

## SUMMARY

This Final Environmental Impact Statement/Final Environmental Impact Report (FEIS/FEIR) was prepared to inform the public and decision-makers about the potential environmental effects of the proposed project and present reasonable alternatives which would avoid or minimize adverse impacts and enhance the quality of the human environment. This FEIS/FEIR is based on the completed technical studies and input received during the public comment period.

Preparation of this document is in conformance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). While CEQA requires that a determination of significant impacts be stated in the EIS/EIR, NEPA does not. Chapter 5 provides a discussion of significance of impacts according to CEQA for the Route 905 project. This document provides dimensions of features in metric, followed by English units. Figures are placed at the end of each chapter for the reader's convenience. A line in the margin indicates a substantive change in text from the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR), which was circulated publicly. Chapter 6 contains responses to comments received on the DEIS/DEIR. Please note that the California Department of Transportation, known commonly as "Caltrans," is, in this FEIS/FEIR, referred to as the "Department."

## PURPOSE OF AND NEED FOR ACTION

The project purpose is to provide for effective transportation of people, goods, and services between Interstate 805 (I-805) and the Otay Mesa Port-of-Entry (POE). Project objectives include alleviating existing traffic congestion, improving safety on Otay Mesa Road (OMR), providing adequate transportation facilities for the associated growth from planned and approved developments, and completing a major transportation corridor between Interstate 5 (I-5) and the POE.

The proposed action will consist of six mixed-flow travel lanes with a standard median from I-805 to the POE, a distance of approximately 10 kilometers (6.2 miles). A 21.0 meter (69 foot) wide median would allow for the future addition of two high occupancy vehicle lanes, however, the addition of the lanes is not anticipated during the 20-year design period of the project and their implementation would be subject to separate environmental review. Within the Route 905 footprint, the Siempre Viva Road interchange was identified as meeting the criteria of a stand-alone project with independent utility and logical termini; the volume of existing and projected international traffic warranted this interchange improvement independent of the Route 905 project. This interchange improvement would have been necessary even if Route 905 were never constructed. The Siempre Viva Road interchange project was approved for construction under a separate environmental review. The Route 905 project would nevertheless require work in and around the Siempre Viva interchange and south to the POE to address continuity for international traffic and incorporation of the Siempre Viva interchange into the new Route 905 facility. Work would include revised pavement delineation on the Route 905 main lanes and ramps, new area signs from Airway Road to the POE, and ramp meter installation on the northbound entrance ramp from Siempre Viva Road to Route 905. Therefore, the limits of the Route 905 project (I-805 to the POE) remain the same even though Siempre Viva interchange was processed as a separate project.

The proposed project represents an important link in the inter-regional and international transportation system included in the adopted San Diego Association of Governments

(SANDAG) Regional Transportation Plan. Figure 1-1 at the end of Chapter 1 identifies the project location. The proposed alignment alternatives combine to form the six possible build alternatives presented and discussed in this FEIS/FEIR.

Figure S-1 at the end of this Summary shows an aerial photo of the area with the alignment alternatives indicated. The alternatives no longer under consideration would be unable to meet the project objectives and/or would have had greater environmental impacts. The six build alternatives are:

1. Freeway-North Alignment Alternative,
2. Freeway-Central Alignment Alternative (the Preferred Alternative),
3. Freeway-South Alignment Alternative,
4. Tollway-North Alignment Alternative,
5. Tollway-Central Alignment Alternative, and
6. Tollway-South Alignment Alternative.

As one can see above, the proposed Freeway and Tollway have North, Central, and South alignment alternatives. When comparing the Freeway to the Tollway, the alignment alternatives are similar. For example, the Freeway-North Alignment Alternative follows exactly the same alignment as does the Tollway-North Alignment Alternative; the only difference between the two would be that the latter would have toll facilities and lack ramp meters, otherwise, they are the same.

The Freeway and Tollway alignment alternatives are divided into three distinct segments (west, middle, and east). These alternatives diverge in the Middle Segment of the proposed facility (i.e. between Caliente Avenue and Cactus Road) but are identical in their West and East segments.

Each of the alignment alternatives were designed to minimize different resource impacts, as described in Chapter 2, Section 2.1. Right-of-way requirements for the Tollway would have been similar to that of the Freeway except that in select areas, a slightly greater footprint would have been necessary due to requirements for the addition of toll facilities, a parking lot and utility structure, and a toll administration building. The figures at the end of Chapter 2 and the detailed Project Features maps in Appendix I show the right-of-way and features for all six alignment alternatives.

Construction of Route 905 would include a six-lane controlled access highway and four local interchanges. The four interchanges will be constructed at Caliente Avenue, Heritage Road, Britannia Boulevard, and La Media Road. Heritage Road would be constructed in the future should the local streets receive all the necessary future approvals. Lastly, a freeway-to-freeway interchange will be provided at Route 125.

Table S-1 at the end of this summary, identifies project impacts for all six alignment alternatives. Figure S-1 provides of an overview of the entire proposed project. Unless otherwise indicated, all of the alignment alternatives have the same impacts. At the end of the summary is a discussion of the alignment alternatives within the Middle Segment. The discussion focuses on

specific project-related impacts within this segment. This segment, depending on the selected alignment alternative, is where the majority of the project-related environmental impacts would occur. The text of the FEIS/FEIR examines and analyzes impacts by segment for each alignment alternative. For more detailed information regarding the impacts of the project, please see Chapter Four of the FEIS/FEIR and the technical study reports.

## **IDENTIFICATION AND DESCRIPTION OF THE PREFERRED ALTERNATIVE**

The Notice of Intent to prepare an EIS was published in the Federal Register on March 30, 1995. Environmental studies started in 1995 and the DEIS/DEIR was publicly circulated on August 13, 2001. A Public Hearing was held on September 20, 2001, during the public comment period, to solicit comment from Federal, State, and local agencies; interested organizations; and the public. The public comment period extended until October 16, 2001. The Environmental Protection Agency, City of San Diego, United States Department of the Interior (Office of Environmental Policy and Compliance [Fish and Wildlife Service]) favor the Freeway-Central Alignment Alternative.

Because the Freeway-Central Alignment Alternative will have the least impacts on listed/sensitive biological resources (it is the biologically preferred alternative); meets the minimum design requirements; fulfills the project's purpose and need; and is supported by several resource agencies (as long as a bridge spans Spring Canyon) and due in part to comments received as a result of the DEIS/DEIR circulation, the Project Development Team (PDT) identified the Freeway-Central Alignment Alternative as the Preferred Alternative.

The Preferred Alternative is also the Least Environmentally Damaging Practicable Alternative (LEDPA) even though it is an alternative that does not have the least amount of impacts to aquatic resources. In terms of amount of impact to this resource, the North Alignment Alternative would impact 3.43 hectares (8.49 acres), the Preferred Alternative will impact 3.10 hectares (7.68 acres), and the South Alignment Alternative would impact 3.09 hectares (7.66 acres). The North Alignment Alternative was excluded as the LEDPA since it would have the greatest amount of impact to aquatic resources and it would have impacted sensitive biological resources that the other alignments would not. The South Alignment Alternative would affect a unique vernal pool complex that supports the Otay tarplant, spreading navarretia, and Otay Mesa mint; result in the largest loss of coastal sage scrub and Multi-Habitat Planning Area (MHPA) lands; and potentially affect the greatest number of gnatcatchers relative to the other alternatives. In terms of the 404 alternatives analysis, these additional impacts are significant adverse environmental consequences that should be avoided. Although the Preferred Alternative will contribute most to the displacement of non-native grasslands, when compared to the South Alignment Alternative, it would completely avoid the unique vernal pool complex (the most sensitive landscape feature within the project area). Therefore, the Preferred Alternative will have the least impact on listed/sensitive biological resources and, as such, is preferable from a biological standpoint. Therefore, the Preferred Alternative was identified as the LEDPA.

The Preferred Alternative will begin at the intersection of Route 905 and I-805 then continue easterly to the POE. The Preferred Alternative, like all of the build alternatives, has three distinct segments:

- West Segment: starting at the Route 905/I-805 Interchange, the West Segment extends east a distance of approximately 0.9 kilometers (0.6 miles). The West Segment also includes a 1.7

kilometer (1.1 mile) portion of northbound (NB) I-805, from the Route 905/I-805 Interchange to the I-805/Palm Avenue Interchange.

- Middle Segment: this portion extends east from the eastern terminus of the West Segment to a point approximately 325 meters (1,070 feet) east of Britannia Boulevard. Two parallel bridge structures would be constructed at the Route 905 crossing of Spring Canyon. Diamond-type interchanges would be constructed at Caliente Avenue and Britannia Boulevard. The future Heritage Road interchange would incorporate loop ramps for the eastbound (EB) exit ramp and for the westbound (WB) entrance ramp.
- East Segment: this portion extends from the eastern terminus of the Middle Segment to the POE. A two quadrant clover leaf interchange would be built at La Media Road.

The total estimated cost for this alternative is approximately \$280 million. This cost includes roadway, structure items, right-of-way, and support costs.

Modifications made to the proposed Route 905 project since public distribution of the DEIS/DEIR include:

- In response to further resource analysis, impact assessment, and public comment received on the DEIS/DEIR, the previously proposed animal crossing arch culvert that was a design feature associated with the North and Central Alignment alternatives was dropped; two parallel bridge structures are now proposed at the Route 905 crossing of Spring Canyon. These bridges will allow for unrestricted animal movement. The WB bridge would be 77 meters (253 feet) long and the EB bridge would be 55 meters (180 feet) long. No new impacts are associated with this addition, in fact, biological resource impacts are reduced with this project change.
- The horizontal and vertical alignments of the Preferred Alternative were revised so as to provide greater distance between Route 905 and Spring Canyon. This change minimized the project's encroachment into the north face of Spring Canyon. No new impacts are associated with this revision.
- The Heritage Road ramps were relocated to the east side of Heritage Road in order to minimize impacts to wetlands and Spring Canyon. While the impacts on the west side of Heritage Road were reduced, the relocation had additional land use impacts, which are not substantial.
- The Heritage Road Interchange need is based on the circulation element of the City of San Diego General Plan which shows a street network on the southern portion of the mesa. Should the local streets not receive all the necessary future approvals, the interchange may not be needed or constructed.
- A new design standard became effective after circulation of the DEIS/DEIR (effective date was November 11, 2001). It necessitated a change in the embankment slopes, 1:2 were redesigned to 1:4 in all locations consistent with environmental and economic constraints, per the Highway Design Manual, index 309.1(2). The revised slopes were not elongated in areas where doing so would have caused an impact. No new impacts are associated with this change

- Between Britannia Boulevard and La Media Road, the proposed drainage channel will be constructed wider than is hydraulically necessary to offset the biological functions and values of the existing portion of the channel that will be replaced by a concrete box culvert. The larger drainage will provide the same earth bottom area as the existing channel and therefore promote ground water recharge. No new impacts are associated with this change.
- The La Media Road interchange ramps were revised to a loop configuration in order to accommodate the forecast traffic. The 100-Year Floodplain encroachment impact was increased by 14.8 hectares (25.7 acres) acres with this change. Because any encroachment impact would be avoided through routine design measures, the encroachment is not considered substantial. No new additional impacts are associated with this change.

### **CHANGES SINCE THE DEIS/DEIR**

- ACOE Jurisdictional Wetlands Delineation: The DEIS/DEIR identified approximately 0.2 hectare (0.49 acre) of jurisdictional wetland impacts. Based on discussions and field reviews of the area with the ACOE, this impact was revised to 3.10 hectares (7.68 acres) for the Preferred Alternative in the FEIS/FEIR. In 1999, a wetlands delineation for the DEIS/DEIR was prepared based on language in the Preamble to Part 328 of the Corps' 1986 regulations, which states that the Corps typically does not consider as Waters of the United States, drainage ditches excavated out of dry land. This was applied to a trapezoidal channel (Drainage 7) which will be impacted by the project. Based on a Corps site review and a review of historical aerial photography, the Corps took regulatory jurisdiction of the area in June, 2003. There are 1.42 hectares (3.5 acres) of impacts to Drainage 7.

Another area previously considered non-jurisdictional is the Sanyo site (Drainage 8). The ACOE requested additional information on this site. They determined that the area was not isolated and took regulatory jurisdiction. This represents 1.66 hectares (4.11 acres) of impact.

The wetlands delineation for the FEIS/FEIR was revised (2004) and was approved by the ACOE on June 14, 2004. Details of the ACOE decision to take regulatory jurisdiction of these areas is included in their letter dated June 19, 2003 and included in Chapter 6 (Figure 6-8) of this FEIS/FEIR.

Details of the project's impacts to wetlands and mitigation measures are included in Chapter Four, Section 4.10.

### **SUMMARY OF ENVIRONMENTAL IMPACTS**

Table S-1 at the end of this summary identifies project impacts for all alternatives. For more detailed information regarding the impacts of the project, please see Chapter Four of the FEIS/FEIR and the technical study reports.

### **GEOLOGIC HAZARDS**

The most notable geotechnical hazards which have the potential for affecting any of the alignment alternatives include surface rupture at potentially active fault crossings, strong ground motion generated from onsite and nearby active and potentially active faults, and slope instabilities. Geotechnical hazards are nearly identical for all alignment alternatives. However,

potential surface rupture from movement along splays of the La Nacion fault is a higher concern for the South Alignment Alternative (two fault splays have been mapped adjacent to, and bisect, this alignment corridor).

The entire project is within 15 kilometers of a potentially active fault. The maximum credible earthquake and maximum probable event likely to affect the project area vary depending on the information source, but the California Seismic Hazard Map indicates a maximum credible earthquake magnitude of 7.0 for the fault trace nearest the project while available information suggests that a seismic event probability of less than 0.01/year is applicable to the project.

Somewhat less important conditions, which the project would address during design, include expansive soils, corrosive soils, erosion, and soil settlement. Potentially compressible soil, in areas where there are documented and undocumented fills, is a consideration for all alignment alternatives, as well as at the "Tripp Landfill" immediately west of Cactus Road.

Standard design measures (e.g. the use of Department Standard Specifications) and the use of other relevant construction practices and codes would eliminate or minimize the effects of these potential hazards.

## **PALEONTOLOGICAL RESOURCES**

Portions of the project area are underlain by geologic deposits, which contain high-sensitivity paleontological resources. The alignment alternatives would all have similar impacts to these resources. Impacts would be minimized through a comprehensive program of construction monitoring, fossil salvage, fossil preparation and curation, fossil storage, and report preparation.

If buried paleontological resources are unearthed during construction, work must be halted in the vicinity of the find until a qualified paleontologist can assess and recover them. None of the alignment alternatives would have a substantial impact to sensitive paleontological resources.

## **HYDROLOGY/DRAINAGE IMPACTS**

The alignment alternatives would all have similar impacts upon hydrology and drainage. The project would not modify water bodies, relocate streams, or affect stream uses, but there would be minor impacts to the drainages in Spring Canyon. Standard drainage design would maintain normal flow in these drainages and ensure there is no increase in erosion impacts. Numerous pipes and culverts would be required to convey storm waters through the project corridor. Detention basins are needed and will be located within the proposed project's disturbance limit.

The project will cause increased runoff where the impervious area of the road would replace natural surfaces. With standard drainage design and construction of detention basins, an analysis showed that the increased runoff would be detained so that the rate of flow at the outlets would maintain the existing flow rate for all alignment alternatives. The proposed project will comply with International Boundary Water Commission (IBWC) guidelines, which recommends that new development does not contribute to cross-border storm runoff volumes that exceed pre-development levels. The proposed detention basins will be earth-bottomed and will require periodic maintenance. Any incidental vegetation which establishes as a result of the earth bottom is not mitigation for other project impacts.

## **WATER QUALITY IMPACTS**

Potential water quality impacts would be both short-term (construction) and long-term (operational) effects such as erosion/sedimentation, disposal of groundwater, generation of contaminants and roadway maintenance. The alignment alternatives present negligible differences in level of impacts.

The proposed project could impact a number of identified hazardous materials sites with materials such as gasoline, diesel, and oil. Any, unlikely release of hazardous materials could impact beneficial uses of downstream waters and groundwater.

### **Mitigation Measures**

The Department was issued a National Pollution Discharge Elimination System (NPDES) Storm Water Permit by the Regional Water Quality Control Board (RWQCB) on July 15, 1999. All identified impacts from construction-related erosion and sedimentation, as well as facility operation, will be minimized by using standard requirements related to water quality for roadway development projects, including:

- Compliance with the Department NPDES Permit, the Statewide Storm Water Management Plan, and the Storm Water Quality Handbooks using the appropriate temporary and permanent Best Management Practices (BMPs),
- All disturbed slopes will be stabilized with permanent erosion control measure and all runoff will be treated to the maximum extent possible using detention basins and biofiltration swales/strips where feasible, and
- During construction, sediment runoff to waterways will be prevented or minimized using temporary BMPs such as hydro-seeding, fiber rolls, temporary drainage inlet protection, concrete washouts or temporary construction entrances.

## **SOCIAL IMPACTS**

The social impacts to the Otay Mesa area would be minimized given the proposed measures presented below. A small number of existing residences and businesses would be affected. Differences in impacts for the alignment alternatives are negligible.

### **Residential Relocations**

Although the area within (and in the vicinity of) the project corridor has few residences, all of the alignment alternatives would impact residential properties located along Cactus Road. One residential property includes a non-profit use (Chapel of Good News). The total number of residential relocations would total two under the Tollway alternatives, one for the Freeway alternatives. The impact would be minor and market availability of replacement resources is expected through the time of displacement for all alignment alternatives. The magnitude of disruption to displaced residents will be diminished by the Department's Relocation Assistance Program, which employs standard measures to minimize impacts to those displaced, and in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). Chapter Four provides a discussion on the specifics of this program and important relocation assistance information.

### **Business Relocations**

The number of business relocations total three for all of the build alternatives: two businesses will be relocated from their present locations on the east of Heritage Road, one business will be relocated at Cactus Road. In addition to these full displacements, all of the build alternatives require a modification to the business at the southwest corner of Airway Road and the proposed Route 905.

Within the Draft Relocation Impact Study Addendum, the Martin Furniture factory on St. Andrews Avenue was identified as a full-take acquisition. This relocation would have represented an expensive and time-consuming effort. The relocation of the Martin Furniture factory has since been avoided via a minor alignment variation. The alignment variation, adjacent to the Martin Furniture factory, involved an eight meters (24 feet) shift to the south for all of the build alternatives. This southward alignment shift also avoided partial impacts to businesses immediately west and east of Martin Furniture but it would impact a manufactured drainage channel. This new impact is discussed within the biological resources section of this document. This minor design change is also included in the appropriate updated graphics.

Each business displaced by the project would be relocated under the Department's Relocation Assistance Program and in accordance with the Uniform Act. Chapter Four provides a discussion on the specifics of this program. With the implementation of this program and following the Uniform Act, impacts would be minimized.

### **Local and Regional Accessibility**

Currently, access within Otay Mesa is constrained and congested. OMR (recently widened to six-lanes) will temporarily reduce congestion but will not adequately provide for long-term accessibility and congestion relief. Residents and businesses would benefit from the construction of Route 905, due to safer and more convenient vehicle travel and regional access would be improved since travel times would be reduced. Local access is also expected to improve since the local streets would experience less congestion. Under the No Build Alternative future traffic increases would congest the local streets along the corridor. Temporary vehicular access and circulation impacts would occur during construction. Clearly identifiable vehicular access would be maintained during construction, including emergency vehicle access. Access would ultimately be enhanced by all alignment alternatives.

### **Proximity Effects**

There are only a small number of existing homes where proximity effects (such as, noise, air, visual, and traffic) would occur adjacent to the highway corridor during construction and operation. Visual impacts vary depending on the alignment alternative and are discussed in the visual section of the summary. Noise impacts are discussed in the noise section below; few receptors/ homes are impacted. Traffic and access impacts would be minimized during construction by the use of detours and a traffic management plan.

### **Community Character and Cohesion**

Residences on the mesa are currently dispersed throughout the mesa and there is no identified neighborhood or community. Therefore, a new highway would have minimal effect on community character and cohesion. It would not separate residents from public services and

facilities, since most of these facilities are located out of the area. The proposed project would provide easier direct access to the metropolitan areas of San Diego. This easier direct access would increase the growth potential for this area, which could ultimately effect the community character. This project is an integral part of the ongoing urban conversion and future development of the entire Otay Mesa area, as discussed in the Growth section, which is governed by the Otay Mesa Community Plan and East Otay Mesa Specific Plan. The rural or semi-rural character of the area is undergoing rapid change.

### **Public Safety and Health**

Response times for emergency services would be enhanced by the proposed project. The response times would not be adversely affected during construction as no existing or future cross streets would be closed. On-site detours would not require the re-routing of traffic. Route 905 would contribute to the improvement of the health, safety and welfare of the area's residents by reducing the potential for traffic-related accidents on OMR and local streets.

### **Environmental Justice**

In accordance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Although minority or low-income individuals are likely to be affected by the Route 905 project, these individuals are dispersed, and there does not appear to be an established community within the project corridor. Construction of the project would occur in an area with a higher proportion of minority and low-income residents when compared to regional demographics; however, only a small number of households would be impacted by the project. The potential adverse effects on low-income or minority individuals would not be disproportionately high, please refer to Section 4.5.5 for details. Local residents were given opportunities during the environmental process for Route 905 to participate in meetings and hearings. They will continue to have such opportunities.

### **LAND USE**

All of the build alternatives have similar land use impacts. Impacted zoned land uses include undeveloped, agriculture, graded/developing, and light industrial. The project will convert these to Route 905 transportation-related uses.

### **Plan Consistency**

The proposed project is consistent with local land use plans which depict the Route 905 corridor on Otay Mesa; these plans depict a vacant highway corridor where Route 905 will be constructed. The City of San Diego preserved this corridor by restricting development (residential and business, existing and planned) within it. Route 905 is also consistent with approved plans in that these plans do not allow for unrestrained growth; the presence of Route 905 does not change this fact, it will not allow for, or lead to, unrestrained growth on the mesa.

The SANDAG Regional Transportation Plan (2030 RTP) is the comprehensive transportation plan for the San Diego region. The proposed project is consistent with the Highway Element of this plan. Details are provided in Section 4.6.1.

The proposed project is consistent with the City of San Diego Otay Mesa Community Plan. This plan identifies a six-lane freeway in the same location as the proposed project. The area east of Route 905 is included in the County of San Diego's East Otay Mesa Specific Plan.

The Multiple Species Conservation Program (MSCP) is a comprehensive habitat conservation planning program that addresses multiple species habitat needs and the preservation of native vegetation communities. It creates a preserve system to replace the previous approach of using fragmented project-by-project biological mitigation areas, which by themselves do not contribute adequately to the continued existence of sensitive species, or to maintenance of natural biodiversity. The MSCP identifies the Multi-Habitat Planning Area (MHPA) within the Study Corridor and it specifically refers to Route 905 as an anticipated use within the MHPA. The MHPA in this area is associated with Spring Canyon, its tributaries, and the surrounding mesa top areas. The MHPA also forms a wildlife corridor connecting Spring Canyon with Dennery Canyon to the north of OMR. Although the project will impact these MHPA areas and the wildlife corridor; the Department will implement a biological mitigation program that conforms with the MSCP Subarea Plan. All of the alignment alternatives include a bridge over the wildlife corridor. In addition to the requirements imposed by the MSCP, the guidelines presented for the MHPA would be adhered to.

### **Park and Recreational Resources**

The Route 905 project does not have any direct impacts to, or constructive uses of, publicly owned parks or other publicly owned recreational resources. The MSCP includes a specific exemption for Route 905 and those MSCP lands that will be impacted by the project are privately owned, including the portion of the parcel owned by Pardee Homes (the Otay Corporate Center South [OCCS], which is being developed into a biological resource preserve). Because the affected property is not protected by Section 4(f) of the United States Department of Transportation Act (49 USC §303), Section 4(f) does not apply.

### **Open Space**

The MHPA delineates areas with biological resources and wildlife corridors that have been deemed critical for purposes of long-term conservation. Each of the build alternatives would cause permanent loss of MHPA lands, and thus have a corresponding impact to land zoned as Open Space.

In addition to the MHPA, there are two open space areas within or adjacent to the proposed alignments. The privately owned OCCS Preserve is located south of Otay Mesa Road and approximately 200 meters (660 feet) west of Heritage Road. The privately owned San Diego Button Celery Preserve, associated with the Empire Center Development, is located northwest of the intersection of La Media and Airway roads. These are the only areas in the Study Corridor that are preserved as open space.

The Freeway and Tollway North alignment alternatives would impact the OCCS Preserve and thus have a corresponding impact to land zoned as Open Space. The Preferred Alternative, and the other remaining build alternatives, do not impact the OCCS Preserve. Each alignment

alternative would equally impact approximately 0.14 hectare (0.346 acre) of the San Diego Button-celery Preserve.

The proposed project would have a minimal impact to Open Space; the Preferred Alternative was anticipated by, and is incorporated into, the MHPA. No Open Space mitigation is necessary.

### **Farmland**

The entire ROW required for each of the build alternatives contains soils that are considered suitable for farming. Therefore, all of the build alternatives would impact farmland. Of these farmland suitable soils, 1.6 hectares (4 acres) are categorized as Prime and Unique Farmland and between 189 and 200 hectares (469 and 495 acres) are categorized as Statewide Important or Local Important Farmland. The majority of this land is not farmed and, in fact, is zoned for different uses (Table 3-1). Out of the approximately 189 hectares (469 acre) project footprint, only 25.9 hectares (61.7 acres) are zoned agricultural.

The Preferred Alternative will impact 1.6 hectares (4 acres) of farmland categorized as Prime and Unique Farmland and 189 hectares (469 acres) categorized as Statewide Important or Local Important Farmland. The North Alignment Alternative would impact 1.6 hectares (4 acres) categorized as Prime and Unique Farmland and 192 hectares (476 acres) categorized as Statewide Important or Local Important Farmland. The South Alignment Alternative would impact 1.6 hectares (4 acres) categorized as Prime and Unique Farmland and 200 hectares (495 acres) categorized as Statewide Important or Local Important Farmland.

According to guidelines and evaluation results from the Farmland Protection Policy Act (FPPA), project impacts to farmland are considered minor and the farmland on Otay Mesa should be given a minimal level of consideration for protection. Additionally, the FPPA definition of farmland does not include land already committed to urban development, and since the entire mesa is planned for future urban use, farmlands are considered an interim use.

## **ECONOMICS**

### **Effects on Business**

The economic effects to businesses from right-of-way acquisition and displacement include the costs of moving, replacing buildings, and the effect of relocation on revenues and projects. Impacts to developed industrial and commercial land uses in the area are not expected to be substantial. Each displaced business would be relocated under the Department's Relocation Assistance Program and the Federal Uniform Relocation Act.

Project construction would have beneficial impacts on business and industrial growth in the area as a whole. However, during construction and operation, some businesses near the project may experience a loss of patronage. Construction wages would have a beneficial economic impact in the area.

## **GROWTH**

The growth management initiatives applicable to Route 905 stress that growth should not occur prior to the provision of adequate infrastructure. Projections of population, housing and employment in the study area indicate rapid growth. These forecasts take into account the

construction of Route 905, therefore growth resulting from Route 905 is not expected beyond what is anticipated by regional forecast models.

Construction of any Route 905 alternative will facilitate planned residential, commercial, and industrial development in the area. Development of surrounding properties will be in accordance with adopted plans and policies, which have all anticipated planned development. Construction of Route 905 will facilitate planned growth on Otay Mesa by improving access and providing an alternative route to the increasingly congested Otay Mesa Road. Route 905 will remove an obstacle to growth and result in growth-inducing impacts on the community. It is expected that commercial development opportunities will be enhanced at major intersection and interchange locations along Route 905, as has already occurred along areas of Otay Mesa Road. It is not likely that the City or the County will permit much greater encroachment of commercial uses onto the mesa beyond current limits of the community plan. The direct growth inducing impact of the Route 905 project is minor.

Route 905 will provide access to the regional transportation system for an area which is presently inadequately served. The development potential of this subregion is substantial and depends upon the provision of adequate infrastructure, to include transportation systems, water delivery systems, sewer facilities and public services. While growth can be facilitated by other factors such as market demand, political support and social support, the infrastructure to support economic activity must be in place for planned growth to be realized. The market attractiveness of Otay Mesa and East Otay Mesa will be limited without the provision of adequate and safe access. Therefore, the construction of Route 905 and related transportation projects will contribute to secondary, or indirect, impacts on growth in Otay Mesa and East Otay Mesa.

The potentially adverse environmental impacts from continued development/growth are substantial and will result in loss of biological, cultural and open space resources, loss of land suitable for agriculture, and increased noise/air pollution, and other impacts. The impacts of and necessary mitigations for the developments on Otay Mesa are discussed in the respective project environmental document processed through the local jurisdictions.

## **VISUAL**

The proposed project presents potential visual impacts, which vary from “low” to “moderately high” depending on the alignment alternative. The grading of large cut and fill slopes and interchange structures present the most prominent new visual elements to the area. The introduction of lighting along the highway would also change the current setting. The mitigation will include such measures as extensive planting of those areas affected by the removal of large, mature vegetation, planting of graded and disturbed slopes, the use of above-standard (the use of larger container-size plant material and/or the use of a planting scheme that focuses on increased plant density) landscape treatments, east of Caliente Avenue, with an emphasis on drought-tolerant native and non-native plants, and above-standard plantings for all canyon fills and grading. Mitigation for landform changes will include an effort at rounding slopes, blending slopes back into the natural landform, and providing a variation in slope steepness and extent. Any required brow ditches and other drainage structures will be screened by vegetation. The impacts associated with retaining or noise walls will be reduced with the addition of split-face block and the planting of vines. Extensive mitigation measures are proposed and presented in Section 4.9.3.

Within the eastern portion of the project where the above standard plantings are proposed, the character of the landscape is urban; as opposed to the rural character of the western portion. Within this urban landscape, the Department's Route 905 General Design Concept reflects the developed and landscaped character of this portion of Otay Mesa. In addition, the design concept is congruent with the landscape treatment (above standard landscaping) of the Siempre Viva Interchange Project (please see Section 2.1 of this FEIS/FEIR for a discussion of this project).

The focus within the eastern portion of the project area is contrasted with those portions of the Route 905 project which are not urban in character and will be planted with native species. Here, the use of non-natives is entirely inappropriate and they will not be used. Between the two distinct landscape units, a transition, or buffer zone, will be provided for visual fluidity.

## **BIOLOGICAL RESOURCES**

Focused surveys were conducted for the following sensitive plant and animal species: San Diego and Riverside fairy shrimp, coastal California gnatcatchers, San Diego cactus wren, Quino checkerspot butterfly, orange-throated whiptails, and several sensitive plant species associated with vernal pool habitat. Additional sensitive species, vegetation communities, vernal pools, and coastal California gnatcatcher territories were also documented and mapped, and a federal wetland delineation was completed for the entire Route 905 Study Corridor. Avoidance and minimization of biological impacts has been a major consideration throughout the process of developing project alignment alternatives.

The discussion below pertains to the Freeway and the Tollway alignment Alternatives. Direct impacts to sensitive biological resources are shown in Table S-1.

All the alignment alternatives impact wetlands, vernal pools, maritime succulent scrub, coastal sage scrub, riparian scrub, and San Diego and Riverside fairy shrimp.

In addition to these impacts, the North alignment alternatives impact Quino checkerspot butterfly while the South alignment alternatives impact Coastal California gnatcatcher.

All the alignment alternatives have indirect impacts to all of these above listed species.

Conservation programs and preserves within the Study Corridor include the MSCP and the privately owned OCCS Preserve. As stated previously, the MSCP is a comprehensive habitat conservation-planning program that addresses multiple species habitat needs and the preservation of native vegetation communities. The MHPA is a preserve system within the MSCP that includes a network of large habitat blocks with interconnecting linkages. The OCCS Preserve is a preserve that was created as part of the Otay Corporate Center development.

The Central alignment alternatives were specifically designed to minimize vernal pool impacts, the South alignment alternatives followed the adopted route, and the North alignment alternatives were proposed to minimize impacts to coastal sage scrub in Spring Canyon (and the MHPA).

The South alignment alternatives would result in the greatest impacts to Diegan coastal sage scrub, MHPA lands, and coastal California gnatcatchers. Additionally, they would affect a

unique vernal pool complex that supports the Otay tarplant, spreading navarretia, Otay Mesa mint, and little mouse-tail.

The North alignment alternatives would generate the highest levels of disturbance to United States Army Corps of Engineers/California Department of Fish and Game (ACOE/CDFG) jurisdictional habitat, vernal pools, road pools, and the OCCS Preserve (with its associated listed species).

The Biological Resources Technical Report concluded that the North alignment alternatives are the least desirable for biological resources overall, based on impacts to vernal pools, wetlands, riparian habitat, and the OCCS Preserve, although it would disturb the smallest extent of MHPA lands. The alignment alternatives with the least biological resource impacts is less clear as the resources are affected in different ways. Based on the analyses conducted, the two most important biological resources within the Study Corridor are considered to be vernal pool habitat and the MHPA. The Central alignment alternatives would have the least impacts to vernal pool resources and fewer impacts than the South alignment alternatives on the MHPA. The South alignment alternatives cross through the more central portion of Spring Canyon within the MHPA. As a consequence of all the anticipated impacts, the Freeway-Central Alignment Alternative was identified as the Preferred Alternative and the Least Environmentally Damaging Practicable Alternative.

Recommended mitigation, with respect to vernal pools and other sensitive vegetation types (including those within the OCCS preserve), is based on the MSCP (as outlined by the City of San Diego Biology Guidelines and County of San Diego Biological Mitigation Ordinance) and on habitat quality. All mitigation is assumed to occur within or near the MHPA, such that the value of the MHPA will be enhanced.

### **Proposed Mitigation for Habitat Impacts**

For the Preferred Alternative's impacts to vernal pools and road pools with fairy shrimp, mitigation will involve the enhancement, restoration/creation, and preservation of pool habitat located within or adjacent to the MHPA in Otay Mesa on the Wall-Hudson property at a ratio of 3:1 and 2:1. Additionally, a ratio of 10:1 will be applied to the acreage of pools, disturbed by construction, to generate the watershed values necessary to sufficiently support the pool complexes. A conceptual wetland mitigation plan was prepared and submitted to the appropriate regulatory agencies for review and consideration. A final plan, outlining the details and implementation schedule of all enhancement/restoration of the MSS, CSS, grasslands, and vernal pools on Wall-Hudson and Bonita Meadows, will be prepared by the Department and approved by the USFWS and other regulatory agencies prior to the start of construction. All enhancement/restoration activities will commence the first summer/fall season prior to or concurrently with the start of construction. The following criteria will be included in the plan for enhancement/restoration of fairy shrimp pools and their contributing watersheds:

- A hydrologic evaluation and map of the enhanced and restored vernal pools and contributing watersheds will be prepared. The evaluation must demonstrate that the watersheds of newly restored pools will provide the appropriate amount of water for fairy shrimp without impacting the watersheds of existing vernal pools currently supporting San Diego fairy shrimp.

- The grading for the enhanced and restored pools will be conducted under the direction of a qualified biologist with a minimum three years of vernal pool restoration experience approved by the USFWS.
- Grading plans for the enhanced and restored pools will have 0.15 meter (0.5 foot) topographic contours. The grading plans will specify the areas of existing habitat which are to remain unaffected by enhancement/restoration activities. Grading will be done using a bobcat or small tracked dozer with ripping tines and slopeboards, rubber-tired loaders and a sheeps-foot for mound construction. All grading within the upper margins of existing pools will be done with hand tools.
- The number, location, and design of vernal pools to support Riverside fairy shrimp will be coordinated with the Service.
- Measures will be incorporated to prevent the introduction of versatile fairy shrimp into enhancement/restoration areas.
- Enhancement/restoration success will be determined by measuring the ponding of water; and density of viable cysts, hatched fairy shrimp, and gravid females within the enhanced/restored ponds. Water measurements will be taken in the enhanced/restored ponds to determine the depth, duration, and quality of ponding. Dry samples will be taken in the enhanced/restored pools to determine the density of viable cysts in the soils. Wet samples will also be taken in the enhanced and restored pools to determine the density of hatched fairy shrimp and gravid females. The enhanced and restored pools must pond for a period of time similar to that of reference vernal pools during an average rainfall year and at an appropriate depth and quality to support fairy shrimp. The enhanced and restored pond's average viable cyst, hatched fairy shrimp, and gravid female density must not differ significantly from reference pools for at least three wet seasons before a determination of success can be made.
- Native plants and animals will be restored within the enhanced and restored pools and their watersheds. This will be accomplished by redistributing topsoil containing seeds, spores, bulbs, eggs, and other propagules from adjacent vernal pool and upland habitats; by the translocation of propagules of individual species from off-site habitats; and by the use of commercially available native plant species. Topsoil and plant materials from the native habitats to be impacted on-site will be applied to the watersheds of the enhanced and restored pools to the maximum extent practicable. Exotic weed control will be implemented within the restoration areas to protect and enhance habitat remaining on-site. The Plan will include success criteria for restoring native plants and animals.
- A 6-year maintenance and monitoring program for the enhanced and restored pools and their contributing watersheds will be implemented. The monitoring program will consist of quantitative hydrological, viable cyst, hatched fairy shrimp, and gravid female measurements, complete floral and fauna inventories, quantitative vegetation transects, and photographic documentation.
- If a performance criterion is not met for any of the enhanced and restored pools in any year, or if the final success criteria are not met, the Department will prepare an analysis of the cause(s) of failure and, if deemed necessary by the USFWS, propose remedial

actions for approval. If any of the enhanced/restored pools have not met a performance criterion during the initial 6-year period, the Department's maintenance and monitoring obligations will continue until the USFWS deems the enhancement/restoration successful, or contingency measures must be implemented.

- Perimeter fencing on the west side of the mesa top at Wall-Hudson will be installed prior to construction.
- Annual reports will be submitted to the USFWS by August 1 of each year. These reports will assess both the attainment of yearly success criteria and progress toward the final success criteria. The reports will also summarize compliance with the measures discussed in the Biological Opinion.

All habitats to be restored, enhanced, and/or preserved will be managed and preserved in perpetuity. FHWA and the Department will place restrictive covenants and prohibited uses in the deed for Wall-Hudson, Bonita Meadows, and the La Media drainage, and these sites will be managed according to a USFWS approved Long-Term Management Plan. The draft deed and Long-Term Management Plan will be approved by the USFWS prior to the start of construction.

Because stored fairy shrimp cyst viability may decrease and the probability that cysts may otherwise be harmed in storage also increases over time, any temporal loss of vernal pools caused by delays in initiating restoration shall be compensated through additional fairy shrimp occupied vernal pool preservation and/or restoration at a 0.5:1 ratio for every 6 months of delay. The USFWS shall waive the requirement for additional vernal pool preservation and/or restoration only if a justification for any delay is provided in writing and the USFWS concur with the justification.

All contour grading conducted near those vernal pools (within the Preferred Alternative's alignment and restoration areas) which support federally listed species will implement the following measures:

- Grading activities within the watershed of the fairy shrimp and button celery pools will be done when the soil is dry and outside the rainy season to minimize potential impacts to the avoided and enhanced/restored pools (unless erosion control measures approved by the USFWS and RWQCB are in place).
- For impacted watersheds which will continue to serve the remaining vernal pools after Route 905 is constructed, contour grading will occur to create an area of watershed equal to that lost through project construction. The final grading plans near vernal pools will be approved by the USFWS and other regulatory agencies and incorporated into the upland restoration plan.
- The Department will staff a qualified biologist with a minimum three years of vernal pool experience who will be responsible for overseeing compliance with protective measures for the fairy shrimp. The biologist will be approved by the USFWS and will have the authority to halt all associated project activities, which may be in violation of the terms and conditions of the Biological Opinion. This biologist will notify the USFWS within 24 hours of any observed violation.

The Preferred Alternative's impacts to maritime succulent scrub and Diegan coastal sage scrub will be mitigated at a ratio of 2:1 and 1:1. Non-native grassland will be mitigated at a ratio of 0.5:1. Mitigation will be accomplished by preservation of maritime succulent scrub and Diegan coastal sage scrub at the Wall-Hudson property and Bonita Meadows Mitigation Parcel, which are within and adjacent to the MHPA, respectively.

As stated above, FHWA and the Department will place restrictive covenants and prohibited uses in the deed for Wall-Hudson, Bonita Meadows, and the La Media drainage, and these sites will be managed according to a USFWS approved Long-Term Management Plan. The draft deed and Long-Term Management Plan will be approved by the USFWS prior to the start of construction.

An estimated 2.6 hectares (6.4 acres) of maritime succulent scrub, 5.0 hectares (12.3 acres) of Diegan coastal sage scrub, and 27.1 hectares (67.1 acres) of nonnative grassland will be preserved.

Any graded habitat adjacent to the Spring Canyon corridor or within/near the MHPA will be revegetated with an appropriate native plant mix. Prior to the start of construction, the proposed seed palette and revegetation methods will be developed in coordination with the USFWS and a Department biologist.

Some areas within the ROW will be seeded/planted with native species, but due to the increased disturbance typically found along roads, mitigation credit was not be requested for these locations. Therefore, any possible, future impacts to such reestablished habitat within the ROW will not be subject to additional compensation requirements, as all impacts are fully mitigated as part of the larger Route 905 project.

As recommended by the MSCP Biology Guidelines, the Preferred Alternative's impacts to freshwater marsh, southern willow scrub, and mule fat scrub will be mitigated at a ratio of 2:1. Seasonal ponds and disturbed wetlands will be mitigated at the lower ratio of 1:1 due to poor habitat quality (within the Study Corridor) and the vegetation's limited value to wildlife. Overall, 0.32 hectares (0.80 acres) of freshwater marsh, 2.50 hectares (6.20 acres) of southern willow scrub, 1.60 hectares (3.96 acres) of mule fat scrub, 1.22 hectares (3.02 acres) of disturbed wetlands, and 0.07 hectares (0.17 acres) of seasonal pond will be mitigated. The Preferred Alternative avoids direct disturbance to the freshwater marsh at the north end of Spring Canyon that was recently restored as part of the OMR widening project. Successful avoidance of the wetland area will require staking/fencing, best management practices, and monitoring during construction. The ROW fence will be placed between Route 905 and the freshwater marsh to prevent impacts resulting from construction and maintenance activities, but it will be open to Spring Canyon so as not to impede wildlife movement.

Linne soil sites will be surveyed for sensitive plant species prior to construction. In areas where the species are located, the soil will be salvaged for subsequent redistribution onto other similar, temporarily impacted areas. Soils will be stockpiled for the shortest time practicable and no taller than 1.2 meters (4 feet) high to assure the viability of soil biota. All work will be overseen by a project biologist familiar with the sensitive plant species associated with Linne soils. Salvaging methods will be included in the USFWS approved upland restoration plan.

The USFWS retains the right to access and inspect the Route 905 project site for compliance with the Biological Opinion. Any habitat destroyed that is not in the identified project footprint

will be disclosed immediately to the USFWS for possible reinitiation of consultation. Compensation for such habitat loss will be requested at a minimum ratio of 5:1 (habitat in kind).

### **Proposed Mitigation for Jurisdictional Impacts**

Three mitigation sites were identified for the purposes of mitigating the Preferred Alternative's impacts to wetlands, Waters of the United States, and vernal pools. On-site mitigation will occur within the aforementioned trapezoidal channel located south of Drainage 7 and west of La Media Road. Off-site wetland creation and restoration will be conducted the aforementioned parcel situated on the southwest side of Proctor Valley Road between San Miguel Road and East H Street, east of the community of Bonita and on the Wall-Hudson property. Site selection was based on a combination of factors including: lands contained within the MHPA, proximity to the project site, restoration potential, appropriate habitat types, and adequate habitat acreages.

For ACOE jurisdictional areas, it is estimated that 3.10 hectares (7.68 acres), including 1.50 hectares (3.72 acres) of wetlands and 1.60 hectares (3.96 acres) of other Waters of the United States will be disturbed by project implementation. Applying the mitigation ratios outlined above, mitigation will total 2.34 hectares (5.80 acres) for wetlands and 1.60 hectares (3.96 acres) for other Waters of the United States. Both the La Media Road drainage and Bonita Meadows site will be used to offset the impacts to ACOE habitat. Approximately 1.32 hectares (3.28 acres) exist at the La Media drainage for the creation/reestablishment of southern willow scrub and freshwater marsh habitat. Additionally, a buffer area of coastal age scrub (1.19 hectares [2.96 acres]) will be created adjacent to the riparian habitat. At Bonita Meadows, approximately 2.04 hectares (5.03 acres) of riparian enhancement, 2.76 hectares (6.81 acres) of riparian restoration, and 1.54 hectares (3.81 acres) of riparian creation will be available as mitigation. The parcel functions as part of a system of regional habitat blocks that accommodate open space for wildlife species and support resident populations of wildlife.

A draft wetland mitigation plan was prepared and submitted to the appropriate regulatory agencies for consideration. A final wetland mitigation plan, which will outline the details of implementation, will be prepared and submitted to these regulatory agencies for review and approval. The document will contain, but is not limited to, the following provisions:

- At a minimum, a 2-year plant establishment period and 3-year habitat management and monitoring program will be implemented on the mitigation lands.
- All of the following invasive exotic plant species including pampas grass, giant reed, tamarisk, ice plant, tobacco tree, acacia, fennel, and cocklebur plants will be removed from the La Media Road drainage and Bonita Meadows Mitigation Site. Additional species may be removed.
- Plant survival and growth will be sustained for at least two dry seasons without irrigation or human intervention. Irrigation will be gradually withdrawn from the mitigation site.
- Natural recruitment of riparian tree and shrub species will be documented within the planted site. The site should show natural recruitment through vegetative growth and/or seedlings 3 years after installation.

- Numbers of wildlife species and individuals will be monitored quarterly at each site as an indication of habitat function and values. Over time there should be a change from ground birds to riparian species. Any nesting birds, particularly sensitive species, will be identified to indicate that the habitat is functional for these species.
- Cover of wetland plant species will be evaluated at each site through several methods. Each year vegetation cover throughout the mitigation site will be mapped with GIS on a current aerial photograph. Permanent photo stations will also be set up to evaluate vegetative growth over time on-site. Vegetation cover will be monitored through visual inspection of the site and through monitoring of permanent transects.
- The grading of the mitigation sites will be completed during the first year of construction of the Route 905 Project. Grading at each site will be completed outside of the bird breeding season (September 16 through February 14), to ensure there will be no impacts to resident/migratory birds. Irrigation and planting will occur in the late fall to early winter following the first year of project construction.

The area adjacent to the La Media drainage (to the south) will be graded down to the elevation of the existing drainage. The proposed channel will be 15.6 meters (51.1 feet) in width with 3:1 sloping banks. The mitigation will consist of 1.32 hectares (3.28 acres) of riparian creation consisting of southern willow scrub and freshwater marsh species. Freshwater marsh species will be planted in the low flow portion of the channel, transitioning to southern willow scrub 2 meters (6 feet) upslope. A buffer area of 1.19 hectare (2.96 acres) of coastal sage scrub will also be created adjacent to the southern willow scrub habitat.

- At the Bonita Meadows Mitigation Site, the areas proposed for creation will be graded down to meet the elevation of the existing drainage. The final grade will be determined during development of the final mitigation plan. A total of 1.54 hectare (3.81 acre) of riparian habitat is available for creation on the parcel.
- With respect to the La Media drainage, freshwater marsh species will be planted in the low flow portion of the channel, transitioning to southern willow scrub 2 meters (6 feet) upslope. The wetland species that will be utilized are described in the draft wetland mitigation plan. Planting within the channel will consist of a combination of 1-gallon containers, randomly mixed and planted approximately 1.8 meters (6 feet) on center, and a native seed mix. A buffer area of 1.19 hectare (2.96 acres) of coastal sage scrub will also be created adjacent to the southern willow scrub habitat, and planted and seeded with coastal sage scrub species. Quantities of seed for each species will be determined during development of the final wetland mitigation plan.
- Proposed actions for the Bonita Meadows Mitigation Site include the creation, restoration and enhancement of riparian habitat. All creation and enhancement areas on the parcel will be planted with wetland species. Plantings within the creation and restoration areas will consist of a combination of 1-gallon containers, randomly mixed and planted approximately 1.8 meters (6 feet) on center, and a native seed mix. Quantities of seed for each species will be determined during development of the final wetland mitigation plan. Some areas within the creation areas will be graded down to allow for freshwater marsh habitat within the site. Areas within the restoration portion will be planted with freshwater species where appropriate. All exotics removed within the enhancement area

will be replaced with riparian and freshwater species where appropriate within the drainage. Plantings in the enhancement area will be from cuttings and seed.

- Irrigation will be applied to the wetland creation and restoration areas on site and at the Bonita Meadows Mitigation Site for the first 2 years, or as needed until the plants are established. Overhead spray heads will be used for irrigation of both the mitigation areas and areas replanted after temporary impacts. The irrigation schedule will be developed for infrequent periods of deep watering and no irrigation during periods of normal rainfall. Irrigation of the site will be tapered off after plant establishment to acclimatize the plants to less and less irrigation.
- Plant establishment during the first 2 years at the mitigation site includes: irrigation as necessary to establish plants; exotic species removal; trash and debris removal; replacement of all dead plants in the first year with plant replacement during years two and three as necessary for sections with poor survival or growth performance; maintenance and repair of permanent and temporary barriers; vegetative and wildlife monitoring; and photographs from designated stations and aerial photographs during the growing season. Habitat management monitoring during years three through five will include all of the items listed above with the exception of replacement of dead plant material.
- Vegetation and wildlife monitoring at each of the mitigation sites will be completed through a combination of methods. Wildlife monitoring will be completed quarterly and will consist of identification of all species through direct observation or identification of tracks, scat, or vocalizations. A list of wildlife species and numbers of individuals identified will be completed. The quarterly wildlife monitoring will be included in the annual mitigation site reports. Vegetation will be monitored through three methods, 1) detailed aerial photograph vegetation mapping; 2) permanent photo locations; and 3) collection of permanent transect data.

The first annual report will be submitted August 1st after the plants have been in the ground for an entire spring and summer. The site will be maintained and monitored for a minimum of 5 years, the estimated amount of time necessary to meet the success criteria. Annual reports will be submitted to the ACOE, CDFG, and USFWS for 5 years and will follow the ACOE format

### **Proposed Mitigation for Sensitive Plant Species**

All the identified, sensitive plants in the survey area are located within the boundaries of the MHPA. For some of the species, the City of San Diego's MSCP guidelines recommend specific mitigation measures. Overall, the sensitive plants occur within maritime succulent scrub habitat although several occur within Diegan coastal sage scrub habitat.

Prior to any disturbance of the pool(s) which supports San Diego button-celery, all seed from button celery plants will be collected, placed in paper bags, and stored in a cool, dry location following USFWS recommended guidelines. The topsoil from the vernal pool will be salvaged, stockpiled, and redistributed into enhanced pools on Wall-Hudson. The collected seed will be sown/broadcast in the same locations as the reapplied soil or onto other appropriate habitat. All plants will be removed with hand tools by digging up the root system and surrounding soil. These individuals and their associated soil will be placed in temporary containers and stored out

of direct sunlight. All individuals will be replanted within the post-grading, upper pool margins at Wall-Hudson. Button celery propagules will not be introduced into the restored pools until after the pools have been demonstrated to retain water for a minimum of 60 days. Salvaged plants will be planted to the same rooting depth as existed in the original pool.

Collected button celery seed will be introduced along the upper margins of all enhanced and restored pools once these restored/enhanced pools meet first year hydrology success criteria as per the approved restoration plan. Some seed will be stored off-site and according to horticultural practices. This seed will be used to inoculate the enhanced and restored pools in the event that initial inoculation fails. If the initial inoculation is successful, then the seed can be used for off-site restoration activities within the Dennery Canyon/Spring Canyon watersheds as approved by the USFWS. The final details of the restoration effort will be outlined in the USFWS approved restoration plan for Wall-Hudson.

Seed of Otay tarplant, Otay mesa mint, spreading navarretia, and Orcutt grass will be collected from adjacent or nearby populations and distributed throughout the vernal pools and/or uplands as part of the restoration activities on Wall-Hudson in coordination with the USFWS in accordance with the following guidelines:

- Seed will be collected from areas where at least 20 individuals of each target species occur as a sub-population.
- No more than five percent of the projected annual seed production of any individual plant or discrete population of plants will be collected.
- Collections will be made in a manner that captures the majority of the genetic variation found in the sampled populations. Different genotypes will not be intermingled during conservation activities.
- All seed collected will be placed in brown paper bags and stored off-site at an appropriate seed storage facility.
- Collection of seed will be conducted in a manner that will not significantly harm the reproductive potential of the population for that year.

Salvaging and transplantation of San Diego barrel cactus and other sensitive plant species will be conducted to the maximum extent practicable. A qualified biologist will oversee any seed collection, plant removal, or transplantation to ensure proper management of the salvaged materials. Salvaging methods will be included in the USFWS approved upland restoration plan.

### **Proposed Mitigation for Sensitive Animal Species**

The Preferred Alternative's impacts to San Diego and Riverside fairy shrimp and Quino checkerspot butterfly will be mitigated through conformance of the final wetland mitigation plan, the MSCP, and federal regulations. Mitigation for the coastal California gnatcatcher will be accomplished through the mitigation measures for maritime succulent scrub and Diegan coastal sage scrub. Additionally, the following mitigation measures will be implemented to further reduce impacts to sensitive animal species.

All vegetation within the Preferred Alternative's footprint will be cleared between September 1 and February 14 to avoid the gnatcatcher breeding season and minimize impacts to migratory birds and raptors. If clearing activities must occur during the gnatcatcher breeding season, then pre-construction surveys will be conducted to ensure that no breeding gnatcatchers or nesting birds are present within or immediately adjacent to the proposed clearing area. Should a breeding gnatcatcher or nest be located, the USFWS will be contacted and discussions will commence to determine how to proceed.

Immediately prior to delineating ESAs or clearing of maritime succulent scrub and Diegan coastal sage scrub, the biologist will survey the Preferred Alternative for gnatcatchers. If gnatcatchers are found within the footprint outside of the breeding season, the biologist will direct construction personnel to begin initial vegetation clearing/grubbing in an area away from the gnatcatchers. In addition, the biologist will walk ahead of the clearing/grubbing equipment to flush birds towards areas of maritime succulent scrub and Diegan coastal sage scrub to be avoided. It will be the responsibility of the biologist to ensure that gnatcatchers will not be injured or killed by initial vegetation clearing/grubbing. The biologist will also record the number and map the location of gnatcatchers disturbed by initial vegetation clearing/grubbing or project construction and report these numbers and locations to the USFWS within 24 hours.

The following measures will be implemented at the Wall-Hudson and Bonita Meadows restoration sites to avoid and minimize effects to gnatcatchers during the five-year restoration period:

- When maintenance and monitoring activities are conducted during the gnatcatcher breeding season, a qualified biologist will conduct surveys for nesting gnatcatchers no more than one week prior to the start of proposed activities.
- If nesting gnatcatchers are observed on-site, no maintenance activities will be conducted within 30 meters (100 feet) of a gnatcatcher nest (exclusion zone), except repairs to broken irrigation lines. If an irrigation line is broken and workers need to encroach into the exclusion zone, then the Department and the USFWS will be notified immediately. Prior to maintenance workers accessing the exclusion zone, the Department and the USFWS will determine the most appropriate timing and method of repair without causing harm to the nest and/or the nesting pair.
- Herbicide application will occur outside of the exclusion zone to avoid drift towards the nest. Only hand spraying downwind of the nest will be allowed. An education program will be implemented to ensure that all maintenance workers know the location of all gnatcatcher nests and are aware of the above described conservation measures.

For the Quino checkerspot butterfly, vernal pool habitat and its associated watershed will be created and will be revegetated to provide habitat for the species (approximately 1.88 hectares [4.66 acres] of vernal pool habitat, including 0.20 hectares [0.51 acres] of vernal pool surface area and 1.68 hectares [4.15 acres] of contributing watershed). These mitigation measures are separate and additional to the vernal pool restoration mitigation measures. Also, appropriate larval host plant species will be incorporated into the seed palette that will be utilized on the preserved lands. Mitigation for vernal pool habitat impacts are addressed in the wetland mitigation plan. The draft wetland mitigation plan, which outlines the details of the overall restoration effort (plant/soil salvaging, site preparation, success criteria, and monitoring

requirements), will be updated, finalized, and submitted to the appropriate regulatory agencies for review. All enhancement activities will be implemented following USFWS approval of the plan.

Protocol level surveys for Quino checkerspot butterfly will be conducted prior to the start of construction. If adults are detected, clearing and grading will be postponed until the USFWS provides approval to continue. Immediately following the detection of adults, the USFWS will be contacted and the area where they were detected will be surveyed for dot seed plantain, Quino larvae, and cluster webbing for pre-diapause Quino larvae. If Quino larvae and/or cluster webbing is located, salvage efforts will be implemented in coordination with the USFWS.

The following mitigation measures will be implemented at the Wall-Hudson restoration site to avoid and minimize affects to Quino checkerspot butterfly. The first two bulleted measures below pertain only to initial implementation during the winter/spring; the remaining measures will be implemented during the entire five years of restoration:

- Prior to the start of grading activities, the perimeter of, and access to, the Wall-Hudson restoration area will be delineated with flagging. No grading or other equipment work will occur outside of the flagged limits.
- During initial implementation, locations where dot seed plantain occur will be monitored for post-diapause Quino caterpillars by an experienced USFWS approved biologist. If Quino caterpillars are detected, the biologist will assist weeders with caterpillar detection and weeders will look for Quino caterpillars while weeding, and will avoid stepping on caterpillars or dot seed plantain plants. Areas where caterpillars are detected will be flagged and only hand weeding will occur within 30 meters (100 feet) of the flagging.
- Beginning the first spring following restoration implementation and occurring each consecutive year thereafter, protocol level surveys for adult Quino will be conducted on the mesa fingers at Wall-Hudson.
- Beginning the first spring following restoration implementation and occurring each consecutive year thereafter, cluster webbing surveys for pre-diapause Quino larvae will be conducted at both the Quino and vernal pool restoration sites four weeks after the first reported adult is observed. These pre-diapause surveys will be conducted once a week for four weeks. Areas where webbing is detected will be flagged and only hand weeding will occur within 9.1 meters (30 feet) of flagging.
- Beginning the first spring following restoration implementation and occurring each consecutive year thereafter, the Quino and vernal pool restoration sites will be monitored for post-diapause Quino caterpillars by an experienced USFWS approved biologist. The monitoring will occur at the initiation of weeding during the post-diapause season. If Quino caterpillars are detected, the biologist will assist weeders with caterpillar detection and weeders will look for Quino caterpillars while weeding, and will avoid stepping on caterpillars or dot seed plantain plants. Areas where caterpillars are detected will be flagged and only hand weeding will occur within 30 meters (100 feet) of the flagging.
- In areas where caterpillars or larval cluster webbing are not detected, mechanical weeding may occur.

- All personnel who will be conducting weeding activities will be trained by a qualified biologist to recognize Quino caterpillars. A qualified biologist will be on-site during all weeding operations to assist weeders with Quino caterpillar identification.
- Flagging installed to denote areas where Quino larvae have been observed will be left in place until deemed ready for removal by the approved biologist in coordination with the USFWS. All flagging installed to denote Quino larval stages will be marked with permanent markers with the following information: date of placement, type of Quino larvae detected, and the last name of the person marking the flagging. Flagging will provide direction for all weeding activities on-site.

Within the Preferred Alternative's footprint, the soil of all pools supporting San Diego or Riverside fairy shrimp will be salvaged and stored off-site. Vernal pool soil (inoculum) will be collected when dry to avoid damaging or destroying fairy shrimp cysts. A hand trowel or similar instrument will be used to collect the inoculum. Whenever possible, soil will be collected in chunks. The trowel will be used to pry up intact chunks of soil, rather than loosening the soil by raking and shoveling.

The soil from each pond will be stored individually in labeled boxes that are adequately ventilated and kept out of direct sunlight in order to prevent the occurrence of fungus or excessive heating of the soil, and stored off-site at an appropriate facility for vernal pool inoculum. Soil will not be collected from any on-site ponds until approved by the USFWS. Soil collected from pools only containing San Diego fairy shrimp will be stored off-site until an appropriate location on Otay Mesa near Spring Canyon is found to accept the inoculum, as coordinated and approved by the USFWS.

The salvaged soil from the pools containing both Riverside and San Diego fairy shrimp cysts will be used to inoculate restored pools at Wall-Hudson. Following the Wall-Hudson restoration plan, the restored pools to be inoculated with Riverside fairy shrimp will be recontoured deep enough to pond water long enough to support Riverside fairy shrimp. Inoculum will not be introduced into the restored pools until after the restored ponds have been demonstrated to retain water for a minimum of 60 days, and will be placed in a manner that preserves, to the maximum extent possible, the orientation of the fairy shrimp cysts within the surface layer of soil.

Pursuant to the Burrowing Owl Survey Protocol and Mitigation Guidelines and the Staff Report on Burrowing Owl Mitigation, a preconstruction survey of the Preferred Alternative's footprint will be conducted for burrowing owls prior to clearing and grading. During the nonbreeding season (September 1 to January 31), a qualified biologist will survey and excavate all potential owl burrows within and immediately beyond the impact zone to discourage any on-site occupancy. If owls are found nesting within the ROW between February 1 and August 31, the burrow will be designated an ESA and no activities will be allowed within a 75 meter (246 feet) radius of the site. Surveys will be performed regularly to monitor the behavior of the owls and determine when nesting is complete, so that construction can resume.

### **Mitigation for Temporary Construction Impacts and Urban Edge Effects**

- Indirect and temporal noise impacts upon the coastal California gnatcatcher will be offset through preservation of Diegan coastal sage scrub and maritime succulent scrub at Wall-Hudson. It will be mitigated at a 1:1 ratio (see Table 4-12).

- A USFWS approved biologist will oversee compliance with protective measures for the biological resources in the project area during clearing and construction activities. The biologist will be familiar with the habitats, plants, and wildlife of Otay Mesa, and maintain communications with the RE, to ensure that issues relating to biological resources are appropriately and lawfully managed. The biologist will be made available for both the pre-construction and construction phases to review grading plans, address protection of sensitive biological resources and monitor ongoing work. The biologist will specifically monitor construction activities that may affect listed species, such as vegetation removal, and the installation of BMPs and ESA fencing to ensure that all avoidance and minimization measures are properly constructed and followed. The biologist will immediately notify the RE to halt all associated project activities which may be in violation of the USFWS Biological Opinion (Appendix M). In such an event, the RE will halt all construction activities and contact the USFWS within 24 hours. The biologist will submit weekly reports during initial grading and clearing, and when construction occurs near sensitive biological resources; and provide a final report documenting compliance with avoidance and minimization measures within 60 days of project completion. A Department biologist will be available for both the pre-construction and construction phases to review grading plans, address protection of sensitive biological resources, and monitor ongoing work. The biologist will be familiar with the habitats, plants, and wildlife of Otay Mesa, and maintain communications with the Resident Engineer, to ensure that issues relating to biological resources are appropriately and lawfully managed.
- Each employee (including temporary, contractors, and subcontractors) will participate in a training/awareness program that will be presented by the biologist, prior to working on the Route 905 project. At a minimum, the program will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, species sensitivity to human activities, legal protection afforded listed species, penalties for violations of Federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote their persistence/survival within the project area. Included in this program will be a fact sheet that includes color photographs of the listed species, which will be shown to the employees. Following the education program, the fact sheet will be posted in the contractor and RE's office, where they will remain through the duration of the Project. The Department and the biologist will be responsible for ensuring that employees are aware of the listed species. Prior to grading operations, construction personnel will participate in an education program that will be presented by the project biologist. Discussion topics will include the sensitivity of the resources in the Otay Mesa area, the federal/state status of the locally-occurring species, and measures to avoid/minimize project impacts.
- Pile driving associated with construction of the Spring Canyon crossing will be conducted only between September 1<sup>st</sup> and February 14<sup>th</sup> to reduce noise affects to nesting/breeding birds within the project vicinity, including, the coastal California gnatcatcher.
- Oil changing, refueling, and other actions that could result in a release of a hazardous substance will be restricted to designated areas that are a minimum of 30- meters (100- feet) from any sensitive plant populations, sensitive habitats, or drainages. Such designated areas will be surrounded with berms, sandbags, or other barriers to further prevent the accidental spill of fuel, oil, or chemicals. Any accidental spills will be immediately contained, cleaned up, and properly disposed.

- Sensitive habitat outside the Preferred Alternative's footprint will be designated an ESA and depicted as such on project maps. Sensitive vegetation types (e.g., vernal pools) or plant locations (Otay tarplant, spreading navarretia, California Orcutt grass, and Otay Mesa mint) will be marked and protected by temporary fencing or another appropriate method to prevent encroachment or unnecessary disturbance to the sites. Prior to and during construction, barriers will be established in key areas to deter public entry into the site. Additionally, fencing will be provided to restrict access to sensitive habitat adjoining the work limits. Photographs of the fencing will be submitted to the USFWS at least seven days prior to initiation of construction.
- In coordination with other appropriate Environmental Specialists, all sensitive vegetation within the ROW, but outside of the Preferred Alternative's footprint, will be delineated by the project biologist as ESAs. All parties in conjunction with the Route 905 project will strictly avoid these areas. No construction activities, materials, or equipment will be permitted in the ESAs. Work areas will be marked clearly in the field and confirmed by the biologist prior to habitat clearing, and the marked boundaries maintained throughout the construction period.
- Sensitive habitat outside the Preferred Alternative's footprint will be designated an ESA and depicted as such on project maps. No personnel or equipment will be allowed within these areas at any time. Sensitive vegetation types (e.g., vernal pools) or plant locations (e.g., Otay tarplant) may be marked and protected by temporary fencing (as directed by a qualified biologist) or another appropriate method to prevent encroachment or unnecessary disturbance to the sites. Prior to and during construction, barriers will be established in key areas to deter public entry into the site.
- Although not a mitigation measure, construction dust impacts will be reduced through implementation of the Department's Standard Specifications, including Section 7-1.01F Air Pollution Control, Section 10 Dust Control, Section 17 Watering, and Section 18 Dust Palliative. The project biologist will also periodically monitor the work area to ensure that construction-related activities do not generate excessive amounts of dust or cause other disturbances. Erosion control measures will be regularly checked by Department inspectors, the biologist, and/or RE.
- Temporary disturbance to both upland and riparian habitat types, within Spring Canyon, will be mitigated through native revegetation of the area (1:1 ratio) upon completion of the two bridges. All seeding/planting will occur on-site within the disturbed habitat and involve replacement with in-kind/similar species, to the maximum extent practicable, or with appropriate native species, in locations where exotics were previously established. All revegetation efforts in areas that drain directly into the MHPA or sensitive habitats will follow the USFWS approved restoration/mitigation plans for uplands and wetlands or with alternative native vegetation, in locations where exotics were previously established.
- Storage and staging areas will be placed as far from sensitive habitat as possible, and kept free from trash and other waste. Staging areas for construction work will be located within previously disturbed sites and not adjacent to or within sensitive habitat.
- Any night lighting for construction will be selectively placed, shielded, and directed away from all native vegetative communities. During any nighttime construction, all project

lighting (e.g., staging areas, equipment storage sites, roadway) will be directed onto the roadway or construction site and away from sensitive habitat. Light glare shields may also be used to reduce the extent of illumination into adjoining areas.

- Although not a mitigation measure, BMPs employed during construction and operation would follow the applicable Department guidelines and be detailed in the project's SWMP, SWPPP, and WPCP. Specific plans will be reviewed by a Department biologist and modified, if necessary, prior to implementation. The biologist will have the ability to suggest changes to reduce the probability of erosion/siltation or spills of chemicals/fuels that could potentially affect sensitive habitat areas, including (but not limited to) vernal pool basins and watersheds, and rare plant populations. Photographs of installed BMPs will be submitted to the USFWS at least seven days prior to initial grading and clearing.
- Although not a mitigation measure, during construction and operation, runoff will be channeled to detention basins as a means of preventing contaminated discharge from potentially entering nearby, sensitive habitat. BMPs to address erosion and excess sedimentation will be incorporated into the project plans. Measures that could be implemented include silt fencing, gravel bags, hay bales, fiber rolls, native plantings, retaining walls or other slope stabilization techniques, and protection/velocity dissipation at drainage outlet points. Vegetation filters, such as swales or biostrips may also be used to remove sediment and other contaminants from runoff prior to off-site flow.
- Where applicable, revegetation with native plant species will follow grading and be accompanied with periodic monitoring and maintenance to ensure adequate coverage and prevent erosion and siltation into adjacent biologically sensitive areas. Native seed will be incorporated into the Bonded-Fiber-Matrix mix and sprayed onto the exposed soils prior to the onset of the rainy season. Revegetation with native plant species will occur as early as possible following grading (where applicable), and be accompanied with periodic monitoring and maintenance to ensure adequate coverage and prevent erosion and siltation into adjacent biologically sensitive areas.
- Salvaging and transplantation of San Diego barrel cactus and other sensitive plant species will be conducted to the maximum extent practicable. A qualified Department biologist will oversee any seed collection, plant removal, or transplantation to ensure proper management of the salvaged materials.
- Temporary stabilization will be undertaken in areas where grading is complete, particularly cut and fill slopes. Techniques such as hydroseeding and the application of duff or bonded fiber matrix will be implemented to provide interim erosion control. For any erosion control seed mix, the seed vendor will furnish certification that the seed has been tested for purity by a certified seed laboratory.
- Indirect noise impacts upon the coastal California gnatcatcher will be offset through enhancement/restoration of Diegan coastal sage scrub and maritime succulent scrub because breeding, sheltering, and foraging behaviors of the gnatcatcher occur within these habitats. It will be mitigated at a 1:1 ratio. As such, 2.6 hectares (6.5 acres) of Diegan coastal sage scrub and 2.0 hectares (4.8 acres) of maritime succulent scrub will be mitigated as part of the proposed project.

- To ensure that the construction and operation of Route 905 does not adversely affect highly sensitive vernal pool complexes and other vernal pools south of the alignment and west of Spring Canyon, monitoring will be conducted throughout the rainy season to determine whether surface runoff is causing erosion and sediment delivery to these resources. Monitoring will occur during the construction of Route 905 and for three years following the opening of the road to the public. A monitoring report will be submitted by August 1 following each monitoring season.
- To ensure that the construction and operation of Route 905 does not adversely affect the button-celery population at La Media Road immediately south of the Preferred Alternative's footprint, monitoring will be conducted throughout the rainy season to determine whether surface runoff is causing erosion and sediment delivery to the button-celery population. Monitoring will occur during the construction of Route 905 and for three years following the opening of the facility to the public. A monitoring report will be submitted by August 1 following each monitoring season.
- The project site will be kept clear of debris to avoid attracting predators to listed wildlife. All trash and food will be placed in sealed containers and regularly removed from the site.
- No pets will be permitted inside the project boundaries at any time.
- Vehicle speeds on unpaved access roads to the project area will be restricted to a maximum of 25 MPH.

### **Proposed Mitigation for Wildlife Movement Impacts**

The following measures will minimize impacts to wildlife movement in the vicinity of Route 905, particularly through Spring Canyon:

- A minimum 1.8 meter (6 feet) high fence will follow the length of the alignment on both sides to preclude human access into the adjacent habitat and prevent wildlife from traversing the freeway. Near the Spring Canyon wildlife crossing, the fence will be buried to a depth of approximately 0.1 meter (1 foot) to prevent animals from digging under the barrier. The fence will be installed prior to opening the new road to the public. Photographs of the installed fence will be submitted to the USFWS within two weeks of installation.
- The OCCS preserve will be connected to Spring Canyon (on the south) by a 91 meters (300 feet) long and 1.5 meters (5 feet) high culvert extending under the freeway. In addition a fenced/protected wildlife corridor (consisting of a detention basin and native vegetation) on the north side of Route 905 will be maintained between the OCCS preserve and Spring Canyon (to the west), that would be approximately 50 meters (164 feet) wide and 300 meters (984 feet) long.
- The Spring Canyon Bridge will include design features that will provide bats with potential sites for day/night roosting.
- Permanent low sodium lights will be installed at all interchanges. High pressure lighting will be used to illuminate overhead directional signs. The direction of the high pressure lighting will be focused up on the signs and away from all sensitive biological resources. No

permanent lights will be installed adjacent to sensitive biological resources, except one low sodium light required by Department safety standards approximately 19.8 meters (65 feet) north of the privately owned San Diego button-celery preserve along La Media Road. All project lighting will be directed onto the roadway or construction site and away from sensitive habitat. Light glare shield may also be used.

### **Proposed Mitigation for Invasive Species**

- No invasive, exotic plant species will be seeded or planted adjacent to or near sensitive vegetation communities or Waters of the United States. In compliance with Executive Order 13112, temporarily disturbed areas will be reseeded with plant species native to the local habitat types. Species identified on Lists A & B of the California Invasive Plant Council's list of Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999 will be avoided to the extent practicable. Areas hydroseeded for temporary erosion control will use native plant species, as well.
- All plants used in revegetation within the ROW will comply with Federal, State, and county laws requiring inspection for disease or insect infestations. The vendor will provide certification of inspection from the County of San Diego Department of Agriculture. The plants will also be inspected by the Project Landscape Inspector before accepting delivery. In all areas where stormwater runoff from the Preferred Alternative's alignment enters drainage systems that drain into the MHPA or other sensitive habitats, landscaping plans will be developed in coordination with the USFWS prior to implementation.
- All landscape designs and planting palettes will be submitted to the USFWS for approval at least 60 days prior to their scheduled implementation. All of the Route 905 landscaping will follow the USFWS approved landscaping plans.
- All container plants will be checked for the presence of Argentine ants prior to delivery to the planting locations. Any containers contaminated with Argentine ants will be immediately removed from the Project area.

### **Conclusion (CEQA)**

Direct and cumulative impacts to vernal pools within the proposed project area cannot be completely mitigated despite the proposed efforts for on and off-site preservation/restoration. All other impacts to biological resources will be mitigated.

### **CULTURAL RESOURCES**

Cultural resource studies were done to comply with Section 106 of the National Historic Preservation Act and with 36 CFR Part 800 and with CEQA. The Historic Properties Survey Report (HPSR) presents all the studies which inventory and evaluate the cultural resources located within the project's Area of Potential Effects (APE), and it assesses project effects to the one eligible historic property.

Based on evaluations conducted on the above resources, only one prehistoric archaeological site (CA-SDI-11,424), has the qualities necessary for it to be considered eligible for listing on the National Register of Historic Places and for placement on the California Register of Historical

Resources. Once field and laboratory studies confirmed the importance of this site, project plans were redesigned to avoid impacting any of the subsurface components of this resource, from which this site's significance is derived.

Otay Mesa also contains a large, diffuse surface scatter of cultural materials. A management plan for the mesa as a whole was developed as part of the HPSR to more effectively deal with this scatter.

The State Historic Preservation Officer (SHPO) concurred on the adequacy of the studies involving the inventory of cultural resources located within the project's APE, and the evaluation of those resources. Section 106 compliance was obtained on January 11, 2000 (a copy of the SHPO letter appears in Appendix E). SHPO also concurred that the proposed construction of Route 905 will have "No Adverse Effect" on any historic properties listed on, or determined eligible for listing on, the National or California registers. This is because of project redesign to avoid impacting any of the qualities that make CA-SDI-11,424 eligible for inclusion in these registers.

The proposed off-site biological mitigation areas, the Wall-Hudson parcel and Bonita Meadows, were also subject to 36 CFR Part 800 and CEQA. With respect to Wall-Hudson, three sites on the parcel will be protected within ESAs. The Federal Highway Administration (FHWA) concluded that the restoration activities associated with the Wall-Hudson mitigation parcel would have no adverse effect on the three aforementioned sites. The SHPO also concurred with this assessment on January 26, 2004. With respect to Bonita Meadows, Cultural resource inventory efforts for the Bonita-Meadows were covered during survey efforts for the SR-125-South project. The area covered by this mitigation bank fell entirely within the study corridor for various SR-125-South highway alternatives. One historic resource and nine prehistoric archaeological sites were recorded within the mitigation bank. All were evaluated and found to be ineligible for listing on the National Register of Historic Places. The SHPO concurred with this assessment on May 25, 1995.

### **Mitigation/Monitoring Measures**

ESAs will be designated around the adjacent recorded sites, and declared off-limits to construction activities. These will be delineated on the project construction plans in order to avoid impacts to these resources.

Monitoring will be conducted by a qualified archaeologist while construction takes place near archaeological site CA-SDI-11,424 to ensure that there is no impact to this site. If buried cultural materials are unearthed during construction, work will be halted in the vicinity of the find until a qualified archaeologist can assess its nature and significance.

### **HAZARDOUS MATERIALS**

An initial site assessment identified 57 sites in the study corridor with the potential to contain hazardous material. Inspections were conducted at each site as was a thorough records search and review. Of these 57 sites, 56 were identified as either having permits to use or generate hazardous wastes or as being undocumented waste piles. A majority of the 56 sites, although within the study corridor, are not within the footprint of any of the alignment alternatives. Those sites that are within, or in close proximity to, the alignment alternatives were screened and found to be devoid of sumps, pits, and tanks that would be a source of soil or groundwater contamination. Cactus Recycling, one of the 56 sites, required a Phase II investigation. The

investigation found that the site was uncontaminated. Therefore, hazardous materials and the costs associated with their removal and clean-up are not anticipated impact these 56 sites and they all represent a minimal constraint to construction.

In addition to Cactus Recycling, an unpermitted hazardous waste landfill, which occupies and fills the head of Spring Canyon adjacent to and west of Cactus Road, required a Phase II investigation. Each of the alignment alternatives impact a small portion of two properties at the northern tip of the landfill. According to a report prepared for the County of San Diego, the wastes contained within the landfill include auto-shredder waste, burn ash, and burn ash contaminated soil. The Department of Toxic Substances Control designated the burn ash as nonhazardous and classified the auto shredder waste as a special waste. A site investigation was performed for the property owner and the reports were provided to the Department for review. A County of San Diego remedial action workplan was developed for the two properties which would be impacted by the project. The selected remedial alternative was to cap the area with asphalt. The asphalt cap was constructed and three groundwater monitoring wells were installed.

The Department performed a geotechnical evaluation of the subsurface material beneath the asphalt cap. It was determined that these materials will not adequately support the Route 905 highway. The investigation concluded that the recommended treatment option is to combine a foundation treatment (recompaction of the top 1.75 meters [6 feet]) of the near-surface waste fill soils followed by placement of 1.5 meters (5 feet) clean fill surcharge, to accelerate consolidation, for a period of 60 days. This would be implemented prior to building the structural section of the proposed project through the landfill area. Any unsuitable organic material encountered during removal of the existing cap will be removed from the site and properly disposed of at the appropriate disposal facility. A total of \$700,000.00 was budgeted to pay for the disposal of the aforementioned organic materials and to repair the existing cap materials. A waste characterization study will be done prior to the removal and recompaction of the area to determine contamination levels for disposal purposes. Temporary cut slopes will be constructed no steeper than 1:1.

The Department notified the City of San Diego Local Enforcement Agency (LEA) of the proposed activities at the site. The City LEA responded by asking that the Department provide the following items for review pending approval: 1) a copy of the Community Health and Safety Plan (which the Department is currently completing) and 2) site plans showing provisions for security, grading, drainage, and maintenance. Once these are completed, they will be forwarded to the City LEA as requested.

The San Diego RWQCB advised the Department that an application for a general permit for Waste Discharge Requirements should be submitted. This permit application will be reviewed and a permit issued when the State takes possession of the affected properties. The removal of the waste and repairing of the cap would cost approximately \$700,000. This action would be included in the design and construction of Route 905.

The study corridor also includes sites allowed to store and handle small amounts of hazardous material/waste. These sites were investigated and found not to contain sumps, pits, or tanks that would be a source of soil or groundwater contamination.

The study corridor also includes sites in a number of areas with undocumented refuse thrown into the canyons and on the mesa. The majority of these sites contain landscape vegetation, concrete, and household waste. All the sites were visually inspected and it was determined that

those portions of the material sites that were amenable to a visual inspection were not hazardous. All refuse piles will need to be removed from the parcels prior to purchase by the Department. If the property owner refuses to remove the refuse piles prior to acquisition, the Department will withhold funds in escrow to accomplish the removal of the refuse. Right-of-Way demolition will remove these piles prior to construction and material will be disposed of and/or recycled. After the piles are removed, the Department will conduct a visual assessment of the underlying soil, and, if necessary, test it to confirm whether or not hazardous waste has impacted the soil. If unexpected hazardous materials are discovered during the removal of the refuse piles, the demolition crew will halt work in the area of concern, flag the area, and notify the Department's District Hazardous Waste Coordinator. A HAZMAT team in the region will arrange for waste sampling and identification, and follow established procedures for removal/ cleanup.

### **Mitigation Measures**

The Department will work closely with those government regulators having oversight of the Tripp Landfill during the final design and construction of the proposed project. This will ensure that the proposed project is compatible with, and corrects any disturbance to, the existing asphalt cap. Any project related disturbance to the Tripp Landfill would require the development and implementation of a Site Health and Safety Plan (SHSP) and a Community Health and Safety Plan (CHSP), in accordance with the current DEH Site Assessment and Mitigation Manual. The SHSP would address the need for site workers to be informed and trained on hazardous waste operations and emergency response while the CHSP would address potential exposure to adjacent properties and the general public, and present measures to protect the public from exposure.

Department standard specifications and requirements will be followed regarding hazardous materials. If unexpected hazardous materials are discovered during construction, the resident engineer will halt work in the area of concern, flag the area, and notify the Department's District Hazardous Waste Coordinator. A HAZMAT team in the region will arrange for waste sampling and identification, and follow established procedures for removal/cleanup.

### **FLOODPLAIN ASSESSMENT**

FHWA's policies and procedures for the location and hydraulic design of highway encroachments on floodplains are outlined in 23 CFR 650 Subpart A. In those policies, a 100-year floodplain) is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year" and an encroachment is defined as "an action within the limits of the base flood plain." There are no mapped regulatory floodways or mapped 100-year floodplains at any locations affected by any alignment alternative. If the aforementioned mentioned floodplain maps are not available, it is the responsibility of the agency to make a determination of the location of the floodplain based on the best available information. Accordingly, a 100-year floodplain was developed by the Department using the ACOE's water surface program (HEC-RAS) and previous floodplain studies for the area. It is referred to as the Otay Mesa floodplain. The 1989 National Flood Insurance Program (NFIP) maps identify the Otay Mesa area as an "Area of Minimal Flood Hazard."

A floodplain evaluation and a hydraulic location study were prepared for the floodplain encroachment. Each of the alignment alternatives would result in a longitudinal encroachment of the Otay Mesa floodplain east of La Media Road; specifically, the encroachment would cross the Otay Mesa floodplain area between Otay Mesa Road and Airway Road. Because any substantial

encroachment impacts would be avoided through routine design measures, the encroachment is not considered significant.

The project would not increase the risk of loss of life, nor would the highway operations be affected by flooding. For all of the alignment alternatives under consideration adequate drainage design measures would be installed, therefore avoiding an obstruction to flood flows. There are biological resources and sensitive biological species in the floodplain area, the impacts to them will be fully mitigated.

### **Measures to Minimize Impacts**

Installation of cross-culverts would allow for the continued natural flow of floodwaters and would minimize physical disturbance of the floodplain. The floodplain administrator agency for this area is the City of San Diego. The City prepared the Otay Mesa Drainage Master Plan (OMDMP). The Department is cooperating with the City in its implementation. The drainage plan for the project includes routing of off site floodwaters through the project limits within drainage facilities sized to pass the appropriate flood flows. On site flows would be contained in detention basins in accordance with IBWC and City of San Diego policies. Routine construction procedures required by the Department for all projects would minimize impacts during construction. No additional measures to minimize impacts are required.

Based on studies carried out by the California Department of Transportation on behalf of the Federal Highway Administration, no practicable alternative to the proposed alternative exists (23 CFR 650, Subpart A). All other potential alternatives are not possible within natural, social, and economic constraints. In addition, all measures to minimize potential harm within the floodplain, consistent with the regulations issued in accord with Section 2(d) of Executive Order 11988 have been taken. Further, a public notice, as required by EO 11988, has been circulated containing an explanation of why the action is proposed to be located in the floodplain.

### **ENERGY**

There would be no wasteful energy uses caused by any of the alignment alternatives. In the long term, reduced congestion would save energy.

### **NOISE**

#### **Existing Sensitive Receptors**

Two existing sensitive receptor sites were identified according to the FHWA Noise Abatement Criteria Guidelines and the 1998 Caltrans Traffic Noise Analysis Protocol. Site 1 is a single-family dwelling located immediately south of OMR between Caliente Avenue and Heritage Roads. Site 2 includes three single-family residential properties, all of which are located on Cactus Road. According to the protocol, noise abatement must be considered when:

- Existing noise levels are increased by 12 decibels (dBA) or more and

- The predicted noise level increase approaches or exceeds the Federal Noise Abatement Criteria (NAC) level of 67 dBA. Approaching the NAC means noise levels within one decibel or 66 dBA. The properties associated with Site 2 would experience either a substantial noise increase or noise levels that approach or exceed the NAC, depending on the alignment alternative.

The property associated with Site 1 would only experience noise level increases with the No Build Alternative. The existing noise levels for the properties on Cactus Road provided in Table S-1 (66dBA) are elevated due to frequent heavy truck traffic. Presently, Cactus Road is a 2-lane road which provides access to/from developed lands south of OMR. The properties associated with Site 2 would experience either a substantial noise increase or noise levels that approach or exceed the NAC.

Noise abatement measures were considered for the residences at Site 2. Chapter 4 (Section 4.15) provides a detailed discussion for all alignment alternatives on the type and level of impacts as well as the proposed noise abatement measures for each residential property. If pertinent parameters change substantially during the final project design, the preliminary noise abatement/mitigation design may be changed or eliminated from the final project design.

### **Planned/Future Developments**

Development plans within the Study Corridor include 33 private and 11 public development projects listed in Appendix C. These projects call for development of residential, commercial, and industrial uses, as well as, schools, conceptual parks and other related uses. Four of the private development projects (California Terraces/Ocean Hills, Santee Investments/Otay Mesa, Remington Hills and Riviera Del Sol) identified in Appendix C and adjacent to the proposed project completed the necessary environmental clearances. The City of San Diego conditioned the approval of these projects based upon the provision of adequate noise abatement measures in anticipation of Route 905. Each of the associated environmental documents for these four developments identified the need for appropriate noise abatement measures. California Terraces/Ocean Hills has not constructed any portion of their development adjacent to Route 905.

Development adjacent to Route 905 has occurred at the Santee Investments/Otay Mesa, Remington Hills, and Riviera Del Sol projects. These developments consist of a high school and single-family residential located on the south side of Route 905, and single-family and multi-family residential on the north side of Route 905. The Department measured the existing exterior noise level at each of these existing developments. The existing noise level was adjusted to the peak noisiest hour and the noise level range from 56-63 dBA. The existing developments have constructed soundwalls between Route 905 and the residences. The Department also determined that each of the soundwalls feasibly abates the noise level by reducing the noise level a minimum 5 dB as required by FHWA.

The Department has a responsibility to consider noise abatement measures, based upon the reasonable and feasible findings, for all potentially impacted areas that are planned and permitted prior to NEPA action on the Department project. Given the conditioned approvals described above for the four named projects, noise abatement measures for those developments were not considered as part of the Route 905 project. If additional planned developments, including but not limited to those described in Appendix C, receive the appropriate environmental clearance prior to the NEPA action on the Route 905 project, the Department will conduct the appropriate

noise analysis to determine if noise abatement measures are necessary. At this stage of the proposed project there are no noise abatement measures planned for future developments, however, prior to final design an additional noise study will be conducted if deemed necessary.

### **Noise Abatement Measures**

Noise barriers are proposed for two of the residences on Cactus Road. The barrier for one residence will be a 1.8 meters (6 feet) high a masonry wall that will provide a 6 dBA reduction. The barrier for the other residence will be a 3.0 meters (10 feet) high earthen berm that will provide a 5dBA reduction. A noise barrier for the third residence on Cactus Road is not proposed because one barrier option is not reasonable and the other is not desired by the owner of the residence.

The potential visual impact and mitigation measures, associated with the noise abatement measures, are discussed in Chapter 4, Section 4.9.3.

### **AIR QUALITY**

The proposed project would not result in new exceedences of air quality standards. The level and nature of projected air quality effects are similar for all alignment alternatives. Microscale air pollution exposure at the selected receptor sites, as characterized by future carbon monoxide (CO) levels, range between approximately 7 and 13 ppm (parts per million) for 1-hour CO levels, and 4.1 to 7.6 ppm for 8-hour CO levels. These levels are well within the acceptable CO concentrations for state, federal and Occupational Safety and Health Administration (OSHA) standards. The proposed project will not cause or contribute to any new localized PM-10 violations or increase the frequency or severity of any existing PM-10 violations. The proposed project is included in the SANDAG Regional Transportation Plan (2030 RTP). The 2030 RTP was adopted on March 28, 2003 by SANDAG. A conformity finding on the 2030 RTP was issued by United States Department of Transportation and adopted on April 9, 2003. Additionally, the proposed project is included in the Regional Transportation Improvement Program (2002 RTIP), which was adopted on June 28, 2002 by SANDAG. It is a multi-year program of regional transportation improvements for major state highway, local street and road, transit, and non-motorized projects. The 2002 RTIP covers the fiscal years 2003 - 2007. FHWA issued a conformity finding on the RTIP on October 4, 2002.

The proposed project was included in all regional transportation plans and there were no substantial changes in design and scope since the adoption of these plans. Both the RTP and RTIP are required to be financially constrained and must be within air quality budgets contained in the SIP. This proposed project fully conforms to the implementation plan's purpose of attaining and maintaining national ambient air quality standards. The proposed project meets all criteria for a finding of conformity with the SIP.

### **CONSTRUCTION IMPACTS**

Construction activities cause temporary impacts with respect to air quality, noise levels, erosion, and access or traffic circulation. These impacts are not considered substantial. The proposed project would interfere with local traffic causing some delays and occasionally disrupting access. OMR would not be closed; detours would ensure traffic would continue to flow. Fire and safety service providers, and local businesses would therefore not experience substantial impacts.

## Measures To Reduce Construction Impacts

### Air Quality

- Compliance with the Department's Standard Specifications Section 10 "Dust Control".
- Compliance with the Department's Standard Specifications regarding air pollution control.
- Apply water to site and equipment as frequently as necessary to control dust.
- Spread soil binders on site, unpaved roads, and parking areas.
- Wash off trucks and equipment before leaving the site, as necessary.
- Properly tune and maintain equipment.
- Use low-sulfur fuel for equipment.

### Noise

- No pile driving at night (7:00 pm to 7:00 am), on weekends, or on State and Federal holidays near identified sensitive receptors on Cactus and Heritage Roads, or near any that may be identified during on site monitoring.
- Proposed noise barriers will be constructed as a first order of work within the designated abatement areas, where feasible. If not feasible as first order of work, construct temporary barriers until such time that proposed barriers can be constructed.

### Water Quality

- Compliance with the Department NPDES permit, the SWMP, the Storm Water Quality Handbooks, and the Standard Specifications..
- Use of temporary and permanent BMPs to minimize erosion and sedimentation.

### Traffic Circulation and Access

- Preparation of a traffic management plan, which ensures that clearly identifiable access to and from homes and businesses will be retained.
- Regional circulation will be maintained and local circulation will be accommodated via detours.
- A public awareness program will be developed to inform the public of the upcoming detours and construction schedule.
- Emergency providers (fire, police, and medical) will be informed of all detours. Pedestrian and bicycle access will be maintained.
- Construction signage, signalization, or flag-persons will be used during construction in areas with pedestrian access.

Despite the duration of the construction period, and noise impacts in certain areas, the overall impact would be minor, due to the small number of sensitive receptors near the construction zone.

## CUMULATIVE IMPACTS

Cumulative impacts to vernal pools are considered substantial when considered with other highway and development projects in southern San Diego County. Cumulative impacts for all other resources are not considered substantial. Planned development in the area would result in substantial cumulative impacts to resources on Otay Mesa. Developments and their mitigation measures are governed by each of three local land use plans which provide for the orderly, timely, and environmentally sensitive nature of land use development. Because the extent,

timing, and nature of future growth is governed by property owners and the local agencies charged with overseeing development plans, the Department cannot assume responsibility for secondary environmental impacts and mitigation related to growth. Chapter 4, Section 4.8 provides detailed discussion on growth impacts, and Chapter 4, Section 4.21, provides a detailed discussion of the cumulative impacts related to Route 905 and the other related projects. Appendix C lists the known development projects in the Otay Mesa area and provides a detailed presentation of cumulative resource impacts from the associated development projects.

### **IMPACTS NOT SUBSTANTIAL (UNDER CEQA)**

The following would either have no impact, or have only a minor impact with no mitigation measures warranted: geologic hazards, air quality, energy and coastal zone. The project has no effect on the coastal zone, which is approximately 4.8 kilometers (3 miles) to the west.

### **IMPACTS NOT SUBSTANTIAL AFTER MITIGATION (UNDER CEQA)**

The following impacts will not be substantial after incorporation of these mitigation measures: hydrology/drainage, socioeconomic, visual, biological resources (except vernal pools), water quality, hazardous materials, floodplain, noise, paleontological resources, cultural resources and construction impacts. The mitigation measures for each of these impacts are found in Chapter 4.

### **IMPACTS REMAINING SUBSTANTIAL AFTER MITIGATION (UNDER CEQA)**

Impacts to vernal pools (direct and cumulative), and the secondary impacts of growth would be substantial, even after the implementation of mitigation measures.

### **NO PROJECT ALTERNATIVE**

With the No Build Alternative, there would be no impacts to existing resources, homes or businesses, nor would it cause secondary impacts due to growth. Substantial traffic increases would occur as well as congestion along OMR. Congestion would result in travel delays, lower accessibility, longer response times for emergency vehicles and less timely opportunity for growth and planned development.

### **MAJOR ACTIONS PROPOSED BY OTHERS**

There are 33 private and 11 public development plans or proposals, in either Final or Tentative Map stages, which are located within the Route 905 Study Corridor. They consist of residential, commercial, airport, industrial, and other developments and are listed in Appendix C of this FEIS/FEIR, and discussed in detail in Chapter 4 (Section 4.6.5).

### **AREAS OF CONTROVERSY**

No controversy or opposition to the proposed project has been recorded at public involvement meetings to date. The public appears to support the alignment alternatives by indicating they believe the project is justified. There is widespread support for the project from local citizens, groups, and agencies.

## ISSUES TO BE RESOLVED

Relevant issues to be resolved before implementation of this project are listed below. Impact issues are fully discussed in Chapter Four.

- Detailed drainage design and drainage features, including decisions on size and location of detention basins; consultation with City of San Diego/IBWC.
- Permits and approvals must be obtained (see the next section).

## PERMITS AND APPROVALS

The following permits and/or approvals will be required from the respective responsible agencies prior to construction:

- A streambed alteration agreement (Section 1602) will be needed from the CDFG .
- ACOE Section 404 Permit (Individual).
- A Section 401 certification (or waiver thereof) will be required from the RWQCB; water quality issues are addressed prior to issuance of the Section 404 Permit.
- To satisfy Section 402 of the Clean Water Act, a Notice of New Construction (Form) will be provided to the San Diego RWQCB, per the Waste Discharge Requirements and NPDES Permit No. CAS029998 for the California Department of Transportation permit requirements adopted on March 12, 1997.
- California Transportation Commission approval of the project, and Route Adoption.
- Freeway Agreements (City of San Diego, County of San Diego).

On December 27, 1993, the Department signed an interagency Memorandum of Understanding (MOU) committing to integrating NEPA and Section 404 of the Clean Water Act in transportation planning, programming, and implementation stages for projects requiring an individual permit under Section 404. In letters dated July 15, 1998; August 27, 1998; and July 22, 1998; the USFWS, EPA, and ACOE, respectively, concurred with the project's purpose and need and alignment alternatives under study. These letters are included in Chapter Six, Comments and Coordination, (Figures 6-3, 6-4, and 6-5). Final concurrence from ACOE on the alignment alternatives was received on March 23, 2000.

### NEPA 404 Integration Process Update

In 1995, the Department began coordinating with the federal resource agencies, including the USFWS, ACOE, EPA to implement the NEPA-404 Integration Process for the Route 905 project. The project's alternatives were developed during meetings with these resource agencies, along with the California Department of Fish and Game, in order to minimize biological resource impacts. Further minimization of impacts to natural resources also occurred during the preliminary design phase.

The October 30, 2000 revised interim thresholds for the NEPA-404 Integration Process, issued by the FHWA, prompted the Department to request the Route 905 Project's withdrawal from the NEPA-404 Integration Process. These interim thresholds stated that projects with impacts of five acres or less to special aquatic sites, or impacts of five acres or less to other WUS, would no longer be required to follow the NEPA-404 Integration Process. At the time of the circulation of the DEIS/DEIR, the proposed project impacts were well below the new interim thresholds.

Based on the coordination, the USFWS, EPA, ACOE, and FHWA concurred with the Department's request to withdraw the Route 905 Project from the NEPA-404 Integration Process.

After the public circulation of the DEIS/DEIR, the Department received an October 16, 2001 comment letter from the ACOE (Chapter 6, with responses) which stated that the Department needed to update the draft wetland delineation. The 1999 wetlands delineation for the DEIS/DEIR was prepared based on language in the Preamble to Part 328 of the Corps' 1986 regulations, which states that the ACOE typically does not consider as waters of the United States, drainage ditches excavated out of dry land. This was applied to a trapezoidal channel (Drainage 7) which is impacted by the project. Based on a Corps site review and a review of historical aerial photography, the Corps took regulatory jurisdiction of the area in June, 2003. There are 1.42 hectares (3.5 acres) of impacts to Drainage 7. Another area previously considered non-jurisdictional, is the Sanyo site (Drainage 8). The ACOE requested additional information on this site. They determined that the area was not isolated and took regulatory jurisdiction. This represents 1.66 hectares (4.11 acres) of impact. The ACOE confirmed this delineation of waters within the project area. After consultation with the ACOE, the impacts to jurisdictional waters changed; they are now over the threshold for a Nationwide permit and the interim threshold of 5 acres. These additional impacts to jurisdictional waters are common to all alignments. Current calculations indicate that the magnitude of impacts would be 3.48 hectares (8.49 acres) for the North Alignment Alternative, 3.10 hectares (7.68 acres) for the Central Alignment Alternative, and 3.09 hectares (7.66 acres) for the South Alignment Alternative for those areas regulated by the two resource agencies. None of the additional jurisdictional impacts are a result of project design changes.

Because of the close coordination between the Department, FHWA, ACOE, USFWS, and EPA, these agencies collectively concurred that the steps outlined in Appendix A of the NEPA/404 MOU were not needed to successfully complete the environmental review of the Route 905 project. The Freeway-Central Alignment Alternative (with a bridge) is the Preferred Alternative, and also the LEDPA as required under Section 404. Moreover, the agencies collectively provided input to the Department as it developed and refined the required conceptual wetland mitigation plan. Therefore, as agreed by these agencies, the formal NEPA/404 MOU will not be applied to this project.

The Department will continue to work closely with all of the resource agencies to maintain communication and coordination throughout the proposed project's development.

### **Route 905 FEIS/FEIR – Document Locations**

The FEIS/FEIR and the updated/new technical studies for Route 905 are available at the following locations:

Caltrans District – 11  
2829 Juan Street  
San Diego, CA 92186

City of San Diego – Central Library  
820 E Street  
San Diego, CA 92101

Otay Mesa – San Diego Branch Library  
3003 Coronado Avenue  
San Diego, CA 92154

San Ysidro – San Diego Branch Library  
101 West San Ysidro Boulevard  
San Diego, CA 92173

South Chula Vista Library  
389 Orange Avenue  
Chula Vista, CA 91911

TABLE S-1 (REVISED) - SUMMARY OF ALTERNATIVE IMPACTS

ALTERNATIVE/IMPACTS	Freeway Alternative			Tollway Alternative			No Project Alternative
	North Alignment	Preferred	South Alignment	North Alignment	Central Alignment	South Alignment	
<b>SOCIOECONOMICS</b>							
Homes Displaced	1	1	1	4	4	4	0
Business Displaced	3	3	3	3	3	3	0
Community Character/Cohesion	Minor Effect	Minor Effect	Minor Effect	Minor Effect	Minor Effect	Minor Effect	None
Consistency w/Local Land Use Plans	Yes	Yes	Yes	Yes	Yes	Yes	No
Support Planned Growth	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>FARMLAND LOSSES:</b>							
Prime	1.6 ha (4 ac)	1.6 ha (4 ac)	1.6 ha (4 ac)	1.6 ha (4 ac)	1.6 ha (4 ac)	1.6 ha (4 ac)	0
Local/Statewide Importance	192 ha (476 ac)	189 ha (469 ac)	200 ha (495 ac)	192 ha (476 ac)	189 ha (469 ac)	200 ha (495 ac)	0
Agriculture - Active Use	35.7 ha (88.3 ac)	35.7 ha (88.3 ac)	35.7 ha (88.3 ac)	35.7 ha (88.3 ac)	35.7 ha (88.3 ac)	35.7 ha (88.3 ac)	0
<b>BIOLOGY</b>							
Vernal Pools	0.14 ha (0.34 ac)	0.04 ha (0.11 ac)	0.07 ha (0.18 ac)	0.14 ha (0.34 ac)	0.04 ha (0.11 ac)	0.07 ha (0.18 ac)	No Effect
Diegan coastal sage scrub	1.9 ha (4.6 ac)	2.1 ha (5.3 ac)	3.2 ha (7.8 ac)	1.9 ha (4.6 ac)	2.1 ha (5.3 ac)	3.2 ha (7.8 ac)	No effect
Maritime succulent scrub	1.8 ha (4.4 ac)	1.2 ha (3.0 ac)	1.4 ha (3.4 ac)	1.8 ha (4.4 ac)	1.2 ha (3.0 ac)	1.4 ha (3.4 ac)	
Southern willow scrub	1.37 ha (3.38 ac)	1.19 ha (2.95 ac)	1.18 ha (2.92 ac)	1.37 ha (3.38 ac)	1.19 ha (2.95 ac)	1.18 ha (2.92 ac)	
San Diego button-celery (loci [individuals])	3 (Unknown)	1 (15)	0 (0)	3 (Unknown)	1 (15)	0 (0)	
Otay tarplant (loci [individuals])	0 (0)	0 (0)	1 (5,140)	0 (0)	0 (0)	1 (5,140)	
San Diego fairy shrimp (# of pools)	9	4	4	9	4	4	No Effect
Riverside fairy shrimp (# of pools)	7	1	1	7	1	1	
Coastal Calif. gnatcatcher (# of pairs directly and indirectly affected)	1	2	3	1	2	3	No Effect
Quino checkerspot butterfly	1	0	0	1	0	0	
Otay Mesa mint (loci [individuals])	3 (Unknown)	0 (0)	1 (7)	3 (Unknown)	0 (0)	1 (7)	
California Orcutt grass (loci [individuals])	1 (Unknown)	0 (0)	0 (0)	1 (Unknown)	0 (0)	0 (0)	
Spreading navarretia (loci [individuals])	2 (Unknown)	0 (0)	1 (40)	2 (Unknown)	0 (0)	1 (40)	
Linne soil series	3.6 (8.8)	3.6 (8.8)	3.6 (8.8)	3.6 (8.8)	3.6 (8.8)	3.6 (8.8)	
<b>NOISE LEVELS (sensitive receptors-dBA Leq)</b>							
1708 Cactus Road	80	76	76	Not applicable	Not applicable	Not applicable	No Effect
1812 Cactus Road	75	75	75	75	75	75	No Effect
1916 Cactus Road	71	71	71	71	71	71	No Effect
<b>NOISE LEVELS (with abatement - dBA Leq)</b>							
1708 Cactus Road	73	70	70	Not applicable	Not applicable	Not applicable	No Effect
1812 Cactus Road	70	70	70	70	70	70	No Effect
1916 Cactus Road	No abatement	No abatement	No abatement	No abatement	No abatement	No abatement	No Effect
<b>WATER QUALITY (Relative General Impacts)</b>	Minor/Mitigable	Minor/Mitigable	Minor/Mitigable	Minor/Mitigable	Minor/Mitigable	Minor/Mitigable	No Effect
<b>HAZARDOUS WASTE SITES (Potential for Impact)</b>	Yes	Yes	Yes	Yes	Yes	Yes	No Effect
<b>AIR QUALITY</b>	No Excedences	No Excedences	No Excedences	No Excedences	No Excedences	No Excedences	No Excedences
<b>CULTURAL RESOURCES</b>	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
<b>VISUAL IMPACTS (after mitigation)</b>	Low	Low	Low	Low	Low	Low	No Effect
Maximum Cut Slope (length/height in feet)	9,500/70	9,500/70	8,200/70	9,500/70	9,500/70	8,200/70	No Effect
Maximum Cut Slope (length/height in meters)	2,896/21	2,896/21	2,499/21	2,896/21	2,896/21	2,499/21	No Effect
Maximum Fill Slope (length/height in feet)	6,500/40	6,500/70	7,800/30	6,500/40	6,500/70	7,800/30	No Effect
Maximum Fill Slope (length/height in meters)	1,981/12	1,981/21	2,377/9	1,981/12	1,981/21	2,377/9	No Effect
<b>RIGHT-OF-WAY hectares (acres)</b>	265 (655)	265 (655)	269 (665)	282 (697)	282 (697)	295 (729)	0
<b>TOTAL COSTS IN MILLIONS (estimate)</b>	\$309	\$309	\$313	\$327	\$332	\$336	0