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5.9 LAND USE

This section provides an assessment of the land use issues and effects resulting from the Watson Cogeneration Steam and Electric Reliability Project (Project). The 2.5-acre Project Site is within the boundary of the BP Carson Refinery and the study area is a 1 mile radius around the Project Site. The Project will not require any off-site linear facilities; all needed facilities are already currently located at the adjacent Watson Cogeneration Facility and are available at the Project Site.

Specifically, this section evaluates Project conformance with local plans, land use regulations, and general land use compatibility. Reasonably foreseeable future development within the study area is discussed in Section 5.9.2, Environmental Consequences.

Land use issues were identified and evaluated for the Project Site by conducting on-site reconnaissance surveys and reviewing current United States Geological Survey 7.5-minute topographic quadrangle maps, aerial photography, local land use ordinances, and the land use goals and policies identified in the Carson General Plan and associated maps, which are cited throughout this section.

Land uses in California are regulated using various methods of land use controls. Cities and counties in California are required by law to adopt a comprehensive, long-term General Plan for the physical development of their jurisdictional areas. These plans include a Land Use Element, which establishes a pattern of appropriate land uses and policies and guidelines for development of those uses. Local zoning ordinances, specific plans, and maps implement the Land Use Element of the General Plan. The General Plan is the broadest in scope of the planning documents; it defines large-scale planned development patterns over a relatively long time frame. The City of Carson Zoning Ordinance is the primary tool for achieving the objectives of the General Plan. The Zoning Ordinance provides detailed specifications for allowable development (e.g., density, lot size, height, setback, etc.). Other regulations governing development include grading and subdivision ordinances and building codes.

5.9.1 Affected Environment

The California Energy Commission (CEC) defines the affected environment based on the study area boundary. The City of Carson has jurisdiction over the Project Area, which includes the Construction Laydown and Parking Area, and nearly all of the study area within 1 mile of the Project Site. The Project Site is within the City of Carson. Other governmental jurisdictions within the affected environment include the City of Los Angeles, the City of Long Beach, Los Angeles County, and the State of California. The land use study area and the major jurisdictional boundaries are shown on Figure 5.9-1, Jurisdictional Map.

5.9.1.1 Regional Setting

The Project Site is located in the City of Carson, which is located in Southern California approximately 16 miles south of downtown Los Angeles, in the region known as the South Bay section of Los Angeles County. Carson is bordered to the east by the City of Long Beach and the City of Los Angeles and to the west by the City of Torrance. Los Angeles Harbor is a few miles to the south of Carson. Over the years, three annexations have increased the size of the

City of Carson to 19.2 square miles. The City of Carson is characterized by a strong manufacturing base, with about half the city's land area occupied by factories, petroleum refineries, and other industrial buildings and structures.

5.9.1.2 Project Site and Vicinity

The Project Site is a 2.5-acre brown field site located within the boundary of the existing Watson Cogeneration Facility, which is a 21.7-acre area within the 428-acre parcel further described as Assessors Parcel Number (APN) 7315-006-003, 1801 Sepulveda Boulevard, Carson, California, 90745 and is integral to BP's existing Carson Refinery (BP Refinery). The street address of the Project Site is located within the boundary of the existing Watson Cogeneration Facility at 22850 South Wilmington Avenue, Carson, California. Figure 3-2, Project Vicinity Map, depicts the Watson Cogeneration Facility (which contains the Project Site) and surrounding area. An existing warehouse/maintenance shop on a portion of the site will be removed as part of the Project. The Project Site is located approximately 0.7 mile south of the 405 Freeway, roughly bounded by Wilmington Avenue to the west, East Sepulveda Boulevard to the south, and South Alameda Street to the east.

The Project Site elevation is approximately 32 feet above mean sea level (MSL). Because the site is located within the existing refinery property boundary, the Project Site and surrounding areas are highly developed, and have been subject to disturbance for many years.

The Project's primary objective is to provide additional process steam in response to the refinery's process steam demand. The Project complements the existing cogeneration facility located within the confines of the refinery. The existing facility has four GE 7EA combustion turbine generators (CTGs), four heat recovery steam generators (HRSGs), and two steam turbine generators. The Project consists of adding a fifth CTG/HRSG to the existing configuration and is referred to as the "fifth train."

The Construction Laydown and Parking Area is a paved 25-acre parcel located approximately 1 mile southeast of the Project Site, at the northeast corner of East Sepulveda Boulevard and South Alameda Street. The area is owned by BP and is currently used as a truck parking and staging area.

No off-site improvements associated with the Project, such as water supply, natural gas or wastewater pipelines, are currently planned for the Project. The Project will connect to the existing supply pipelines currently located at the facility.

5.9.1.3 General Plan and Zoning Designation

As proposed by Watson Cogeneration Company (Applicant), the Project is consistent with the City of Carson General Plan, the City of Long Beach General Plan, the City of Los Angeles General Plan, the Wilmington–Harbor City Community Plan, and the zoning designation for the Project Site, with the approval of a Director Classification Conditional Use Permit (CUP).

The Project Site is designated as Heavy Industrial by the Land Use Element of the City of Carson General Plan and is accordingly zoned Heavy Manufacturing (MH). According to the City of Carson Zoning Ordinance, petroleum refining, oil reclaiming, and coal or coal tar distillation are allowed in an MH district with a Director Classification CUP.

General Plans

City of Carson General Plan

The City of Carson Land Use Element of the General Plan includes goals and policies that function as a guide to the ultimate pattern of development for the city (City of Carson 2004). Its objectives, policies, and programs relate directly to the other elements in the plan. The City of Carson General Plan has nine elements: Land Use; Economic Development; Transportation and Infrastructure; Housing; Safety; Noise; Open Space and Conservation; Parks, Recreation, and Human Services; and Air Quality. The City of Carson is committed to creating an attractive environment for its citizens by developing, implementing, and enforcing community design guidelines that ensure quality development and the maintenance and beatification of properties (City of Carson 2004). Each element of the General Plan contains goals, policies, and implementation measures pertinent to proposed development. These policies are summarized in Table 5.9-5, Summary of Laws, Ordinances, Regulations, and Standards (LORS) – Land Use. Zoning, subdivision approvals, and other regulations and actions must be consistent with the City of Carson General Plan.

City of Long Beach General Plan

The affected environment of the Project includes the City of Long Beach; thus, the City of Long Beach General Plan is also relevant to the Project. The City of Long Beach General Plan consists of ten elements: Open Space, Housing, Air Quality, Transportation, Land Use, Seismic Safety, Local Coastal Program, Noise, Public Safety, and Conservation. The goals and policies that are pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

City of Los Angeles General Plan

The affected environment of the Project includes the City of Los Angeles; thus, the City of Los Angeles General Plan is also relevant to the Project. The City of Los Angeles General Plan consists of 10 elements: Air Quality, Conservation, Historic Preservation and Cultural Resources, Housing, Infrastructure Systems, Noise, Open Space, Public Facilities and Services, Safety, and Transportation. The goals and policies that are pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

City of Los Angeles General Plan Framework Element

The General Plan Framework is a strategy for long-term growth that defines citywide policies influencing most of the City's General Plan elements. The Framework includes policies for Land Use, Housing, Urban Form and Neighborhood Design, Open Space and Conservation, Economic Development, Transportation, Infrastructure and Public Services. The goals and policies pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

Wilmington–Harbor City Community Plan

The Wilmington–Harbor City Community Plan is a part of the City of Los Angeles General Plan; therefore, the Wilmington–Harbor City Community Plan is also relevant to the Project. The area covered by the Wilmington–Harbor City Community Plan is situated in the far southern portion of the Los Angeles Basin, near Los Angeles Harbor. It is located between the planning

communities of Harbor Gateway, San Pedro, and the Port of Los Angeles and is adjacent to the cities of Torrance, Lomita, Rancho Palos Verdes, Carson, Long Beach, and an unincorporated area of Los Angeles County. The goals and policies pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

Conditional Use Permit Process

The City of Carson Zoning Ordinance, Section 9172.21, requires a CUP for certain uses of land or types of businesses that are not allowed as matter of right. The City of Carson Planning Commission shall approve a CUP if it is able to make affirmative findings based on the four criteria listed below.

1. **The proposed use and development will be consistent with the City of Carson General Plan.**

   The proposed use is consistent with the land use designation of Heavy Industrial as set forth in the City of Carson General Plan. The use is also consistent with the General Plan goals and policies pertinent to proposed development as summarized in Table 5.9-5, Summary of LORS – Land Use.

2. **The site is adequate in size, shape, topography, location, utilities, and other factors to accommodate the proposed use and development.**

   The site for the proposed use (i.e., the Project Site) is adequate in size and shape to accommodate the use of the site as an expansion of the existing Watson Cogeneration Facility.

3. **There will be adequate street access and traffic capacity.**

   The construction period for the Project will last approximately 26 months. The size of the construction workforce will range from 22 during month 1 to a peak of about 80 during month 12. Adequate water supply will be provided for fire protection.

   The proposed use will not be detrimental to the public welfare or injurious to property or improvements in the area in which the property is located.

4. **The proposed use and development will be compatible with the intended character of the area.**

   The proposed use, cogeneration expansion, will not have an adverse effect on the abutting properties, as the properties surrounding the Project Site are also zoned MH. The proposed use is self-contained and will not have any spillover or negative effects on adjacent manufacturing operations. The surrounding uses, which are listed in Table 5.9-1, Project Site and Surrounding Land Uses (Within 1 Mile of Project Site), will not be adversely affected by the construction or operation of the Project.

   The CEC maintains lead agency status for the licensing process associated with the Project. However, the involvement of the City of Carson in the consideration of a Director Classification CUP allows the local agency to review the Application for Certification (AFC) for the Project on its own terms. Thus, the Applicant will work with the City of Carson to answer any questions or resolve any potential issues associated with the Project.

The Project Applicant will work with the City of Carson to obtain findings for the CUP criteria.

The existing land uses at the Project Site and the surrounding study area are shown in Table 5.9-1, Project Site and Surrounding Land Uses (Within 1 Mile of Project Site).

Table 5.9-1
Project Site and Surrounding Land Uses
(Within 1 Mile of Project Site)

Zoning Code	Zoning Designation	Existing Land Use(s)
City of Carson		
CG&D	General Commercial& Design Overlay	General Commercial
CG&D	General Commercial& Design Overlay	Low Density
CG&D	General Commercial& Design Overlay	Regional Commercial
CG&D	General Commercial& Design Overlay	General-Open Space
CG&D-RS	General Commercial& Design Overlay-Single Family Residential	General-Open Space
CG	Commercial, General	General Commercial
CN	Commercial Neighborhood	Heavy Industrial
CN	Commercial Neighborhood	Medium Density
MH	Manufacturing, Heavy	Heavy Industrial
MH	Manufacturing, Heavy	Regional Commercial
MH	Manufacturing, Heavy	Public Facilities
MH	Manufacturing, Heavy	Heavy Industrial
MH	Manufacturing, Heavy	General-Open Space
MH	Manufacturing, Heavy	Business Park
MH	Manufacturing, Heavy	Light Industrial
ML&D	Light Manufacturing & Design Overlay	Light Industrial
ML	Manufacturing, Light	Regional Commercial
ML	Manufacturing, Light	General-Open Space
ML	Manufacturing, Light	Light Industrial
ML	Manufacturing, Light	Heavy Industrial
ML	Manufacturing, Light	Public Facilities
OS	Open Space	Heavy Industrial
OS	Open Space	General-Open Space
OS	Open Space	Recreational Open Space
R5	Residential (14-25 units/acre)	Low Density Residential
RM	Residential, Multiple Dwelling	High Density Residential
RM-10	Residential, Multiple Dwelling (10 units/acre)	Medium Density Residential
RM25	Residential, Multiple Dwelling (25 units/acre)	High Density Residential
RM25-MH	Residential, Multiple Dwelling (25 units/acre)-Heavy Manufacturing	Light Industrial
RM25U	Residential, Multiple Dwelling (25 units/acre)-Urban Zone	High Density Residential
RS	Residential, Single-Family	Low Density Residential
RS	Residential, Single-Family	Light Industrial
RS	Residential, Single-Family	General-Open Space
RS	Residential, Single-Family	High Density Residential
RS	Residential, Single-Family	Public Facilities
RS	Residential, Single-Family	Regional Open Space
RS	Residential, Single-Family	Medium Density Residential
RS	Residential, Single-Family	General Commercial

Table 5.9-1
Project Site and Surrounding Land Uses
(Within 1 Mile of Project Site)

Zoning Code	Zoning Designation	Existing Land Use(s)
City of Long Beach		
CCA	Community Commercial Automobile-Oriented	Mixed-Use
CCA	Community Commercial Automobile-Oriented	Moderate Density
CCA	Community Commercial Automobile-Oriented	General-Commercial
CCA	Community Commercial Automobile-Oriented	High Density-Residential
CCA	Community Commercial Automobile-Oriented	Business Park
CCA	Community Commercial Automobile-Oriented	Traditional Retail
CCA	Community Commercial Automobile-Oriented	General-Open Space
CCA	Community Commercial Automobile-Oriented	Low Density-Residential
CCR	Community Moderate-density Multiple Residential Commercial	General-Commercial
CCR	Community Moderate-density Multiple Residential Commercial	Traditional Retail
CCR	Community Moderate-density Multiple Residential Commercial	Public Facilities
CCR	Community Moderate-density Multiple Residential Commercial	Low Density-Residential
CCR	Community Moderate-density Multiple Residential Commercial	Mixed-Use
CCR	Community Moderate-density Multiple Residential Commercial	High Density-Residential
CCR	Community Moderate-density Multiple Residential Commercial	Mixed Retail
CCR	Community Moderate-density Multiple Residential Commercial	Vacant
CNA	Neighborhood Commercial Automobile-Oriented	General-Commercial
CNA	Neighborhood Commercial Automobile-Oriented	Public Facilities
CNA	Neighborhood Commercial Automobile-Oriented	High Density-Residential
CNA	Neighborhood Commercial Automobile-Oriented	Mixed-Use
CNA	Neighborhood Commercial Automobile-Oriented	Shopping Nodes
CNA	Neighborhood Commercial Automobile-Oriented	Low Density-Residential
I	Institutional	General-Open Space
I	Institutional	Public Facilities
IL	Light Industrial	Light Industrial
P	Park	General-Open Space
PD13	Planned Development	High-Density Residential
PPR/	Park/ Public Right-of-Way	Light Industrial
PR	Public Right-of-Way	Light Industrial
PR	Public Right-of-Way	Low Density-Residential
PR	Public Right-of-Way	General-Open Space
PR-RIN	Public Right-of-Way Single-family Residential, standard lot	Light Industrial
R1N	Single-family Residential, standard lot	Low Density-Residential
R1N	Single-family Residential, standard lot	Medium Density-Residential
R1N	Single-family Residential, standard lot	Townhomes
R1N	Single-family Residential, standard lot	General-Commercial
R1N	Single-family Residential, standard lot	General-Open Space
R1N	Single-family Residential, standard lot	Light Industrial
R1N	Single-family Residential, standard lot	Public Facilities
R34	Low-density Multi-family Residential	Medium Density-Residential
R34	Low-density Multi-family Residential	Low Density-Residential
R34	Low-density Multi-family Residential	Institutional and School
R34	Low-density Multi-family Residential	Public Facilities
R34	Low-density Multi-family Residential	General-Commercial

Table 5.9-1
Project Site and Surrounding Land Uses
(Within 1 Mile of Project Site)

Zoning Code	Zoning Designation	Existing Land Use(s)
R34	Low-density Multi-family Residential	High Density-Residential
R34	Low-density Multi-family Residential	Vacant
R34	Low-density Multi-family Residential	Major Commercial Corridor
R3T	Multi-family Residential, Townhouse	Low Density-Residential
R3T	Multi-family Residential, Townhouse	Medium Density-Residential
R3T	Multi-family Residential, Townhouse	Mixed-Use
R3T	Multi-family Residential, Townhouse	General-Commercial
R3T	Multi-family Residential, Townhouse	High Density-Residential
R3T	Multi-family Residential, Townhouse	Public Facilities
R3T	Multi-family Residential, Townhouse	Business Park
R4R	Moderate-density Multiple Residential	High Density-Residential
R4R	Moderate-density Multiple Residential	Light Industrial
R4R	Moderate-density Multiple Residential	Moderate Density
R4R	Moderate-density Multiple Residential	Major Commercial Corridor
RM	Mobile homes, modular and manufactured residential	Moderate Density
City of Los Angeles		
M2	Light Industrial	Light Industrial
M3	Heavy Industrial	General-Open Space
M3	Heavy Industrial	Light Industrial
M3	Heavy Industrial	Industrial
M3	Heavy Industrial	Heavy Industrial
MR2	Restricted Light Industrial	Industrial
PF	Public Facilities	General-Open Space
R1	One-Family	Low Density-Residential

Sources: City of Carson 1977, 2004; City of Long Beach 1982, 1996; City of Los Angeles 1996, 1999, 2002.

Potentially Sensitive Land Uses

Potentially sensitive land uses within the affected area include residential units, schools, parks, day care centers, places of worship, one nursing home and a fire station.

Residential neighborhoods exist to the north (approximately 3,000 feet from Project Site), southwest (approximately 4,700 feet from Project Site), and east (approximately 5,800 feet from Project Site). Five schools are located within the affected environment, including Elizabeth Hudson Elementary, Saint Lucy's School, Stephens Middle School, Webster Elementary, and Carnegie Middle School. Also, three parks are located within the study area, including Hudson Park, Silverado Park, and Calas Park**.**

Four day care centers are located within the affected environment; all four are located along the perimeter of the 1-mile study area. The four day care centers are Webster Head Start, Palos Verdes Hills Cooperative Nursery School, Friendship Children's Center and Silverado Children's Center. Twelve places of worship are located within the affected area and are primarily located along Santa Fe Avenue to the west of the site and along East Carson Street to the north of the site. The Santa Fe Convalescent Hospital is a nursing home located

approximately one mile northwest of the site. Carson City Fire Station #127 is located north of the site along East 223rd Street between Alameda Street and Wilmington Avenue.

No agricultural uses exist within the affected environment. Therefore, no land will be converted from agriculture production as a result of the Project; nor will any prime farmlands be affected by the Project. Section 5.4, Agriculture/Soils, describes the proximity of prime or unique farmland, as designated by the Natural Resources Conservation Service. Section 5.4 also addresses any potential Project-related effects on farmlands of statewide importance, as designated by the California Department of Conservation.

These land uses are shown in Figure 5.9-2, Sensitive Land Uses Within 1 Mile of the Site. No other potentially sensitive land uses are located within the study area.

Land Use Element

"Heavy Industrial" is a primary land use designation categorized under the Land Use Element of the City of Carson General Plan. The purpose of the Heavy Industrial land use designation is to provide for a full range of industrial uses that are acceptable within the community but whose operations require provisions for controlling adverse effects on the more sensitive areas of the city.

This land use designation is implemented as the MH zoning district.

MH District

The Project Site is zoned MH pursuant to Part 4, Section 9141.1 of the City of Carson Zoning Ordinance. Several additional zoning designations exist within 1 mile of the Project Site. Zoning designations are provided in Table 5.9-2, Project Site and Surrounding Zoning (Within 1 Mile of Project Site). The purpose of the Zoning Ordinance is to translate the broad land use categories established in the City of Carson General Plan into detailed land use classifications that are applied to property with much greater precision than is possible in the General Plan. The City of Carson has identified the Project Site as a merged and amended redevelopment area. Because of this designation, all property taxes generated by the development of the Project will remain in local hands for local uses for the first 10 years of the Project.

Table 5.9-2
Project Site and Surrounding Zoning
(Within 1 Mile of Project Site)

City of Carson	
CG&D	General Commercial & Design Overlay
CG&D-RS	General Commercial & Design Overlay–Single Family Residential
CG	Commercial, General
CN	Commercial Neighborhood
MH	Manufacturing, Heavy
ML&D	Light Manufacturing & Design Overlay
ML	Manufacturing, Light
OS	Open Space
R5	Residential (14–25 units/acre)
RM	Residential, Multiple Dwelling
RM-10	Residential, Multiple Dwelling (10 units/acre)
RM25	Residential, Multiple Dwelling (25 units/acre)

Table 5.9-2
Project Site and Surrounding Zoning
(Within 1 Mile of Project Site)

RM25-MH	Residential, Multiple Dwelling (25 units/acre)–Heavy Manufacturing
RM25U	Residential, Multiple Dwelling (25 units/acre)–Urban Zone
RS	Residential, Single-Family
City of Long Beach	
CCA	Community Commercial Automobile-Oriented
CCR	Community Moderate-density Multiple Residential Commercial
CNA	Neighborhood Commercial Automobile-Oriented
I	Institutional
P	Park
PD13	Planned Development
PPR/	Park/ Public Right-of-Way
PR	Public Right-of-Way
PR-RIN	Public Right-of-Way Single-family Residential, standard lot
R1N	Single-family Residential, standard lot
R34	Low-density Multi-family Residential
R3T	Multi-family Residential, Townhouse
R4R	Moderate-density Multiple Residential
RM	Mobile homes, modular and manufactured residential
City of Los Angeles	
M2	Light Industrial
M3	Heavy Industrial
MR2	Restricted Light Industrial
PF	Public Facilities
R1	One-Family

Source: City of Carson 1977; City of Long Beach 1982; City of Los Angeles 2002.

The MH zoning district was created primarily for the full range of industrial uses that are acceptable within the community as a whole, with provisions for controlling any adverse effects on the more sensitive areas of the City.

Typical uses prohibited in MH areas are residential uses, commercial uses, and various processing operations.

No other plan, designation, or overlay districts apply to the Project Site.

Figure 5.9-3, Zoning and Planned Land Use, presents the location of land uses with respect to the Project Area. Section 5.4, Agriculture/Soils, provides an assessment of the Project effects on soil resources in the Project Area.

Site Control

The Project Site is part of the existing Watson Cogeneration Facility. The maintenance shop for the facility is currently located on the Project Site. The existing warehouse/maintenance shop will be removed as part of the Project. The original plans for Watson Cogeneration Facility anticipated the addition of fifth train at the Project Site.

The land use agreement with the BP Carson Refinery grants the Applicant the right to use 21.7 acres of land and easements for a cogeneration facility within the confines of the refinery.

5.9.1.4 Construction Laydown, Equipment Staging, and Worker Parking Area

An area for construction laydown, material and equipment staging, and worker parking will be required during Project construction. The proposed Construction Laydown and Parking Area is a 25-acre parcel located 0.7 mile southeast of the Project Site.

This area is currently a vacant paved parking area for the BP coke barn. The Construction Laydown and Parking Area can be accessed using the 405 Freeway and traveling south 1 mile on South Alameda Street. From the Project Site, the Construction Laydown and Parking Area is accessed on existing paved roadways as follows: travels south on South Alameda Street to East Sepulveda Boulevard and then to Wilmington Avenue, a driving distance of approximately 2 miles. The Construction Laydown and Parking Area will revert back to its current use as a parking/storage area on completion of Project construction.

5.9.1.5 Summary of Recent Actions of the Planning Department of the City of Carson

The City of Carson has identified two long range projects located within the Project study area: the Alameda Corridor Improvement Study and the Shell Specific Plan. The proposed Alameda Corridor Improvement Study consists of major improvements along the Alameda Corridor to reduce delays, improve safety, and enhance traffic flows north of the Project Site. The Study is currently considering the potential installation of a sound wall to provide noise mitigation for train and diesel truck noise along Alameda Street between Dominguez Street and the 405 Freeway. The Shell Specific Plan is a proposal by Shell Oil Products US to redevelop the 446-acre Shell Carson Terminal facility, which is located approximately 1.5 miles north of the Project Site. The Shell Specific Plan will allow for the subsequent development of additional product storage tanks and light industrial storage.

5.9.1.6 Zoning Trends

The City of Carson Development service has not identified any trends in recent zoning changes. The City of Carson General Plan indicates that most of the land in the City is already devoted to industrial and low-density residential uses. However, a new category of Mixed Use zone district was added in 2006. The Mixed Use designation is not applicable to the area of the Project Site and should have no effect on the Project.

5.9.2 Environmental Consequences

This section discusses the potential effects of site preparation, heavy equipment delivery, construction, and operation and maintenance on existing land uses and land use resources within 1 mile of the Project Site and the Construction Laydown and Parking Area. This section also discusses potential cumulative effects.

Other issues related to land use are addressed in Section 5.2, Air Quality, Section 5.11, Traffic/Transportation, Section 5.12, Noise, and Section 5.13, Visual Resources.

5.9.2.1 Project Site

Site Preparation

Site preparation for Project construction will include the demolition or removal of some known existing underground man-made structures located on the Project Site, including warehouse foundations, piping systems, and maintenance access roads. Wherever possible, materials will be recycled. Any residual demolition waste will be disposed of in an approved construction waste landfill.

The planned location of the Project is generally flat, with an elevation of approximately 32 feet above MSL, and is above the 100-year flood elevation. A balanced cut and fill operation will be implemented to prepare a level site for Project equipment. This preparation will require the movement of approximately 25,000 cubic yards of material. Movement of material will be limited to that required to establish a level site for Project equipment and facilities. No fill is anticipated to be needed, but in the event fill is required, material present on-site is expected to be adequate, subject to final geotechnical evaluation.

Foundation excavations will be prepared as required for the CTG, transformers, and other heavy equipment. These excavations may require dewatering. Water withdrawn from excavations as part of construction will be treated, if required, and properly disposed of according to applicable LORS.

Before excavation activities are started, an appropriate reconnaissance will be preformed to locate existing underground structures, such as the existing fire water line, and appropriate measures will be taken to protect or remove the existing structures as required.

Stormwater discharges from construction activities, including site preparation, are subject to the Best Management Practices designed and implemented for construction activities.

The area to be used for construction laydown, equipment staging, and worker parking is an existing paved area on the northeast corner of the intersection of East Sepulveda Boulevard and South Alameda Street. This area is not expected to require any preparation. Craft labor and construction management personnel will park at this designated area and be bused to the Project Site.

Heavy Equipment Delivery

Both the Project Site and the Construction Laydown and Parking Area are accessible by rail and major freeway. The primary equipment for the Project, such as the CTG and transformers, will be delivered to the Project Site by special conveyance due to their weight and size. Although this equipment may be delivered to the site by rail, deliveries of material and equipment will typically be made by truck.

Construction

Project construction is expected to take approximately 26 months from site mobilization to commercial operation. To achieve this schedule, the equipment that requires a long lead time to manufacture (i.e., the CTG, the HRSG, and the Generator Step-up Unit Transformer) will be

designed and purchased in advance of the CEC's final decision on the AFC. However, the site mobilization and construction activities will not take place before the air permit is obtained.

Construction activities have the potential to create temporary effects to local roadways along the access route. Construction activities may also create additional noise, dust, and emissions from grading equipment and other construction vehicles. Information on these issues is provided in Section 5.2, Air Quality, and Section 5.12, Noise.

Businesses located near the Project Site may experience short-term effects associated with Project construction, including visual disruption, dust, increased traffic, and equipment and vehicle emissions (see Section 5.2, Air Quality, Section 5.11, Traffic/Transportation, Section 5.12, Noise, and Section 5.13, Visual Resources). However, the effects resulting from construction will not be significant. Also, the Project will comply with applicable noise standards.

Overall, construction activities will result in short-term land use effects. However, due to the compatibility of the Project with existing land uses in the area of the Project Site, the small traffic increase likely to occur during Project construction will result in a less-than-significant effect.

Operation and Maintenance

No changes are proposed to the land uses or zoning designations in the area surrounding the Project Site as a result of Project operation. Petroleum refining, oil reclaiming, and coal or coal tar distillation are permitted uses in the MH district with a Director Classification CUP. Because the primary purpose of the Project is to provide process steam to the refinery, it is considered an allowable use and a refinery component.

The Project Site has been used as the BP Carson Refinery. The proposed use of the Project Site, to expand the combustion turbine power facility to provide additional process steam to the BP Carson Refinery, is consistent with the City of Carson General Plan. The character of and uses on and around the Project Site will not be changed as a result of the Project.

The Project layout is consistent with the property development standards for the MH zoning district. Section 9146.12 of the Zoning Ordinance states that for industrial uses no height limit applies provided yard spaces are included with a project.

No habitat conservation plan or natural community conservation plan applies to the area within or near the Project Site.

Abandonment/Closure

The effects resulting from the permanent closure of the Project will be addressed in the Project Closure Plan and will be evaluated at the end of the Project operating life.

5.9.2.2 Construction Laydown, Equipment Staging and Worker Parking Area

The land uses in the vicinity of the construction laydown, equipment staging, and worker parking area will most likely experience temporary disturbances related to air quality, traffic, noise, and

visual resources during Project construction. Effects are not considered significant due to the temporary nature of the construction.

5.9.3 Cumulative Effects

The assessment of cumulative effects for this Project is based on a review projects found on web pages of the following agencies or entities: City of Carson, City of Long Beach, South Coast Air Quality Management District, Port of Los Angeles, Joint Power Authority, and the Alameda Corridor Transportation Authority. Figure 5.9-4, Projects Within the Vicinity of the Project Site, shows the locations of the cumulative projects.

The City of Carson Development Summary indicated two long range projects in the Project vicinity that may have traffic and air quality effects: the Alameda Corridor Improvement Study (See Number 11 on Figure 5.9-4) and the Shell Specific Plan, which is the Shell Oil Products US redevelopment of the 446-acre Shell Carson Terminal facility located at 20945 South Wilmington Avenue (see Number 18 on Figure 5.9-4) (City of Carson, 2007).

The City of Carson has also approved several refinery and industrial projects located within one mile of the Project Site, or within the land use study area. These projects are presented in Table 5.9-3, Related Projects Within 1 Mile of Project Site.

Table 5.9-3
Related Projects Within 1 Mile of Project Site

Map No.	Address/Location	Project Name and Description	Distance from Project Site
1	22850 S. Wilmington Avenue	BP Safety, Compliance and Optimization Project: A safety, compliance and optimization project that includes physical changes and additions to multiple process units and operations as well as operational and functional improvements within the confines of the existing refinery.	< 1 mile
7	2254 East 223rd Street (Located south of East 223rd Street and west of South Alameda Street)	Development of outdoor recreational facilities, open space and a parking area adjacent to the newly-constructed four-story BP office campus.	< 1 mile
9	2000 E. Sepulveda Boulevard (Adjacent to the southeast intersection of Alameda Street and Sepulveda Boulevard)	Kinder Morgan: Construction of 18 petroleum storage tanks to an existing Kinder Morgan Energy Partners tank farm.	< 1 mile
10	2365 E. Sepulveda Boulevard	Chemoil Project: Construction of seven new storage tanks and related piping, pumps and control systems to an existing petroleum storage facility.	< 1 mile
13	2116 E. 220th Street (located along 220th Street between South Wilmington Avenue and South Alameda Street)	Development of a 153,725 square foot industrial building.	< 1 mile
16	22850 S. Wilmington Avenue (located north of Lomita Boulevard between South Wilmington Avenue and South Alameda Street)	BP Crude Logistics Optimization Program: Construction of two new crude oil storage tanks on a 28-acre site.	< 1 mile

Source: Watson Cogeneration Steam and Electric Reliability Project Team, 2008.

Several other projects have been identified that are located greater than one mile from the Project Site, or outside the land use study area, but may contribute to cumulative effects. Table 5.9-4,

Related Projects Greater Than 1 Mile from Project Site, lists those projects that have recently been constructed or are reasonably expected to proceed in the foreseeable future, i.e., project information has been submitted to a public agency. Projects 9 and 10 appear in both tables because portions of these projects are within 1 mile of the Project Site and other portions are farther away.

Table 5.9-4
Related Projects Greater Than 1 Mile from Project Site

Map No.	Project Name	Project Type	Project Description	Distance from Project Site
2	ICTF Expansion and Modernization Project	Intermodal container facility	An increase in the number of containers handled at the ICTF from the current average of 725,000 to an estimated 1.5 million annually.	> 1 mile
3	I-710 Freeway Upgrades	Freeway upgrades	Multi-modal, timely, cost effective transportation solutions to traffic congestion and other mobility problems along approximately 18 miles of the I-710, between the San Pedro Bay ports and SR 60.	> 1 mile
4	Southern California International Gateway (SCIG) Project	Near-dock rail facility	Construction and operation of a 157 acre dock rail yard intermodal container transfer facility.	> 1 mile
5	Ultramar Olympic Tank Farm	Refinery	A lease renewal between the Port of Los Angeles and Ultramar Inc., for continued operation of the marine terminal facilities at Berths 163–164, as well as associated tank farms and pipelines.	> 1 mile
6	2001 River Avenue, Long Beach	Residential development	An 81-unit family transitional housing development at Century Villages at Cabrillo.	> 1 mile
8	ConocoPhillips Tank Project	Industrial	Removal of seven existing petroleum storage tanks and replacement with six new tanks.	> 1 mile
9	Kinder Morgan	Industrial	Construction of 18 new, 80,000-barrel product storage tanks and one new, 30,000-barrel transmix storage tank with related piping, pumps, and control systems on the southwestern portion of the existing Carson Terminal facility.	> 1 mile
10	Chemoil Project	Industrial	Construction of two petroleum storage tanks and associated relocation of utilities and reconfiguration of adjoining marine terminal uses between Berths F210 and F211 on Pier F.	> 1 mile
12	ACTA – SR-47 Port Access	Highway improvement	Replacement of the Schuyler Heim Bridge with a fixed structure and improvements to the SR 47/Henry Ford Avenue/Alameda Street transportation corridor.	> 1 mile
14	Smart Energy Transport System Project (Phase I)	Pipeline	A jet fuel pipeline that originates at the Vopak Terminal in Wilmington, connects to the Kinder Morgan Watson Pump Station in Carson and terminates at Los Angeles International Airport.	> 1 mile
15	Pacific LA Marine Crude Terminal	Port-related	Construction and operation of a new marine terminal at Berth 408 on Pier 400.	> 1 mile
17	Tesoro Proposed Project	Refinery	Refinery modifications to improve reliability and comply with regulations, including modifications to an existing Claus Unit to improve sulfur recovery.	> 1 mile

Source: Watson Cogeneration Steam and Electric Reliability Project Team, 2008.

Based on a review of the projects both within and outside the 1-mile land use study area, no significant cumulative effects to land use will result from the Project. Many of the recent environmental effects in the South Bay area in which the Project is located stem from expanding industrial, commercial, mixed use, business park uses, and the associated transportation and circulation issues. The operation of the Project would not have a significant effect on commercial, mixed use, business park, or industrial growth or transportation. The Project will be operated using the existing staff at the Watson Cogeneration Facility and therefore no new employees will be needed for Project Operation. Thus, the Project will not result in the relocation of new employees to the City of Carson or the commuting of employees from outside of Los Angeles County. Thus, as mentioned above, the Project's effects to land use planning and public policy will be minimal and no significant cumulative effects will result from the Project.

5.9.4 Mitigation Measures

The Project will not cause any significant adverse land use effects and will not conflict with existing land use activities in the area of the Project Site. Therefore, no land use mitigation measures were identified.

5.9.5 Laws, Ordinances, Regulations, and Standards

The LORS related to land use and their applicability to the Project are summarized in Table 5.9-5, Summary of LORS – Land Use. The Project will be constructed and operated in compliance with all applicable land use LORS, as discussed below.

Table 5.9-5
Summary of LORS – Land Use

LORS	Applicability	Administering Agency	Conformance (AFC Section)
Federal			
No federal LORS have been identified.			
State			
California PRC Section 25523(a); 20 CCR Sections 1752, 1752.5, 2300–2309, and Chapter 2, Subchapter 5, Appendix B, Part (I)(3) and (4)	Evaluate compatibility of the Project with relevant land use plans.	CEC	5.9.5.2
California State Planning Law, Government Code Sections 65300–65302	Requires each city and county to adopt a comprehensive general plan for the physical development of the county or city. Requirements identify contents of general plan. All affected jurisdictions have adopted a general plan. No Project action is required.	City of Carson City of Long Beach City of Los Angeles County of Los Angeles	5.9.5.2
Local			
City of Carson General Plan City of Long Beach General Plan City of Los Angeles General Plan	Comply with all applicable land use provisions.	City of Carson Planning and Development Services City of Long Beach Development Services City of Los Angeles Department of City Planning	5.9.1.3, 5.9.5.3

Table 5.9-5
Summary of LORS – Land Use

LORS	Applicability	Administering Agency	Conformance (AFC Section)
City of Carson Zoning Ordinance	Comply with applicable policies, development standards, and specific zoning requirements.	City of Carson Planning and Development Services	5.9.5.3
City of Long Beach Zoning Ordinance		City of Long Beach Development Services	
City of Los Angeles Zoning Ordinance		City of Los Angeles Department of City Planning	
City of Carson Municipal Code	Comply with all applicable City ordinances.	City of Carson Planning and Development Services	5.9.5.3
City of Long Beach Municipal Code		City of Long Beach Development Services	
City of Los Angeles Municipal Code		City of Los Angeles Department of City Planning	
City of Carson General Plan–2004, Objectives and Policies, Objective LU-6.6	Attract land uses that generate revenue to the City of Carson while maintaining a balance of other community needs, such as housing, open space, and public facilities.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-6.8	Manage truck-intensive users.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-IM 6.3	Coordinate land use and circulation patterns to ensure proper circulation capacity and infrastructure.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-7.2	Locate truck-intensive uses in areas where the location and circulation pattern will provide minimal effects on residential and commercial uses.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-7.3	Promote the use of buffers between more intensive industrial uses and residential uses.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-9	Aggressively enforce city's codes.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-12	Create a visually attractive appearance throughout Carson.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-12.5	Improve city appearance by requiring landscaping to screen, buffer, and unify new and existing development. Mandate continued upkeep of landscaped areas.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-12.7	Require new development to incorporate street tree planting mature enough to shade and beautify the area.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective ED-5.4	Encourage local industries and businesses to hire local people.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective SAF-1.1	Continue to require all new development to comply with the most recent City Building Code seismic design standards.	City of Carson Planning and Development Services	5.9.5.3

Table 5.9-5
Summary of LORS – Land Use

LORS	Applicability	Administering Agency	Conformance (AFC Section)
City of Carson General Plan–2004, Objectives and Policies, Objective SAF-2.4	As development intensifies and/or as redevelopment occurs in the city, ensure that storm drain systems are adequate to accommodate any intensification of uses as well as existing uses.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective LU-3.1	Continue to ensure that each development or neighborhood in the city has adequate emergency ingress and egress.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective SAF-4.1	Strictly enforce federal, state, and local laws and regulations relating to the use, storage, and transportation of toxic, explosive, and other hazardous and extremely hazardous materials to prevent unauthorized discharges.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective N-1.1	Continue to implement the city's Noise Ordinance and Noise Control Program.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective N-3.2	Continue to incorporate noise assessments into the environmental review process for both transportation-related and development projects along the Alameda Corridor. Normally acceptable[1] noise levels for industrial uses are defined as 50 and 70 dBA, noise levels between 70 and 75 dBA are conditionally acceptable[2], and noise levels between 75 and 85 dBA are defined as normally unacceptable.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective AQ-2	Air quality that meets state and federal standards.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective AQ-2.6	Encourage in-fill development near activity centers and along transportation routes.	City of Carson Planning and Development Services	5.9.5.3
City of Carson General Plan–2004, Objectives and Policies, Objective AQ-IM-2.4	Encourage those companies with high truck volumes to use the Alameda Corridor.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9113.1	Defines MH Heavy Manufacturing District.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9141.1	Defines uses subject to CUP.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Part 4, Division 6	Defines property development standards within MH district.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9145.2	Provides regulations for lot area.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9145.4	Provides regulations for lot dimensions.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9146.12	Provides regulations for building height.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9146.23-25	Provides regulations for yards.	City of Carson Planning and Development Services	5.9.5.3

Table 5.9-5
Summary of LORS – Land Use

LORS	Applicability	Administering Agency	Conformance (AFC Section)
City of Carson Zoning Ordinance Section 9146.27	Provides regulations for space between buildings.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9146.3	Provides regulations for fences, hedges, and walls.	City of Carson Planning and Development Services	5.9.5.3
City of Carson Zoning Ordinance Section 9146.6	Provides regulations for loading spaces.	City of Carson Planning and Development Services	5.9.5.3
City of Long Beach General Plan – 1996, Goals, LU-1	Manage growth to have an overall beneficial effect on the City's quality of life.	City of Long Beach Planning and Development Services	5.9.5.3
City of Long Beach General Plan – 1996, Policy, AQ 4.3.9	Encourage aggressive enforcement of air quality regulations by the AQMD.	City of Long Beach Planning and Development Services	5.9.5.3
City of Long Beach General Plan – 1996, Goals, N-1	To reduce the level of noise exposure to the population caused by demolition and construction activities.	City of Long Beach Planning and Development Services	5.9.5.3
City of Long Beach General Plan – 1996, Goals, N-2	To reduce the level of outdoor noise exposure to the population generated by industries.	City of Long Beach Planning and Development Services	5.9.5.3
City of Los Angeles General Plan – 1996, Goals, LU-3.1.9	Assure that fair treatment of people of all races, cultures, incomes and education levels with respect to the development, implementation and enforcement of environmental laws, regulations, and policies, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in early planning stages through notification and two-way communication.	City of Los Angeles Planning and Development Services	5.9.5.3
City of Los Angeles General Plan – 1996, Policy, 1.3.1	Minimize particulate emissions from construction sites.	City of Los Angeles Planning and Development Services	5.9.5.3
City of Los Angeles Wilmington–Harbor City Community Plan – 1999 Objective-19-1	To implement the policies of the California Coastal Act of 1976 in the areas of Wilmington designated within Coastal Zone, allowing for maximum opportunities for public access and recreational/educational activities, and to encourage coastal-dependent activities and facilities to locate in the Coastal Zone.	City of Los Angeles Planning and Development Services	5.9.5.3

Sources: City of Carson 1977, 2004; City of Long Beach 1996; City of Los Angeles 1996, 1999.

Notes:

[1] Normally Acceptable-Specified land use is satisfactory based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

[2] Conditionally Acceptable-New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning will normally suffice.

AQMD = Air Quality Management District
CCR = California Code of Regulations
CEC = California Energy Commission
CUP = Conditional Use Permit
dBA = decibels
MH = Heavy Manufacturing
LORS = laws, ordinances, regulations, and standards
PRC = Public Resources Code

5.9.5.1 Federal

No federal LORS apply to the land use associated with the Project.

5.9.5.2 State

California Public Resources Code Section 25523(a); 20 California Code of Regulations Sections 1752, 1752.5, 2300–2309, and Chapter 2, Subchapter 5, Appendix B, Parts (l) (3) and (4)

These codes require that the Applicant evaluate the compatibility of the Project with relevant land use plans. The administering agency for this authority is the CEC. Conformance is discussed in Section 5.9.5.3, Local.

California State Planning Law, Government Code Sections 65300–65302

This code requires each planning agency to prepare and the legislative body of each county and city to adopt a comprehensive General Plan for the physical development of the county. The General Plan shall address seven mandatory elements, including a land use element.

The administering agency for these state requirements is City of Carson. Conformance is discussed in Section 5.9.5.3, Local.

5.9.5.3 Local

City of Carson Policy Compatibility

The City of Carson General Plan Land Use includes goals and policies that function as a guide to the ultimate pattern of development for the city (City of Carson 2004). The objectives, policies, and programs of the General Plan Land Use relate directly to the other elements in the General Plan. There are nine elements: Land Use; Economic Development; Transportation and Infrastructure; Housing; Safety; Noise; Open Space and Conservation; Parks, Recreation, and Human Services; and Air Quality. The City of Carson is committed to creating an attractive environment for its citizens by developing, implementing, and enforcing community design guidelines that ensure quality development and the maintenance and beatification of properties (City of Carson 2004). Each element contains goals, policies, and implementation measures pertinent to proposed development. These policies are summarized in Table 5.9-5, Summary of LORS – Land Use. Zoning, subdivision approvals, and other regulations and actions must be consistent with the City of Carson General Plan.

Land Use Element Policy

Industrial land use policies from the City of Carson General Plan that apply to the Project are discussed below.

Policy 6.6

Policy: Attract land uses that generate revenue to the City of Carson while maintaining a balance of other community needs such as housing, open space, and public facilities.

Project conformance: The City of Carson identifies the Project Site as a merged and amended redevelopment area. This status adds the benefit that all property taxes generated by the development of the Project will remain in local hands for local uses for the first 10 years of the Project.

Policy 6.8

Policy: Manage truck-intensive users.

Project conformance: Both the Project Site and the Construction Laydown and Parking Area are accessible by rail and major freeway. The primary equipment for the Project, such as the CTG and transformers, will be delivered to the Project Site by special conveyance due to their weight and size. Although this equipment may be delivered to the site by rail, deliveries of material and equipment will typically be made by truck, using the designated truck route within the city.

Policy 7.2

Policy: Locate truck-intensive uses in areas where the location and circulation pattern will provide minimal effects on residential and commercial uses.

Project conformance: The Applicant or its general contractor will use the City of Carson's designated truck route to access the Construction Laydown and Parking Area and the Project Site during construction.

Policy 7.3

Policy: Promote the use of buffers between more intensive industrial uses and residential uses.

Project conformance: The Project Site is zoned MH and is surrounded by other industries within the MH district. The closest residential neighborhood exists approximately 3,000 feet to the north of the site. An existing landscape buffer exists along Wilmington Avenue to buffer the neighborhood from intensive uses.

Policy 9

Policy: Aggressively enforce City's codes.

Project conformance: The Project will comply with all City codes.

Policy 12.5

Policy: Improve city appearance by requiring landscaping to screen, buffer, and unify new and existing development. Mandate continued upkeep of landscaped areas.

Project conformance: An existing landscape buffer exists along Wilmington Avenue to provide a buffer between residential areas and intensive uses. The Applicant will maintain the existing landscape buffer.

Economic Development Policies

Economic development policies from the City of Carson General Plan that apply to the Project are discussed below.

Policy 5.4

Policy: Encourage local industries and business to hire local people.

Project conformance: The Project will draw additional employees from the local employment pool during the construction phase.

Safety Policies

Industrial safety policies from City of Carson General Plan that apply to the Project are discussed below.

Policy 1.1

Policy: Continue to require all new development to comply with the most recent City Building Code seismic design standards.

Project conformance: Project structures and their foundations and equipment anchors will be designed according to the 2007 California Building Code and applicable portions of the Los Angeles County Building Code. Should there be a conflict in code requirements, the more conservative requirements will govern.

Policy 2.4

Policy: As development intensifies and/or as redevelopment occurs in the city, ensure that storm drain systems are adequate to accommodate any intensification of uses as well as existing uses.

Project conformance: All water used to construct and operate the Project will be supplied from existing systems within the BP Carson Refinery. All wastewater produced by the Project will be directed to existing system within the refinery. Stormwater will be collected on-site within the existing system. No additional sanitary systems are required for the Project.

Policy 4.1

Policy: Strictly enforce federal, state, and local laws and regulations relating to the use, storage, and transportation of toxic, explosive, and other hazardous and extremely hazardous materials to prevent unauthorized discharges.

Project conformance: A variety of chemicals will be stored and used by the Project during both construction and operation. Transportation, storage, handling, and use of all chemicals will be in accordance with applicable LORS. Chemical storage and handling areas are designed with appropriate containment to collect any potentially contaminated wastes and to avoid any cross contamination of other systems or areas. Berm and drain piping design will allow a full-tank capacity spill with appropriate margin, without overflowing the containment berms.

Noise Policies

Industrial noise policies from the City of Carson General Plan that apply to the Project are discussed below.

Policy 1.1

Policy: Continue to implement the city's Noise Ordinance and Noise Control Program.

Project conformance: The Applicant will meet the intent of this program by addressing the CEC compliance verification measures.

Policy 3.2

Policy: Continue to incorporate noise assessments into the environmental review process for both transportation-related and development projects along the Alameda Corridor. Normally acceptable noise levels for industrial uses are defined as 50–70 decibels (dBA), noise levels between 70–75 dBA are conditionally acceptable, and noise levels between 75–85 dBA are defined as normally unacceptable.

Project conformance: The proposed and approved projects along the Alameda Corridor have the potential to increase the existing noise levels. The Project will increase existing noise levels by less than 1.0 dBA. This level of increase is insignificant. In view of the proposed and approved projects in the vicinity of the Project, the future contribution to the noise environment from the Project is also less than significant.

Air Quality Policies

Air quality policies from the City of Carson General Plan that apply to the Project are discussed below.

Goal 2

Policy: Air quality that meets state and federal standards.

Project conformance: The Project design will incorporate air pollution emission controls designed to meet South Coast Air Quality Management District Best Available Control Technology standards. These controls will include dry low–nitrogen oxide combustors in the CTG to limit nitrogen oxide production, selective catalytic reduction with anhydrous ammonia for additional nitrogen oxide reduction in the HRSG, an oxidation catalyst to control carbon monoxide and volatile organic compounds emissions. Fuels to be used will be pipeline-specification natural gas, refinery gas, or a mix of the pipeline-specification natural gas and refinery gas in the HRSG duct burner.

Policy 2.4

Policy: Encourage those companies with high truck volumes to use the Alameda Corridor.

Project conformance: The City of Carson's designated truck route will be used to access the Construction Laydown and Parking Area and the Project Site during construction and the Project Site during operation.

Policy 2.6

Policy: Encourage in-fill development near activity centers and along transportation routes.

Project conformance: The Project Site is located in close proximity to the 405 Freeway and Wilmington Avenue. The Project is considered an in-fill development, as the Project Site is within the existing BP Carson Refinery and is adjacent to the existing Watson Cogeneration Facility.

City of Carson Municipal Code Compatibility

This code includes the regulatory, penal, and administrative ordinances for the City of Carson. A list of applicable Carson City Municipal and Zoning Code Ordinances is included in Table 5.9-5, Summary of LORS – Land Use.

According to the City of Carson Zoning Ordinance, petroleum refining, oil reclaiming, and coal or coal tar distillation are allowed in an MH district with a Director Classification CUP (see Section 5.9.1, Affected Environment). Because the primary purpose of the Project is to provide process steam to the refinery, it is considered an allowable use and a refinery component.

The city can process this Project by Section 9141.1. This section permits uses subject to a Director Classification CUP as long as the use is not expressly prohibited.

The Project will be designed and constructed to meet the zoning requirements of the current MH zoning district.

City of Long Beach Policy Compatibility

The affected environment of the Project includes the City of Long Beach. Thus, the City of Long Beach General Plan is also relevant to the Project. The City of Long Beach General Plan consists of 10 elements: Open Space, Housing, Air Quality, Transportation, Land Use, Seismic Safety, Local Coastal Program, Noise, Public Safety, and Conservation. The goals and policies pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

Land Use Element Policy

Industrial land use policies from the City of Long Beach General Plan that apply to the Project are discussed below.

Policy 1

Policy: Manage growth to have an overall beneficial effect on the city's quality of life.

Project Conformance: The Project Site is situated in a developed industrial area designated for redevelopment and will therefore contribute to directing growth to targeted areas.

Air Quality Element Policy

Air quality policies from the City of Long Beach General Plan that apply to the Project are discussed below.

Policy 4.3.9

Policy: Encourage aggressive enforcement of air quality regulations by the Air Quality Management District.

Project Conformance: The Project design will incorporate air pollution emission controls designed to meet South Coast Air Quality Management District Best Available Control Technology standards.

Noise Element Policy

Noise policies from the City of Long Beach General Plan that apply to the Project are discussed below.

Policy 1

Policy: To reduce the level of noise exposure to the population caused by demolition and construction activities.

Project Conformance: As with most major projects, construction of the Project will result in temporary increases to ambient noise levels. The magnitude of the increases will depend on the type of construction activity, the noise levels generated by various pieces of construction equipment, the duration of the construction phase, and the distance between the noise sources and receiver.

Construction will occur over the course of daytime shifts, though it is possible that extensions of the basic workday or moderate amounts of evening or weekend work will be required. However, construction activities associated with higher increases in ambient noise levels will typically take place only during weekday daytime hours.

Noise levels may vary widely, depending on the phase of construction and specific tasks being performed. For example, during site preparation, heavy equipment for grading, excavation, and pad construction would be required, including backhoes, front-end loaders, dump trucks, and concrete trucks. Alternatively, on-site fabrication during the equipment installation phase would require portable generators, air compressors, welding machines, etc.

As shown in Table 5.12-14, Projected Construction Noise Levels (dBA), L_{eq} levels are predicted to range from 44 dBA to 52 dBA at nearby residential receivers. The noise emissions presented are those expected outdoors, and a building or home would provide significant attenuation of these levels. Specifically, noise levels within homes and dwellings will be up to 27 dBA lower (with windows closed). Even in homes with open windows, indoor noise levels will be up to 17 dBA lower than outdoor levels (USEPA 1974).

Policy 2

Policy: To reduce the level of outdoor noise exposure to the population generated by industries.

Project Conformance: Noise levels are less than 70 dBA along the entire Project Site boundary and are therefore lower than the City of Carson's maximum allowable noise level of 70 dBA at industrial receiver land uses.

City of Los Angeles Policy Compatibility

The affected environment of the Project includes the City of Los Angeles. Thus, the City of Los Angeles General Plan is also relevant to the Project. The City of Los Angeles General Plan consists of 10 elements: Air Quality, Conservation, Historic Preservation and Cultural Resources, Housing, Infrastructure Systems, Noise, Open Space, Public Facilities and Services, Safety, and Transportation. The goals and policies that are pertinent to proposed development are summarized in Table 5.9-5, Summary of LORS – Land Use.

Land Use Element Policy

Land use policies from the City of Los Angeles General Plan that apply to the Project are discussed below.

Policy 3.1.9

Policy: Ensure fair treatment of people of all races, cultures, incomes and education levels with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in early planning stages through notification and two-way communication.

Project Conformance: The planning process for the Project will incorporate a public involvement component, and the public will have the opportunity to comment on and discuss issues related to the Project.

Policy 1.3.1

Policy: Minimize particulate emissions from construction sites.

Project Conformance: Particulate emissions with a diameter of less than 10/2.5 microns ($PM_{10}/PM_{2.5}$) for the CTG/HRSG will be limited to 10.0 pounds per hour by the use of natural gas and limited quantities of refinery gas with sulfur content not greater than 40 ppm and by the use of good combustion practices.

5.9.5.4 Agencies and Agency Contacts

Agency contacts for agencies with jurisdiction to issue applicable permits and/or enforce LORS related to land use are provided in Table 5.9-6, Agencies and Agency Contacts. A complete list of the applicable City of Carson Municipal Ordinance sections and Zoning Code Ordinance objectives are included in Table 5.9-5, Summary of LORS – Land Use.

Table 5.9-6
Agencies and Agency Contacts

Agency	Contact/Title	Telephone
City of Carson Planning Department 701 East Carson Street Carson, CA	Sheri Repp-Loadsman Planning Manager	310-830-7600
City of Long Beach Department of Planning and Building 333 West Ocean Boulevard, 5th Floor Long Beach, CA 90802	Angela Reynolds, AICP Planning Officer	562-570-6354
City of Los Angeles Planning Department 200 North Spring Street, 5th Floor Los Angeles, CA 90012	Mike Cham Port of Los Angeles Planner Jeff Pool Wilmington Planner	310-732-3771 213-978-1165

Source: Watson Cogeneration Steam and Electric Reliability Project Team, 2008.
Note:
AICP = American Institute of Certified Planners

5.9.5.5 City of Carson Permits and Approvals Required

The following permits and approvals are required for the Project from the City of Carson.

A building permit will be required before commencement of the construction proposed for the Project. The City of Carson has adopted the 2001 California Building Standards Code. The Project will submit the building permit application and the plan check fees before issuance of building permits. Building permits are non-discretionary and require approximately three weeks to obtain.

The use of the site as a power generation facility will necessitate a Director Classification CUP. The findings required for approval are described in Section 5.9.1, Affected Environment.

Table 5.9-7, Permits Required, lists the permits required for the Project.

Table 5.9-7
Permits Required

Issuing Agency	Type of Permit	Schedule
City of Carson	Building Permit	30 days
	Grading	30 days
	Conditional Use Permit	10 to 12 months

5.9.6 References

CEC (California Energy Commission). 2000. Practice and Procedure and Power Plant Site Certification Regulations.

CEQA (California Environmental Quality Act). 2004. Guidelines for the Implementation of the California Environmental Quality Act.

City of Carson. 1977. Carson Municipal Code. City of Carson Development Services.

City of Carson. 2004. General Plan. City of Carson Development Services.

City of Carson. 2007. Carson General Plan. City of Carson Planning Division.

City of Carson. 2007. Development Summary.

City of Long Beach. 1982. Municipal Code. City of Long Beach Department of Planning and Building

City of Long Beach. 1996. General Plan. City of Long Beach Department of Planning and Building.

City of Los Angeles. 1979. General Plan. City of Los Angeles Development Services.

City of Los Angeles. 1996. The Citywide General Plan Framework. City of Los Angeles Development Services.

City of Los Angeles. 1999. Wilmington–Harbor City Community Plan. City of Los Angeles Planning Department.

City of Los Angeles. 2002. Municipal Code. City of Los Angeles Planning Department.

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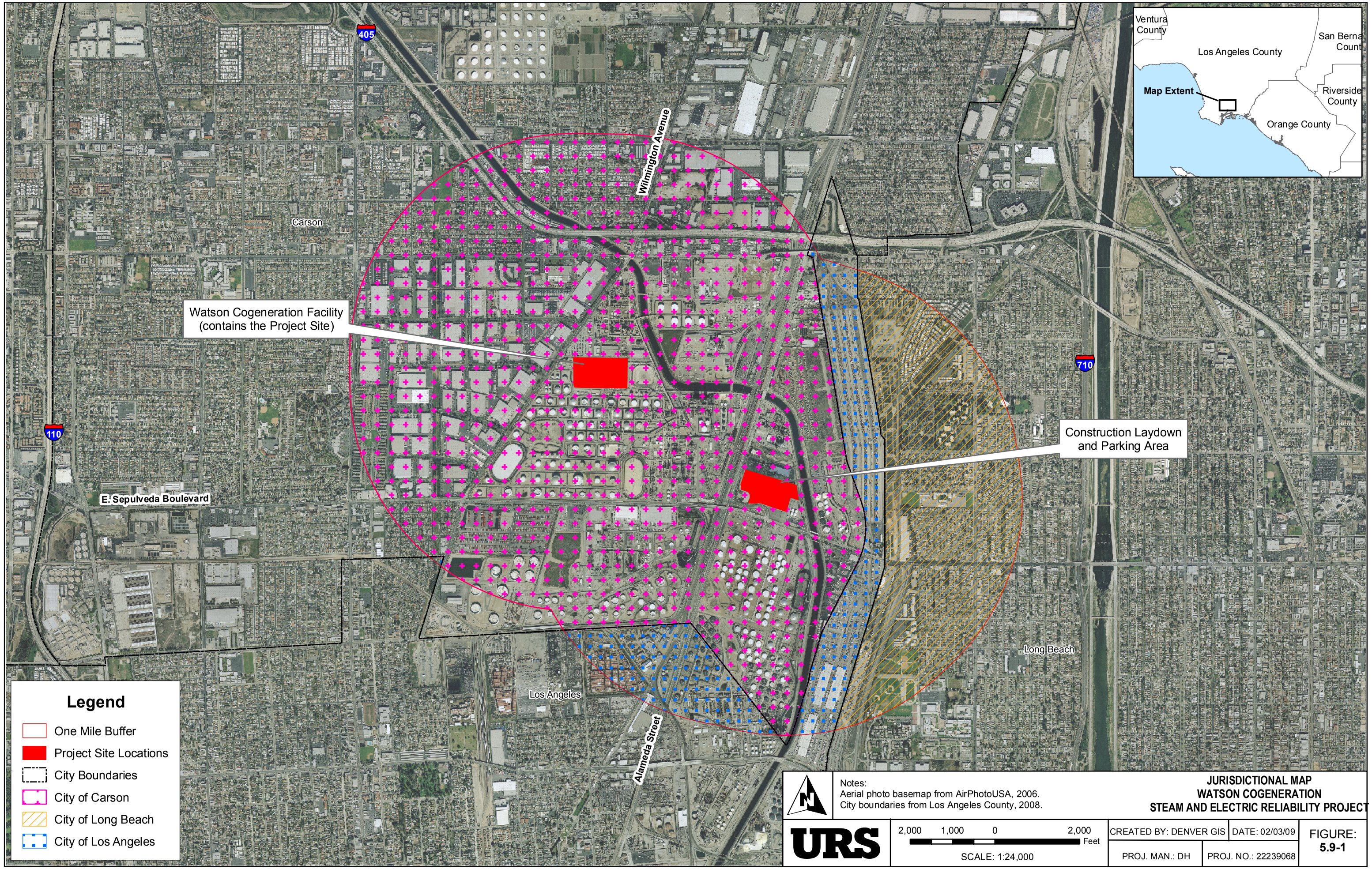


Notes:
Aerial photo basemap from AirPhotoUSA, 2006.
City boundaries from Los Angeles County, 2008.

JURISDICTIONAL MAP
WATSON COGENERATION
STEAM AND ELECTRIC RELIABILITY PROJECT

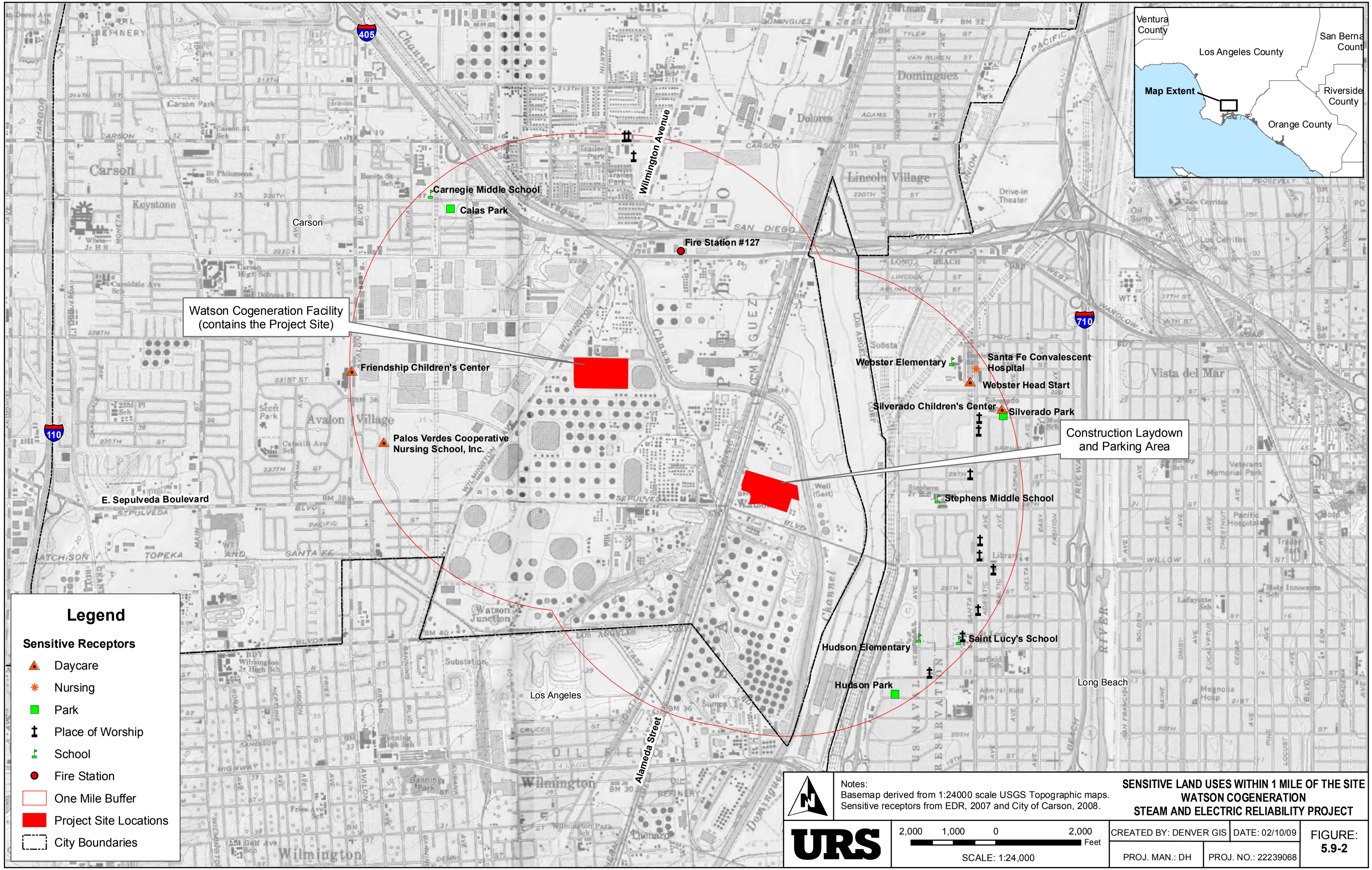
URS

2,000 1,000 0 2,000 Feet

SCALE: 1:24,000

CREATED BY: DENVER GIS	DATE: 02/03/09	FIGURE: 5.9-1
PROJ. MAN.: DH	PROJ. NO.: 22239068	

Path: Y:\GIS\Projects\BP_Carson_Cogen\mxds\fig5-9-1_jurisdictional.mxd



Notes:
Basemap derived from 1:24000 scale USGS Topographic maps.
Sensitive receptors from EDR, 2007 and City of Carson, 2008.

SENSITIVE LAND USES WITHIN 1 MILE OF THE SITE
WATSON COGENERATION
STEAM AND ELECTRIC RELIABILITY PROJECT

URS

2,000 1,000 0 2,000 Feet

SCALE: 1:24,000

CREATED BY: DENVER GIS | DATE: 02/10/09

PROJ. MAN.: DH | PROJ. NO.: 22239068

FIGURE: **5.9-2**

Path: Y:\GIS\Projects\BP_Carson_Cogen\mxds\fig5-9-2_SensitiveLU.mxd

Legend

- Project Site Locations
- One Mile Buffer
- City Boundaries

Zoning Overlay

- D Overlay
- ORL Overlay
- Merged and Amended

Carson Zoning

- CG
- CG&D
- CG&D-RS
- CN
- MH
- ML
- ML&D
- OS
- R5
- RM
- RM-10
- RM25
- RM25-MH
- RM25U
- RS

Los Angeles Zoning

- M2
- M3
- MR2
- PF
- R1
- R1-1ZL-O

Long Beach Zoning

- CCA
- CCR
- CNA
- I
- IL
- ML-P
- ML-R1N
- P
- PD13
- PPR/
- PR
- PR-R1N
- R1N
- R34
- R3T
- R4R
- RM

Watson Cogeneration Facility (contains the Project Site)

Construction Laydown and Parking Area

Ventura County
Los Angeles County
San Bernardino County
Riverside County
Orange County
Map Extent

Notes:
Basemap derived from 1:24000 scale USGS Topographic maps.
City boundaries from Los Angeles County, 2008.
Zoning from Los Angeles County, 2006.

ZONING AND PLANNED LAND USE
WATSON COGENERATION
STEAM AND ELECTRIC RELIABILITY PROJECT

URS

2,000 1,000 0 2,000 Feet

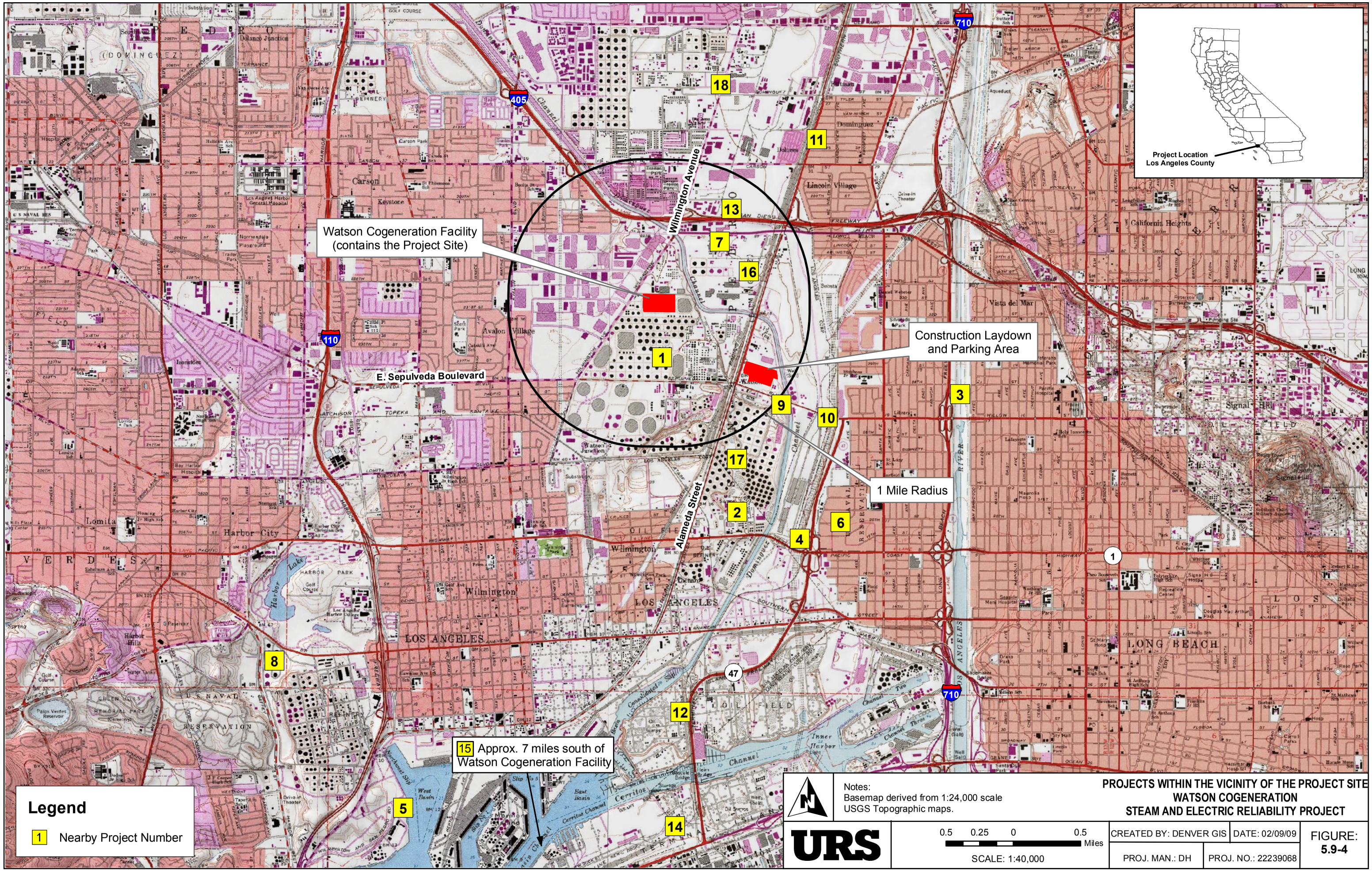
SCALE: 1:24,000

CREATED BY: DENVER GIS | DATE: 02/03/09

PROJ. MAN.: DH | PROJ. NO.: 22239068

FIGURE: **5.9-3**

Path: Y:\GIS\Projects\BP_Carson_Cogen\mxds\fig5-9-3_ZoningPlannedLU.mxd



Notes:
Basemap derived from 1:24,000 scale
USGS Topographic maps.

PROJECTS WITHIN THE VICINITY OF THE PROJECT SITE
WATSON COGENERATION
STEAM AND ELECTRIC RELIABILITY PROJECT

URS

0.5 0.25 0 0.5 Miles

SCALE: 1:40,000

CREATED BY: DENVER GIS	DATE: 02/09/09	FIGURE: 5.9-4
PROJ. MAN.: DH	PROJ. NO.: 22239068	

Path: Y:\GIS\Projects\BP_Carson_Cogen\mxds\fig5-9-4_ProjectsWithinVicinity.mxd

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ____

Technical Area: **Land Use** Project: Watson Cogeneration Steam and Electric Reliability Project Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.9.1.2; page 5.9-2 Section 5.9.2.1; pages 5.9-11 through 5.9-12 Section 5.9.3; pages 5.9-13 through 5.9-15		
Appendix B (g) (3) (A)	A discussion of existing land uses and current zoning at the site, land uses and land use patterns within 1 mile of the proposed site and within ¼ mile of any project-related linear facilities. Include:	Section 5.9.1.3; pages 5.9-2 through 5.9-9		
Appendix B (g) (3) (A) (i)	An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	Section 5.9.1.3; pages 5.9-2 through 5.9-9		
Appendix B (g) (3) (A) (ii)	A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level;	Section 5.9.1.6; page 5.9-10		
Appendix B (g) (3) (A) (iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	Section 5.9.1.5; page 5.9-10		

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ____

Technical Area: **Land Use** Project: Watson Cogeneration Steam and Electric Reliability Project Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	Figure 5.9-1 Figure 5.9-2 Figure 5.9-3		
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.	Section 5.9.1.3; pages 5.9-2 through 5.9-9 Section 5.9.2; pages 5.9-10 through 5.9-13 Section 5.9.5; pages 5.9-15 through 5.9-26		

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ____

Technical Area: **Land Use** Project: Watson Cogeneration Steam and Electric Reliability Project Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (C)	A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.	Section 5.9.1.2; page 5.9-2		
Appendix B (g) (3) (D)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the project. The description shall include:	N/A- no agricultural lands uses exists within the affected environment.		
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	N/A		
Appendix B (g) (3) (D) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation; and	Section 5.9.1.3; pages 5.9-2 through 5.9-9		
Appendix B (g) (3) (D) (iii)	Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.	Section 5.9.1.3; pages 5.9-2 through 5.9-9		

Adequacy Issue: Adequate ____ Inadequate ____

DATA ADEQUACY WORKSHEET

Revision No. 1 Date ____

Technical Area: **Land Use** Project: Watson Cogeneration Steam and Electric Reliability Project Technical Staff: ____

Project Manager: ____ Docket: ____ Technical Senior: ____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (j) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.9.5; pages 5.9-15 through 5.9-26		
Appendix B (j) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.9.5.4; page 5.9-25 Section 5.9.5.5; page 5.9-26		
Appendix B (j) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.9.5.4; page 5.9-25 Section 5.9.5.4,Table 5.9-6; page 5.9-25		
Appendix B (j) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.9.5.5; page 5.9-26		