williamson Act contract lands.

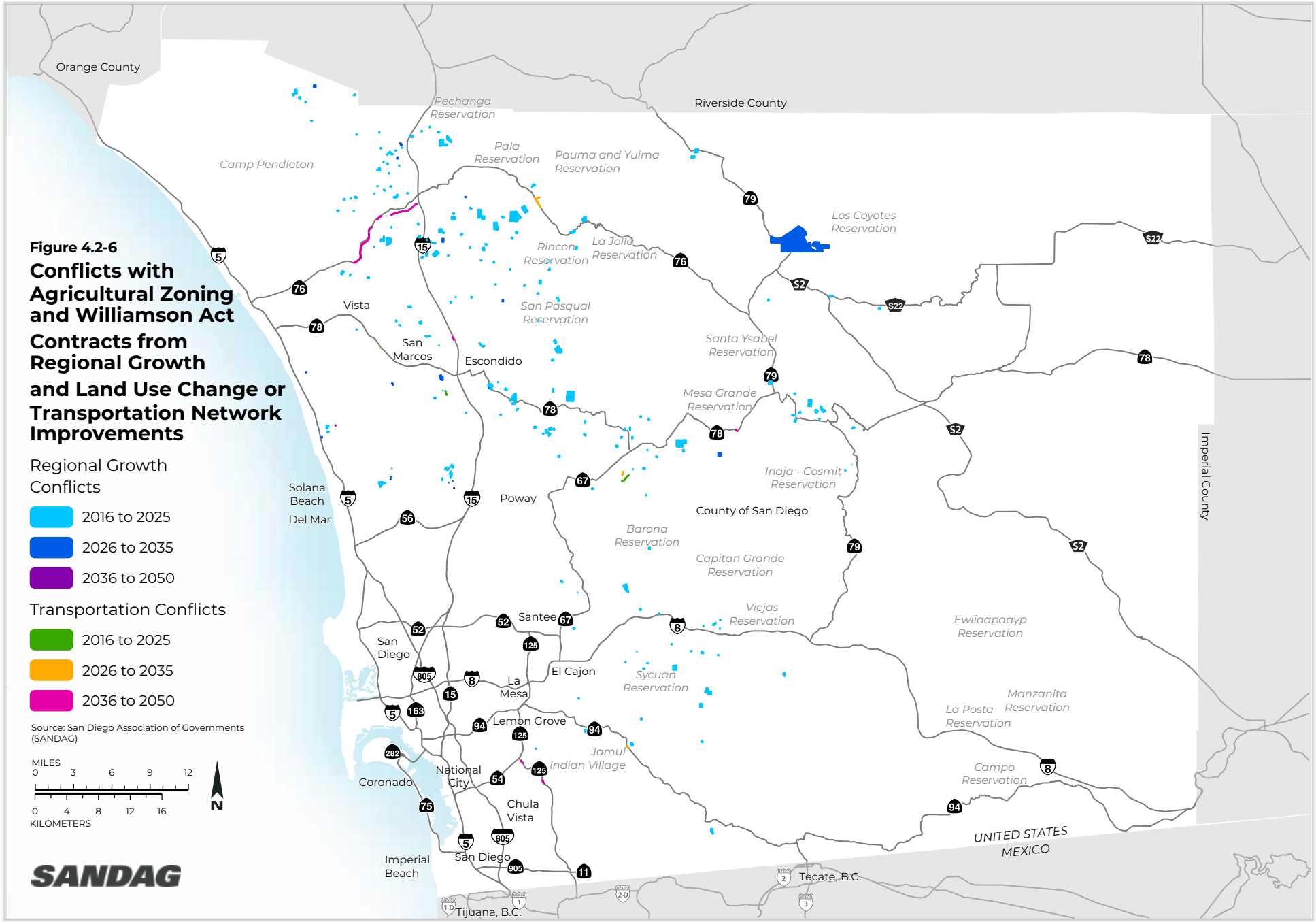


Figure 4.2-6
Conflicts with Agricultural Zoning and Williamson Act Contracts from Regional Growth and Land Use Change or Transportation Network Improvements
Regional Growth Conflicts
2016 to 2025
2026 to 2035
2036 to 2050
Transportation Conflicts
2016 to 2025
2026 to 2035
2036 to 2050
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG
Orange County
Riverside County
Imperial County
Camp Pendleton
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Rincon Reservation
La Jolla Reservation
Los Coyotes Reservation
San Pasqual Reservation
Santa Ysabel Reservation
Mesa Grande Reservation
Inaja - Cosmit Reservation
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Sycuan Reservation
Manzanita Reservation
La Posta Reservation
Campo Reservation
Jamul Indian Village
Vista
San Marcos
Escondido
Solana Beach
Del Mar
Poway
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Chula Vista
Coronado
Imperial Beach
UNITED STATES
MEXICO
Tijuana, B.C.
Tecate, B.C.

As described above, regional growth in proximity to agricultural lands (as well as lands under Williamson Act contracts) would also cause land use conflicts that would make land purchase for agricultural expansion difficult and provides more incentive to sell the property for nonagricultural use. State and local policies and regulations may reduce conflicts between regional growth and land use change, and lands zoned for agricultural use or under Williamson Act contract. However, these policies and regulations would be of limited effectiveness in substantially reducing these conflicts. Therefore, this is a significant impact.

Transportation Network Improvements and Programs

As shown in Table 4.2-10, the planned transportation network improvements and programs between 2026 and 2035 would conflict with an estimated 4 acres of existing lands zoned for agricultural use. These impacts are associated with minor transportation improvements along SR 76 and SR 94. See Figure 4.2-6 for locations of these conflicts. No conflicts with Williamson Act contract lands would occur during this period. Between 2016 and 2035, about 9 total acres of land zoned for agricultural use would be cumulatively converted to nonagricultural use. This impact is significant.

2035 Conclusion

Between 2026 and 2035, the proposed Plan's regional growth and land use changes and transportation network improvements and programs would conflict with approximately 175 acres of lands zoned for agricultural use and 120 acres of lands with Williamson Act contracts. Between 2016 and 2035 the proposed plan would cumulatively conflict with about 1,333 total acres of land zoned for agricultural use and 852 total acres of lands with Williamson Act contracts. This impact (AG-2) in the year 2035 is significant.

2050

Regional Growth and Land Use Change

As shown in Table 4.2-9, regional growth and land use change between 2036 and 2050 would not conflict with Williamson Act contract lands or land zoned for agricultural use. Between 2016 and 2050, the proposed Plan's regional growth and land use changes would cumulatively conflict with about 1,333 total acres of land zoned for agricultural use and 852 acres of Williamson Act contract lands.

As described above, regional growth in proximity to agricultural lands (as well as lands under Williamson Act contracts) would also cause land use conflicts that would make land purchase for agricultural expansion difficult and provides more incentive to sell the property for nonagricultural use. State and local policies and regulations may reduce conflicts between regional growth and land use change, and lands zoned for agricultural use or under Williamson Act contract. However, these policies and regulations would be of limited effectiveness in substantially reducing these conflicts. Therefore, this is a significant impact.

Transportation Network Improvements and Programs

As shown in Table 4.2-10, the planned transportation network improvements and programs between 2036 and 2050 would conflict with an estimated 18 acres of existing lands zoned for agricultural use, and 1 acre of lands with Williamson Act contracts. Additional impacts in this period are associated with transportation improvements along SR 76. See Figure 4.2-6 for locations of these conflicts. Between 2016 and 2050, the proposed Plan's transportation network improvements would cumulatively conflict with about 27 total acres of land zoned for agricultural use and 1 acre of lands with Williamson Act contracts. This impact is significant.

2050 Conclusion

Between 2036 and 2050, implementation of the proposed Plan's regional growth and land use changes and transportation network improvements and programs would conflict with approximately 18 acres of lands zoned for agricultural use and 1 acre of lands with Williamson Act contracts. Between 2016 and 2050 the proposed plan would cumulatively conflict with about 1,360 total acres of land zoned for agricultural use and 853 total acres of lands with Williamson Act contracts. This impact (AG-2) by the year 2050 is significant.

Exacerbation of Climate Change Effects

Climate change impacts such as reduced precipitation, increased drought, and evapotranspiration, and changes in snowpack melt timing could reduce imported and surface water sources and increase reliance on groundwater, resulting in depletion of groundwater supplies and reducing agricultural water supplies. Changed pest regimes, and destructive events like wildfire, could also adversely affect agricultural land or a Williamson Act Contract. This depletion could remove irrigation supplies for land dependent on groundwater, making that land unsuitable for agriculture in the future. The proposed Plan could exacerbate this by converting even more agricultural land to non-agricultural use, further conflicting with existing zoning for agricultural use or Williamson Act contracts.

MITIGATION MEASURES

AG-2 CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE OR A WILLIAMSON ACT CONTRACT

2025, 2035, and 2050

Implement mitigation measures **AG-1a** and **AG-1b**, as described above.

SIGNIFICANCE AFTER MITIGATION

2025, 2035, and 2050

Implementation of the proposed Plan would result in significant impacts by causing conflicts with lands with existing zoning or agricultural use, or under Williamson Act contract to agricultural lands in 2025, 2035, and 2050. While implementation of mitigation measures AG-1a and AG-1b would reduce these impact AG-2, there is no assurance that the impacts of all development and transportation network improvement projects implementing the proposed Plan would be reduced to less than significant levels. Therefore, conflicts with lands with existing zoning for agricultural use and under Williamson Act contract would remain significant and unavoidable.

FR-1 CONVERT OR RESULT IN THE LOSS OF "FOREST LAND" AS DEFINED IN THE CALIFORNIA FOREST LEGACY ACT OF 2007 (PUBLIC RESOURCES CODE SECTION 12220(G))

ANALYSIS METHODOLOGY

A significant impact on forest land would occur where existing forest lands are designated as a developed land use as a result of the regional growth and land use changes or developed with a transportation network improvement under the proposed Plan. Forest land includes riparian forest/woodland and upland

forest/woodland. Direct impacts are those resulting in damage to or death of vegetation from the direct actions of regional growth and land use changes or transportation network improvements. The methods for estimating conversion or loss of forest land are the same as described for AG-2: 100 percent of existing forest land that would be designated for development, including Spaced Rural Residential, or developed with a transportation network improvement is considered a loss of forest land. Indirect impacts are analyzed qualitatively, and occur when growth near forest land would cause land use conflicts.

IMPACT ANALYSIS

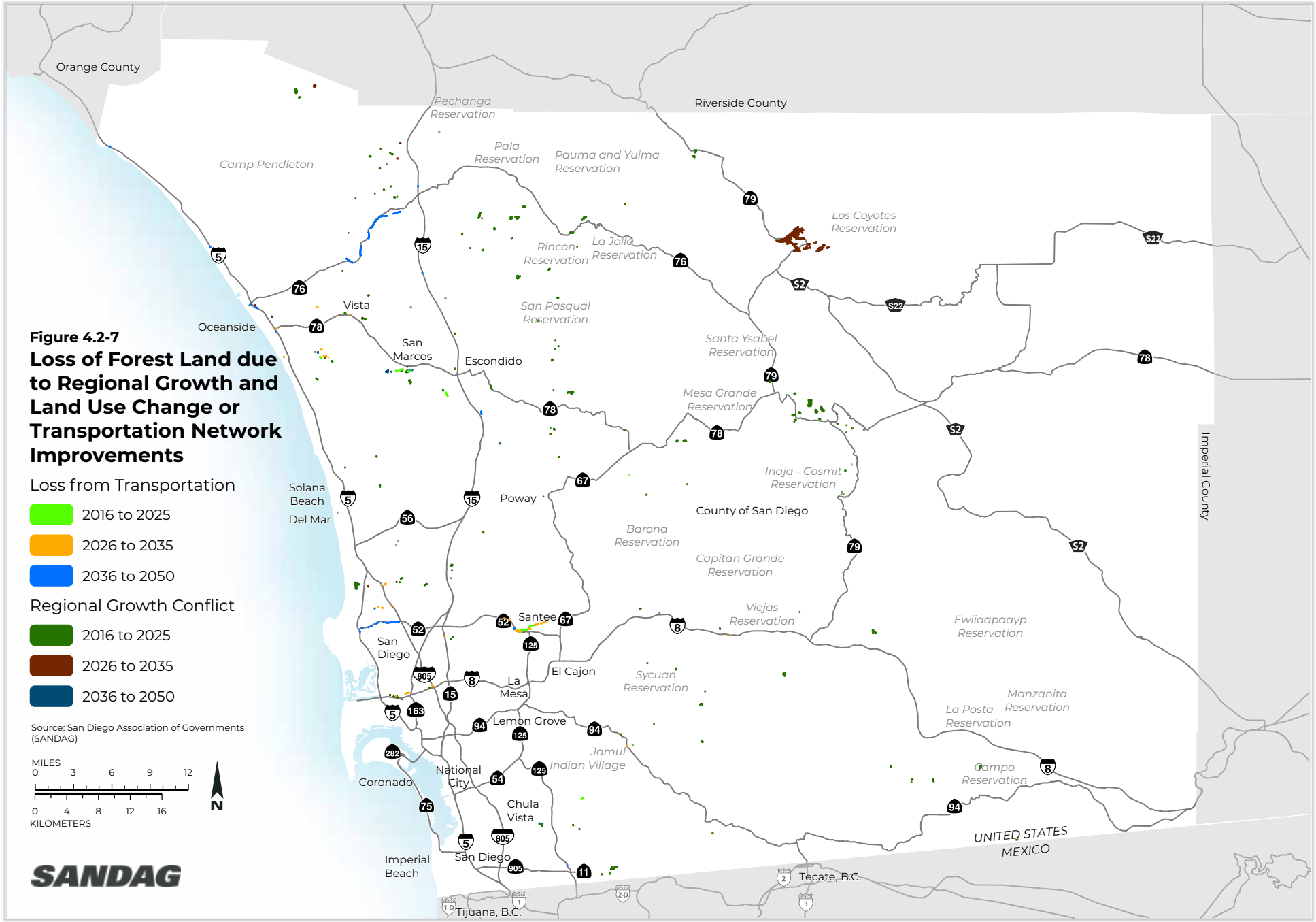
2025

Regional Growth and Land Use Change

As shown in Table 4.2-11, between 2016 and 2025, regional growth and land use changes would result in the loss of approximately 1,162 acres of forest lands. These impacts are scattered around the northern and eastern parts of the county. See Figure 4.2-7 for locations of these impacts. While adherence to the Federal Forest Legacy Program and the FRAP—as well as additional existing laws, regulations, and programs discussed in Section 4.2.2—would reduce impacts on forest land, regional growth and land use changes would still decrease the acreage of, and have adverse indirect impacts on, forest lands. Indirect impacts may occur on forest lands in proximity to areas converted from undeveloped to developed land uses from regional growth and land use change. Changes in hydrology, runoff, sedimentation, fugitive dust, and edge effects (e.g., exotic plant invasion, parasites, disturbance from human activities, pesticides, fuel modification) can degrade forest lands. This is a significant impact.

Table 4.2-11
Loss of Forest Land from Regional Growth and Land use Change, All Years

Agricultural Category	Acres of Loss				
	Conversion by Phase Years			Cumulative Impacts	
	2016–2025	2026–2035	2036–2050	2016–2035	2016–2050
Forest Land	1,162	171	0	1,333	1,333


Orange County
Riverside County
Imperial County
Pechanga Reservation
Pala Reservation
Pauma and Yuima Reservation
Camp Pendleton
Los Coyotes Reservation
Rincon Reservation
La Jolla Reservation
San Pasqual Reservation
Santa Ysabel Reservation
Mesa Grande Reservation
Inaja - Cosmit Reservation
Barona Reservation
Capitan Grande Reservation
Viejas Reservation
Ewiiaapaayp Reservation
Sycuan Reservation
Manzanita Reservation
La Posta Reservation
Jamul Indian Village
Campo Reservation
Vista
Oceanside
San Marcos
Escondido
Solana Beach
Del Mar
Poway
County of San Diego
Santee
San Diego
El Cajon
La Mesa
Lemon Grove
National City
Coronado
Chula Vista
Imperial Beach
UNITED STATES
MEXICO
Tecate, B.C.
Tijuana, B.C.
Figure 4.2-7
Loss of Forest Land due to Regional Growth and Land Use Change or Transportation Network Improvements
Loss from Transportation
2016 to 2025
2026 to 2035
2036 to 2050
Regional Growth Conflict
2016 to 2025
2026 to 2035
2036 to 2050
Source: San Diego Association of Governments (SANDAG)
MILES
0 3 6 9 12
0 4 8 12 16
KILOMETERS
N
SANDAG

Transportation Network Improvements and Programs

The proposed Plan includes a variety of network improvements and programs between 2016 and 2025. Although many of the proposed transportation improvements would occur within already established transportation corridors, ground-disturbing activities such as brush clearing, grading, trenching, excavation, and/or soil removal of any kind, associated with transportation improvements would impact forest lands and other vegetation communities. As shown in Table 4.2-12, between 2016 and 2025, transportation network improvements would result in the loss of approximately 8 acres of forest lands. These impacts would mostly be from local roadway projects such as the San Marcos Discovery St Widening and Flood Control Improvements, and trail projects such as the San Diego River Trail Carlton Oaks Segment. See Figure 4.2-7 for locations of these impacts. This is a significant impact.

Table 4.2-12
Loss of Forest Land from Transportation Network Improvements and Programs, All Years

	Acres of Loss				
	Conversion by Phase Years			Cumulative Impacts	
Agricultural Category	2016–2025	2026–2035	2036–2050	2016–2035	2016–2050
Forest Land	8	12	13	20	33

2025 Conclusion

Between 2016 and 2025, regional growth and land use change and transportation network improvements and programs would result in a direct loss of approximately 1,170 acres of forest land. This impact (FR-1) in the year 2025 is significant.

2035

Regional Growth and Land Use Change

As shown in Table 4.2-11, between 2026 and 2035 regional growth and land use change would result in loss of approximately 171 acres of forest lands. The majority of these impacts are located along SR 79 north of SR 52. See Figure 4.2-7 for locations of these impacts. Between 2016 and 2035, about 187 total acres of forest land would cumulatively be lost. As discussed above, adherence to existing laws, regulations, and programs would reduce impacts, both direct and indirect, on forest lands upon implementation of the proposed Plan. However, it cannot be concluded at the current level of analysis that all impacts would be fully avoided or reduced to below a level of significance. This is a significant impact.

Transportation Network Improvements and Programs

The proposed Plan includes a variety of network improvements and programs between 2026 and 2035. As discussed above, construction activities associated with transportation improvements would impact forest lands and other vegetation communities. As shown in Table 4.2-12, between 2026 and 2035, transportation network improvements would result in a loss of approximately 12 acres of forest lands. Year 2035 impacts would be from local roadway projects, freeway projects and trail projects throughout the County. See Figure 4.2-7 for locations of these impacts. Between 2016 and 2035, about 20 total acres of forest land would be cumulatively lost due to transportation network improvements. This is a significant impact.

2035 Conclusion

Between 2026 and 2035, implementation of regional growth and land use change and transportation network improvements and programs would result in a direct loss of approximately 183 acres of forest land. Between 2016 and 2035, about 1,353 total acres of forest land would be cumulatively lost. This impact (FR-1) in the year 2035 is significant.

2050

Regional Growth and Land Use Change

As shown in Table 4.2-11, between 2036 and 2050, regional growth and land use change would not result in loss forest lands. However, between 2016 and 2050, about 1,333 total acres of forest land would be cumulatively lost. See Figure 4.2-7 for locations of these impacts. As discussed above, adherence to existing laws, regulations, and programs would reduce impacts, both direct and indirect, on forest lands upon implementation of the proposed Plan. However, it cannot be concluded at the current level of analysis that all impacts would be fully avoided or reduced to a level below significance. This is a significant impact.

Transportation Network Improvements and Programs

The proposed Plan includes a variety of network improvements and programs between 2036 and 2050. As discussed above, construction activities associated with transportation improvements would impact forest lands and other vegetation communities. Between 2036 and 2050, transportation network improvements would result in a loss of approximately 13 acres of forest lands. Year 2050 impacts would be from commuter rail projects, freeway projects, and trail projects throughout the County. See Figure 4.2-7 for locations of these impacts. Between 2016 and 2050, about 33 total acres of forest land would be cumulatively lost due to transportation network improvements. This is a significant impact.

2050 Conclusion

Between 2036 and 2050, regional growth and land use change and transportation network improvements and programs associated with the proposed Plan would result in the loss of approximately 13 acres of forest land. Between 2016 and 2050, about 1,366 total acres of forest land would be lost. This impact (FR-1) in the year 2050 is significant.

Exacerbation of Climate Change Effects

The proposed Plan would exacerbate climate change effects on the conversion or loss of forest land. Climate change could result in higher temperatures, increased wildfire risk, increased spread of pests, increased drought, and increased flooding, all of which could damage or destroy forest lands (Bright et al. 2018). Wildfires in the southwestern United States have converted forest to woodland or grassland in the past (Melillo et al. 2014), and wildfire risk is expected to increase under climate change. Increased drought and the spread of pests are also likely to weaken trees, making them even more susceptible to wildfire (Bright et al. 2018).

The proposed Plan is also projected to convert forest land due to development and transportation network improvements. Furthermore, increased development that occurs near forests as part of the proposed Plan could increase the risk of wildfire ignition due to expansion of the wildland-urban interface or increased human activity near forests. This could result in more wildfires in the future that convert forests to other ecosystem

types (Melillo et al. 2014). The proposed Plan will thus exacerbate climate change effects that result in loss of forest land.

MITIGATION MEASURES

FR-1 CONVERT OR RESULT IN THE LOSS OF "FOREST LAND" AS DEFINED IN THE CALIFORNIA FOREST LEGACY ACT OF 2007 (PUBLIC RESOURCES CODE SECTION 12220(G))

2025, 2035, and 2050

Implementation of mitigation measures **BIO-1a, Implement Design, Minimization, and Avoidance Measures for Sensitive Natural Communities and Regulated Aquatic Resources; BIO-1b, Provide Compensatory Mitigation;** and **BIO-1e, Implement Best Management Practices to Avoid Indirect Impacts**, as discussed in detail in Section 4.4 will also reduce impacts on forest lands.

FR-1 Reduce Impacts on Forest Lands. During project planning, design, and project-level CEQA review of transportation network improvements or development projects, SANDAG shall, and other transportation project sponsors, the County of San Diego, cities, and other local jurisdictions can and should, preserve forest lands by avoiding conversion of such lands when feasible and, if not feasible, by implementing measures to reduce impacts on forest lands, including, but not be limited to, the following:

- **Implement Compensatory Mitigation of Forest Lands**. Provide compensatory mitigation using mitigation ratios as specified through consultation with resource agencies and in approved natural community conservation plans (NCCPs) and habitat conservation plans (HCPs). Compensatory mitigation outside the Coastal Zone would be provided either through the purchase of credits at an existing authorized mitigation bank or in lieu fee program, or through project-specific mitigation. Compensatory mitigation for impacts inside the Coastal Zone may not be satisfied through in lieu fee programs and is required to be located within the Coastal Zone close to the impact. To the extent allowed by the above plans and ordinances, project-specific mitigation would be provided through onsite restoration of temporary impacts, onsite or offsite preservation of existing habitats, or offsite restoration.

SIGNIFICANCE AFTER MITIGATION

2025, 2035, and 2050

Implementation of the proposed Plan would result in significant forest lands impacts. While implementation of mitigation measure FR-1, BIO-1a, BIO-1b, and BIO-1e, would reduce direct and indirect impacts on forest lands, there is no assurance that the impacts of all development and transportation network improvement projects implementing the proposed Plan would be reduced to less-than-significant levels. Therefore, direct and indirect impacts on forest lands would remain significant and unavoidable.