BIOLOGICAL STUDY REPORT

Revision Log

Date	Description
April 2018	Original report prepared
January 2020	Project schedule update Species List update

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LIST OF ACRONYMS

ADA	Americans with Disabilities Act
AJD	Approved Jurisdictional Determination
amsl	above mean sea level
BRT	Bus Rapid Transit
BSA	Biological Study Area
BSR	Biological Study Report
BUOW	Burrowing Owl
CAGN	California gnatcatcher
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH	Critical Habitat
CNDDB	California Natural Diversity Database
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CSS	Coastal Sage Scrub
CWA	Clean Water Act
DSF	Delhi sands flower-loving fly
EA	Environmental Assessment
EIR	Environmental Impact Report
EO	Executive Order
ESA	Environmentally Sensitive Areas
EVVMF	East Valley Vehicle Maintenance Facility
FESA	Federal Endangered Species Act
FTA	Federal Transit Administration

HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
mph	miles per hour
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
O&M	Operations and Maintenance
PJD	Preliminary Jurisdictional Determination
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SBB&M	San Bernardino Baseline and Meridian
SBCTA	San Bernardino County Transportation Authority
SBKR	San Bernardino kangaroo rat
sbX	San Bernardino Valley Express
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SSC	Species of Special Concern
TCE	Temporary Construction Easement
TSP	transit signal priority
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WVC	West Valley Connector
WVVMF	West Valley Vehicle Maintenance Facility

EXECUTIVE SUMMARY

The San Bernardino County Transportation Authority (SBCTA), in cooperation with the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana, proposes construction of the West Valley Connector (WVC) Bus Rapid Transit (BRT) Project, a 35-mile-long BRT project that would provide speed and quality improvements to the public transit system within the corridor and increase ridership. The project includes the placement of BRT stations at 33 locations/major intersections spaced 0.5 to 1 mile apart.

The project would connect the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana. The project is located within an urban setting composed primarily of residential and commercial development.

This Biological Study Report (BSR) analyzes the existing conditions and assesses any impacts to sensitive biological resources within the Biological Study Area (BSA). The BSA is defined as the area within a 500-foot buffer from the project centerline and up to 1,000 feet for mapping of Delhi soils. A general biological field survey was completed to determine the extent of plant communities and assess the presence of suitable habitat for sensitive plant and wildlife species. There were no sensitive species observed during the general biological survey within the BSA; however, there were no focused surveys conducted.

The BSA is dominated by developed/ornamental and disturbed/ruderal vegetation, with disturbed coastal sage scrub (CSS), and waterways/channels also occurring, but in much smaller areas. Though critical habitat (CH) for California gnatcatcher (CAGN) and San Bernardino kangaroo rat (SBKR) occurs within a 5-mile database search for the project, no critical habitat would be impacted by the project. A total of 0.8 acre of disturbed CSS occurs in the BSA and would not be impacted by the project. This CSS occurs in two isolated patches and does not contain suitable nesting habitat for the CAGN. Disturbed/ruderal vegetation within the BSA may provide marginal suitable habitat for burrowing owl (BUOW) *(Athene cunicularia)*; however, BUOW is not anticipated to occur. A preconstruction survey for BUOW shall occur. Project impacts would be limited to the removal of approximately 62 ornamental trees and shrubs within the BSA for Alternative A. For Alternative B, 1.21 acres of disturbed/ruderal vegetation is anticipated to be permanently impacted; 0.81 acre of disturbed/ruderal vegetation is anticipated to be temporarily impacted, as well as impacts due to the removal of approximately 406 ornamental trees (364 trees to construct the dedicated lanes and center-running stations and 42 trees to construct the side-running stations) and shrubs within the BSA.

Potentially Jurisdictional Waters

There are five channels within the project alignment. These channels were assessed for biological resources. Temporary impacts of approximately 0.2 acre would occur at the West

Cucamonga Channel based on current design for Alternative B to construct new sidewalks and landscaping associated with the dedicated lanes segment. Alternative A would not result in any impacts to the five channels, and permits from the resource agencies would not be anticipated. The West Cucamonga Channel is concrete lined on the sides and bottom. No channel widening or vegetation removal is proposed. All of the channels are potentially jurisdictional based on guidelines by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW). A jurisdictional delineation would be conducted for this project as part of the regulatory permitting process during the design phase. Permits from regulatory agencies will be obtained before work begins at the West Cucamonga Channel for Alternative B.

Special-Status Species: Delhi Sands Flower Loving Fly

Historical Delhi soils are found within the BSA. The areas containing these soils have been developed and highly disturbed. All undeveloped and/or open space areas containing historic Delhi soils are considered potentially suitable habitat for Delhi sands flower-loving fly (DSF). Most of the historical Delhi soils are not considered recoverable or potentially suitable habitat for DSF given the amount of development and current disturbance within the BSA. There are some fragmented historical DSF soil areas that are currently undeveloped within the BSA; however, both build alternatives would avoid construction within these areas and would not result in temporary or permanent impacts to DSF and its potential habitat.

Other Animal Species

Burrowing Owl

To ensure that any BUOW that may occupy the site in the future are not affected by construction activities, preconstruction BUOW surveys would be required within 30 days prior to any ground-disturbing activities in the areas identified as potential BUOW habitat.

If any of the preconstruction surveys determine that BUOW are present, coordination with CDFW will occur to identify appropriate avoidance and minimization measures including, but not limited to, avoidance of active nests and surrounding buffer areas during construction activities; passive relocation of individual owls; active relocation of individual owls; and preservation of onsite habitat with long-term conservation value for the owl.

Nesting Birds

There were no nests, nesting birds, swallows, or bats observed during the general biological survey. Raptors and migratory birds potentially using shrubs and trees within the BSA could be affected by their removal and/or proximity to construction activities. Preconstruction surveys for nesting birds shall be completed.

1.0 INTRODUCTION

This Biological Study Report (BSR) analyzes the potential biological impacts along the West Valley Connector (WVC) Project (the WVC Project or the proposed project). The objectives of this analysis are to describe the regulatory setting, affected environment, impacts on biological resources that would result from the project, and mitigation measures that would reduce these impacts. This BSR includes a range of topics related to biological resources, including analysis to determine sensitive species with the potential to occur, a discussion of impacts to biological resources, and proposed mitigation measures for impacts to biological resources.

The San Bernardino County Transportation Authority (SBCTA), in cooperation with the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana, proposes construction of the WVC Project, a 35-mile-long Bus Rapid Transit (BRT) project that will decrease travel times and improve the existing public transit system within the corridor.

In January 2017, SBCTA entered into a cooperative agreement with Omnitrans designating SBCTA as the lead agency for the proposed WVC Project. SBCTA intends to construct the WVC, which will then be operated by Omnitrans. SBCTA has the authority to allocate Federal Transit Administration (FTA) funds; however, it does not have the ability to receive funds directly from FTA. Omnitrans is the direct FTA grantee for the San Bernardino Valley. As a result, SBCTA and Omnitrans have developed a successful direct recipient/ subrecipient working relationship to deliver projects with FTA funds. The current relationship allows the delivery of FTA-funded projects that meet FTA requirements without duplicating staff, assuring the best use of limited public funds available. Omnitrans and SBCTA executed Memorandum of Understanding (MOU) 15-1001289 in October 2015, setting forth the roles and responsibilities of the recipient/subrecipient relationship.

The project is subject to state and federal environmental review requirements because it involves the use of federal funds from the Federal Transit Administration (FTA). An Environmental Impact Report (EIR)/Environmental Assessment (EA) has been prepared for the proposed project in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). SBCTA is the CEQA lead agency, and FTA is the NEPA lead agency. This BSR has been prepared as part of the technical analysis required to support the EIR/EA.

1.1 Project Location and Setting

The proposed project is located primarily along Holt Avenue/Boulevard and Foothill Boulevard, which would connect the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana in the counties of Los Angeles and San Bernardino, California. The project limits extend from Main Street in the City of Pomona on the west side to Sierra

Avenue in the City of Fontana on the east side and Church Street in the City of Rancho Cucamonga on the north side to Ontario International Airport on the south side (see Figures 1-1 and 1-2). The proposed project area is primarily urban, and generalized land uses include low-, medium-, and medium-high-density residential, commercial, industrial, open space and recreation, transportation and utilities, agriculture, vacant, public facilities, airport, educational facilities, and offices.

1.2 Purpose and Need

The purpose of the proposed project is to improve corridor mobility and transit efficiency in the western San Bernardino Valley from the City of Pomona, in Los Angeles County, to the City of Fontana, in San Bernardino County, with an enhanced, state-of-the-art BRT system (i.e., the system that includes off-board fare vending, all-door boarding, transit signal priority [TSP], optimized operating plans, and stations that consist of a branded shelter/canopy, security cameras, benches, lighting, and variable message signs).

The proposed project would address the growing traffic congestion and travel demands of the nearly one million people that would be added to Los Angeles and San Bernardino County by 2040 per Southern California Association of Government's (SCAG) 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) growth forecast. Improved rapid transit along the project corridor would help Omnitrans/SBCTA achieve its long-range goals to cost effectively enhance lifeline mobility and accessibility, improve transit operations, increase ridership, support economic growth and redevelopment, conserve nonrenewable resources, and improve corridor safety.

Recognizing the importance of the WVC transit corridor, SBCTA is proposing a project that is designed to achieve the following objectives:

- Improve transit service by better accommodating high existing bus ridership.
- Improve ridership by providing a viable and competitive transit alternative to the automobile.
- Improve efficiency of transit service delivery while lowering Omnitrans' operating costs per rider.
- Support local and regional planning goals to organize development along transit corridors and around transit stations.

The project purpose and objectives stated above would respond to the following needs:

- Current and future population and employment conditions establish a need for higher-quality transit service.
- Current and future transportation conditions establish a need for an improved transit system.
- Transit-related opportunities exist in the project area.

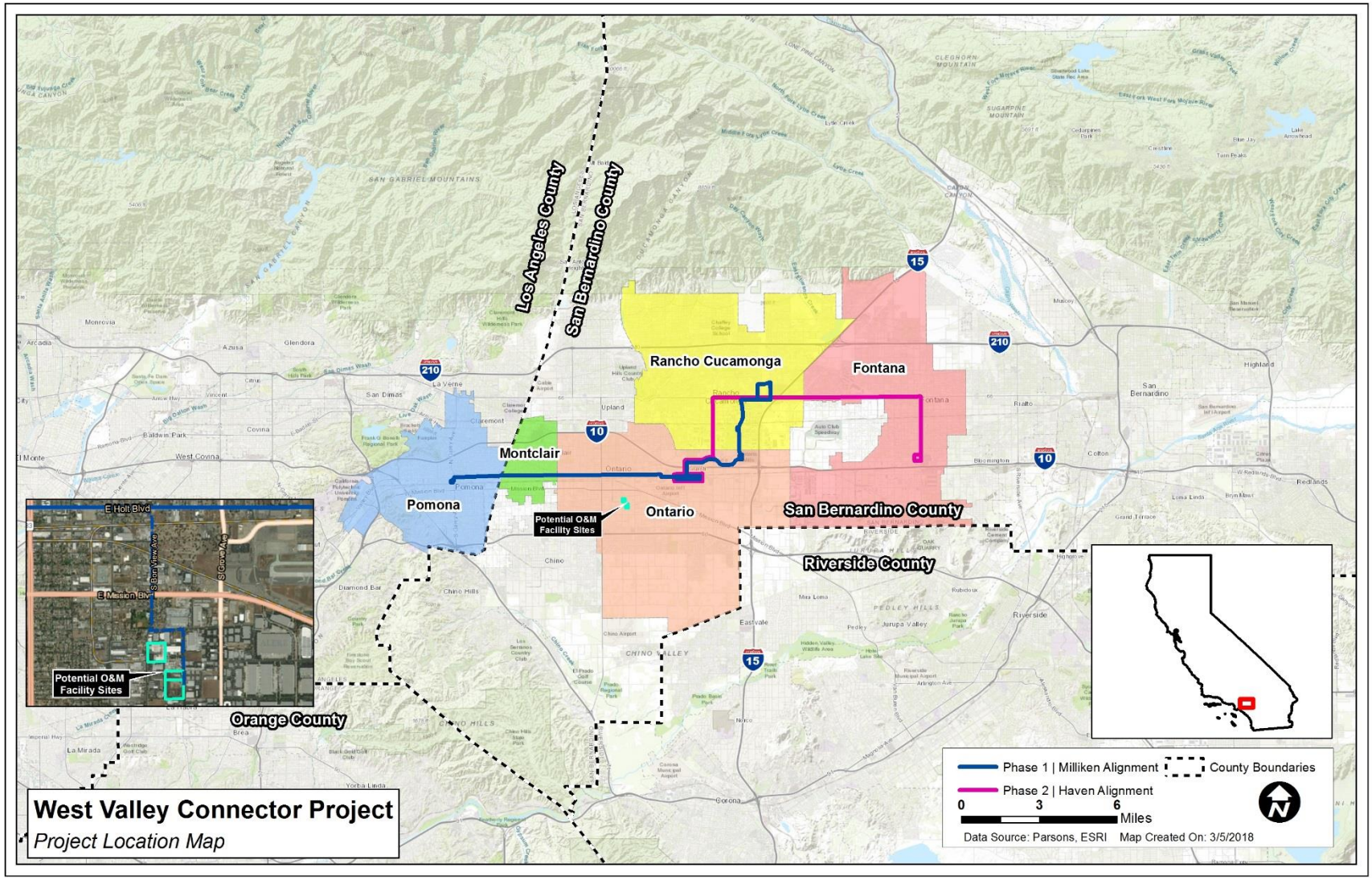

Figure 1-1: Project Location Map

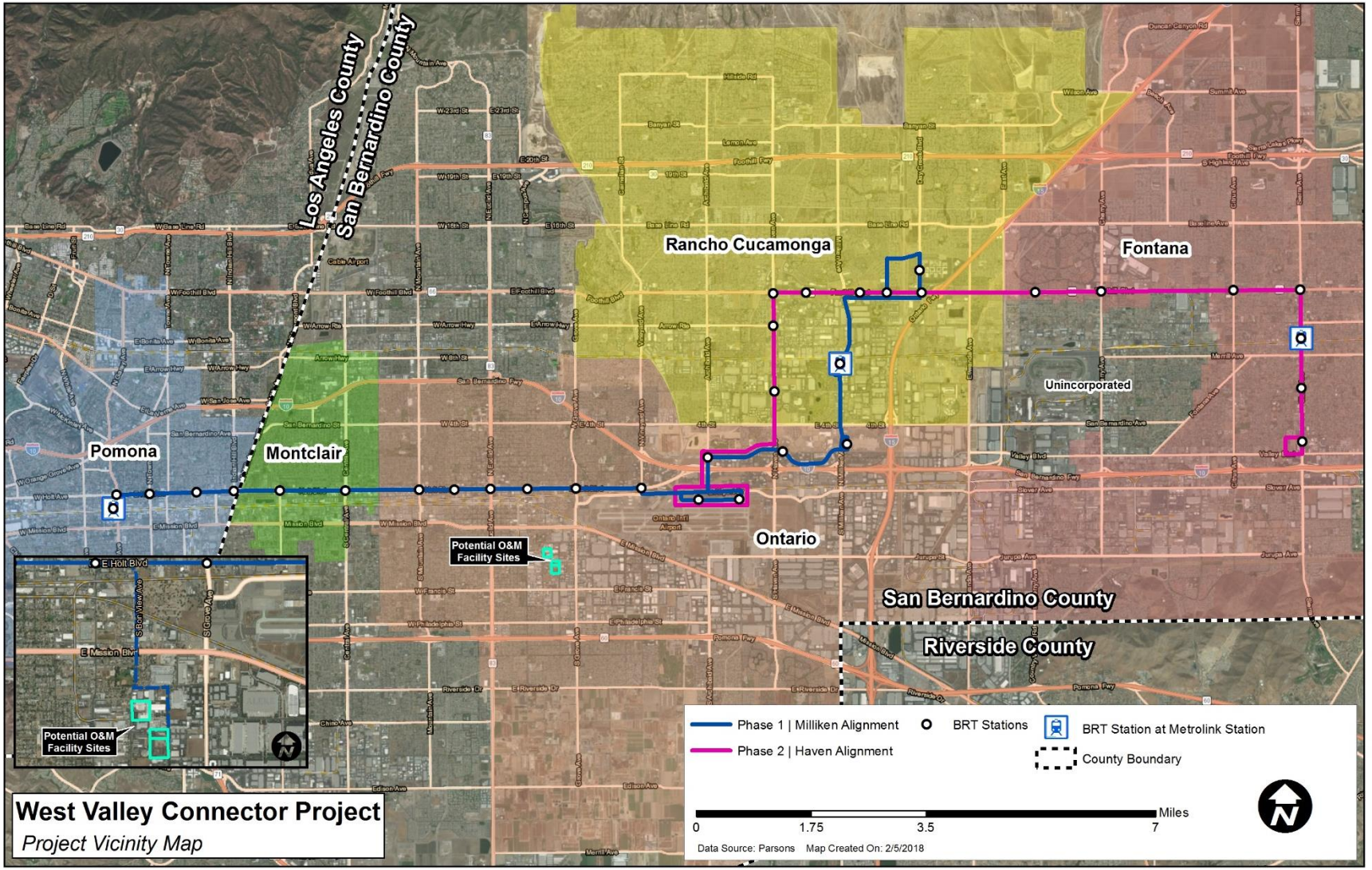

Figure 1-2: Project Vicinity Map

2.0 PROJECT DESCRIPTION

2.1 Proposed Project

The WVC Project is a 35-mile-long BRT corridor project located primarily along Holt Avenue/ Boulevard and Foothill Boulevard that would connect the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana in the counties of Los Angeles and San Bernardino, California. The project proposes limited stops, providing speed and quality improvements to the public transit system within the corridor. The project includes BRT stations at up to 33 locations/major intersections and associated improvements, premium transit service, TSP and queue jump lanes, dedicated lanes, and integration with other bus routes.

The project alignment consists of two phases. Phase I of the project would construct the "Milliken Alignment," from the Pomona Regional Transit Center (downtown Pomona Metrolink Station) to Victoria Gardens in Rancho Cucamonga. Phase II of the project would construct the "Haven Alignment," from Ontario International Airport to Kaiser Permanente Medical Center in Fontana. The Phase I/Milliken Alignment would begin construction in 2020 and is proposed to have 10-minute peak and 15-minute off-peak headways. Phase II is intended to be constructed immediately following completion of Phase I, depending on the availability of funding.

Phase I/Milliken Alignment

Phase I of the project would construct the Milliken Alignment from the eastern boundary limit in Pomona to Victoria Gardens in Rancho Cucamonga. In Pomona, the alignment starts from the Pomona Regional Transit Center station, travels along Holt Avenue and into Montclair.

In Montclair, the alignment runs on Holt Boulevard between Mills Avenue and Benson Avenue and into Ontario.

In Ontario, the alignment continues on Holt Boulevard, starting from Benson Avenue, and then continues to Vineyard Avenue and into Ontario International Airport (loop through Terminal Way). From the airport, it heads north on Archibald Avenue to Inland Empire Boulevard and turns right to go east on Inland Empire Boulevard.

On Inland Empire Boulevard, the alignment goes straight into Ontario Mills (loop through Mills Circle) and then heads north on Milliken Avenue into Rancho Cucamonga.

In Rancho Cucamonga, the alignment makes a loop into the Rancho Cucamonga Metrolink Station off Milliken Avenue and then continues up Milliken Avenue and turns east onto Foothill Boulevard.

The alignment continues east on Foothill Boulevard, turns north onto Day Creek Boulevard, and then terminates with a layover at Victoria Gardens at Main Street. From Victoria Gardens, the bus line begins a return route by continuing north on Day Creek Boulevard, turns west onto Church Street, turns south onto Rochester Avenue, and then turns west back onto Foothill Boulevard.

Phase II/Haven Alignment

Phase II of the project would construct the Haven Alignment, from Ontario International Airport to Kaiser Permanente Medical Center in Fontana. In Ontario, the alignment makes a loop through Terminal Way at Ontario International Airport. From the airport, it heads north on Archibald Avenue to Inland Empire Boulevard and turns right to go east on Inland Empire Boulevard.

From Inland Empire Boulevard, the alignment turns left to go north up Haven Avenue into Rancho Cucamonga, then turns right to go east onto Foothill Boulevard and into Fontana.

In Fontana, the alignment continues east on Foothill Boulevard until turning south onto Sierra Avenue. The alignment follows Sierra Avenue, including a stop at the Fontana Metrolink Station, and then continues until turning west onto Marygold Avenue, where the bus line would begin a turn-around movement by heading south onto Juniper Avenue, east onto Valley Boulevard, and north back onto Sierra Avenue to Kaiser Permanente Medical Center before heading northward for the return trip.

2.2 Project Alternatives

Many alternatives were considered during the project development phase of the project. A No Build Alternative and two build alternatives (Alternatives A and B) are being analyzed in the EIR/EA.

2.2.1 No Build Alternative

The No Build Alternative proposes no improvements to the existing local bus services. Under the No Build Alternative, the existing local bus service on Routes 61 and 66 would maintain current service of 15-minute headways (total of four buses per hour in each direction).

2.2.2 Build Alternatives

Figure 2-1 presents the map of both build alternatives. All design features of both build alternatives are the same, as described in more details in Section 2.3, with the exception of the following:

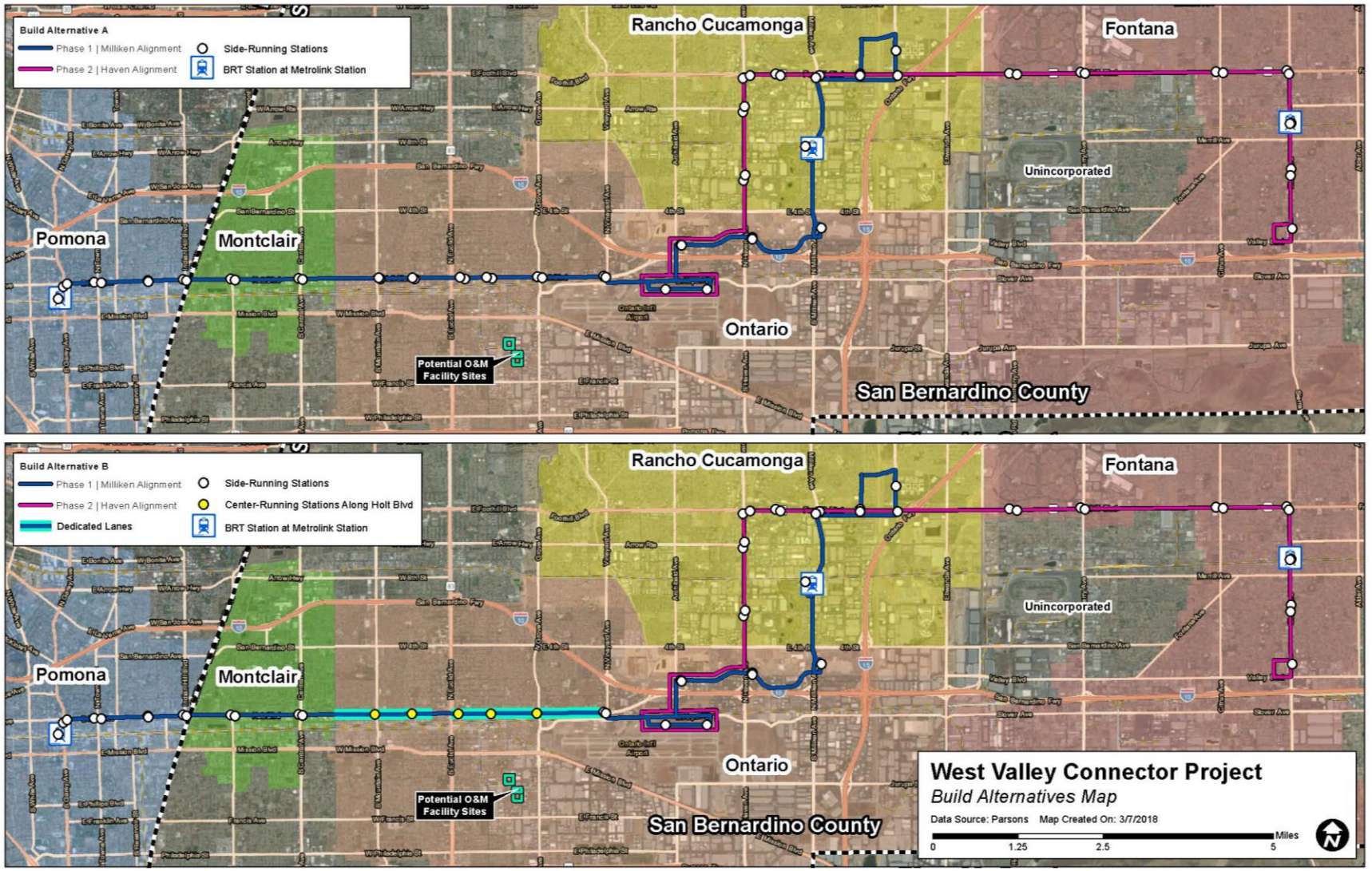

Figure 2-1: Build Alternatives Map

Alternative A – Full BRT with no Dedicated Bus-only Lanes

Alternative A would include the 35-mile-long BRT corridor, which is comprised of the Phase I/Milliken Alignment, Phase II/ Haven Alignment, and 60 side-running stations at up to 33 locations/major intersections. The BRT buses will operate entirely in the mixed-flow lanes. The right-of-way (ROW) limits and travel lane width vary in other segments of the corridor. Implementation of Build Alternative A will not require permanent or temporary ROW acquisition.

Alternative B – Full BRT with 3.5 miles of Dedicated Bus-only Lanes in Ontario

Alternative B would include the full 35-mile-long BRT corridor, which is comprised of the Phase I/Milliken Alignment, Phase II/Haven Alignment, 3.5 miles of dedicated bus-only lanes, and five center-running stations and 50 side-running stations at up to 33 locations/ major intersections. The dedicated lanes segment would include two mixed-flow lanes and one transit lane in each direction and five center-running stations. To accommodate the dedicated lanes, roadway widening and additional utilities, such as electrical and fiber-optic lines, would require permanent and temporary ROW acquisition. In addition, some areas of the project corridor would require reconfiguration, relocation, or extension of adjacent driveways, curbs, medians, sidewalks, parking lots, and local bus stops.

2.3 Design Features of Build Alternatives

2.3.1 Bus Rapid Transit Stations

BRT stations at 33 locations/major intersections and associated improvements are proposed to be located approximately 0.5 to 1 mile apart to facilitate higher operating speeds by reducing dwell time (see Figure 1-2 and Figure 2-1 for station locations). Table 2-1 lists the BRT stations to be constructed as part of Phase I/Milliken Alignment. Note that under Alternative A, all 21 stations will be side-running stations. Under Alternative B, five center platform stations are proposed as follows:

- Holt Boulevard/Mountain Avenue
- Holt Boulevard/San Antonio Avenue
- Holt Boulevard/Euclid Avenue
- Holt Boulevard/Campus Avenue
- Holt Boulevard/Grove Avenue

As part of Phase II/Haven Alignment, an additional 12 side-running stations will be constructed for both build alternatives as list in Table 2-2.

Table 2-1: Stations along Phase I/Milliken Alignment

City	Stations
Pomona	• Pomona Regional Transit Center Station • Holt Avenue/Garey Avenue • Holt Avenue/Towne Avenue • Holt Avenue/Clark Avenue • Holt Avenue/Indian Hill Boulevard
Montclair	• Holt Boulevard/Ramona Avenue • Holt Boulevard/Central Avenue
Ontario	• Holt Boulevard/Mountain Avenue* • Holt Boulevard/San Antonio Avenue* • Holt Boulevard/Euclid Avenue* • Holt Boulevard/Campus Avenue* • Holt Boulevard/Grove Avenue* • Holt Boulevard/Vineyard Avenue • Ontario International Airport • Inland Empire Boulevard/Archibald Way • Inland Empire Boulevard/Porsche Way • Ontario Mills
Rancho Cucamonga	• Rancho Cucamonga Metrolink Station • Foothill Boulevard/Milliken Avenue • Foothill Boulevard/Rochester Avenue • Victoria Gardens between North and South Main Street
Note: * denotes the center-running stations to be constructed under Alternative B.	

Source: Parsons 2017

Table 2-2: Additional Stations to be Constructed as Part of Phase II/Haven Alignment

City	Stations
Rancho Cucamonga	• Haven Avenue / 6th Street • Haven Avenue / Arrow Route • Haven Avenue / Foothill Boulevard • Foothill Boulevard / Spruce Avenue • Foothill Boulevard / Day Creek Boulevard
Fontana	• Foothill Boulevard/Mulberry Avenue • Foothill Boulevard/Cherry Avenue • Foothill Boulevard/Citrus Avenue • Foothill Boulevard/Sierra Avenue • Fontana Metrolink Station • Sierra Avenue/Randall Avenue • Sierra Avenue/Kaiser Permanente

Source: Parsons 2017

Side-Running Stations

Side-running stations would typically be located on the far side of an intersection to facilitate transit priority and to avoid a stopped bus from blocking those turning right from the corridor. Where curb cuts for driveways and other conditions do not provide enough space along the curbside for both the San Bernardino Valley Express (sbX) and the local bus on the far side of the intersection, the local buses would be located on the near side of the intersection.

In the side-running condition, stations may include new or improved shelters with passenger amenities, or only an sbX-branded pylon with signature light. Proposed shelters would be approximately 18 feet in length and a width that would fit a 10-foot-wide-minimum sidewalk. Passenger amenities at the side platform stations would include benches, bicycle racks, trash receptacles, variable message signs, security cameras, and lighting integrated with the shelter. There would be no fare collection equipment on the sidewalks or shelters when the available ROW is less than 10 feet, and the passengers may pay the fee on the bus. Side-running stations would also include various amenities.

For all stations in Rancho Cucamonga, only an sbX-branded pylon with signature light is proposed. Should shelters be implemented in the future, coordination between the City of Rancho Cucamonga and SBCTA would be required to environmentally clear the shelters at a later time.

Center Platform Stations

As indicated in Section 2.3.1, five center-running platform stations are proposed to be constructed as part of the Phase I/Milliken Alignment (in Ontario) under Alternative B.

The center-running platform stations would be in the center of the street ROW on a raised platform with an end-block crossing. Access would be provided by crosswalks at intersections and Americans with Disabilities Act (ADA)-compliant ramps to the station platforms. Center-running platforms would be placed as close to the intersection as possible while still maintaining left-turn pockets, where required.

In the optimum center-running platform configuration, the platform would accommodate a canopy with its seating area, passenger amenities, fare equipment, and a ramp to comply with relevant accessibility requirements and provide clearance in front of ticket vending machines. Stations would include amenities that can be assembled and laid out to suit the functionality of the station and fit with the surrounding land uses.

2.3.2 sbX Bus Operations

The proposed project would require 18 buses during the Phase I operation and increase to 27 buses for the Phase I and Phase II operation to serve the designed headways and have sufficient spare vehicles.

Under Alternative A, sbX buses would operate entirely in mixed-flow lanes along the proposed 35 miles of the Phase I and Phase II alignments. For Alternative B, sbX buses would operate in mixed-flow lanes similar to Alternative A, except where dedicated bus-only lanes (3.5 miles) are proposed along Holt Boulevard, between Benson Avenue and Vine Avenue and between Euclid Avenue and Vineyard Avenue, in Ontario.

Roadway sections where the sbX would operate in mixed-flow lanes would generally be kept as existing conditions, although some modifications, such as relocated curb and gutter, may be necessary near the stations to provide sufficient room for bus stopping and loading. Reconstruction of curb and gutters would only be required for the segment where dedicated bus-only lanes are proposed. Vehicular lanes where the sbX buses would operate in dedicated bus-only lanes would feature concrete roadways, painted or striped to visually separate the exclusive lanes from mixed-flow lanes. Transition areas from mixed-flow to exclusive lanes would be provided at each end of an exclusive lane location. Such transitions would be clearly marked to separate bus movements from other vehicular traffic. Reinforced concrete bus pad in the pavement would be placed at all station locations for the sbX buses.

sbX buses would operate from 6:00 a.m. to 8:00 p.m. with peak headways for 4 hours and off-peak headways for 10 hours per day for a total span of service of 14 hours per day, Monday through Friday. From the Pomona Metrolink Transit Center station to Inland Empire Boulevard, the sbX buses would operate on 10-minute peak headways and 15-minute off-peak headways. Additional service hours, including weekend service, may be added if additional operating funds become available in the future.

2.3.3 Operations and Maintenance

Fleet Composition

The proposed project's fleet would be comprised of 60-foot-long articulated compressed natural gas (CNG) propulsion buses. sbX buses would hold approximately 96 passengers at maximum capacity with up to 8 bicycles on board. Today, the average local bus operating speeds are only 12 to 15 miles per hour (mph), and they are getting slower as corridor congestion worsens. In calculating run times, it was assumed that the average dwell time at stations would be 30 seconds (peak service), and average overall speed would be 20 mph. The average speed for sbX buses would be 18 mph.

Maintenance Requirements and Associated Facilities

Omnitrans operates and maintains its existing bus fleets from two major Operations and Maintenance (O&M) facilities: East Valley Vehicle Maintenance Facility (EVVMF), located at 1700 W. 5th Street in the City of San Bernardino and West Valley Vehicle Maintenance Facility (WVVMF), located at 4748 E. Arrow Highway in the City of Montclair. EVVMF is a Level III facility capable of full maintenance of buses and WVVMF is a Level II facility

suitable for light maintenance. Neither facility has sufficient capacity to accommodate the additional maintenance and storage requirements of the bus fleet associated with the proposed WVC Project.

The purpose of the new O&M facility is to provide operations and maintenance support to the existing full-service EVVMF. The new facility would be designed and constructed to provide Level I service maintenance with a capacity to be upgraded to provide Level II service maintenance. Heavy repair functions and administrative functions would remain exclusively with the EVVMF in San Bernardino.

Facility Components

Conceptually, the new O&M facility would be built on an approximate 5-acre site. The Level I facility would include a parking area, bus washing area, fueling area, and a personnel and storage building. As needs arise, the facility could be upgraded to provide Level II service, which will include the addition of a maintenance shop and a larger administrative building. Landscaping and irrigation would be provided to enhance the comfort of employees and the appearance of the facility, and to help screen maintenance facilities and operations from offsite viewpoints within the community. Figure 2-2 shows the conceptual site plan of the Level II facility.

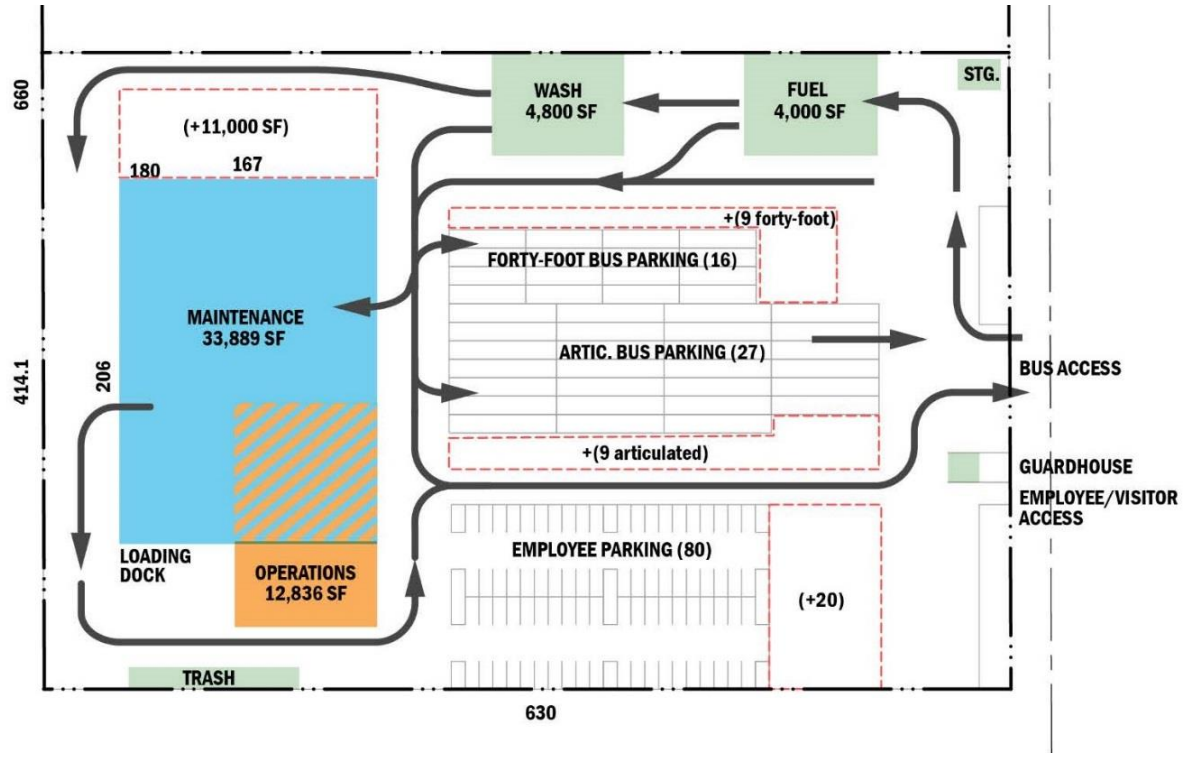

Figure 2-2: O&M Facility Conceptual Site Plan

Depending on the service level to be performed, approximately 50-100 staff would be using this facility including bus operators and O&M staff.

Potential Sites

Three sites are being considered for the placement of the new O&M facility (see Figure 2-3). All are owned by the City of Ontario and are located in the industrial zoned area, slightly more than a mile from the proposed BRT corridor alignment on Holt Boulevard:

- Site 1: 1516 S. Cucamonga Avenue, Ontario (APN 1050-131-03-0000 and APN 1050-131-02-0000). The current use of this property is public works storage yard. If selected, the O&M facility will be built at the bottom portion of the parcel encompassing an area of approximately 6.0 acres.
- Site 2: 1440 S. Cucamonga Avenue, Ontario (APN 1050-141-07-0000). The current use of this property is compressed natural gas fueling station. If selected, the O&M facility will utilize the entire parcel encompassing an area of approximately 4.8 acres.
- Site 3: 1333 S. Bon View Avenue, Ontario (APN 1049-421-01-0000 and APN 1049-421-02-0000). The current use of this property is municipal utility and customer service center. If selected, the O&M facility will be built at the bottom portion of the parcel encompassing an area of approximately 6.6 acres.

Buses coming to and from the new facility could use nearby access roads that directly connect to the BRT corridor such as South Campus Avenue, South Bon View Avenue, and South Grove Avenue.

The O&M facility will be constructed during the same period as the Phase I/Milliken Alignment and would be open for operation at the same time as the Phase I alignment. Construction duration is estimated at 12 months.

2.4 Implementation Schedule

Implementation of the proposed project is planned over the next 5 years and would entail many activities, including:

- Completion of the environmental compliance phase (March 2020)
- Completion of Preliminary Engineering (March 2020)
- Completion of Final Design (May 2021)
- Completion of O&M facility (December 2023)
- Completion of Construction of Phase I/Milliken Alignment and testing (December 2023)
- System operation (begin revenue operation in December 2023)
- Construction of Phase II/Haven Alignment is scheduled to occur after completion of the Phase I/Milliken Alignment pending funding availability

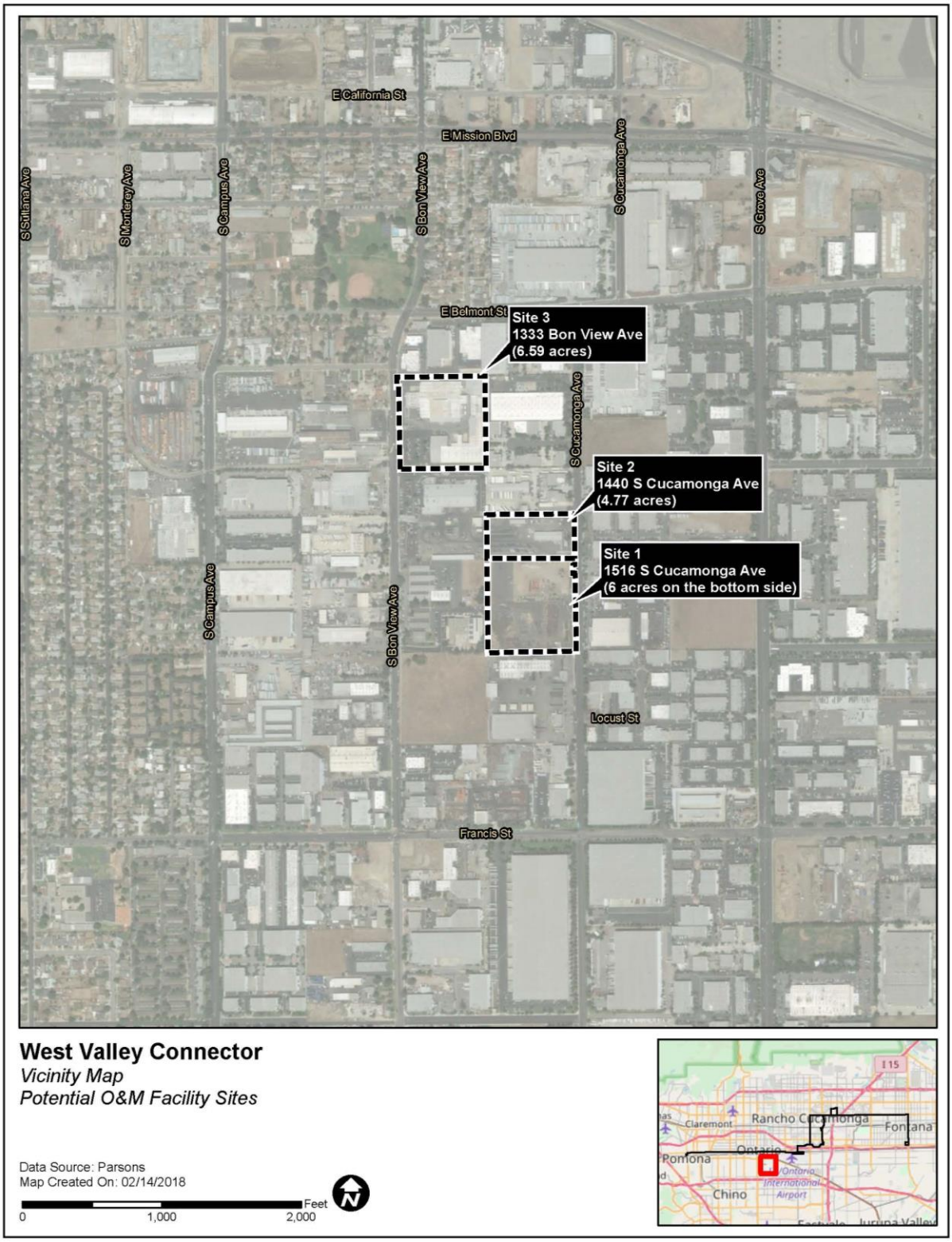

Figure 2-3: Potential Operations and Maintenance Facility Sites

3.0 REGULATORY FRAMEWORK

This section discusses the regulatory requirements used to evaluate the project impacts and the methods used to identify the existing vegetation and wildlife communities present and to determine the potential for special-status species to be present within or adjacent to the Biological Study Area (BSA). A general biological plant and wildlife survey was conducted, as well as a jurisdictional assessment of waters and wetlands.

3.1 Regulatory Requirements

3.1.1 Federal Requirements

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and animals that the government has listed as "endangered" or "threatened." A federally listed species is protected from unauthorized "take," which is defined in the FESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or attempt to engage in any such conduct."

Clean Water Act

The U.S. Army Corps of Engineers (USACE) Regulatory Branch regulates activities that discharge dredged or fill materials into wetlands and other "Waters of the U.S." under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act.

Section 401 of the CWA gives the Regional Water Quality Control Board (RWQCB) the authority to regulate, through a Water Quality Certification, any proposed, federally permitted activity that may affect water quality. Development allowed within any identified jurisdictional areas in the BSA may be subject to requirements under Sections 401 and 404 of the CWA.

Executive Order 11990

Executive Order (EO) 11990 directs federal agencies to (1) minimize the destruction, loss, or degradation of wetlands and (2) preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies' responsibilities.

Executive Order 13112

Under EO 13112, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction of spread of invasive species.

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) of 1918, federal law prohibits the taking of migratory birds, their nests, or their eggs (16 *United States Code* [U.S.C.], Section 703).

In 1972, the MBTA was amended to include protection for migratory birds of prey, such as raptors.

3.1.2 State Requirements

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the *California Fish and Game Code,* an Incidental Take Permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the take of a state-listed threatened or endangered species. Under the CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species. A consistency finding per Section 2080.1 of the CESA is issued when the conditions of a federal incidental take statement (U.S. Fish and Wildlife Service [USFWS] Biological Opinion) are consistent with the CESA.

Porter-Cologne Act

The Porter-Cologne Act provides the State of California with very broad authority to regulate "Waters of the State," which are defined as any surface water or groundwater, including saline waters.

California Fish and Game Code Sections 1600-1616

Sections 1600–1616 of the *California Fish and Game Code* protect "Waters of the State." Activities of state and local agencies, as well as public utilities that are project proponents, are regulated by the CDFW under Section 1602 of the code; this section regulates any work that would (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. For project activities (described above) that may affect stream channels and/or riparian vegetation regulated under Sections 1600 through 1603, CDFW notification is required and may require a Streambed Alteration Agreement.

Unlawful Take or Destruction of Nests or Eggs

Sections 3503 and 3503.5 of the *California Fish and Game Code* specifically protect nests and eggs of birds of prey.

Section 3513 of the *California Fish and Game Code* duplicates the federal protection of migratory birds and prohibits the take and possession of any migratory nongame bird, as designated in the MBTA.

California Environmental Quality Act—Treatment of Non-Listed Plant and Animal Species

Section 15380 of the CEQA Guidelines indicates that a lead agency can consider a non-listed species (e.g., California Native Plant Society [CNPS] List 1B and 2 plants) to be endangered, rare, or threatened for the purposes of CEQA if the species can be shown to meet the criteria in the definition of “rare” or “endangered.”

3.1.3 Local Regulations

Habitat Conservation Plans

To respond to growing concerns over the conservation of coastal sage scrub (CSS) and other biological communities, federal, State, and local agencies have developed a multi-species approach to habitat conservation planning. There are no applicable Habitat Conservation Plans (HCPs) that apply to the project area. The nearest approved HCP is the Western Riverside Multi Species Habitat Conservation Plan (MSHCP), which is located more than 2.5 miles away at its closest occurrence to the project area. There are no HCPs applicable to this project.

3.2 Studies Required and Survey Methods

3.2.1 Biological Study Area

The project is located at the eastern end of Los Angeles County in the City of Pomona and at the southwestern end of San Bernardino County in the cities of Montclair, Ontario, Rancho Cucamonga, and Fontana. The project site is generally located along Holt Boulevard/Avenue and Foothill Boulevard. The project area is bounded on the north by Church Street in Rancho Cucamonga, on the west by Main Street in Pomona, on the east by Sierra Avenue in Fontana, and on the south by Ontario International Airport. The project is located within an urban setting with primarily residential and commercial development. Land uses in the project vicinity include residential, commercial, airport, educational institutions, recreation, utility, civic, public service facilities (e.g., fire stations and hospitals), agricultural, industrial, transportation, and vacant land.

The BSA is defined as the area within a 500-foot buffer from the project centerline and areas up to a 1,000-foot buffer from the project centerline for the mapping of Delhi soils. The BSA is larger than the area that would be directly or indirectly impacted by project construction activities.

3.2.2 Literature Review

Before the field surveys, a list of special-status plant and animal species potentially occurring within a 5-mile query radius from the project centerline was established through a literature review.

The following were reviewed for the U.S. Geological Survey's (USGS) San Dimas, Ontario, Guasti, and Fontana 7.5-minute quadrangles: CNPS' Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019, see Appendix A); CDFW's California Natural Diversity Database (CNDDB) (5 mile) (CDFW 2019, see Appendix A); and a List of Proposed, Threatened, and Endangered Species from USFWS IPaC website search of the project on December 04, 2019 (see Appendix A). These databases contain records of reported occurrences of federal- or State-listed endangered, threatened, proposed endangered, or threatened; California Species of Special Concern (SSC); or other special-status species or habitat that may occur within, or in the immediate vicinity of, the BSA. The literature reviews of these databases have been included in Appendix A.

3.2.3 Vegetation Mapping

Vegetation mapping occurred in June and October 2016 to describe the vegetation present throughout the BSA and to evaluate the habitat's potential to support special-status plant and wildlife species. The BSA was surveyed by Parsons Principal Scientist Arianne Preite and Senior Environmental Planner Uyenlan Vu on June 13, 2016, and Senior Biologist Debra De La Torre, Associate Planner Katherine Ryan, and Senior Environmental Planner Uyenlan Vu on October 12, 2016, to determine the extent of plant communities and assess the presence of suitable habitat for sensitive plant and wildlife species. There were no focused surveys conducted for this project. Vegetation communities within the entire BSA were mapped based on existing conditions along the project alignment; however, most of the BSA is developed and contains residential and commercial development. Vegetation communities were mapped using 7.5-minute USGS topographic base maps and aerial photos (see Appendix C). The vegetation communities within the BSA were classified according to Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986 and 1992 update).

3.2.4 Botanical Surveys

Focused surveys for special-status plant species were not completed given the lack of suitable habitat and disturbed nature of the project area. A general habitat assessment for special-status plants was completed during the field survey.

3.2.5 Wildlife Surveys

A general habitat assessment for wildlife species was completed in the BSA in June and October 2016. All wildlife species observed were recorded and are listed in the results section of this BSR. Focused surveys for special-status species were not completed given the lack of suitable habitat and disturbed nature of the project area.

Bat and Swallow Habitat Assessment

An assessment to identify areas that could potentially support roosting or foraging bats, as well as swallows, was conducted during the general biological resources survey. Typical areas that could be used by bats include crevices and cracks in bridge joints, culverts, or other small openings that could provide cover for roosting. Some species of bats also roost and/or forage in mature trees. Swallows often nest on concrete structures such as bridges and culverts.

Areas for potential use by swallows include channels and mature trees that occur within the developed/ornamental vegetation communities and areas mapped as waterways/channels identified in the Biological Resources Map (see Appendix C), in the BSA. As discussed in more detail in Section 4.1.1, all channels within the BSA are concrete lined and lack vegetation.

Burrowing Owl Habitat Assessment

A habitat suitability assessment was conducted in 2016 identifying general habitat requirements (e.g., grasslands, fallow fields, sparsely vegetated scrub); specifically suitable habitat for burrowing owl (BUOW) *(Athene cunicularia)* was identified by the presence of potential burrows, perch sites, and/or BUOW sign such as scat, tracks, or feathers, according to BUOW survey guidelines.

Delhi Sands Flower-Loving Fly Habitat Assessment

The Delhi Sands flower-loving fly (DSF) is only known to occur in association with Delhi sand deposits. Due to the highly urbanized environmental setting within the BSA, a habitat assessment for the DSF was not conducted; however, historic Delhi fine soils is mapped within the BSA and compared to current aerial imagery to assess potentially suitable or recoverable habitat in any undeveloped and/or open space areas. Any undeveloped parcels or open areas identified with historic Delhi soils are considered potentially suitable or recoverable DSF habitat.

3.2.6 Jurisdictional Delineation

“Waters of the U.S.” are defined as those waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes intrastate lakes, rivers, streams (including intermittent ephemeral streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds where the use, degradation, or destruction of which would affect interstate or foreign commerce. “Waters of the U.S.” are under the jurisdiction of USACE and the RWQCB; “Waters of the State” are under the jurisdiction of CDFW and the RWQCB.

Features potentially subject to the jurisdiction of USACE, CDFW, and/or RWQCB were identified and mapped during the general biological resources survey; however, a delineation to determine the type or extent of “Waters of the U.S.” and/or “Waters of the State” was not completed. Prior to the field visit, a 200-scale (1 inch = 200 feet) aerial photograph and applicable USGS 7.5-minute topographic quadrangle maps of the following areas were reviewed and compared to identify potential drainage features within the BSA:

- Township 1 South, Range 8 West, Sections 25-30, of the San Dimas, California USGS quadrangle maps, San Bernardino Baseline and Meridian (SBB&M).
- Township 1 South, Range 7 West, Sections 12-13, 22-24, 26-30, of the San Dimas, California USGS quadrangle maps, SBB&M.
- Township 1 South, Range 6 West, Sections 7-12, of the Guasti, California USGS quadrangle maps, SBB&M.
- Township 1 South, Range 8 West, Sections 21, 22, 27, 28, of the Ontario, California USGS quadrangle maps, SBB&M
- Township 1 South, Range 5 West, Sections 7, 18-19, of the Fontana, California USGS quadrangle maps, SBB&M.

The field surveys were conducted by walking the BSA limits to determine the location of potential Waters of the U.S. and Waters of the State. The areas are mapped as Waterways/ Channels (see Appendix C, *Biological Resources*), with these potentially jurisdictional features assessed for habitat mapping. A formal jurisdictional delineation was not conducted; however, for the purposes of habitat mapping, the concrete bank of each channel was mapped as the lateral extent of potential jurisdiction of both USACE and CDFW. These channels are fully lined with concrete and lack vegetation. Potentially jurisdictional features within the BSA were inspected to record existing conditions. The alignment was then overlaid onto each channel to assess approximate impacts to Waterways/Channels (see Appendix C, *Biological Resources*).

USACE does not generally consider the following waters to be Waters of the U.S.; however, USACE does reserve the right to regulate these waters on a case-by-case basis:

- Non-tidal drainage and irrigation ditches excavated on dry land
- Artificially irrigated areas that would revert to upland if the irrigation ceased
- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavation in dry land for purposes of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of Waters of the U.S.

Waters found to be isolated and not subject to CWA regulation are often still regulated by the RWQCB under the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

3.3 Personnel and Survey Dates

Parsons Biologist Arianne Preite (TE095858) and Parsons Senior Environmental Planner Uyenlan Vu conducted the general wildlife survey, habitat assessment for special-status plant and wildlife species, and vegetation mapping on June 13, 2016. Parsons Biologist Debra De La Torre, Associate Planner Katherine Ryan, and Senior Environmental Planner Uyenlan Vu conducted additional habitat assessments and vegetation mapping on October 10, 2016. In addition, each of the five channels in the BSA was walked to observe existing conditions and potential constraints during the October 10, 2016, visit. Appendix B contains photos of the channels in the BSA. On December 11, 2017, a windshield survey was completed to assess existing site conditions and verify there had not been any changes since the initial surveys in 2016.

3.4 Agency Coordination and Professional Contacts

A list of federally listed or candidate species to be addressed within the BSA for the project was generated using the USFWS website on February 21, 2018.

Coordination with USACE was initiated in February 2018 and is ongoing to determine the type of permits required. Based on the review of the preliminary engineering design, it is likely that a preliminary jurisdictional determination would be required at the time the permit is applied.

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4.0 EXISTING CONDITIONS

This section provides an evaluation of the environment where the project is located. This evaluation describes the project setting, including the BSA, topographical features, soil types, water features, biological resources, and levels of human and/or natural disturbance. A total of approximately 3805.89 acres is included within the BSA.

The project area is highly disturbed and located within a developed, urban setting. Areas within the BSA were categorized into five habitat/vegetation communites. Section 4.1.3 provides a detailed discussion of each habitat type. The BSA is dominated by developed/ornamental vegetation typical of an urban setting.

4.1 Description of the Existing Biological and Physical Conditions

4.1.1 Biological Study Area

The project is located within an urban setting with primarily residential and commercial development. Land uses in the project vicinity include residential, commercial, airport, educational institutions, recreation, utility, civic, public service facilities (e.g., fire stations and hospitals), agricultural, industrial, transportation, and vacant land. The BSA is located in the USGS 7.5-minute San Dimas, Ontario, Guasti, and Fontana quadrangles.

4.1.2 Physical Conditions

Topography in the BSA is generally flat. The elevation ranges from approximately 864 to 1,321 feet.

Several channels occur within the BSA (shown in Figure 4-1 and Appendix C), including:

- San Antonio Channel (City of Montclair)
- West Cucamonga Channel (City of Ontario)
- Cucamonga Channel (City of Ontario)
- Day Creek Channel (City of Rancho Cucamonga)
- Etiwanda Creek Channel (City of Rancho Cucamonga)

Soils

Six different soil series occur on or in the immediate vicinity of the BSA. The Natural Resources Conservation Service (NRCS) soil mapping indicates four soil series are within the BSA, as shown in Appendix D. Dominant soil series, as shown in Appendix D, include Delhi fine sand, Hanford fine sandy loam, gravelly sandy loam, and coarse sandy loam; Soboba gravely loamy sand; and Tujunga gravelly loamy sand (U.S. Department of Agriculture Natural Resources Conservation Service, 2014). A soil series is a group of soils

with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics.

Hydrology

The BSA is located within the Santa Ana River Watershed. The watershed is approximately 3,000 square miles, with drainage features within the BSA draining to the Santa Ana River. The Santa Ana River Watershed encompasses approximately 3,000 square miles, spanning parts of San Bernardino, Riverside, Los Angeles, and Orange counties, following the path of the Santa Ana River, whose headwaters are located in the San Bernardino Mountains near San Gorgonio Summit within National Forest lands to the east of the City of San Bernardino. The San Bernardino Mountains comprise part of the Transverse Ranges of California and trend northwest to southeast. The San Gabriel Mountains are located to the west. The Santa Ana River flows approximately 100 miles, through a combination of natural areas and urban environments, ultimately flowing to the Pacific Ocean near Huntington Beach.

4.1.3 Biological Conditions in the Biological Study Area

Vegetation Communities

The project is located within a relatively flat portion of San Bernardino County that is a developed area. Most of the study corridor has been developed by urban land uses, resulting in additional leveling off of topography. Vegetation communities in the BSA include developed/ornamental, disturbed/ruderal (including non-native grassland), agricultural/ vineyard, waterways (channels), and disturbed CSS (see Table 4-1 and Appendix C). This section describes each of the vegetation communities and other areas observed in the BSA. The proposed project is an urban corridor in a developed area that is highly disturbed. Areas of compacted soils containing non-native grassland, typical of roadway shoulders, are found in the BSA.

Table 4-1: Vegetation Communities and Other Areas within the Biological Study Area

Vegetation Communities and Other Areas	Existing (acres)
Developed/Ornamental	3,363.93
Disturbed/Ruderal (Includes Non-Native Grassland)	447.49
Agricultural/Vineyard	9.06
Waterways/Channels	8.3
Disturbed Coastal Sage Scrub	0.8
Total	**3,829.58**

Developed/Ornamental

Developed/ornamental areas consist of residential and commercial developments, paved roadways, compacted road shoulders, railroad tracks, and ornamental plantings including maintained turf grass. Developed/ornamental is the dominant community within the project corridor and is the most prevalent vegetation type found along the alignment. Common plant species observed in these areas include oleander *(Nerium oleander),* American sweet gum *(Liquidambar styraciflua),* olive *(Olea europaea),* Mexican fan palm *(Washingtonia robusta),* and *Eucalyptus* (sp.). Developed areas and ornamental plants are found throughout the BSA and make up the primary vegetation type in the eastern portion of the BSA. The trees within the cities are ornamental and typical of urbanized, landscaped areas. There are no sensitive tree species within the BSA. The proposed O&M facility is a paved area considered developed/ornamental and not considered suitable habitat for sensitive species. Table 4-1, *Vegetation Communities and Other Areas in the Biological Study Area,* has been updated to include the area of developed/ornamental proposed for the O&M facility.

Disturbed/Ruderal

Disturbed/ruderal areas consist of recently graded or disked areas, dirt roads and trails, active oil fields, and cleared roadsides. These areas are generally devoid of vegetation or have a sparse cover of weedy species. They typically have compacted soils resulting from compaction by machinery used to grade, mow, or disk these parcels. Disturbed/ruderal contains areas of non-native grasses dominated by non-native annual grasses with native and non-native herbs that are often mowed. Dominant species include red brome *(Bromus madritensis* ssp. rubens), ripgut grass *(Bromus diandrus),* foxtail barley *(Hordeum murinum* var. jeporinum), Arizona chess *(Bromus arizonicus),* Mediterranean schismus *(Schismus barbatus),* foxtail fescue *(Vulpia myuros),* telegraph weed *(Heterotheca grandiflora),* long-beaked filaree *(Erodium botrys),* red-stemmed filaree *(Erodium cicutarium),* and common fiddleneck *(Amsinckia menziesii* var. *intermedia).* In addition, Russian thistle *(Salsola tragus)* is frequently present. Most of these disturbed/ruderal areas contain dirt roads with compacted soils. These areas match Holland's description of non-native grassland (1986). Photos of the parcels may be found in Appendix B, *Site Photos.*

Disturbed/ruderal areas occur:

- At the intersection of N. Haven Avenue and 4th Street, in the City of Rancho Cucamonga, north and south of the intersection. The area south of the intersection also contains small patches of California buckwheat *(Eriogonum fasciculatum),* with the non-natives present at approximately 60 to 70 percent cover. The area is fenced with a "pending development" sign posted on the parcel.
- In the City of Rancho Cucamonga at N. Haven Avenue and 7th Street, N. Haven Avenue and Arrow Highway, Jersey Avenue and Milliken, Foothill Boulevard and Elm, Mayhem

and Foothill Boulevard, Foothill Boulevard and Victoria Commons/Promenade, and Foothill Boulevard and Etiwanda.

- In the City of Fontana at Foothill Boulevard and East Avenue, Foothill Boulevard and Mulberry, Foothill Boulevard and Cherry, Foothill Boulevard and Hemlock, Foothill Boulevard and Sultana, Foothill Boulevard and Almeria, and Foothill Boulevard and Tokay. These areas are dominated by non-native annual grasses with native and non-native herbs, often mowed or containing large bare areas lacking vegetation.

Agricultural/Vineyard

There are agriculture areas within the BSA. A large agricultural area is located northeast of the intersection of N. Haven Avenue and 4th Street in the City of Rancho Cucamonga. The soils of agricultural areas have been disturbed and vary in compaction depending on the crop. Mechanical harvesting of crops promotes the growth of weeds with seeds that can be disseminated by the machinery.

Waterways/Channels

There are five channelized drainage features within the BSA that may be considered aquatic resources (see Figure 4-1 & Appendix C). These channels are lacking vegetation and are concrete-lined culverts, lined with concrete on the sides and bottom. During the field visit, flowing water was observed in all five of the channels. Water was observed flowing, along the entire channel bottom, in the San Antonio Channel. In addition, water was observed, with minimal flows, in Cucamonga Channel, Etiwanda Creek Channel, Day Creek, and West Cucamonga Channel (see Appendix B, *Site Photos,* Photos 1-5, respectively).

The San Antonio Channel is located in the City of Montclair. It is an open channel that is lined with concrete on the sides and bottom. There is no vegetation in this channel where the project alignment crosses over the structure. During the general biological survey on June 13, 2016, there was flowing water observed within this channel.

The West Cucamonga Channel is located in the City of Ontario. It is a triple box, open channel that is lined with concrete on the sides and bottom. There is no vegetation in this channel where the project alignment crosses over the structure. Ponded water was observed in the eastern and western portion during the general biological survey on June 13, 2016.

The Cucamonga Channel is located in the City of Ontario. It is an open channel that is lined with concrete on the sides and bottom. There is no vegetation in this channel where the project alignment crosses over the structure. During the general biological survey on June 13, 2016, there was flowing water observed within the center of this channel.

The Day Creek Channel is located in the City of Rancho Cucamonga. It is an open channel that is lined with concrete on the sides and bottom. There is no vegetation in this channel

where the project alignment crosses over the structure. Ponded water was observed in the channel during the general biological survey on June 13, 2016.

The Etiwanda Creek Channel is located in the City of Rancho Cucamonga. This channel contains six boxes as the project alignment crosses over the structure. The channel is lined with concrete on the sides and bottom. During the general biological survey on June 13, 2016, flowing water was observed in the eastern portion of this channel.

Disturbed Coastal Sage Scrub

There is a small patch of CSS at the eastern portion of the project near Milliken Avenue and 8th Avenue. Common plant species observed in this area include California sagebrush *(Artemisia californica)* and California buckwheat, totaling 0.49 acres. This patch is isolated, disturbed, and small in nature and is located in an urban area that has been landscaped. A row of landscaping occurs between Milliken Avenue and the CSS vegetation adding to the level of disturbance of the site. The CSS is adjacent to urban development and is not contiguous with any other habitat. This CSS contains an understory of non-native grasses. CSS species such as California gnatcatcher prefer open sage scrub in territory sizes ranging from less than 1 ha to over 9 ha (Mock, 2004). This patch is too small to support CAGN.

There is a second patch of CSS at the southeast corner of Haven Avenue and 4th Street, totaling 0.31 acres. The CSS at this location contains primarily California buckwheat in the center of the parcel; however, it is surrounded by non-native grasses and shrubs along the perimeter of the parcel. In addition, the parcel is fenced and contains a sign that development is pending for this parcel.

Common Animal Species

Most of the BSA is highly urbanized, with development becoming less dense toward the east of the project alignment, with some disturbed/ruderal areas surrounded by urban development. Some urban-tolerant species can use ornamental vegetation or unvegetated areas within urban areas; however, most wildlife species in the BSA would generally be found on vacant lots. Within the BSA, most of the environment is heaving urbanized and paved roads that contain ornamental landscaping. The following discusses wildlife species that were observed in the open space areas within the BSA.

Reptiles and Amphibians

Reptile species observed during the survey included the western fence lizard *(Sceloporus occidentalis).* There were no amphibians observed.

Birds

The bird species observed during the survey include red-tailed hawk (*Buteo jamaicensis*), killdeer *(Charadrius vociferous),* rock pigeon *(Columba livia),* mourning dove *(Zenaida macroura),* Anna's hummingbird *(Calypte anna),* black phoebe *(Sayornis nigricans),* American crow *(Corvus brachyrhynchos),* common raven *(Corvus corax),* bushtit *(Psaltriparus minimus),* house wren *(Troglodytes aedon),* northern mockingbird *(Mimus polyglottos),* European starling *(Sturnus vulgaris),* California towhee *(Pipilo crissalis),* song sparrow *(Melospiza melodia),* house finch *(Carpodacus mexicanus),* and house sparrow *(Passer domesticus).*

Mammals

California ground squirrel *(Spermophilus beecheyi)* was observed during the survey.

Bats occur throughout most of California and may forage in trees and shrubs within the BSA. There is no bat roosting habitat in the BSA, and bats are not anticipated to roost in the BSA. Any bats that could potentially forage in the BSA are inactive during the winter and either hibernate or migrate, depending on the species. Cavities in trees and human-made structures (e.g., channels or culverts) in the vicinity may provide potential roosting opportunities for several bat species. There were no bats observed during the survey.

Migration Corridors

There are no regional wildlife corridors in the BSA. The channels in the BSA are not anticipated to serve as wildlife movement corridors given that they are concrete lined on the sides and bottom and lack vegetation. There is no contiguous habitat on either side of the channels serving as a conduit for wildlife.

Invasive Species

Although non-native species (non-native grasses and ornamental species) occur throughout the BSA, invasive species are not prevalent within the BSA. Two listed invasive weed species from the California Invasive Plant Council List (2006) were identified in the BSA: foxtail chess *(Bromus madritensis* ssp. *rubens*) and cheat grass (*Bromus tectorum*). No species on the Federal Weed List (U.S. Department of Agriculture Natural Resources Conservation Service 2010) were identified within the BSA.

4.2 Regional Species and Habitats of Concern

Table 4-2 includes a list of all special-status species and habitats of concern observed, reported, or found to have the potential to occur in the region. These resources include plant and wildlife species that have been afforded special-status and/or other recognition by federal and state resource agencies and private conservation organizations. In addition, special-status biological resources include vegetation communities and habitats that are

either unique, are of relatively limited distribution in the region, or are of particularly high wildlife value. Species with potential habitat present within the BSA are discussed further in Chapter 5.

4.2.1 Special-Status Plants

A total of 22 special-status plant species are known to occur or have potential to occur in the project region (the 5-mile radius surrounding the project centerline) (see Table 4-2). Table 4-2 was compiled from documents reviewed during the literature search, including those identified by the CNPS (2019; Appendix A); the CNDDB (California Department of Fish and Game 2019; Appendix A); the USFWS website (Appendix A); and species that may occur because suitable habitat is present within the BSA. Table 4-2 summarizes the listing status, habitat preferences, known or potential occurrence, and supporting rationale for each of the 22 species. Of these 22 special-status plant species, 9 are either federally or State endangered or threatened.

Because of existing development, ongoing urbanization, absence of suitable habitat within the BSA, and absence of special-status plant species during the biological surveys, these special-status plant species are not likely to occur within the project area and are not discussed further in the report.

4.2.2 Special-Status Animals

A total of 33 special-status animal species are known to occur or have potential to occur in the project region (the 5-mile radius surrounding the project centerline) (see Table 4-2). Table 4-2 was compiled from documents reviewed during the literature search, including those identified by the CNPS, CNDDB, and USFWS website (Appendix A); and species that may occur because suitable habitat is present within the BSA. Table 4-2 summarizes the listing status, habitat preferences, known or potential occurrence, and supporting rationale for each of the 33 species. Of these 33 special-status animal species, 26 species are either federally or state threatened or endangered, including CA Species of Special Concern.

Because of existing development, ongoing urbanization, absence of suitable habitat within the BSA, and absence of special-status animal species during biological surveys, most of the special-status animal species are not likely to occur within the project area and are not discussed further in the report. However, 2 of the 33 special-status animal species may occur within the BSA because limited potential habitat that may support special-status species is currently present within the BSA and is discussed below, including BUOW and DSF.

Burrowing Owl

The BUOW is not a federally or State-listed species, but is a State of California Species of Special Concern. This species is protected by an international treaty under the MBTA of

1918 (16 U.S.C. 703-711) and under Sections 3503 and 380 of the California Fish and Game Code. Sections 2503, 3503.5, and 2800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests, or eggs.

BUOW use a variety of natural and modified habitats for nesting and foraging that is typically characterized by low-growing vegetation. BUOW habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low-density shrub cover, golf courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. BUOW can be found at elevations ranging from 200 feet below sea level to 9,000 feet above mean sea level (amsl). BUOW commonly perches on fence posts or on top of mounds outside its burrow. These owls can be found at the margins of airports and golf courses and in vacant urban lots. BUOW are active day and night but are usually less active during the peak of day. They nest in burrows in the ground, often in old ground squirrel burrows or badger dens. BUOW can dig their own burrows but prefer deserted excavations of other animals. They are also known to use rock outcrops; artificial burrows, such as pipes; and concrete debris piles.

No BUOW or sign were observed within the BSA during the general biological surveys. Focused BUOW surveys were not conducted for the project. Marginal suitable habitat is found in areas of disturbed/ruderal toward the eastern section of the project, along Foothill Boulevard and Haven Avenue in the cities of Fontana and Rancho Cucamonga. This vegetation is marked in the Biological Resources Map as disturbed/ruderal (see Appendix C, Sheet 28). One potentially suitable burrow was located by Senior Biologist Debra De La Torre during the October 2016 survey (see Appendix B, *Site Photos*); however, this area would not be impacted by the project. The location of the burrow was field verified and photographed on December 11, 2017 (see Appendix B, *Site Photos).* Though this potentially suitable burrow is within the BSA, the burrow would not be impacted by either Alternative A or B. A preconstruction BUOW survey is needed given the presence of marginal suitable habitat in the BSA. Although no BUOW were observed during surveys, it is possible for them to move onto the site prior to construction. A total of 447.49 acres of potential habitat is found in the BSA in the form of disturbed/ruderal; however, the habitat is of poor quality and unlikely to contain BUOW.

Delhi Sands Flower-Loving Fly

DSF is a federally listed endangered species. It is only known to occur in association with Delhi sand deposits, which presumably occupied the once extensive dune system of the upper Santa Ana River Valley, including portions of what is now the City of Colton, west through portions of the City of Ontario, and south to the Santa Ana River. Today, DSF exists on only a few disjunct sites (USFWS, 1997) within a radius of approximately 8 miles in southwestern San Bernardino and northwestern Riverside Counties (Colton, Rialto, Fontana, and Ontario). More than 95 percent of known DSF habitat was considered

eliminated by development, agriculture, and other land management practices by 1993 (Smith, 1993; USFWS, 1996, in Kingsley, 1996); however, this proportion is now nearer 98 to 99 percent due to these ongoing processes (Osborne, 2015). Many of the last remaining fragments of DSF habitat are currently under pressure by land management efforts such as heavy disking, irrigation, manure dumping, and gravel dumping.

DSF is typically found in areas of unconsolidated sandy soils (Delhi series) supporting an open community of native and exotic plant species, including California buckwheat, California croton (*Croton californicus*), telegraph weed (*Heterotheca grandiflora*), and deerweed (*Acmispon glaber*). Adult DSF are known to nectar at flowers of California buckwheat and California croton. Many other plant species are common, including Thurber's eriogonum *(Eriogonum thurberi),* autumn vinegar weed *(Lessingia glandulifera),* and sapphire eriastrum *(Eriastrum sapphirinum).* DSF habitat also supports other associated insects, such as flies and wasps, which are considered indicator species.

DSF is only known from Riverside and San Bernardino counties, with most occupied DSF habitat located within a limited area of southwestern San Bernardino County. The closest recovery units to the project are the Ontario Recovery Unit (near the intersection of Greystone and Milliken Avenue, in the City of Ontario) (USFWS, 2008).

The adult DSF flight period is typically mid-July through September, when individual adults emerge, reproduce, and die. The adult life span of an individual DSF lasts for a few days. DSF larvae are known to develop underground; however, the specific biology (i.e., larval biology, duration of the larval state, habits, and food requirements) is not yet known for DSF or any other *Rhaphiomidas* species.

Historical areas of Delhi sands are present in the BSA (see Figure 4-2 and Appendix D showing soils within a 1,000-foot buffer from the project alignment); however, these areas have been extensively developed or highly disturbed. Delhi sands are considered potential habitat for DSF; however, the project is located within a developed area with high levels of disturbance (including people and vehicles) and containing urban areas that are irrigated. Though the areas are historically dominated by Delhi sands, the area at Inland Empire Boulevard and Milliken Avenue is developed. Only small fragmented patches of DSF soils remain within the BSA. Any undeveloped and open space areas with historic DSF soils located within the BSA may support this species through recovery and habitat restoration efforts and are considered potentially recoverable and/or suitable potential habitat for DSF. The location proposed for the O&M facility does not contain Delhi soils or suitable potential habitat for DSF.

4.2.3 Other Sensitive Animal Species

Nesting Birds and Swallows

Raptors and migratory birds potentially using shrubs, trees, and structures within the BSA could be affected by their removal and/or proximity to construction activities. Construction during the breeding season could disturb nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Project impacts to nesting birds are primarily limited to the removal of trees and shrubs within the BSA. No nests in trees or shrubs were observed during biological surveys. There were no swallow nests observed in any channels or on any structures within the BSA.

No raptor nests or other nests in trees, shrubs, or on structures were observed during biological surveys. The proposed project may require removal of ornamental trees in which birds may nest in this urban setting. A nesting survey shall be completed prior to the start of ground-disturbing activities associated with construction.

4.2.4 Critical Habitat

Figure 4-1 shows the critical habitat (CH) within a 5-mile radius of the project centerline.

CH for coastal California gnatcatcher *(Polioptila californica californica)* (CAGN) and San Bernardino kangaroo rat *(Dipodomys merriami parvus)* (SBKR) is present within 5 miles of the project, but there is no CH within the BSA. No CH would be impacted by this project.

California Gnatcatcher

The CAGN is a small member of the thrush family. CAGN typically occur in or near sage scrub habitat, which is a broad category of vegetation that includes the following plant communities as classified by Holland (1986): Venturan CSS, Diegan CSS, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. There are no known occurrences of CAGN and an absence of CH in the vicinity of the BSA. CAGN is not expected to occur within the project footprint. CH for the CAGN is present approximately 5 miles from the project centerline. The two small patches of CSS within the BSA are not considered suitable for CAGN and is considered disturbed given that it is surrounded by urban areas and contains little species diversity. Because no suitable habitat occurs within the BSA, no focused surveys were completed for CAGN.

San Bernardino Kangaroo Rat

CH for the SBKR is present approximately 5 miles from the BSA. SBKR is typically found in Riversidean alluvial fan scrub on sandy loam soils, alluvial fans, and floodplains and along washes with nearby sage scrub. Soil texture is a primary factor in the occurrence of this subspecies of the Merriam's kangaroo rat *(Dipodomys merriami).* Sandy loam substrates

allow for the digging of simple, shallow burrows. The historic range for SBKR lies west of the desert divide of the San Jacinto and San Bernardino mountains and extends from the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County. In the BSA, the closest occurrence is in the Santa Ana River and upper Etiwanda Wash in San Bernardino County. The project alignment is composed primarily of paved areas and compacted soils typical of roadway shoulders considered not suitable for SBKR. Suitable habitat for SBKR is absent in the BSA.

Delhi Sands Flower-Loving Fly

CH has not been designated for the DSF; however, Delhi soils may correspond with the areas where this species can be found. Approximately 1,111 acres of historic Delhi fine soils are mapped within the BSA and occur within the BSA (see Figure 4-2 and Appendix D); however, these areas have been developed and are highly disturbed. Any undeveloped and open space areas with historic DSF soils located within the BSA may support this species through recovery and habitat restoration efforts and are considered potentially recoverable and/or suitable potential habitat for DSF. Though developed areas may contain Delhi soils, but they are extensively and deeply covered by foreign soils, including gravel and concrete – these areas are considered previously impacted and determined unsuitable for DSF.

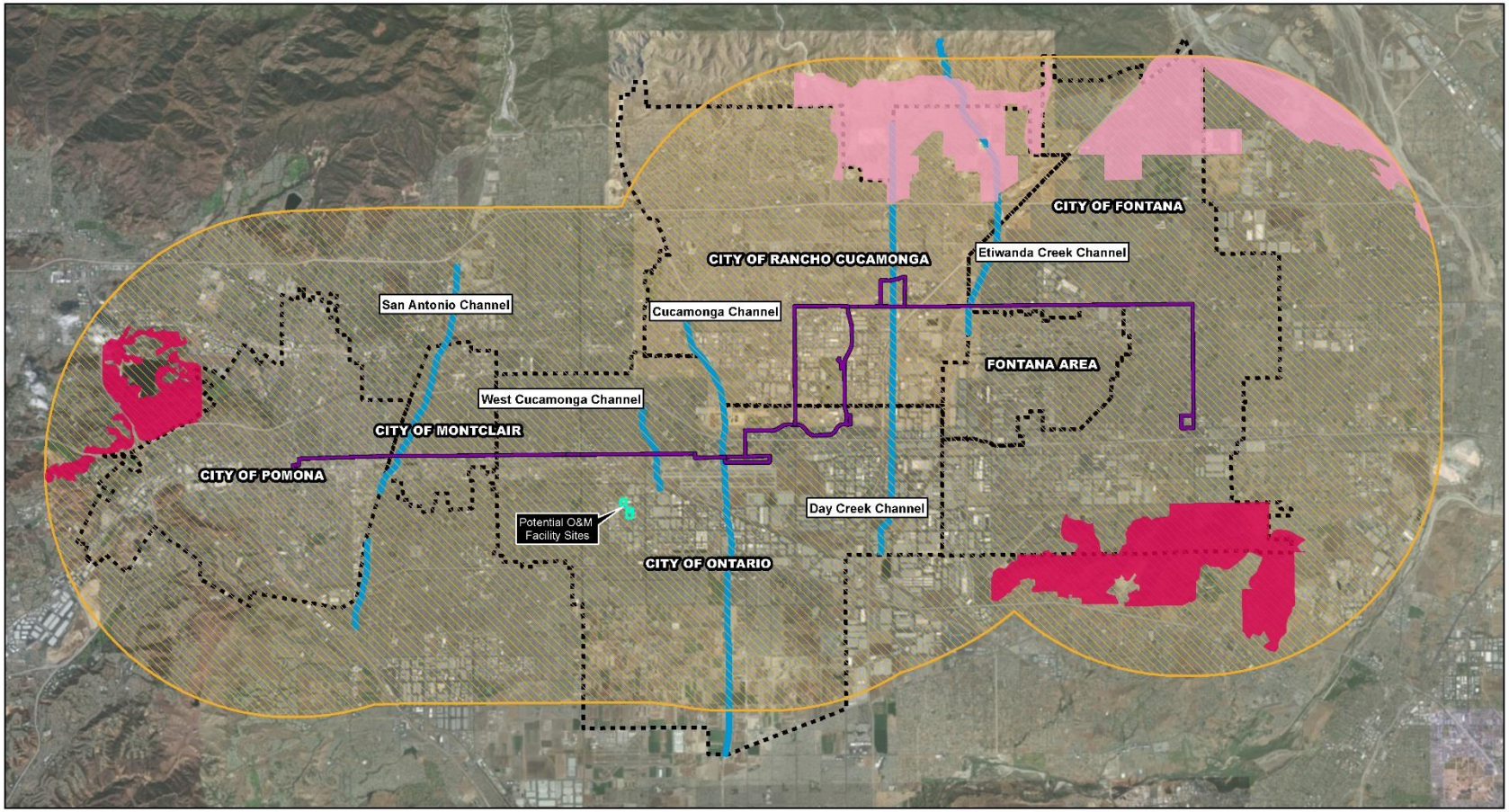

Figure 4-1: Critical Habitat Map

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Plants							
Ambrosia pumila	San Diego Ambrosia	FE	None	1B.1	Upper floodplain fringes or adjoining depressions, vernal pools.	HA	No suitable habitat; not likely to occur.
Arenaria paludicola	Marsh Sandwort	FE	SE	1B.1	Freshwater marsh, marsh & swamp, wetland	HA	No suitable habitat; not likely to occur.
Astragalus brauntoni	Brauton's milk vetch	FE	None	1B.1	Carbonate soils in chaparral, coastal sage scrub, closed-cone forest, and grasslands.	HA	No suitable habitat; not likely to occur.
Berberis nevini	Nevin's barberry	FE	SE	1B.1	Mesic habitat such as alluvial woodland, coastal sage scrub.	HA	No suitable habitat; not likely to occur.
Brodiaea filifolia	Thread-leaved brodiaea	FT	SE	1B.1	Southern needlegrass grassland and alkali grassland in association with clay, loamy sand, or alkaline silty-clay soils.	HA	No suitable habitat; not likely to occur.
Calochortus weedii var. intermedius	Intermediate mariposa lily	None	None	1B.2 or S2	Chaparral, coastal scrub, valley and foothill grassland.	HA	No suitable habitat; not likely to occur.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Calochortus plummerae	Plummer's mariposa lily	None	None	1B	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland open alluvial or granitic, rocky or sandy soils.	HA	No suitable habitat; not likely to occur.
Calystegia Felix	Lucky morning-glory	None	None	1B.1	Meadow & seep, riparian scrub	HA	No suitable habitat; not likely to occur.
Chorizanthe parryi var. parryi	Parry's spineflower	None	None	1B.1	Chaparral and coastal scrub in rocky/sandy openings.	HA	No suitable habitat; not likely to occur.
Chloropyron maritimum ssp. Maritimum	Salt Marsh Bird's-Beak	FE	SE	1B.2	Coastal dunes, marsh & swamp, salt marsh, wetland	HA	No suitable habitat; not likely to occur.
Dodecahema leptoceras	Slender-horned spineflower	FE	CE	1B.1	Alluvial scrub, washes, floodplains, loamy sandy soils.	HA	No suitable habitat; not likely to occur.
Dudleya multicaulis	Many-stemmed dudleya	None	None	1B.2	Chaparral, coastal scrub, valley and foothill grassland.	HA	No suitable habitat; not likely to occur.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	FE	SE	1B.1	Chaparral, coastal scrub, alluvial fan, sandy or gravelly soils.	HA	Not likely to occur; no suitable habitat in the BSA.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Horkelia cuneata var. puberula	Mesa horkelia	None	None	1B.1	Chaparral, cismontane woodland, coastal scrub.	HA	No suitable habitat; not likely to occur.
Lepidium virginicum var. robinsonii	Robinson's Pepper-grass	None	None	4.3	Chaparral, coastal scrub.	HA	Not likely to occur; no suitable habitat in the BSA.
Lycium parishii	Parish's Desert-thorn	None	None	2B.3	Coastal scrub, Sonoran desert scrub.	HA	Not likely to occur; no suitable habitat in the BSA.
Monardella pringlei	Pringle's monardella	None	None	1A	Coastal scrub.	HA	Not likely to occur; no suitable habitat in the BSA.
Phacelia stellaris	Brand's star phacelia	None	None	1B.1	Coastal dunes, coastal scrub.	HA	Not likely to occur; no suitable habitat in the BSA.
Senecio aphanactis	Chaparral ragwort	None	None	2B.2	Chaparral, cismontane woodland, coastal scrub.	HA	No suitable habitat; not likely to occur.
Sidaleca neomexicana	Salt Spring Checkerbloom	None	None	2B.2	Alkali playa, chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub, wetland	HA	No suitable habitat; not likely to occur.
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	Grasslands, disturbed areas.	HA	No suitable habitat; not likely to occur.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	FE	SE	1B.1	Chaparral, coastal scrub, alluvial fan, sandy or gravelly soils.	HA	Not likely to occur; no suitable habitat in the BSA.
Birds							
Agelaius tricolor	Tricolored blackbird	None	ST/SSC		Forages in wet pastures, agricultural fields, and seasonal wetlands; nests in marsh vegetation.	HA	Not likely to occur; no suitable habitat in the BSA.
Aimophilia ruficeps canescnes	Southern California rufous-crowned sparrow	None	None		Chaparral, coastal scrub	HA	Not likely to occur; no suitable habitat in the BSA.
Athene cunicularia	Burrowing owl	None	SSC		Uses large rodent burrows or other burrows in grasslands and agricultural areas.	HP	Marginal suitable habitat present in field areas, vacant lands in BSA. No habitat within project footprint.
Buteo swainsoni	Swainson's Hawk	None	ST		Great Basin grassland, Riparian forest, riparian woodland, valley & foothill grassland	HA	Not likely to occur; no suitable habitat in the BSA.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Empidonax trailli extimus	Southwestern willow flycatcher	FE	SE		Dense riparian and scrub communities associated with rivers, swamps, and other wetlands.	HA	Not likely to occur; no suitable habitat in the BSA.
Falco columbarius	Merlin	None	None		Estuary, Great Basin grassland, valley & foothill grassland	HA	No suitable habitat; not likely to occur
Polioptila californica	Coastal California gnatcatcher	FT	SSC		Coastal bluff scrub, coastal scrub in low-lying foothills and valleys in cismontane southwestern California and Baja California. May be found in coastal sage scrub below 2,500 feet; prefers low, coastal sage scrub in arid washes, mesas, and slopes.	HA	Not likely to occur in marginal habitat. Disturbed and fragmented sage scrub vegetation occurs in the BSA in a small area.
Laterallus jamaicensis coturniculus	California Black Rail	None	ST		Brackish marsh, freshwater marsh, marsh & swamp, salt marsh wetland	HA	No suitable habitat; not likely to occur

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Amphibians							
Anaxyrus californicus	Arroyo Toad (southwestern)	FE	SSC		Washes, arroyos, sandy riverbanks, riparian areas and valleys; may be found in coastal sage scrub below 2,500 feet; prefers arid washes, mesas.	HA	No suitable habitat; not expected to occur.
Rana muscosa	Mountain yellow-legged frog	FE	SE		Mountain creeks, lakes, and lakeshores, streams.	HA	No suitable habitat; not expected to occur.
Reptiles							
Anniella pulchra	Silvery legless lizard	None	SSC		Loose, sandy soils organic soils with plenty of leaf littler in chaparral, pine-oak woodland, beach, and riparian areas.	HA	No suitable habitat; not expected to occur.
Anniella Stebbinsi	Southern California legless lizard	None	None		Broadleaved upland forest, chaparral coastal dunes, coastal scrub	HA	No suitable habitat; not expected to occur.
Arizona elegans occidentalis	California glossy snake	None	SSC		Inhabits arid scrub, rocky washes, grasslands, and chaparral.	HA	No suitable habitat; not expected to occur.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Aspidoscelis tigris stejnegeri	Coastal whiptail	None	None		Chaparral, woodland, and riparian areas.	HA	No suitable habitat; not expected to occur.
Phrynosoma blainvillii	Coast horned lizard	None	SSC		Scrubland, grassland, forests, broadleaf woodlands; prefers friable, rocky, or shallow sandy soils. Requires harvester ants for food.	HA	No suitable habitat; not expected to occur.
Crotalus ruber	Red-diamond rattlesnake	None	None		Chaparral, Mojavean desert scrub, Sonoran desert scrub	HA	No suitable habitat; not expected to occur.
Thamnophis hammondii	Two-striped gartersnake	None	None		Marsh & swamp, riparian scrub, riparian woodland, wetland	HA	No suitable habitat; not likely to occur.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Mammals							
Antrozous pallidus	Pallid bat	None	SSC		Rocky, mountainous areas and near water. Found in a variety of habitats, from scattered desert scrub, grassland, shrubland, woodland, forests, from sea level through mixed conifer. Found over more open sparsely vegetated grasslands and seem to forage in open.	HA	No suitable habitat; not expected to occur.
Chaetodipus fallax	Northwestern San Diego pocket mouse	None	SSC		Chaparral, coastal scrub.	HA	No suitable habitat; not expected to occur.
Dipodomys merriami parvus	San Bernardino Merriam's kangaroo rat	FE	SSC		Chaparral and coastal sage scrub, sandy loam substrates, floodplains.	HA	Low Potential to occur. The BSA is highly developed. Areas of CH are approximately 5 miles from the BSA. The closest occurrence is 1.5 miles north of the BSA.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Dipodomys stephensi	Stephens' kangaroo rat	FE	ST		Coastal scrub, valley and foothill grassland, chaparral; prefers sandy, herbaceous areas in rocks or coarse gravel.	HA	No suitable habitat; not expected to occur.
Eumops perotis californicus	Western mastiff bat	None	SSC		Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; cliff dwelling.	HA	No suitable habitat; not expected to occur.
Lasiurus xanthinus	Western yellow bat	None	SSC		Desert wash, palm oases and riparian habitats in the Colorado Desert.	HA	No suitable habitat; not expected to occur.
Lepus californicus bennettii	San Diego blacktailed jack-rabbit	None	SSC		Inhabits deserts, grasslands, and open scrub habitat.	HA	The BSA is highly developed, and very marginal habitat exists in undeveloped areas outside the BSA and project footprint.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Neotomalepida intermedia	San Diego desert woodrat	None	SSC		Alluvial fan scrub; moderate to dense canopies preferred. Abundant in rock outcrops and rocky cliffs and slopes.	HA	No suitable habitat; not expected to occur.
Nyctinomops femorosaccus	Pocketed free-tailed bat	None	SSC		Joshua tree woodland, pinyon and juniper woodlands, riparian scrub, Sonoran desert scrub.	HA	No suitable habitat; not expected to occur.
Nyctinomops macrotis	Big free-tailed bat	None	SSC		Rocky or cavernous areas; roosts in crevices.	HA	No suitable habitat; not expected to occur.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None	SSC		Coastal scrub, lower elevation grasslands and coastal sage communities; prefers open ground with fine sandy soils.	HP	Low potential to occur. The BSA is highly developed and only limited habitat exists outside the project footprint in vacant lands near the eastern portion of the project.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Taxidea taxus	American badger	None	SSC		Grasslands and other open habitat with friable, uncultivated soils; needs sufficient foot and open, uncultivated ground.	HA	No suitable habitat; not expected to occur.
Fish							
Catostomus santaanae	Santa Ana sucker	FT	None		Rivers, streams. Endemic to Los Angeles basin south coastal streams. Habitat generalist preferring sand-rubble-boulder bottoms, cool, clear water, and algae.	HA	No suitable habitat; not expected to occur.
Oncorhynchus mykiss irideus pop. 10	Steelhead-Southern California DPS	FE	None		Aquatic, south coast flowing waters	HA	No suitable habitat; not expected to occur.
Gila orcutti	Arroyo Chub	None	None		Aquatic, south coast flowing waters	HA	No suitable habitat; not expected to occur.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Insects							
Rhaphiomidas terminates abdominalis	Delhi Sands flower-loving fly	FE	None		Found only in fine, sandy soils, often with wholly or partly consolidated dunes referred to as the Delhi Sands. The fly is typically found in relatively intact, open, sparse, native habitats with less than 50 percent vegetative cover.	Historic l Soils Present(Historic Delhi Soils)	Historic areas of Delhi soils in the BSA have been developed and are currently unsuitable for the DSF. Undeveloped areas of open space in BSA may be recoverable.

Table 4-2: Special-Status Plant and Wildlife Species Known to Occur in the Project Vicinity

Scientific Name	Common Name	Status			General Habitat Description	Habitat present/ species present HP/P Habitat present/ species absent HP/A Habitat present/ species Unknown HP Habitat Absent A	Rationale* (Potential for Species to Occur)
		USFWS	CDFW	CNPS			
Federal Designations FE= Listed by the federal government as an endangered species. FT= Listed by the federal government as a threatened species. **State Designations** CE= Candidate Endangered – Currently being considered for listing under CESA SE= Listed as endangered by the State of California. ST= Listed as threatened by the State of California. SSC= Species of Special Concern. FP= Fully Protected. **CNPS= California Native Plant Society Classifications** 1 = Rare in California and elsewhere 2 = Rare in California, but not elsewhere 4 = Limited distribution or infrequent A = Presumed extirpated or extinct B = Rare, threatened, or endangered 0.1 = Seriously threatened 0.2 = Moderately threatened 0.3 = Not very threatened **Habitat Present/Absent within the BSA** HP= Present. HA= Absent.							

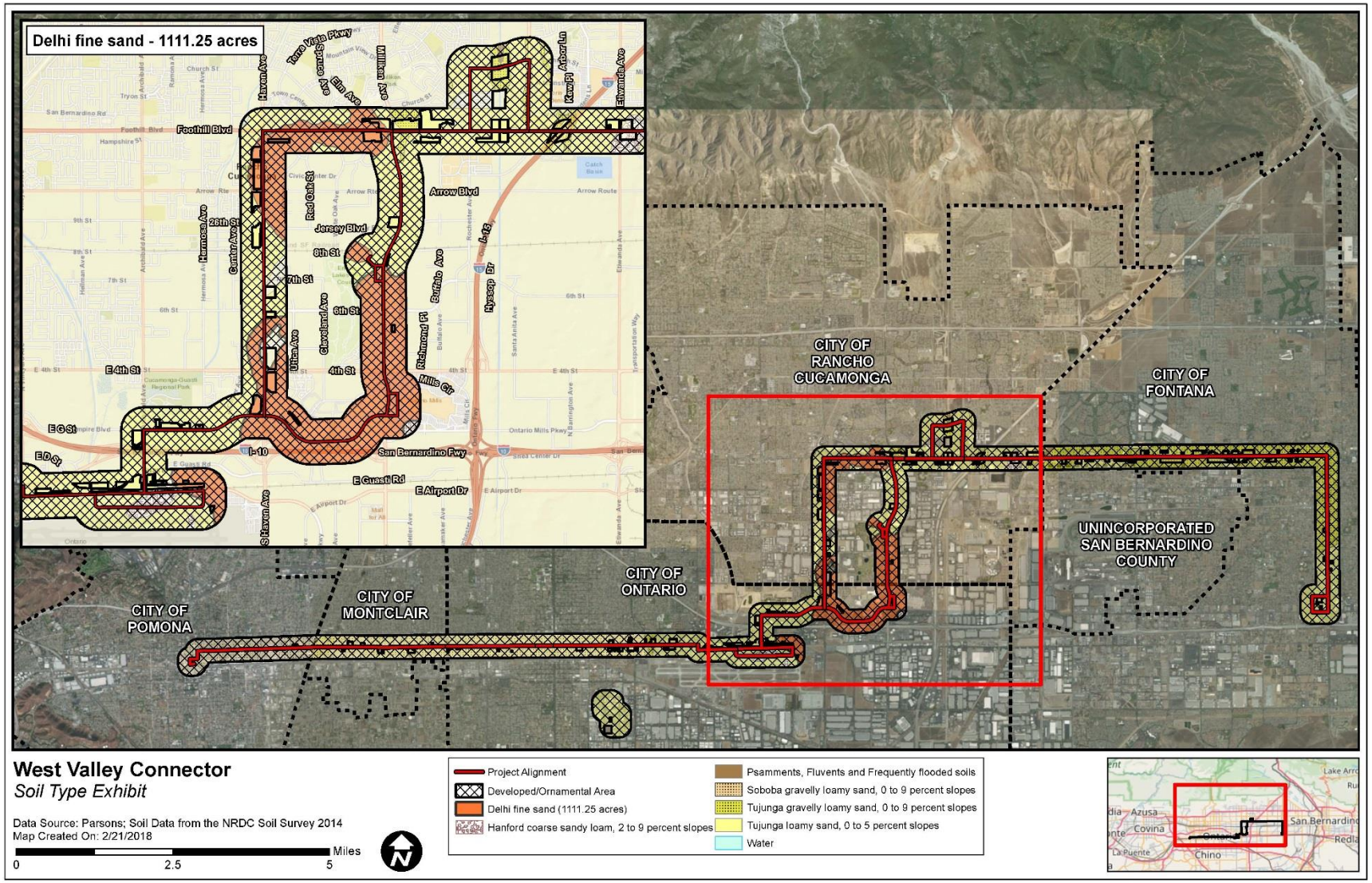

Figure 4-2: Soil Types

5.0 IMPACTS ANALYSIS

This chapter identifies sensitive biological resources that could potentially be affected by the project or need additional discussion. If impacts are anticipated, avoidance, minimization, and/or mitigation measures are proposed.

The determination of impacts in this analysis was based on a comparison of existing site conditions and maps showing the project impact footpint, along with maps of biological resources in the BSA. Permanent project impacts are considered in areas that would be within the project's final ROW. Temporary project impacts include those necessary for grading, staging area, construction access, utility work, and construction within a concrete channel. Direct and indirect impacts on biological resources have been evaluated. Direct impacts are those that involve the initial loss of biological resources due to grading and construction. Indirect impacts are those that would be related to disturbance from construction or operation of the project.

5.1 Natural Communities of Special Concern

Special-status natural communities reported within 5 miles of the BSA include CSS. Approximately 0.8 acre of disturbed CSS occurs in the study area in two small, isolated patches, as discussed in further detail below.

No other vegetation communities that occur within the BSA are discussed in this section because they are not considered special status.

5.1.1 Discussion of Coastal Sage Scrub

Survey Results

In total, 0.8 acre of disturbed CSS occurs in the BSA. These small fragments are isolated and not suitable habitat for such species as the CAGN. This habitat is outside the project impact area and would not be impacted during construction. The isolated patches are located near 8th Street and Milliken Avenue and within the parcel proposed for development at the southeast corner of N. Haven and 4th Street. These areas contain primarily California buckwheat. The disturbed CSS along N. Milliken occurs adjacent to a row of ornamental trees and is not contiguous with any other CSS (see Appendix C, Sheets 25 and 26, and Appendix B, *Site Photos*, Photos 9 and 10).

Project Impacts

There would be no permanent or temporary impacts to CSS habitat because it occurs outside the project alignment of both corridor alternatives and at either potential site of the proposed O&M facility. Temporary construction easements (TCEs) are not anticipated to impact CSS habitat within the BSA.

Avoidance and Minimization Measures

CSS within the BSA will be identified as an Environmentally Sensitive Area (ESA). During final design, coordination will occur with a qualified biologist to delineate all ESAs within the project footprint and immediately surrounding areas.

Prior to clearing vegetation or ground-disturbing construction activities within or adjacent to ESAs, the Contractor will install highly visible barriers (e.g., orange construction fencing) adjacent to the project footprint to designate ESAs to be preserved in place. No grading or fill activity of any type will be permitted within these ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated in a manner to prevent accidental damage to nearby ESAs. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within the ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities. A qualified biologist will supervise the placement of ESA fencing.

Compensatory Mitigation

With implementation of the above avoidance measure, the project would not result in any impacts to CSS habitat. The project would not result in other impacts to any special-status vegetation communities. Therefore, no compensatory mitigation is required for project impacts to CSS or any other special-status vegetation communities.

5.2 Non-Sensitive Vegetation Community Impacts

Survey Results

Disturbed/ruderal vegetation is found throughout the BSA and is commonly found on cleared roadsides and in urban settings. The project alignment follows urban streets, and the BSA contains primarily ornamental vegetation mixed with disturbed areas that have recently been cleared and lack vegetation or contain weedy species. Areas of disturbed/ruderal and developed/ornamental vegetation dominate the project. Disturbed/ ruderal habitat may provide marginally suitable habitat for BUOW.

Project Impacts

Alternative A

Under Alternative A, approximately 62 ornamental trees and shrubs would be removed to construct side-running stations. No additional impacts to non-sensitive vegetation communities are anticipated for Alternative A because the proposed side-running stations would be constructed within existing paved areas and parkways, which include sidewalks and urbanized, landscaped areas that lack vegetation.

Alternative B

A total of 1.21 acres of disturbed/ruderal habitat is anticipated to be permanently impacted by Alternative B. This area of permanent impact is located along E. Holt Avenue at Pleasant Avenue, Holt and Grove Avenue, Holt and Allyn, Holt and South Cucamonga Avenue, and Holt and S. Oaks (see Appendix C, *Biological Resources)*. These areas are cleared, lack vegetation, and/or contain ornamental or weedy species that are frequently mowed or disked. A total of 0.81 acre of disturbed/ruderal habitat is anticipated to be temporarily impacted by Alternative B. These areas are located along E. Holt Avenue and Benson, Holt and Pleasant, Holt and Allyn, Holt and South Cucamonga Avenue, Holt and Grove Avenue, Holt and N. Imperial, and Holt and S. Walker (see Appendix C, *Biological Resources).*

O&M Facility

No impacts to disturbed/ruderal habitat would occur as a result of the O&M facility construction at any potential sites because they are located in the developed industrial use area.

Avoidance and Minimization Measures

Given that the areas of permanent impact are mowed or disked, lack vegetation, and/or contain ornamental or weedy species, no avoidance and minimization measures are proposed for disturbed/ruderal. See discussion in Section 5.5.1 for BUOW.

Compensatory Mitigation

Disturbed/ruderal is not a sensitive vegetation community, and additional compensatory mitigation is not proposed for project impacts to non-sensitive vegetation communities.

5.3 Jurisdictional Wetlands and Waters of the U.S.

This section discusses wetlands, “Waters of the U.S.,” and “Waters of the State” regulated by USACE, CDFW, and the RWQCB.

5.3.1 Discussion of Potentially Jurisdictional Wetlands and Waters of the U.S.

Wetlands are defined as areas of land that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support—and that under normal circumstances do support—a prevalence of vegetation typically adapted for life in saturated soil conditions. To regulate activities in wetlands, federal and state agencies have developed specific definitions and methods for identifying wetland boundaries. Identification methods, which vary among the agencies, focus on hydrologic, soil, and vegetative parameters. For sites to be identified as wetlands, they must have specific indicators of wetland conditions for each of these three parameters. Areas that contain some but not all

three parameters are considered “Waters of the U.S.,” which are regulated by USACE, and “Waters of the State,” which are regulated by CDFW.

Jurisdictional delineators based their field interpretation of the boundaries of jurisdictional areas on guidelines contained in the Corps of Engineers Wetlands Delineation Manual [Environmental Laboratory, 1987] and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Supplement Version 2.0 [USACE, 2008]. Waters of the U.S. that may be regulated by USACE under Section 404 of the CWA include traditionally navigable waters, other Waters of the U.S., and wetlands. Wetlands are a subset of Waters of the U.S. that meet specific vegetative, soil, and hydrologic criteria.

Survey Results

The five channels within the project area are mapped as “waterways/channels” on the Biological Resources Map (see Appendix C), as well as shown in Figure 4-1. These areas all have the potential to be jurisdictional according to USACE and CDFW guidelines. A jurisdictional delineation was not completed at the time of preparation of the BSR and should be completed prior to applying for permits. A total of approximately 8.3 acres of potentially jurisdictional areas occurs within the BSA in the form of waterways/channels. The approximate limit of 8.3 acres was determined using the concrete banks as a potentially jurisdictional for mapping of biological resources. These areas were assessed using aerial photographs and then field verified for existing conditions.

Table 5-1: Drainages in the BSA

Channel Name	Acres within BSA (500-foot Buffer)
East Etiwanda Creek	1.33
Cucamonga Channel	3.47
Day Creek Channel	1.88
San Antonio Wash	0.71
West Cucamonga Channel (3 crossings)	0.58
	0.28
	0.01
TOTAL	8.26

Project Impacts

Alternative A

No impacts to jurisdictional waters would occur under Alternative A.

Alternative B

Project design has resulted in the avoidance of the channels in the BSA aside from proposed temporary impacts at the West Cucamonga Channel. Impacts on potential jurisdictional areas were determined by comparing engineering plans with maps of potential jurisdictional resources. Proposed temporary impacts to West Cucamonga Channel would occur to construct the Holt Boulevard/Grove Avenue station in Ontario. Potential impacts to West Cucamonga Channel would occur as a result of construction access, maneuvering, and staging. There are no permanent impacts anticipated at any of the channels. All of the channels lack vegetation.

According to USACE guidelines, replacement of concrete features within Waters of the U.S. is considered temporary. Furthermore, project features proposed at the Holt Boulevard/ Grove Avenue station are not expected to impact the flow of water upstream and downstream upon project completion. Therefore, approximately 0.2 acre of potential temporary impacts may occur to West Cucamonga Channel under Alternative B, pending confirmation from a jurisdictional delineation and report.

At the time of preparation of the BSR, based on current project design for Alternative B, the project would potentially impact the West Cucamonga Channel area of approximately 0.2 acre under the jurisdiction of USACE and the RWQCB from construction of side-running stations. The project would impact approximately 0.2 acre under the jurisdiction of CDFW. See Appendix C, Sheet 10, for location of the impacts to the West Cucamonga Channel. There are no impacts to channels for Alternative A.

Authorization to work under a nationwide permit would be required to comply with Section 404 of the CWA. To apply for authorization to work under a nationwide permit, a jurisdictional delienation and report will be needed.

Coordination with the USACE has been initiated in February 2018. A coordination conference call with Ms. Shannon Pankratz, USACE Project Manager for Los Angeles and San Bernadino County areas was arranged on April 4, 2018. Ms. Pankrats stated that a USACE Nationwide Permit (NWP) 33 will be needed for the temporary impact to the West Cucamonga Channel. A Preliminary Jurisdictional Deliniation (PJD) shall be submitted with the application when the work area is identified.

O&M Facility

No impacts to jurisdictional waters would occur as a result of the O&M facility construction at any potential sites because they are located in the developed industrial use area.

Avoidance and Minimization Efforts

Avoidance and minimization measures for impacts to West Cucamonga Channel under Alternative B will be determined through the CWA Section 404 Nationwide Permit Application, CDFW 1602 Streambed Alteration Application, and RWQCB Water Quality Certification processes. The following are typical conditions included with permits:

- Potentially jurisdictional areas (channels) adjacent to the proposed impact area shall be protected from inadvertent disturbance by construction equipment and/or personnel, thus protecting plants and wildlife in the habitat next to the impact area. Before grading and/or construction-related activity within 50 feet of areas under the jurisdiction of USACE, the RWQCB, and/or CDFW, the Contractor shall install fencing or flagging to delineate the jurisdictional areas as an ESA. Placement of the fencing shall be done under the supervision of a qualified biologist. All personnel and equipment access to the ESA shall be prohibited unless approved by a qualified biologist.

- Construction activities within any channel will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized.

Compensatory Mitigation

Prior to initiation of construction, the project proponent shall coordinate and obtain necessary permits from USACE, CDFW, and the RWQCB regarding compensation for impacts to potentially jurisdictional areas. The final determination of the limits of the jurisdictional areas within the BSA and whether mitigation will be required for such imapcts is ultimately subject to the discretion of the agencies (i.e., CDFW, USACE, and RWQCB) during the federal and State regulatory permitting processes.

5.4 Special-Status Plant Species

No special-status plant species were observed in the BSA during the 2016 general biological surveys of the area.

5.5 Special-Status Animal Species Occurrences

No special-status animal species were observed in the BSA during the 2016 general biological surveys of the area.

Those species that need additional discussion are described in further detail below. BUOW and DSF may occur in the BSA; however, the habitat is marginal and of poor quality. USFWS should verify the survey recommendations for DSF.

5.5.1 Discussion of the Burrowing Owl

The BUOW is a California SSC (active burrow sites). Although the BUOW was recently proposed as a State Candidate for listing, CDFW determined that the species did not warrant listing in consideration of its population throughout the state. In California, BUOW breed and forage in grasslands and prefer flat to low rolling hills in treeless terrain. They are small owls that nest in burrows, typically in open habitats often along banks and roadsides.

Survey Results

BUOW are not expected in the project impact area. Marginal suitable habitat is present within the BSA, outside of the project impact area, and in open areas along Foothill Boulevard in the cities of Fontana and Rancho Cucamonga, as disturbed/ruderal. In the BSA, marginal suitable habitat in the form of disturbed/ruderal is found along W. Holt Boulevard where widening is proposed; however, this habitat is considered marginal given the surrounding urban environment. A single potential burrow was located along an unnamed access road adjacent to a parking lot off Foothill Boulevard (between Elm Avenue and Milliken Avenue (see Appendix B, *Site Photos,* Photos 12 and 21); however, no BUOW sign was associated with the burrow. No BUOW or sign were observed during the survey; however, focused surveys for BUOW were not conducted. A Phase I Habitat Assessment occurred where suitable habitat, considered disturbed/ruderal (Appendix B, *Biological Resources*), was recorded. Any potential burrows encountered during the mapping of biological resources were recorded. A Phase II survey, according to California Burrowing Owl Consortium Guidelines (1993), was not completed. To avoid direct project impacts to BUOW that may move into the project area prior to project construction, a preconstruction BUOW survey would be conducted in marginally suitable habitat, as discussed below. There are 447.49 acres of disturbed/ruderal within the BSA; however, the small linear sections of disturbed/ruderal habitat that will be impacted by the project are degraded and mowed/ disked, with compacted soils typical of roadway shoulders.

Project Impacts

Alternative A

No impacts to any potential BUOW habitat would occur under Alternative A.

Alternative B

Under Alterative B, there would be 1.21 acres of permanent impact and 0.81 acre of temporary impact to potential BUOW habitat classified as disturbed/ruderal. The habitat is marginally suitable for BUOW; however, the BUOW is not anticipated to occur given the poor quality of habitat.

O&M Facility

No impacts to any potential BUOW habitat would occur as a result of the O&M facility construction at any potential sites because they are located in the developed industrial use area.

Avoidance and Minimization Efforts

To ensure that any BUOW that may occupy the site in the future are not affected by the construction activities, preconstruction BUOW surveys will be required within 30 days prior to any ground-disturbing activities in the areas identified as potential BUOW habitat.

If any of the preconstruction surveys determine that BUOW are present, coordination with CDFW will occur to identify appropriate avoidance and minimization measures including, but not limited to, avoidance of active nests and surrounding buffer areas during construction activities; passive relocation of individual owls; active relocation of individual owls; and preservation of onsite habitat with long-term conservation value for the owl.

Compensatory Mitigation

Compensatory mitigation for BUOW shall be required only if BUOW are found within 250 feet of construction activities and cannot be avoided during construction. In this event, potential compensatory mitigation may include purchase of suitable habitat through the payment of fees. BUOW are not anticipated to occur within the project impact area or within 250 feet of the BSA. If BUOW are found during preconstruction BUOW surveys, avoidance measures will be implemented to avoid impacts to BUOW to the fullest extent possible. If impacts to BUOW cannot be avoided, SBCTA will coordinate with CDFW to determine appropriate mitigation measures.

5.5.2 Discussion of the Delhi Sands Flower Loving Fly

DSF is a federally listed endangered species. DSF is only known to occur in association with Delhi sand deposits. Most of the known DSF habitat was considered eliminated by development, agriculture, and other land management practices. Many of the last remaining fragments of DSF habitat are currently under pressure by land management efforts such as heavy disking, irrigation, manure dumping, and gravel dumping.

Survey Results

Delhi soils were historically present in the BSA from approximately Inland Empire Boulevard/ Mercedes Lane, in the City of Ontario, to N. Milliken Avenue and 8th Street, in the City of Rancho Cucamonga. There are more than 1,111 acres of historical Delhi fine soils mapped within a 1,000-foot buffer from the project centerline, as shown in Figure 4-2 and Appendix D. These historical areas of Delhi fine soils have been developed into an urban area comprised of residential, commercial, and industrial development. These developed areas may contain Delhi soils, but they are extensively and deeply covered by foreign soils, including gravel and concrete – these areas are considered previously impacted and determined unsuitable for DSF.

Small undeveloped fragmented patches of DSF soils, totaling 58.32 acres are found throughout the BSA; however, some of these areas are highly disturbed (i.e., compacted soil, mixed-soil, gravel and non-native vegetation), do not contain the constituent plants commonly seen in areas where DSF is present, are surrounded by existing development, and/or are currently going through the land development process; however, these small patches of undeveloped and/or open space containing DSF soils are considered potential DSF habitat and/or recoverable habitat that could sustain the recovery of DSF through habitat restoration.

Project Impacts

Alternatives A and B

Any undeveloped and/or open areas where historic DSF soils have been identified are considered potentially suitable DSF habitat. Appendix D provides mapping illustrating the project's temporary and permanent impact boundaries relative to historic DSF soils. Although there are small fragmented areas where DSF soils occur, Alternatives A and B would not result in temporary or permanent impacts to DSF and its habitat. Both alternatives would avoid permanent conversion of suitable DSF habitat into transportation uses or temporarily impact suitable DSF habitat during construction.

If project design plans change and result in impacts to undeveloped and/or open areas where historic DSF soils are identified, a habitat assessment should be conducted to assess the suitability of the impacted area to support DSF. Presence/absence surveys for DSF shall be conducted in areas identified by the habitat assessment as potentially suitable habitat and conform with the latest USFWS guidelines for conducting these surveys, which include DSF surveys 2 times per week from July 1 to September 20 for 2 consecutive years under suitable conditions (USFWS, 2014).

O&M Facility

No impacts to any potential DSF habitat would occur as a result of the O&M facility construction at any potential sites because they are located in the developed industrial use area.

Avoidance and Minimization Efforts

Coordination with USFWS is recommended if the project would result in permanent and/or temporary impacts to potentially suitable DSF habitat.

5.6 Nesting Birds

Survey Results

Nesting birds, including swallows, may use structures, such as the Haven Avenue Bridge and concrete channels, within the BSA. As discussed in more detail in Section 4.1.1, all the channels within the BSA are concrete lined and lack vegetation. Nesting birds may also use shrubs and trees within the BSA, classified primarily as developed/ornamental, as shown in the Biological Resources Map (see Appendix C). Bats may also forage in mature trees in the BSA and occur within the developed/ornamental vegetation communities identified in the Biological Resources Map (see Appendix C). No specific flight surveys or acoustic surveys for bats were conducted.

There were no nests, nesting birds, swallows, or bats observed during the general biological survey. Raptors and migratory birds potentially using shrubs and trees within the BSA could be affected by their removal and/or proximity to construction activities. If present, construction during the breeding season could disrupt nesting activities, possibly resulting in nest abandonment, loss of young, and reduced health and vigor of eggs and/or nestlings. Project impacts to nesting birds would be limited to removal of trees and shrubs within the BSA and exclusion of swallows from any nests.

Avoidance and Minimization Efforts

- Avoid disturbance of any nests protected by the MBTA. Alternatively, tree and shrub removal activities can be scheduled to occur during the non-breeding season (September 1 through January 31).
- If tree and shrub removal activities are scheduled to occur during the breeding season (February 1 through August 31), then SBCTA will implement the following measures to avoid potential adverse effects on birds covered by the MBTA:
  - No more than 1 week prior to construction, a qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction activities where access is available.

  - If active nests are found during preconstruction surveys, then the project proponent will create a no-distrubance buffer [acceptable in size to CDFW] around active raptor nests and nests of other special-status birds during the breeding season, or until it is determinated that all young have fledged. Typical buffers include 500 feet for raptors and 250 feet for other nesting birds. The size of these buffer zones and types of construction activities restricted in these areas may be further modified during coordination and in consultation with CDFW, and it will be based on existing noise and human disturbance levels at the project site. Nests initiated during construction are presumed to be unaffected, and no buffer will be necessary; however, the “take” (e.g., mortality, severe disturbance to) of any individual birds will be prohibited.
- If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, then no further mitigation is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by birds covered by the MBTA or that are located outside the no-disturbance buffer for active nests may be removed.

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6.0 CONCLUSIONS, RECOMMENDATIONS, AND MITIGATION MEASURES

6.1 Permits

A jurisdictional delineation must be completed before permit applications are submitted. Permits are typically applied for at 65% design. Coordination with USACE was initiated in February 2018 and is ongoing to determine the type of permits required. Before any work begins at the West Cucamonga Channel, 404, 1602, and 401 permits may need to be obtained. Based on the coordination with the San Bernardino County Flood Control District staff (Stacy Serrano, Engineering Technician IV) on April 4, 2018, a permit from San Bernardino County Flood Control District is required, but the 408 USACE's construction permission is not required.

There are no anticipated impacts to the other channels in the BSA and therefore permits are not required for San Antonio Channel, Cucamonga Channel, Etiwanda Channel, and Day Creek Channel. Typical conditions with permits may include, but are not limited to:

- Potentially jurisdictional areas (channels) adjacent to the proposed impact area shall be protected from inadvertent disturbance by construction equipment and/or personnel, thus protecting plants and wildlife in the habitat next to the impact area. Before grading and/or construction-related activity within 50 feet of areas under the jurisdiction of USACE, the RWQCB, and/or CDFW, the Contractor shall install fencing or flagging to delineate the jurisdictional areas as an ESA. Placement of the fencing shall be done under the supervision of a qualified biologist. All personnel and equipment access to the ESA shall be prohibited unless approved by a qualified biologist.
- Construction activities within any channel will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized.

6.2 Special-Status Animal Species

Burrowing Owl

BIO-1: Burrowing Owl Protection. To ensure that any BUOW that may occupy the site in the future are not affected by the construction activities, preconstruction BUOW surveys will be

required within 30 days prior to any ground-disturbing activities in the areas identified as potential BUOW habitat.

If any of the preconstruction surveys determine that BUOW are present, one or more of the following mitigation measures may be required:

- Avoidance of active nests and surrounding buffer areas during construction activities
- Passive relocation of individual owls
- Active relocation of individual owls
- Preservation of onsite habitat with long-term conservation value for the owl.

6.3 Nesting Birds

BIO-2: Nesting Birds Protection. Avoid disturbance of any nests protected by the MBTA. Alternatively, tree and shrub removal activities can be schduled to occur during the non-breeding season (September 1 through January 31).

If tree and shrub removal acitivities are scheduled to occur during the breeding season (February 1 through August 31), then SBCTA will implement the following measures to avoid potential adverse effects on birds covered by the MBTA:

- No more than 1 week prior to construction, a qualified wildlife biologist will conduct preconstruction survey of all potential nesting habitat within 500 feet of construction activities where access is available.
- If active nests are found during preconstruction surveys, then the project proponent will create a no-disturbance buffer [acceptable in size to CDFW] around active raptor nests and nests of other special-status birds during the breeding season, or until it is determinated that all young have fledged. Typical buffers include 500 feet for raptors and 250 feet for other nesting birds. The size of these buffer zones and types of construction activities restricted in these areas may be further modified during coordination and in consultation with CDFW, and it will be based on existing noise and human disturbance levels at the project site. Nests initiated during construction are presumed to be unaffected, and no buffer will be necessary; however, the “take” (e.g., mortality, severe disturbance to) of any individual birds will be prohibited.

If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, then no further mitigation is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by birds covered by the MBTA or that are located outside the no-disturbance buffer for active nests may be removed.

6.4 Coastal Sage Scrub

BIO-3: Coastal Sage Scrub Protection. During final design, the Project Engineer will coordinate with a qualified biologist to delineate all ESAs within the project footprint and immediately surrounding areas. ESAs are not identified as temporarily or permanently impacted in the environmental document.

Prior to clearing vegetation or construction within or adjacent to ESAs, the Contractor will install highly visible barriers (e.g., orange construction fencing) adjacent to the project impact area to designate ESAs to be preserved in place. No grading or fill activity of any type will be permitted within these ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated in a manner to prevent accidental damage to nearby ESAs. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within the ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities. A qualified biologist will supervise the placement of ESA fencing.

6.5 Delhi Sands Flower-Loving Fly

The BSA is highly disturbed, primarily by vehicles, in this urban corridor. Refer to Appendix B for site photos of sample vegetation along Haven Avenue and Milliken Avenue in the City of Rancho Cucamonga.

BIO-4: Delhi Sands Flower-Loving Fly Protection. A habitat assessment for DSF was not conducted because both build alternatives would be constructed within developed areas within the BSA. If design plans change and will impact undeveloped and/or open space areas, a habitat assessment shall be conducted to determine whether the impacted area is suitable to support DSF. If the findings of the habitat assessment indicate that the area could support DSF, a presence/absence survey for DSF shall be conducted; however, USFWS shall verify this finding and approach.

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APPENDIX A: SPECIES LISTS

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CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

28 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3411717, 3411716 3411715 and 3411714;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5? T3T4
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	4.2	S4	G4
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	1B.1	S1	G1
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S3S4	G3G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2	S2	G3G4T2
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	1B.1	S1	G1Q
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep	1B.1	S2	G3G4T2
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S2	G3T2
Cladium californicum	California sawgrass	Cyperaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S2	G4
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	S4	G4
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	1B.1	S1	G4T1
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
	Southern California	Juglandaceae	perennial	Mar-Aug	4.2	S4	G4

Juglans californica	black walnut		deciduous tree				
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Monardella pringlei	Pringle's monardella	Lamiaceae	annual herb	May-Jun	1A	SX	GX
Muhlenbergia californica	California muhly	Poaceae	perennial rhizomatous herb	Jun-Sep	4.3	S4	G4
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	1B.1	S1	G1
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	4.2	S3	G3
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	2B.2	S2	G5
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov(Dec)	1B.2	S2	G2

Suggested Citation

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Query Summary:
Quad IS (San Dimas (3411717) OR Ontario (3411716) OR Guasti (3411715) OR Fontana (3411714))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	2	None	Threatened	G2G3	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	233	1	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Anniella stebbinsi	southern California legless lizard	Reptiles	ARACC01060	417	18	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	2	None	None	G5	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Arenaria paludicola	marsh sandwort	Dicots	PDCAR040L0	16	1	Endangered	Endangered	G1	S1	1B.1	SB_SBBG-Santa Barbara Botanic Garden	Freshwater marsh, Marsh & swamp, Wetland
Arizona elegans occidentalis	California glossy snake	Reptiles	ARADB01017	260	7	None	None	G5T2	S2	null	CDFW_SSC-Species of Special Concern	null
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	ARACJ02143	148	1	None	None	G5T5	S3	null	CDFW_SSC-Species of Special Concern	null
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1989	23	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of	Coastal prairie, Coastal scrub, Great

https://apps.wildlife.ca.gov/rarefind/view/QuickElementListView.html 1/7

											Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Berberis nevinii	Nevin's barberry	Dicots	PDBER060A0	32	1	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	234	6	None	Candidate Endangered	G3G4	S1S2	null	null	null
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2518	1	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
California Walnut Woodland	California Walnut Woodland	Woodland	CTT71210CA	76	4	None	None	G2	S2.1	null	null	Cismontane woodland
Calochortus plummerae	Plummer's mariposa-lily	Monocots	PMLIL0D150	230	5	None	None	G4	S4	4.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	PMLIL0D1J1	140	2	None	None	G3G4T2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Calystegia felix	lucky morning-glory	Dicots	PDCON040P0	10	1	None	None	G1Q	S1	1B.1	null	Meadow & seep, Riparian scrub
Catostomus santaanae	Santa Ana sucker	Fish	AFCJC02190	28	2	Threatened	None	G1	S1	null	AFS_TH-Threatened, IUCN_VU-Vulnerable	Aquatic, South coast flowing waters
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	Mammals	AMAFD05031	101	3	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Chaparral, Coastal scrub
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Dicots	PDSCR0J0C2	30	1	Endangered	Endangered	G4?T1	S1	1B.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Coastal dunes, Marsh & swamp, Salt marsh, Wetland
Chorizanthe parryi var. parryi	Parry's spineflower	Dicots	PDPGN040J2	150	2	None	None	G3T2	S2	1B.1	BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Cicindela	greenest tiger	Insects	IICOL02201	1	1	None	None	G5T1	S1	null	null	Riparian

tranquebarica viridissima	beetle											woodland
Cladium californicum	California saw-grass	Monocots	PMCYP04010	13	1	None	None	G4	S2	2B.2	SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Alkali marsh, Freshwater marsh, Meadow & seep, Wetland
Crotalus ruber	red-diamond rattlesnake	Reptiles	ARADE02090	192	1	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Chaparral, Mojavean desert scrub, Sonoran desert scrub
Diplectrona californica	California diplectronan caddisfly	Insects	IITRI23010	1	1	None	None	G1G2	S1S2	null	null	Aquatic
Dipodomys merriami parvus	San Bernardino kangaroo rat	Mammals	AMAFD03143	81	5	Endangered	Candidate Endangered	G5T1	S1	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Dipodomys stephensi	Stephens' kangaroo rat	Mammals	AMAFD03100	220	1	Endangered	Threatened	G2	S2	null	IUCN_EN-Endangered	Coastal scrub, Valley & foothill grassland
Dodecahema leptoceras	slender-horned spineflower	Dicots	PDPGN0V010	41	1	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	154	9	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Dicots	PDPLM03035	31	3	Endangered	Endangered	G4T1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Coastal scrub
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	4	None	None	G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Falco columbarius	merlin	Birds	ABNKD06030	37	1	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Estuary, Great Basin grassland, Valley & foothill grassland
Gila orcuttii	arroyo chub	Fish	AFCJB13120	49	2	None	None	G2	S2	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Aquatic, South coast flowing waters
Horkelia cuneata var. puberula	mesa horkelia	Dicots	PDROS0W045	103	9	None	None	G4T1	S1	1B.1	USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_H-High Priority	Desert wash
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt

											Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	marsh, Wetland
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	PDBRA1M114	142	6	None	None	G5T3	S3	4.3	null	Chaparral, Coastal scrub
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	AMAEB03051	103	2	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Lycium parishii	Parish's desert-thorn	Dicots	PDSOL0G0D0	21	1	None	None	G4	S1	2B.3	null	Coastal scrub, Sonoran desert scrub
Malacothamnus parishii	Parish's bush-mallow	Dicots	PDMAL0Q0C0	1	1	None	None	GXQ	SX	1A	null	Chaparral, Coastal scrub
Monardella pringlei	Pringle's monardella	Dicots	PDLAM180J0	2	1	None	None	GX	SX	1A	null	Coastal scrub
Muhlenbergia californica	California muhly	Monocots	PMPOA480A0	5	1	None	None	G4	S4	4.3	null	Chaparral, Coastal scrub, Lower montane coniferous forest, Meadow & seep
Muhlenbergia utilis	aparejo grass	Monocots	PMPOA481X0	14	1	None	None	G4	S2S3	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Marsh & swamp, Meadow & seep, Ultramafic
Navarretia prostrata	prostrate vernal pool navarretia	Dicots	PDPLM0C0Q0	60	1	None	None	G2	S2	1B.2	null	Coastal scrub, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	AMAFF08041	132	3	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	AMACD04010	90	2	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_M-Medium Priority	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran desert scrub
Nyctinomops macrotis	big free-tailed bat	Mammals	AMACD04020	32	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_MH-Medium-High Priority	null
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Fish	AFCHA0209J	20	1	Endangered	None	G5T1Q	S1	null	AFS_EN-Endangered	Aquatic, South coast flowing waters
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Mammals	AMAFD01041	70	4	None	None	G5T1T2	S1S2	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Phacelia stellaris	Brand's star	Dicots	PDHYD0C510	15	1	None	None	G1	S1	1B.1	SB_RSABG-	Coastal

	phacelia										Rancho Santa Ana Botanic Garden	dunes, Coastal scrub
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	781	7	None	None	G3G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	846	17	Threatened	None	G4G5T2Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	PDAST440C0	62	2	None	None	G4	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	Insects	IIDIP05021	36	18	Endangered	None	G1T1	S1	null	null	Interior dunes
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	Scrub	CTT32720CA	30	3	None	None	G1	S1.1	null	null	Coastal scrub
Senecio aphanactis	chaparral ragwort	Dicots	PDAST8H060	98	2	None	None	G3	S2	2B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub
Setophaga petechia	yellow warbler	Birds	ABPBX03010	77	1	None	None	G5	S3S4	null	CDFW_SSC-Species of Special Concern, USFWS_BCC-Birds of Conservation Concern	Riparian forest, Riparian scrub, Riparian woodland
Sidalcea neomexicana	salt spring checkerbloom	Dicots	PDMAL110J0	30	2	None	None	G4	S2	2B.2	USFS_S-Sensitive	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1156	1	None	None	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Sphenopholis obtusata	prairie wedge grass	Monocots	PMPOA5T030	19	1	None	None	G5	S2	2B.2	null	Cismontane woodland, Meadow & seep, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	5	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane

												coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Taxidea taxus	American badger	Mammals	AMAJF04010	591	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper

												Sonoran scrub, Valley & foothill grassland
Thamnophis hammondii	two-striped gartersnake	Reptiles	ARADB36160	184	1	None	None	G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland
Thysanocarpus rigidus	rigid fringepod	Dicots	PDBRA2Q070	5	1	None	None	G1G2	S1	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Pinon & juniper woodlands
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	502	4	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened, NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland
Walnut Forest	Walnut Forest	Forest	CTT81600CA	6	3	None	None	G1	S1.1	null	null	Broadleaved upland forest

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To:
Consultation Code: 08ECAR00-2020-SLI-0282
Event Code: 08ECAR00-2020-E-00661
Project Name: Omnitrans West Valley Connector

December 04, 2019

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-0282

Event Code: 08ECAR00-2020-E-00661

Project Name: Omnitrans West Valley Connector

Project Type: TRANSPORTATION

Project Description: The purpose of the proposed project is to improve corridor mobility and transit efficiency in the western San Bernardino Valley from the City of Pomona, in Los Angeles County, to the City of Fontana, in San Bernardino County, with an enhanced, state-of-the-art BRT system.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/34.07539428670394N117.59137144141243W

Counties: Los Angeles, CA | Riverside, CA | San Bernardino, CA

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered
Mountain Yellow-legged Frog *Rana muscosa* Population: Southern California DPS There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8037	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker *Catostomus santaanae* Population: 3 CA river basins There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly *Rhaphiomidas terminatus abdominalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1540	Endangered

Flowering Plants

NAME	STATUS
Braunton's Milk-vetch *Astragalus brauntonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5674	Endangered
Nevin's Barberry *Berberis nevinii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8025	Endangered
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star *Eriastrum densifolium ssp. sanctorum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6575	Endangered
Slender-horned Spineflower *Dodecahema leptoceras* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4007	Endangered
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* https://ecos.fws.gov/ecp/species/8178#crithab	Final

Appendix B: Site Photos

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Photo 1. San Antonio Channel. The view is slightly northeast; photo taken June 13, 2016.

Photo 2. Cucamonga Channel. The view is to the east; photo taken June 13, 2016.

Photo 3. Etiwanda Creek Channel. The view is to the east; photo taken June 13, 2016.

Photo 4. Day Creek Channel. The view is to the east; photo taken June 13, 2016.

Photo 5. West Cucamonga Channel. The view is slightly northwest; photo taken June 13, 2016.

Photo 6. Disturbed/Ruderal Vegetation at Haven Avenue and E 4th Street in Rancho Cucamonga. The view is to the east; photo taken December 6, 2017.

Photo 7. Disturbed/Ruderal Vegetation at Jersey Boulevard and Milliken Avenue in Rancho Cucamonga. The view is to the west; photo taken December 6, 2017.

Photo 8. Disturbed/Ruderal Vegetation along Haven Avenue in Rancho Cucamonga. The view is slightly northwest; photo taken December 6, 2017.

Photo 9. Disturbed Coastal Sage Scrub Vegetation along Milliken Avenue in Rancho Cucamonga. The view is slightly southeast; photo taken December 6, 2017.

Photo 10. Disturbed/Ruderal Area containing Coastal Sage Scrub along Haven Avenue in Rancho Cucamonga. The parcel is fenced for development. The view is to the south; photo taken December 6, 2017.

Photo 11. Ornamental Vegetation along Haven Avenue in Rancho Cucamonga. The view is to the east; photo taken December 6, 2017.

Photo 12. Burrow located at Foothill Boulevard and Milliken Avenue. The photo was taken December 11, 2017.

Photo 14. Disturbed/Ruderal Parcel located along Airport Drive. The view is slightly southeast; photo taken December 11, 2017.

Photo 15. Disturbed/Ruderal Parcel located north of Airport Drive. The view is to the south; photo taken December 11, 2017.

Photo 16. Parcel along Haven and Inland Empire Boulevard. The view is to the slight northeast; photo taken December 11, 2017.

Photo 17. Parcel located along Haven Avenue and Concourse. The view is slightly southwest; photo taken December 11, 2017.

Photo 18. Parcel located at the southwest corner of Haven and Arrow Highway; photo taken December 11, 2017.

Photo 19. Disturbed/Ruderal parcel located at Haven and Arrow Highway. The view is to the north; photo taken December 11, 2017.

Photo 2. Parcel located along S. Haven Avenue south of 4th Street. The view is to the slight southwest; photo taken December 11, 2017.

Photo 21. Parcel located at Foothill Boulevard and Milliken with burrow. The view is to the slight northwest; photo taken December 11, 2107.

APPENDIX C: BIOLOGICAL RESOURCES MAP

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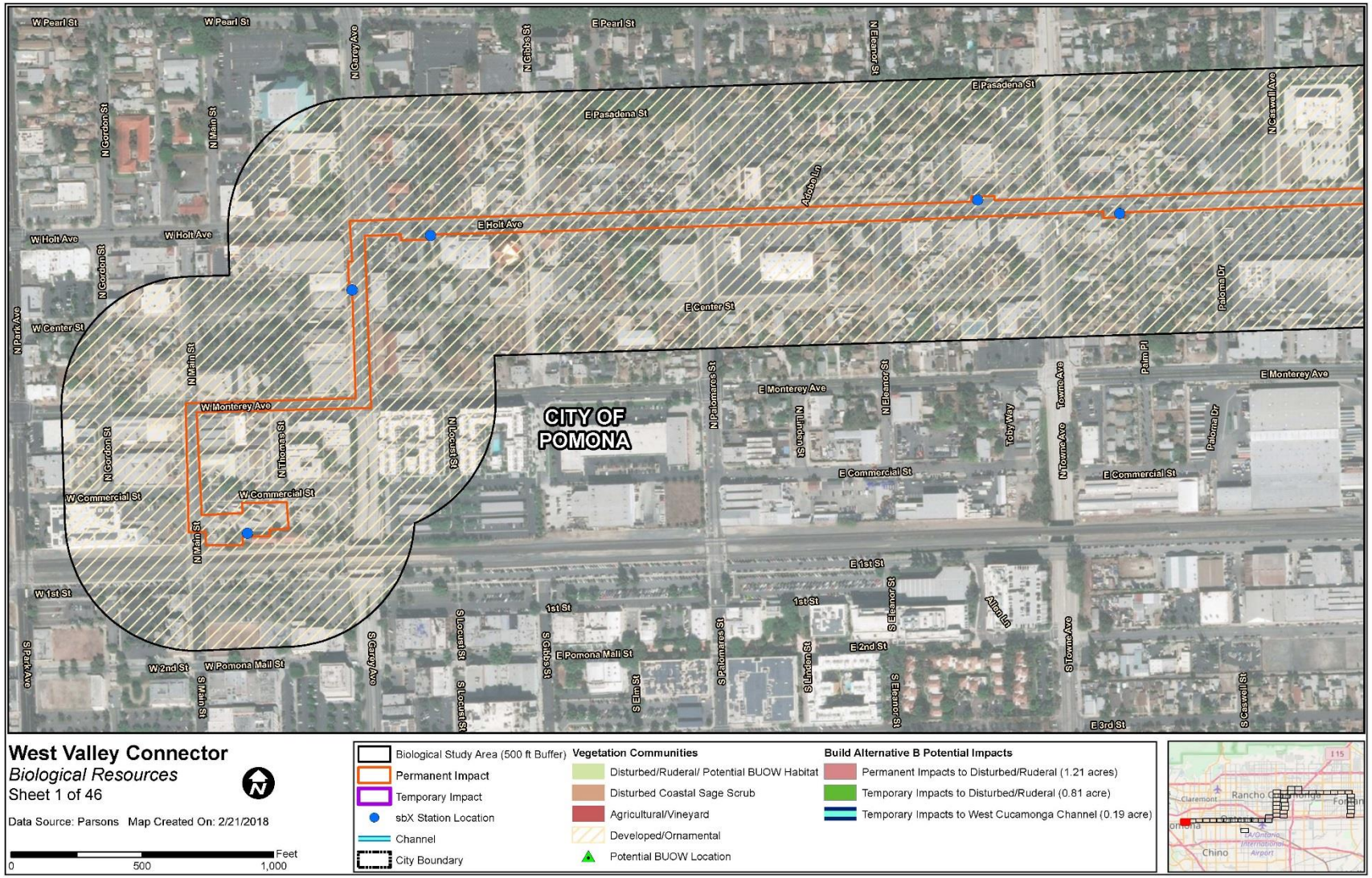
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N Gibbs St
N Eleanor St
E Pasadena St
N Gordon St
N Main St
N Caswell Ave
Adobe Ln
W Holt Ave
E Holt Ave
N Park Ave
W Center St
E Center St
Paloma Dr
CITY OF POMONA
N Palomares St
E Monterey Ave
S Eleanor St
N Lincoln St
Toby Way
N Towne Ave
Palm Pl
W Monterey Ave
N Thomas St
E Commercial St
W Commercial St
W 1st St
E 1st St
1st St
S Garey Ave
S Gibbs St
S Palomares St
S Lincoln St
S Towne Ave
E 2nd St
W 2nd St
W Pomona Mall St
E Pomona Mall St
S Main St
S Caswell St
E 3rd St
West Valley Connector
Biological Resources
Sheet 1 of 46
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Permanent Impact
Temporary Impact
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Channel
City Boundary
Vegetation Communities
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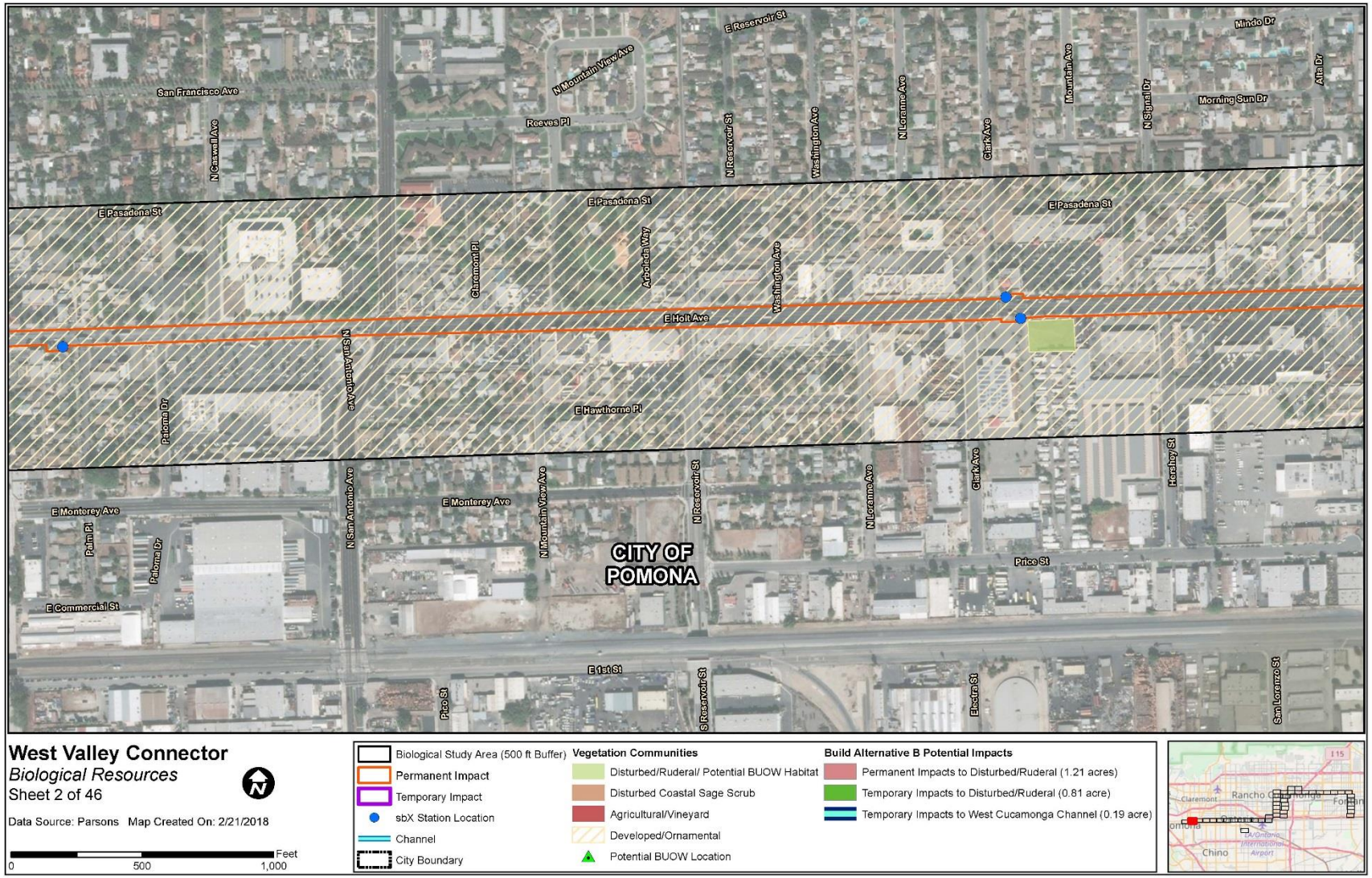
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Rancho Cucamonga
Fontana
Ontario International Airport
Chino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N Mountain View Ave
Reeves Pl
E Reservoir St
N Reservoir St
Washington Ave
N Loraine Ave
Clark Ave
Mountain Ave
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Morning Sun Dr
Mindo Dr
Alta Dr
E Pasadena St
Claremont Pl
Arboleda Way
E Holt Ave
N San Antonio Ave
Paloma Dr
E Hawthorne Pl
E Monterey Ave
Palm Pl
N Mountain View Ave
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Price St
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West Valley Connector
Biological Resources
Sheet 2 of 46
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Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
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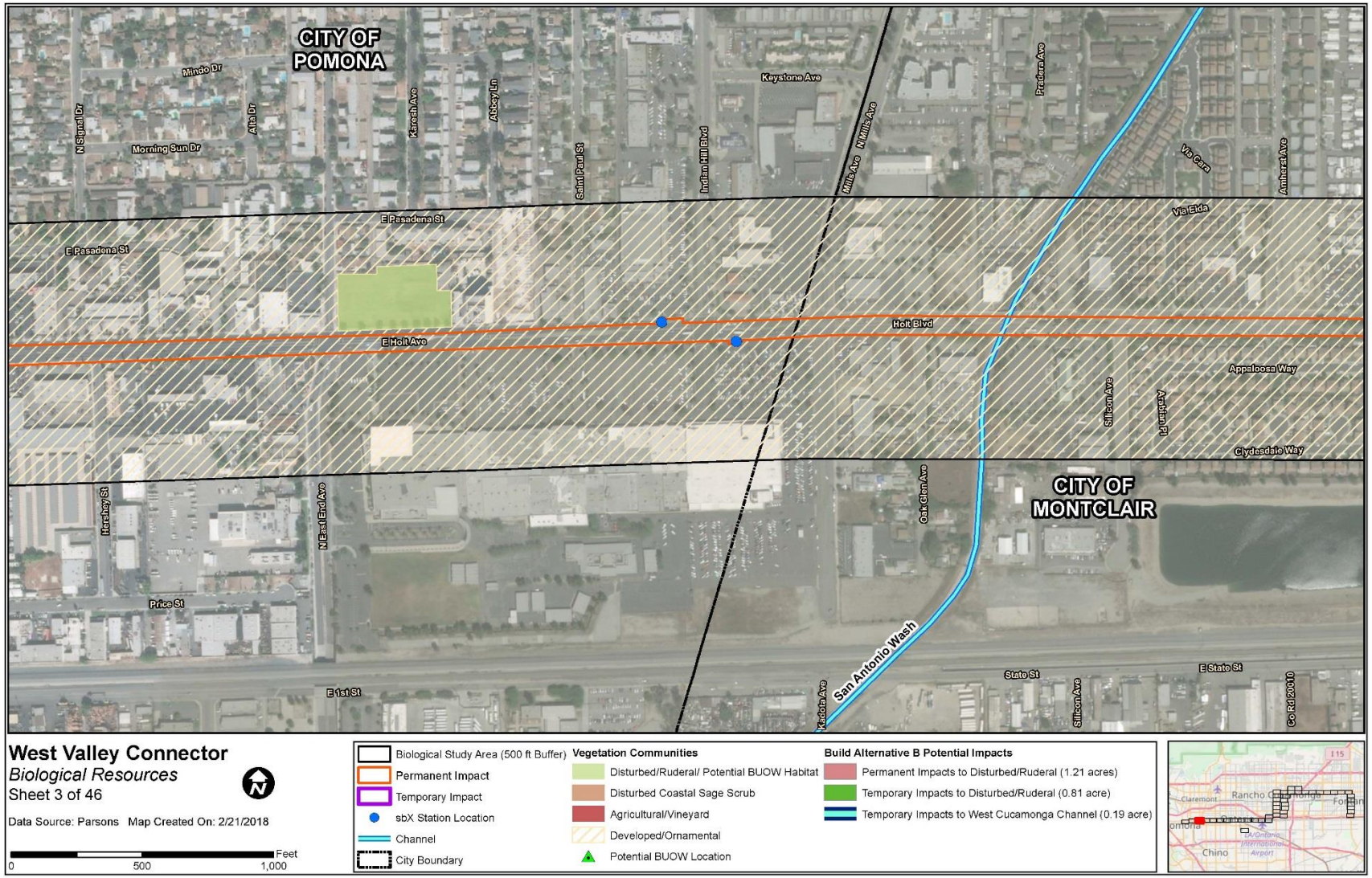
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino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CITY OF MONTCLAIR
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Morning Sun Dr
Alta Dr
Karesh Ave
Abbey Ln
Saint Paul St
Indian Hill Blvd
Keystone Ave
Mills Ave
N Mills Ave
Pradera Ave
Via Cera
Amherst Ave
Via Elda
E Pasadena St
E Holt Ave
Holt Blvd
Appaloosa Way
Silicon Ave
Arabian Ln
Clydesdale Way
Oak Glen Ave
Marshay St
N East End Ave
Price St
E 1st St
San Antonio Wash
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State St
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Silicon Ave
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West Valley Connector
Biological Resources
Sheet 3 of 46
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City Boundary
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Agricultural/Vineyard
Developed/Ornamental
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Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
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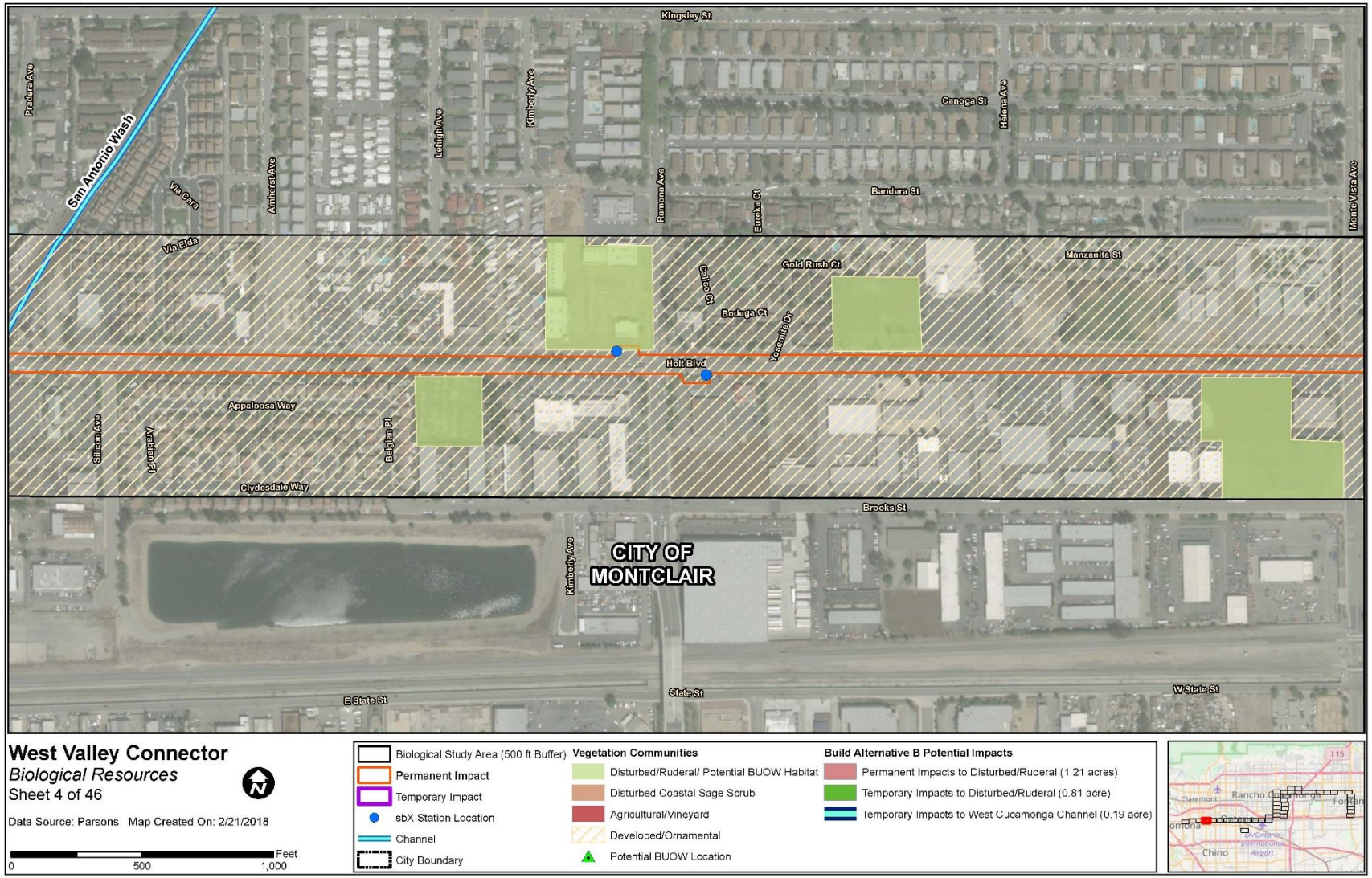
Claremont
Rancho Cucamonga
Fontana
Ontario
Ontario International Airport
Chino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San Antonio Wash
Via Cara
Amherst Ave
Lehigh Ave
Kimberly Ave
Ramona Ave
Eureka Ct
Canoga St
Helena Ave
Bandera St
Monte Vista Ave
Via Elda
Gold Rush Ct
Manzanita St
Bodega Ct
Holt Blvd
Appaloosa Way
Clydesdale Way
Brooks St
CITY OF MONTCLAIR
E State St
State St
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West Valley Connector
Biological Resources
Sheet 4 of 46
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City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
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Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)


Kingsley St
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Canoga St
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Marion Ave
Poultney Ct
Shirley Ln
Bandera St
Bandera St
Monte Vista Ave
Vernon Ave
Vernon Ct
Manzanita St
Manzanita St
Holt Blvd
Rose Ave
Brooks St
Brooks St
Central Ave
CITY OF MONTCLAIR
Fremont Ave
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Rose Ave
Grand Ave
Vernon Ave
West Valley Connector
Biological Resources
Sheet 5 of 46
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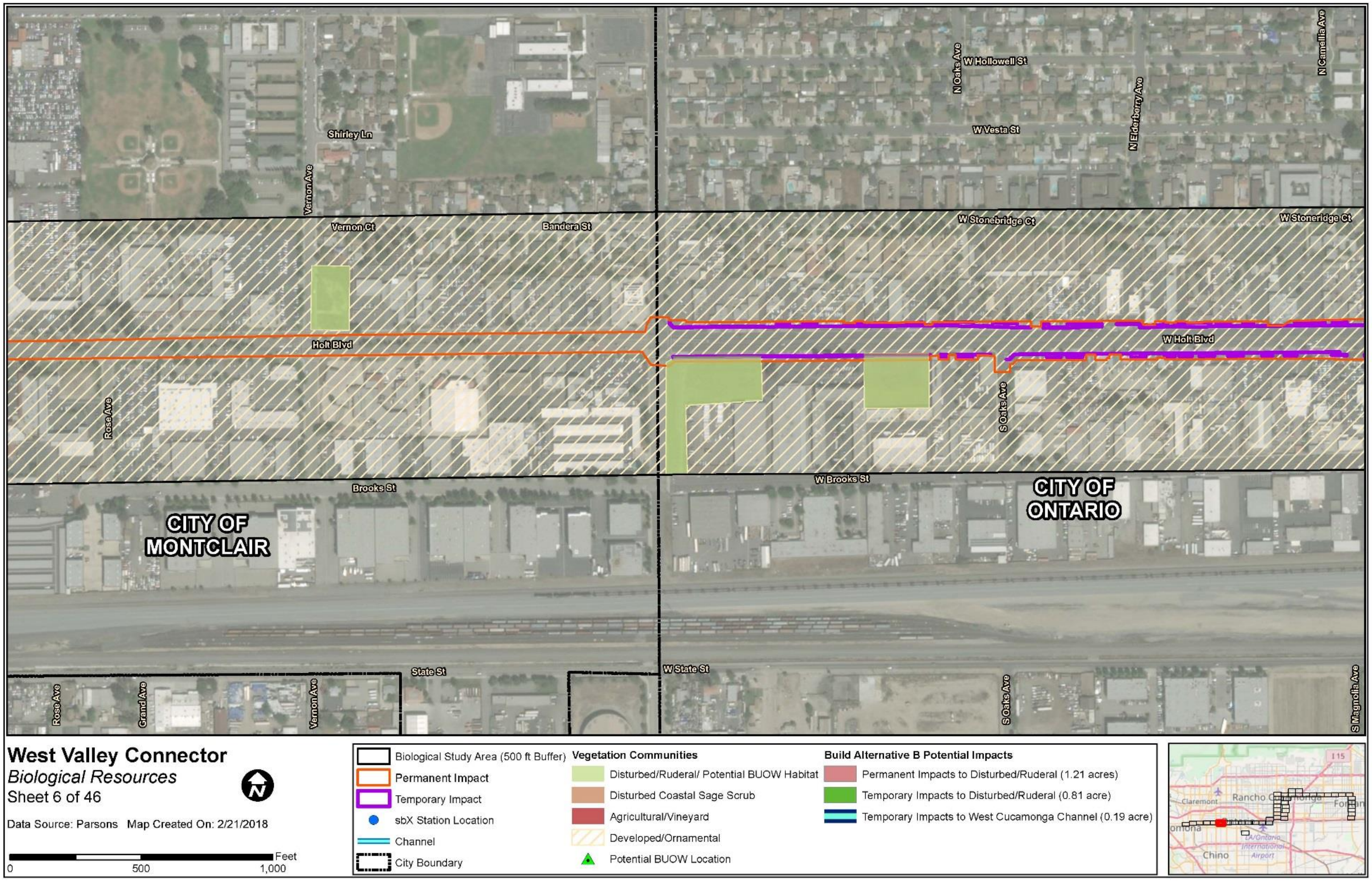
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Holt Blvd
W Holt Blvd
Rose Ave
S Oaks Ave
Brooks St
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CITY OF MONTCLAIR
CITY OF ONTARIO
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Rose Ave
Grand Ave
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S Oaks Ave
S Magnolia Ave
West Valley Connector
Biological Resources
Sheet 6 of 46
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Temporary Impacts to West Cucamonga Channel (0.19 acre)
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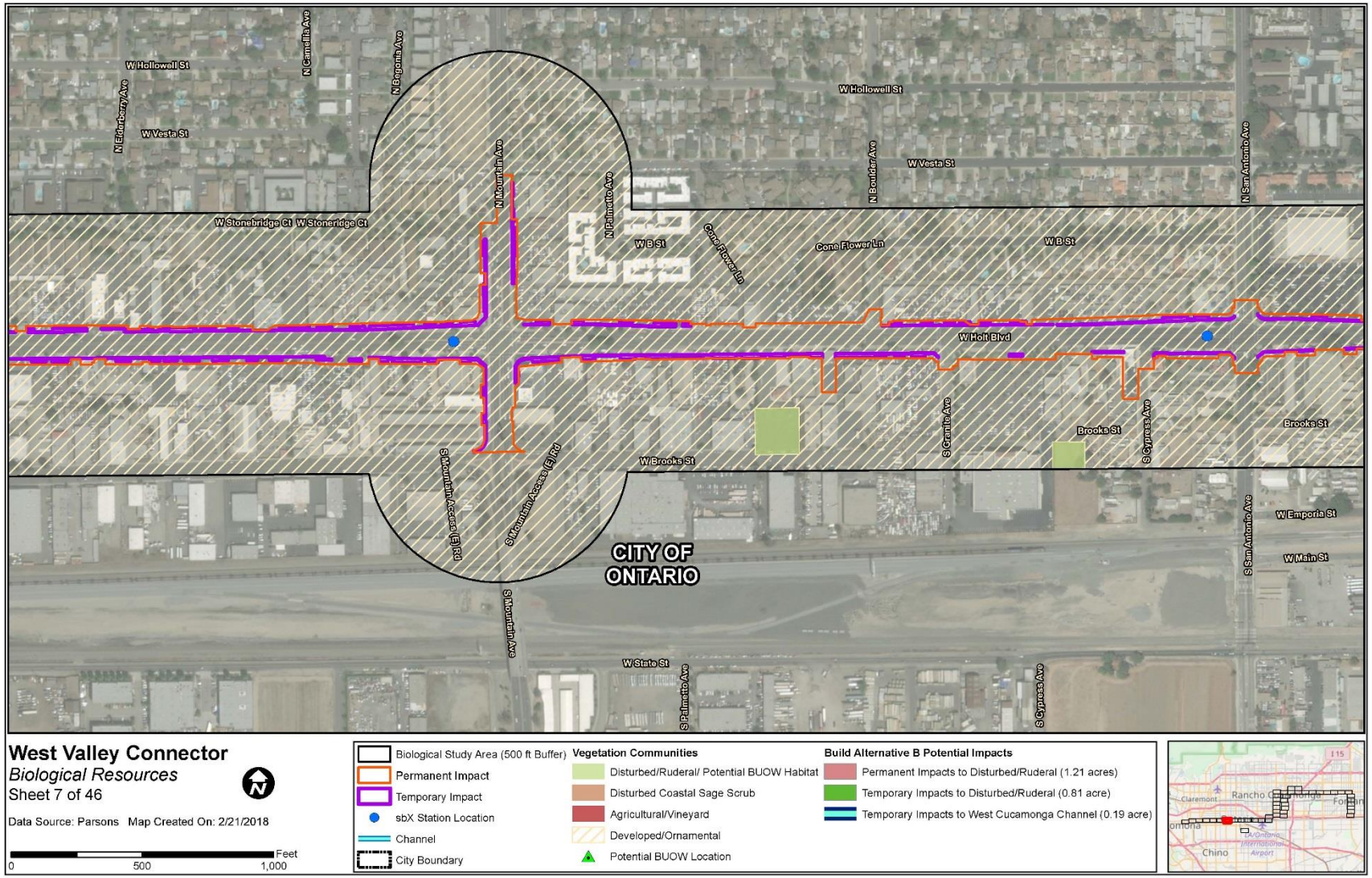
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N Mountain Ave
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N Boulder Ave
N San Antonio Ave
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W B St
Cone Flower Ln
W Holt Blvd
S Granite Ave
S Cypress Ave
Brooks St
W Brooks St
S Mountain Access (E) Rd
CITY OF ONTARIO
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S Palmetto Ave
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West Valley Connector
Biological Resources
Sheet 7 of 46
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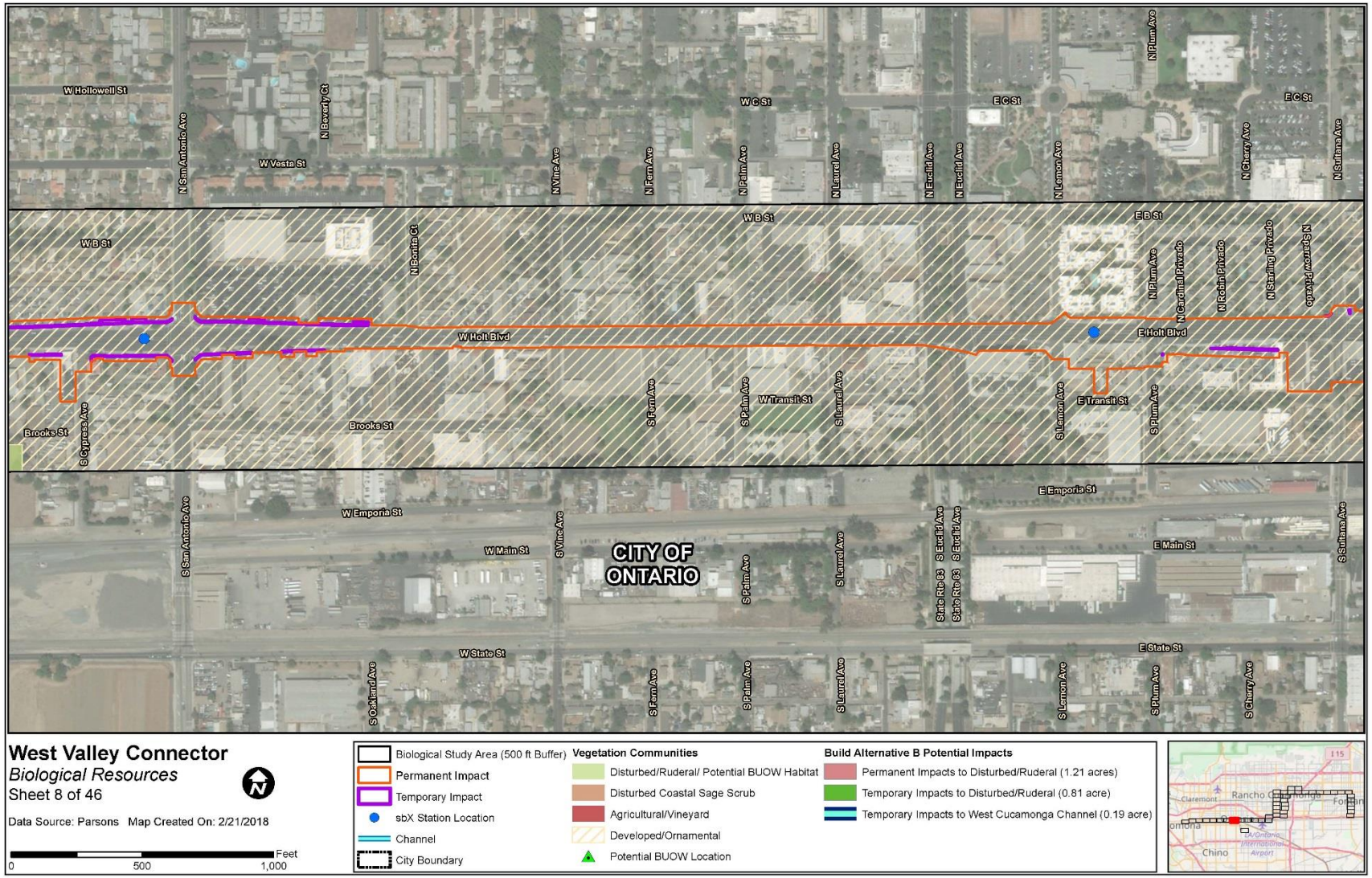
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N Bonita Ct
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N Robin Privado
N Starling Privado
N Sparrow Privado
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S Palm Ave
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S Laurel Ave
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E Transit St
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Biological Resources
Sheet 8 of 46
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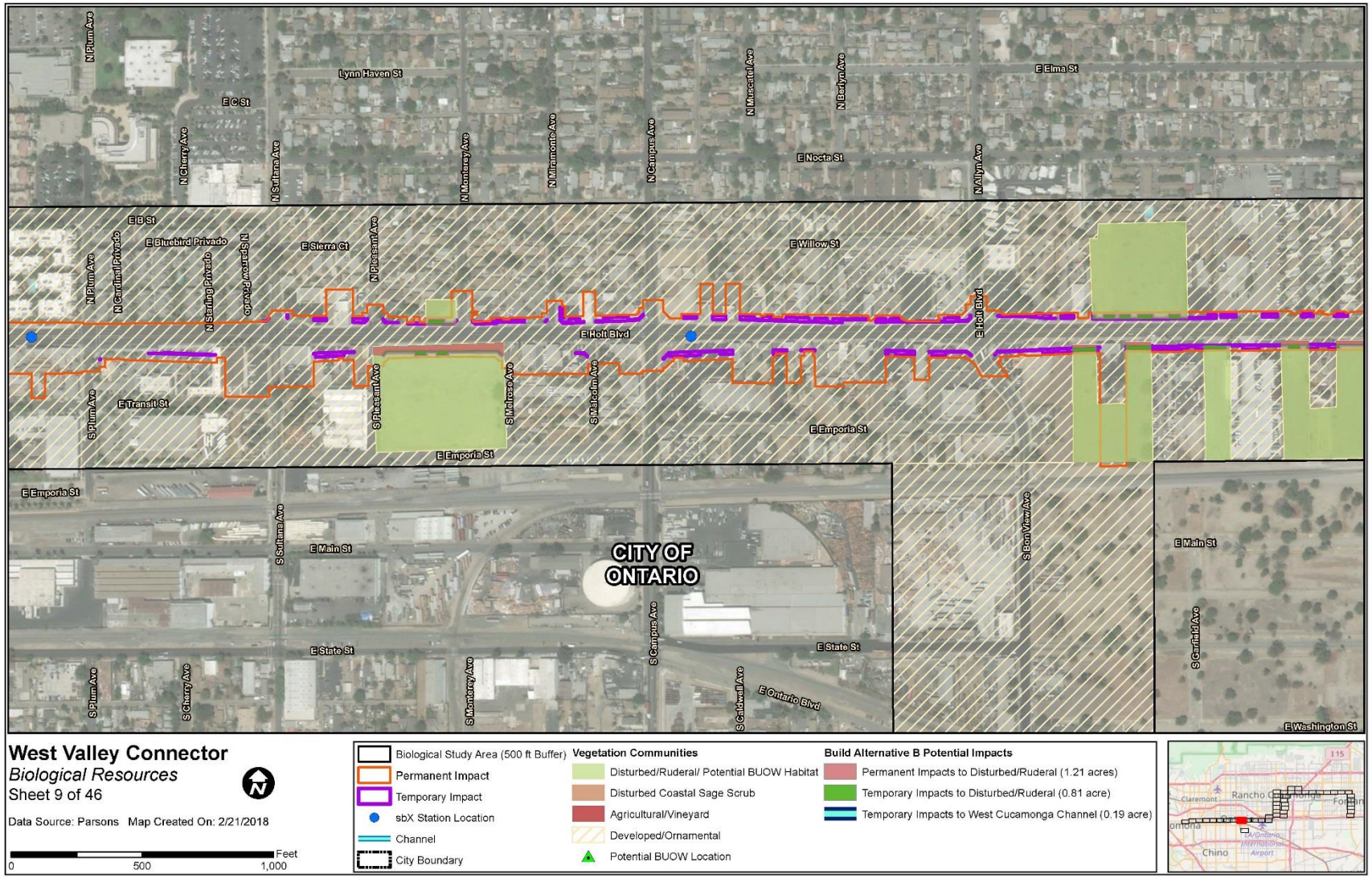
Claremont
Chino
Ontario International Airport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E Nocta St
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E B St
E Bluebird Privado
N Cardinal Privado
N Starling Privado
N Sparrow Privado
E Sierra Ct
N Pleasant Ave
E Willow St
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E Transit St
S Plum Ave
S Pleasant Ave
S Melrose Ave
S Malcolm Ave
E Emporia St
S Sultana Ave
E Main St
CITY OF ONTARIO
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E State St
S Cherry Ave
S Monterey Ave
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S Garfield Ave
E Washington St
West Valley Connector
Biological Resources
Sheet 9 of 46
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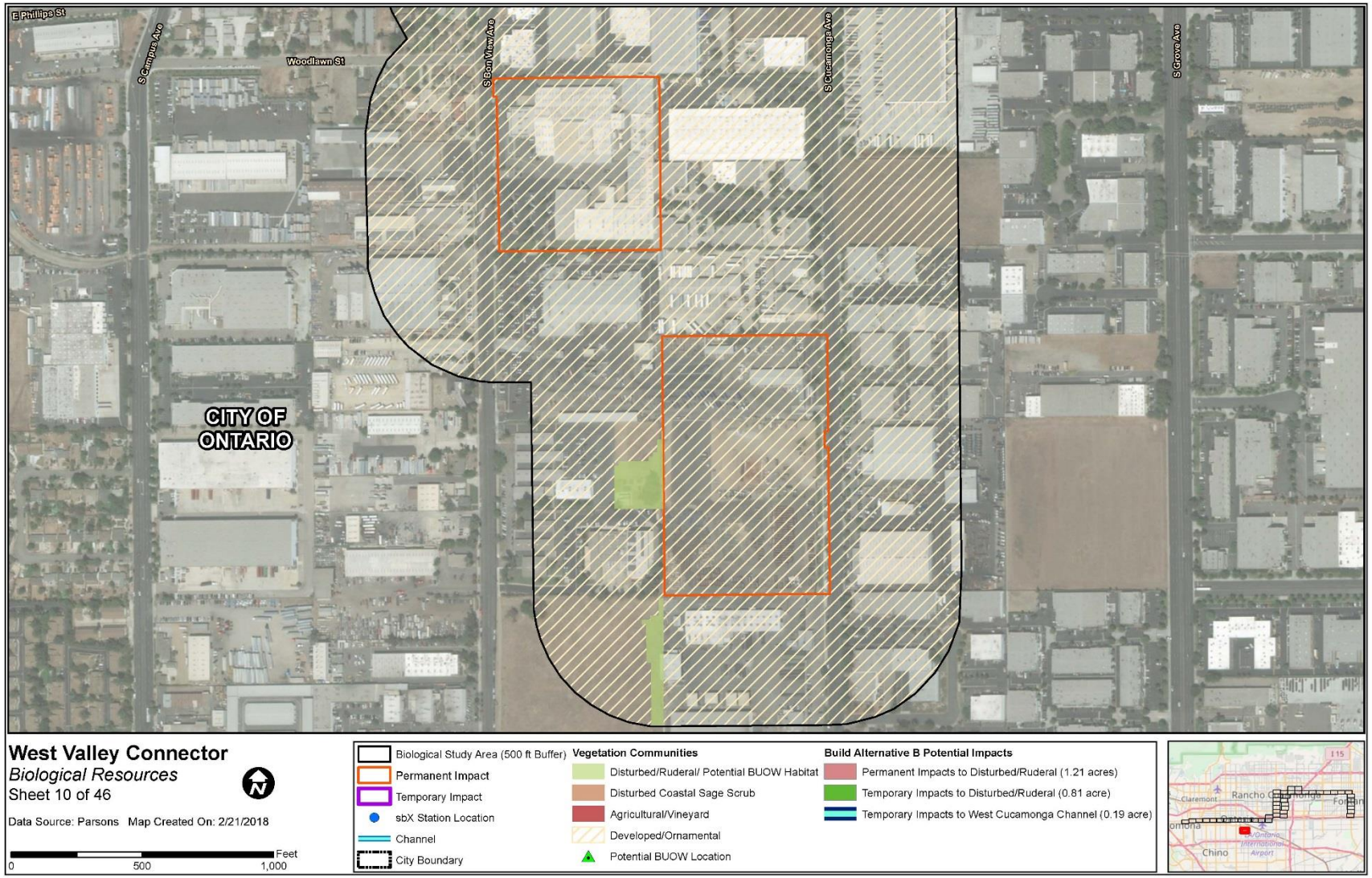
Claremont
Chino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Woodlawn St
S Bon View Ave
S Cucamonga Ave
S Grove Ave
CITY OF ONTARIO
West Valley Connector
Biological Resources
Sheet 10 of 46
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City Boundary
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Agricultural/Vineyard
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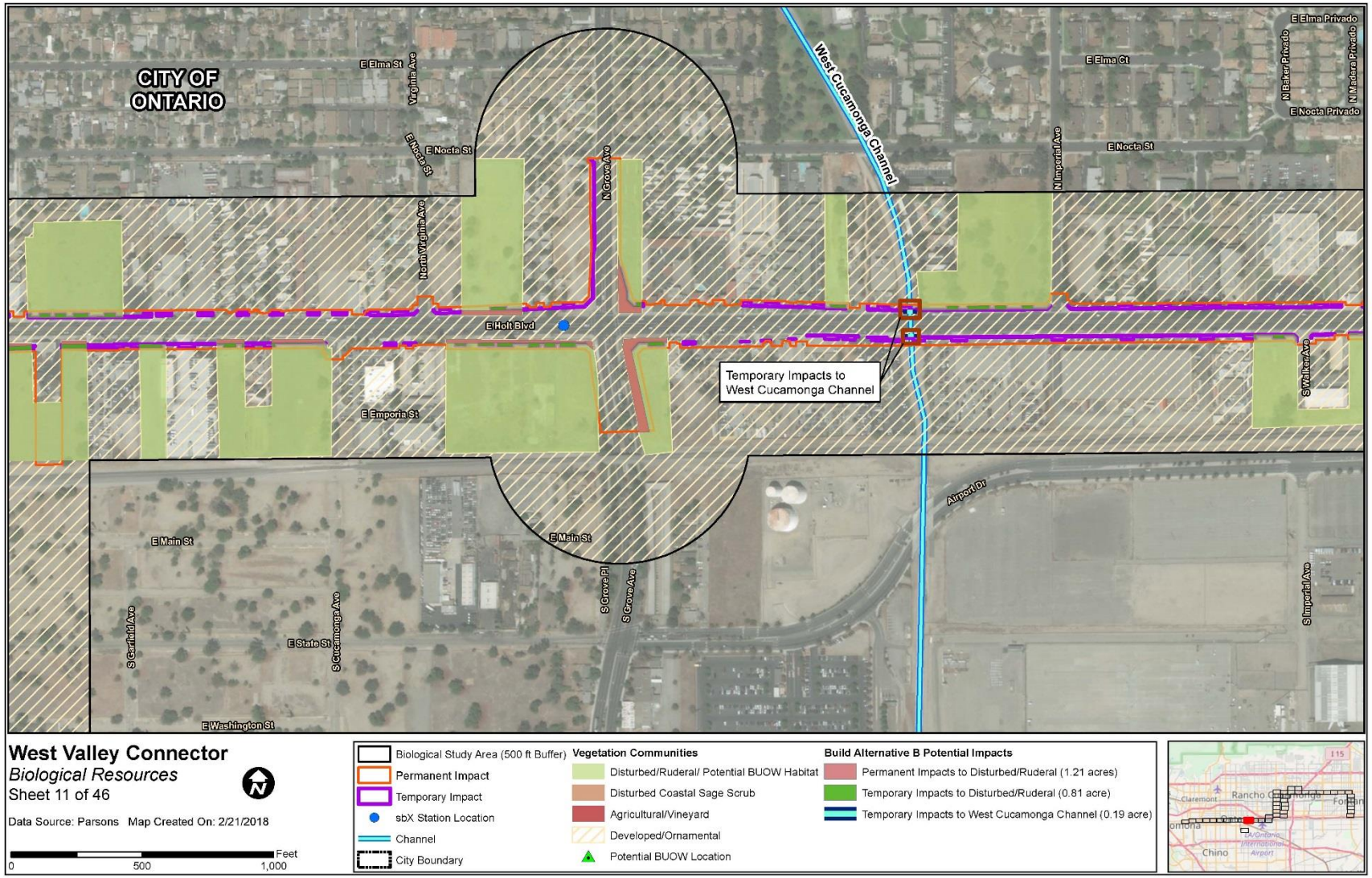
Claremont
Chino


CITY OF ONTARIO
E Elma St
Virginia Ave
E Nocta St
N Grove Ave
North Virginia Ave
E Holt Blvd
E Emporia St
West Cucamonga Channel
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E Elma Privado
N Baker Privado
N Madera Privado
E Nocta Privado
N Imperial Ave
S Walker Ave
Temporary Impacts to West Cucamonga Channel
Airport Dr
E Main St
S Grove Pl
S Grove Ave
S Imperial Ave
S Serrurid Ave
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E State St
E Washington St
West Valley Connector
Biological Resources
Sheet 11 of 46
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City Boundary
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Disturbed Coastal Sage Scrub
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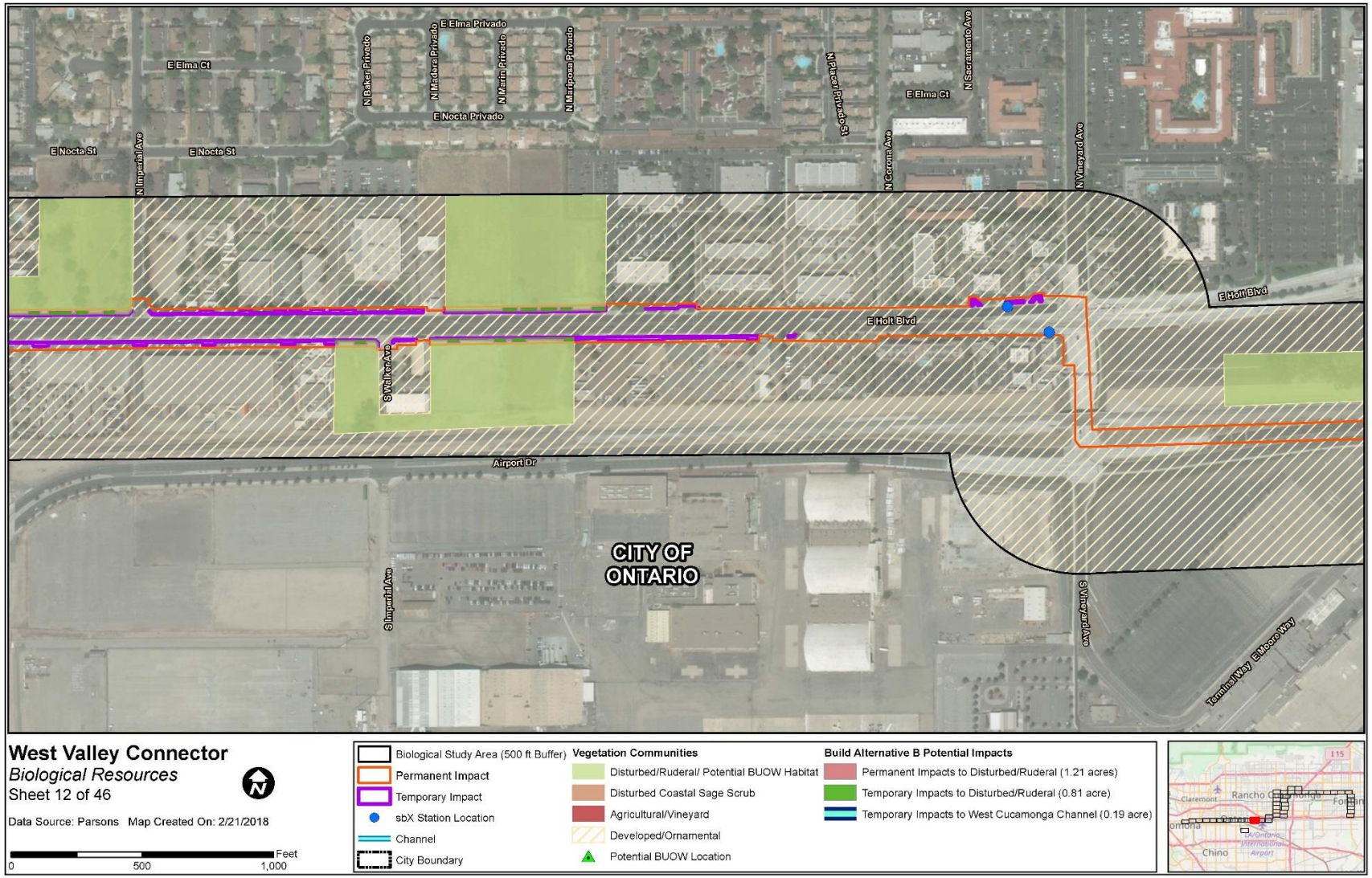
Claremont
Chino
Ontario International Airport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N Madera Privado
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N Mariposa Privado
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N Corona Ave
N Vineyard Ave
E Holt Blvd
S Walker Ave
Airport Dr
CITY OF ONTARIO
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West Valley Connector
Biological Resources
Sheet 12 of 46
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City Boundary
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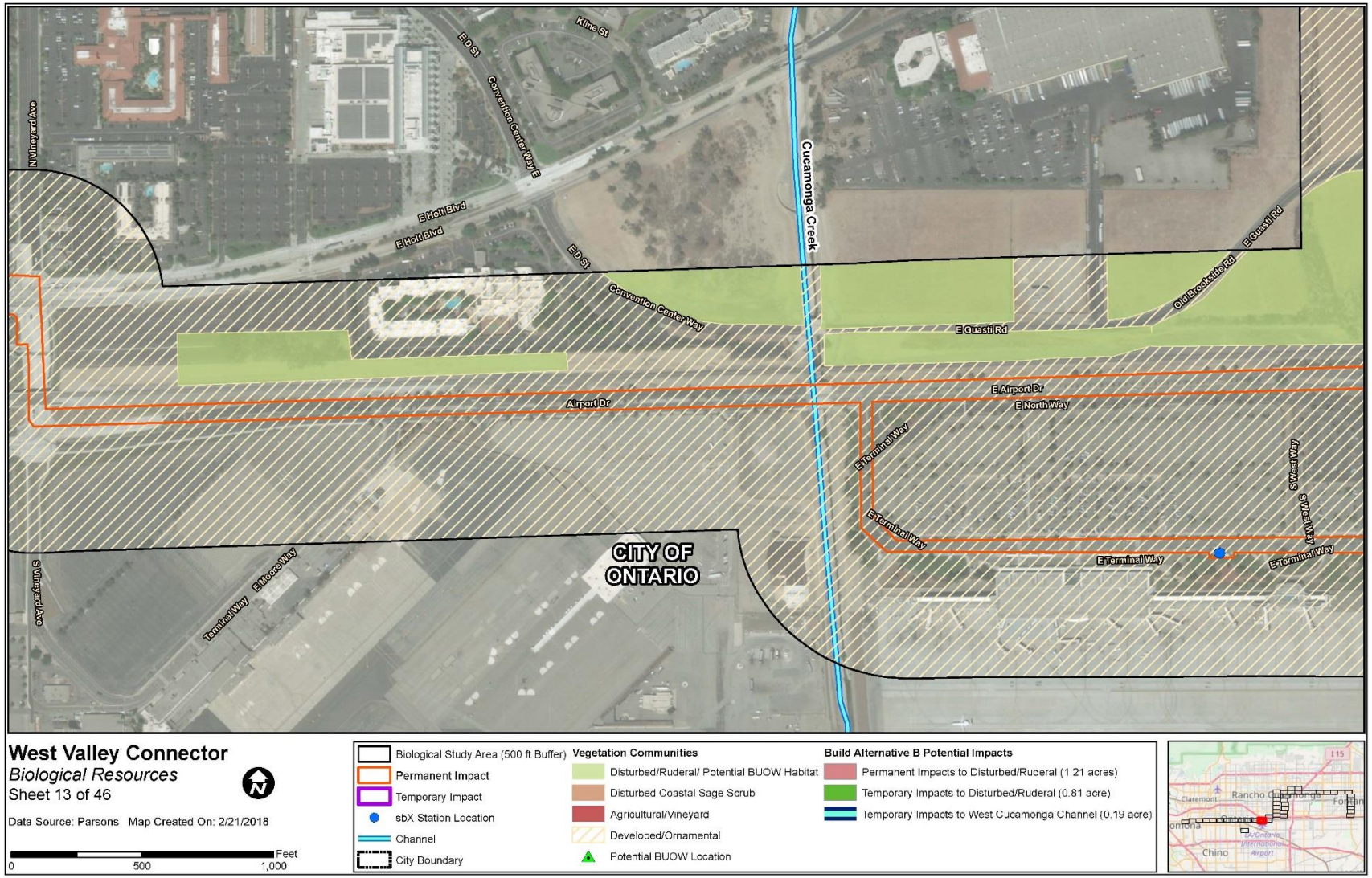
Claremont
Chino


Kline St
E D St
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E Holt Blvd
Cucamonga Creek
Convention Center Way
E Guasti Rd
Old Brookside Rd
Airport Dr
E Airport Dr
E North Way
E Terminal Way
S West Way
CITY OF ONTARIO
S Vineyard Ave
E Mooco Way
Terminal Way
West Valley Connector
Biological Resources
Sheet 13 of 46
Data Source: Parsons Map Created On: 2/21/2018
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Biological Study Area (500 ft Buffer)
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sbX Station Location
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City Boundary
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Developed/Ornamental
Potential BUOW Location
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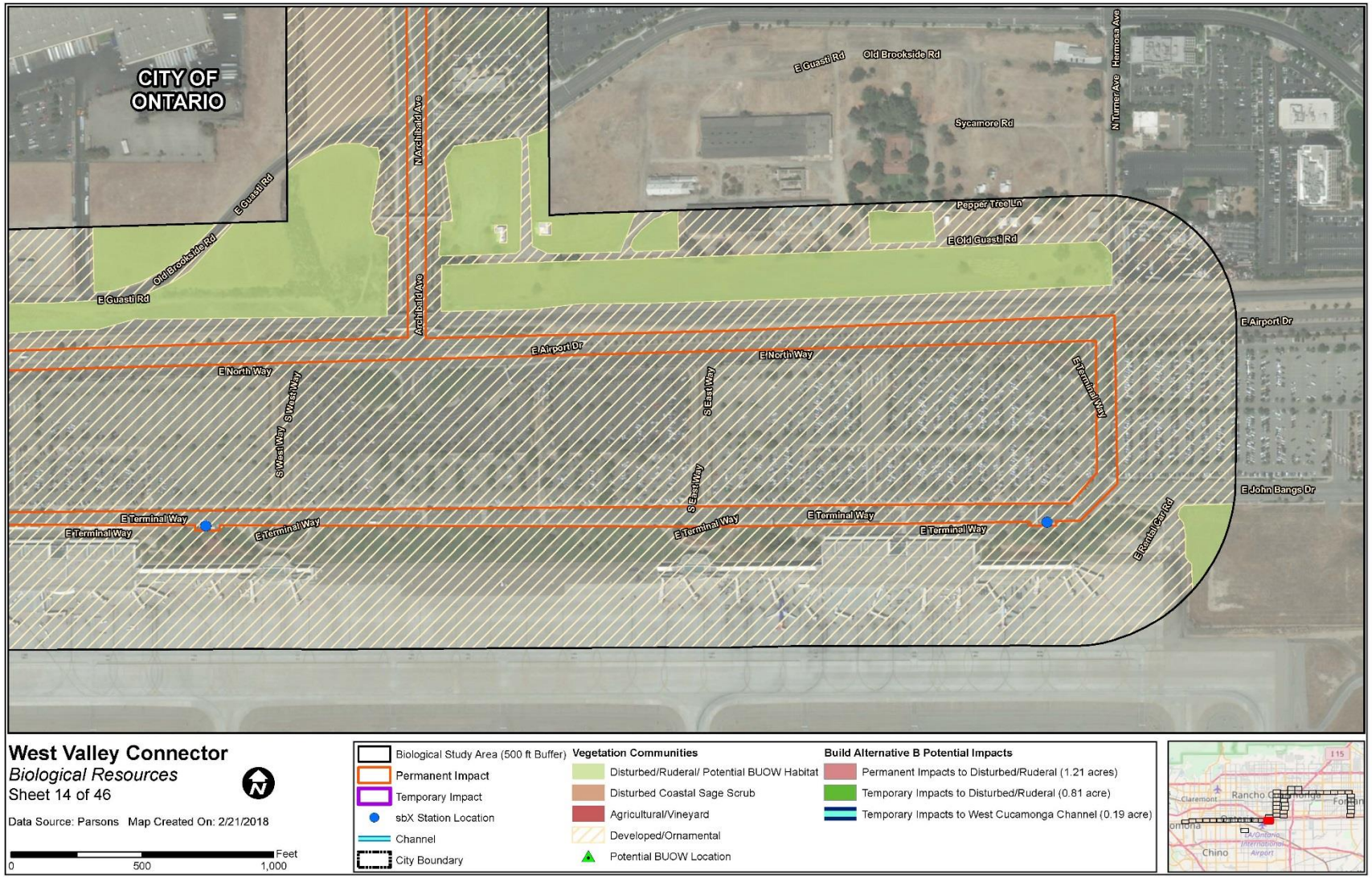
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Chino


CITY OF ONTARIO
E Guasti Rd
Old Brookside Rd
Sycamore Rd
Hermosa Ave
N Turner Ave
Pepper Tree Ln
E Old Guasti Rd
N Archibald Ave
E Airport Dr
E North Way
S West Way
S East Way
E Terminal Way
E John Bangs Dr
E Rancho Dr
West Valley Connector
Biological Resources
Sheet 14 of 46
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Temporary Impact
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Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
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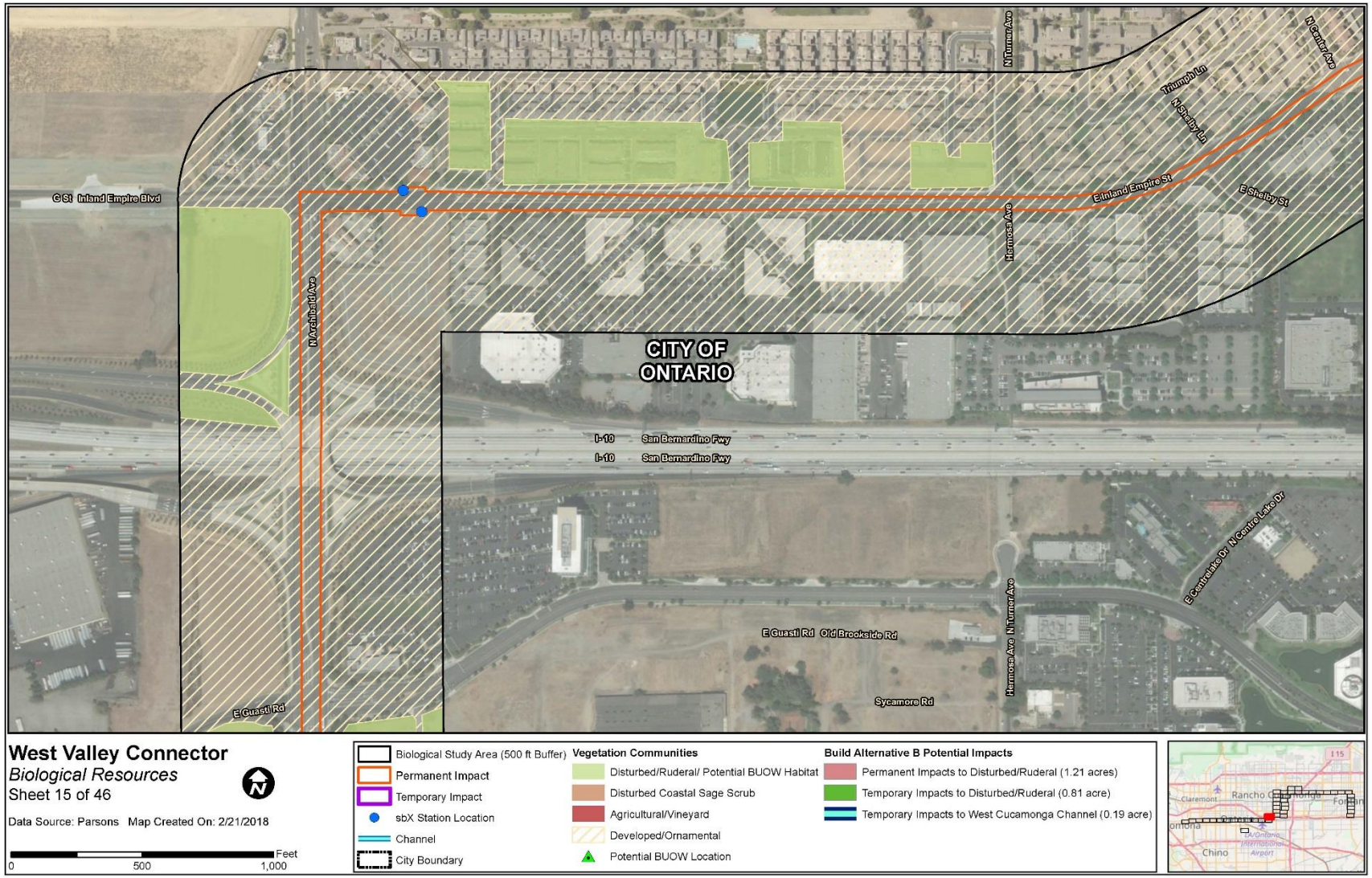
Claremont
Chino
Ontario International Airport


G St
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Hermosa Ave
CITY OF ONTARIO
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I-10 San Bernardino Fwy
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Old Brookside Rd
Sycamore Rd
West Valley Connector
Biological Resources
Sheet 15 of 46
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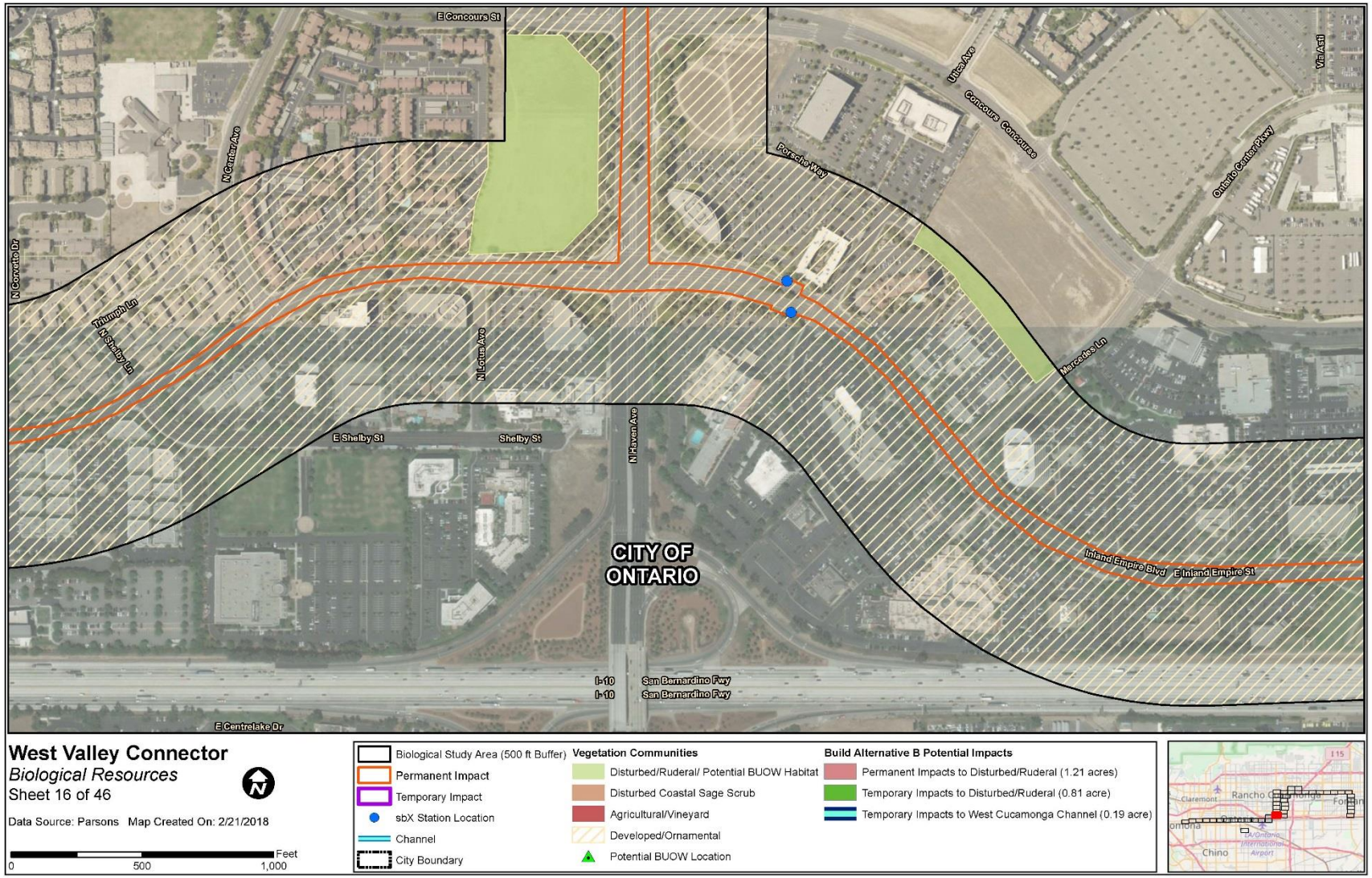
I-15
Claremont
Chino


E Concours St
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Concours
Porsche Way
Via Asti
Ontario Center Pkwy
Mercedes Ln
E Shelby St
Shelby St
N Haven Ave
CITY OF ONTARIO
Inland Empire Blvd
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I-10 San Bernardino Fwy
I-10 San Bernardino Fwy
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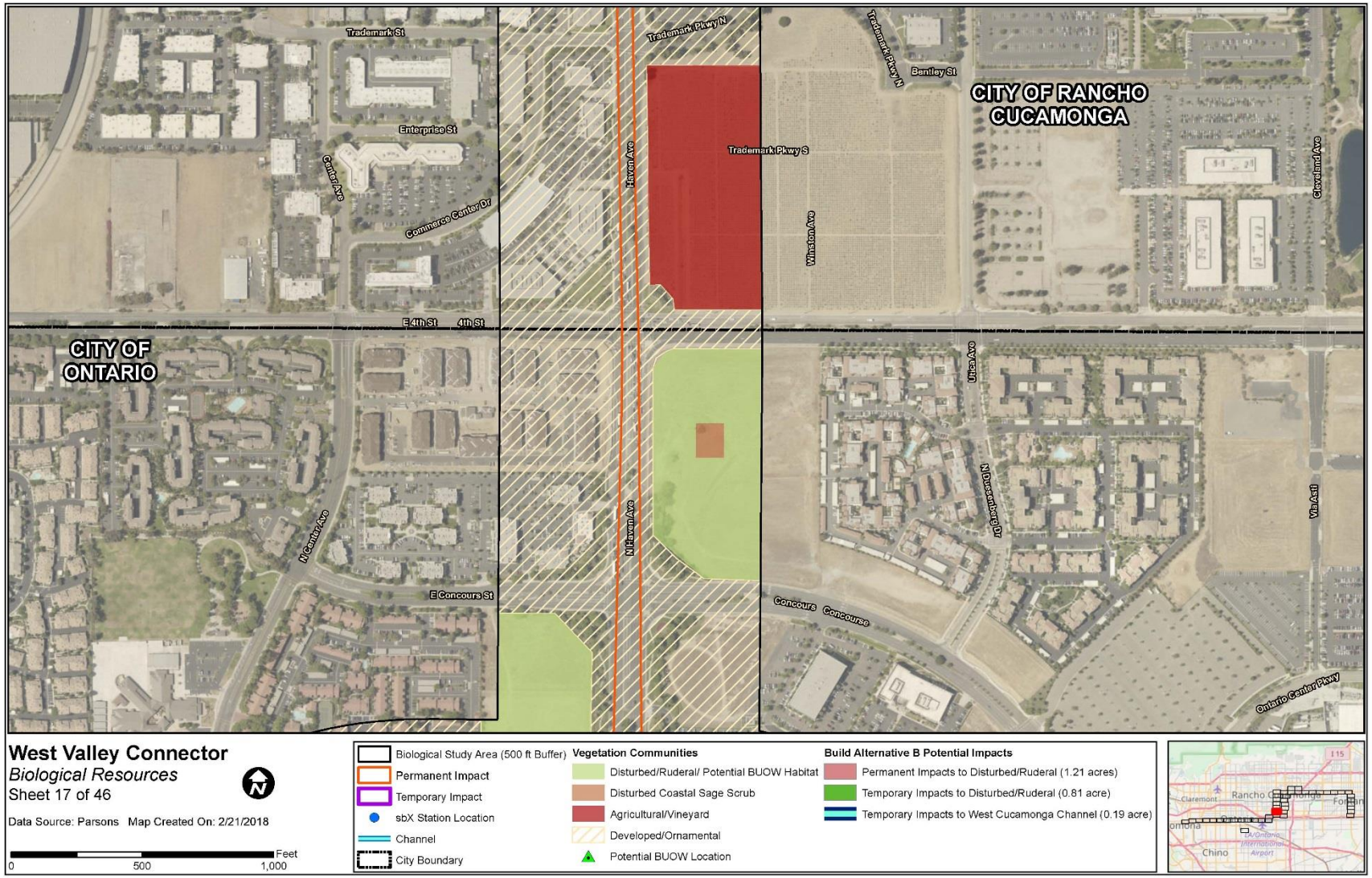
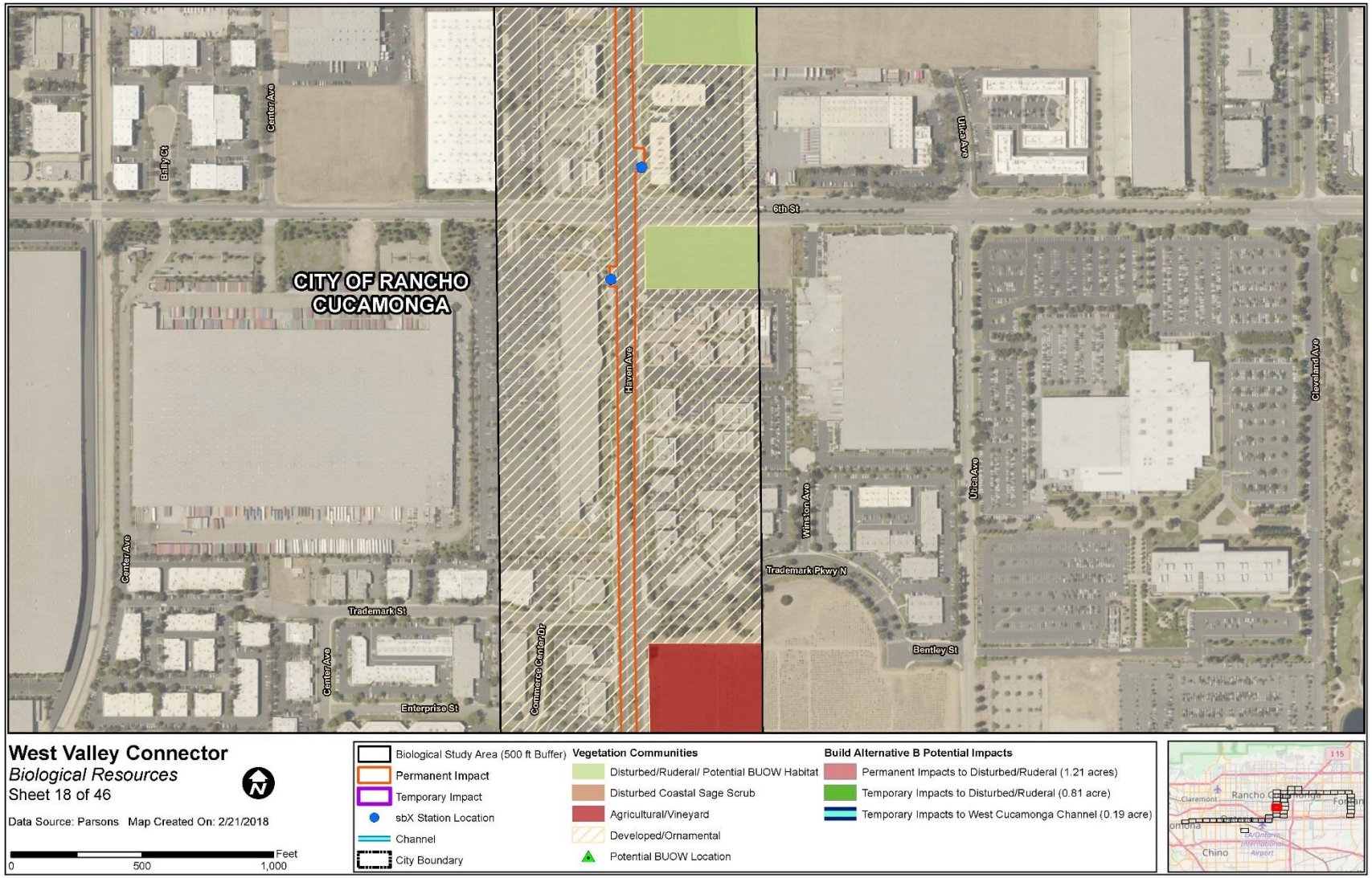
West Valley Connector
Biological Resources
Sheet 16 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Chino


Trademark St
Enterprise St
Center Ave
Commerce Center Dr
E 4th St
4th St
CITY OF ONTARIO
N Center Ave
E Concours St
Trademark Pkwy N
Haven Ave
Trademark Pkwy S
N Haven Ave
Trademark Pkwy N
Bentley St
CITY OF RANCHO CUCAMONGA
Winston Ave
Cleveland Ave
Utica Ave
N Duesenberg Dr
Via Asti
Concours
Concourse
Ontario Center Pkwy
West Valley Connector
Biological Resources
Sheet 17 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Rancho Cucamonga
Fontana
Ontario International Airport
Chino


CITY OF RANCHO CUCAMONGA
Center Ave
Beliy St
Haven Ave
Utica Ave
6th St
Cleveland Ave
Winston Ave
Trademark Pkwy N
Bentley St
Trademark St
Enterprise St
Commerce Center Dr
West Valley Connector
Biological Resources
Sheet 18 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
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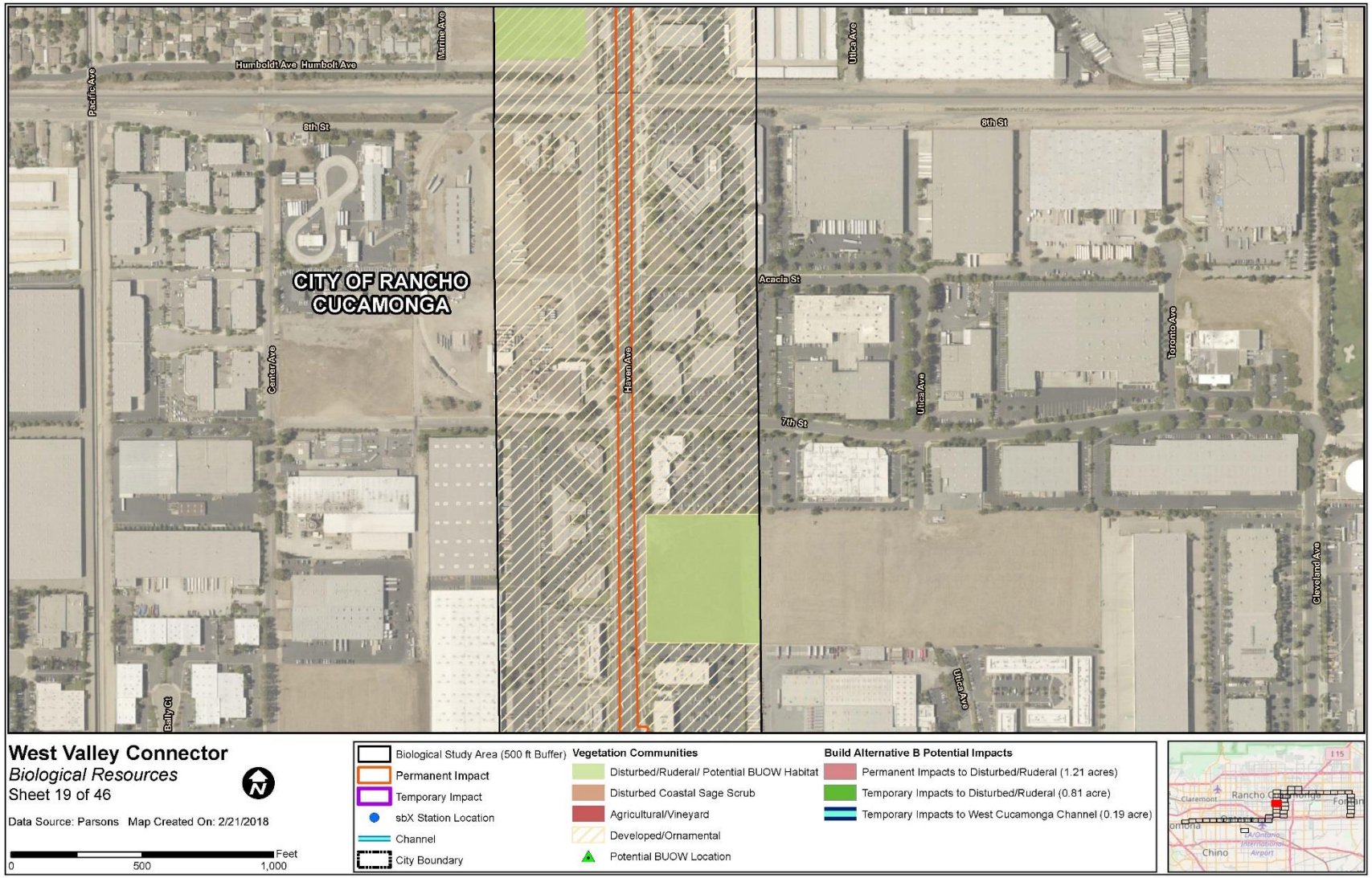
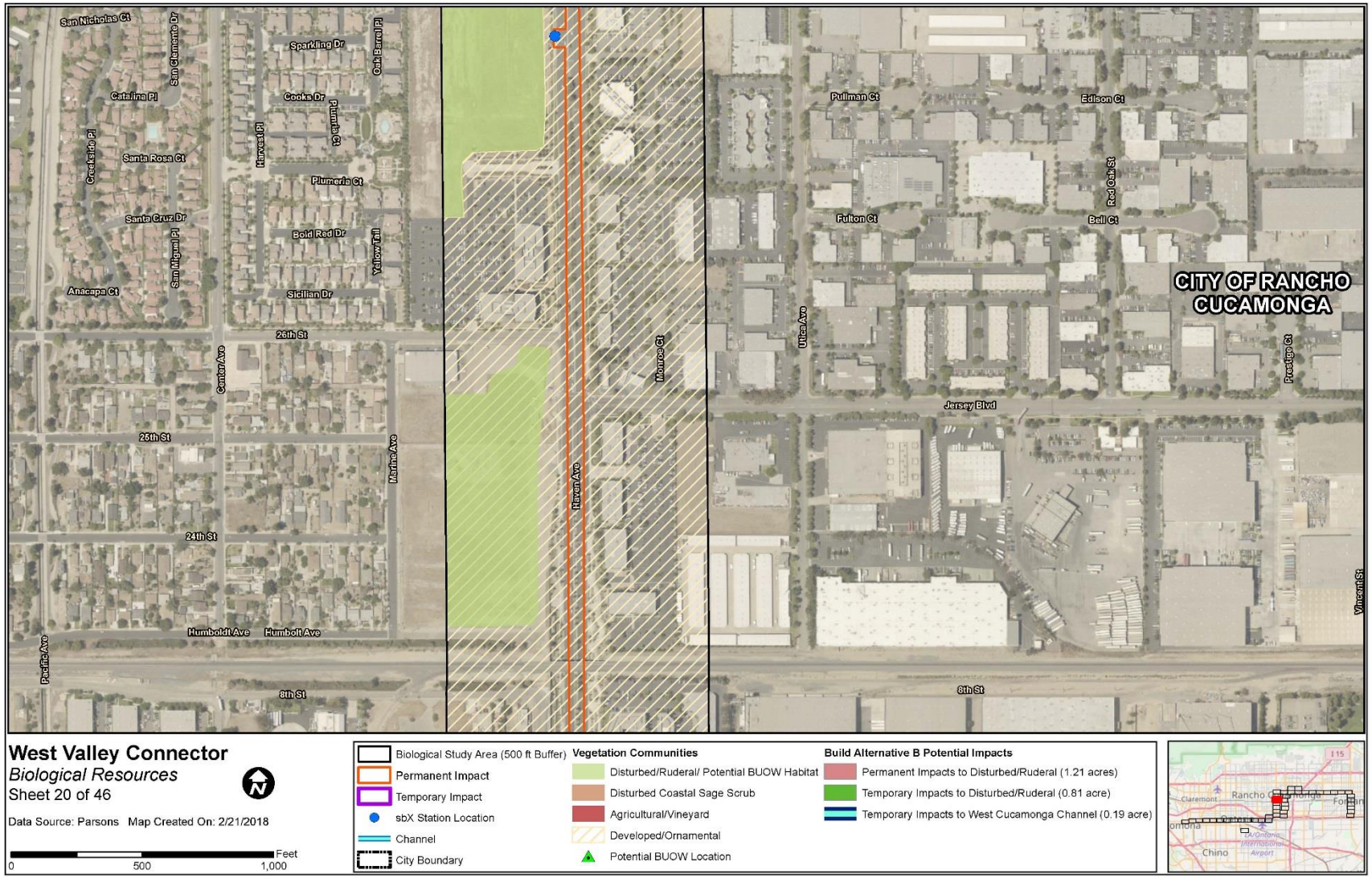
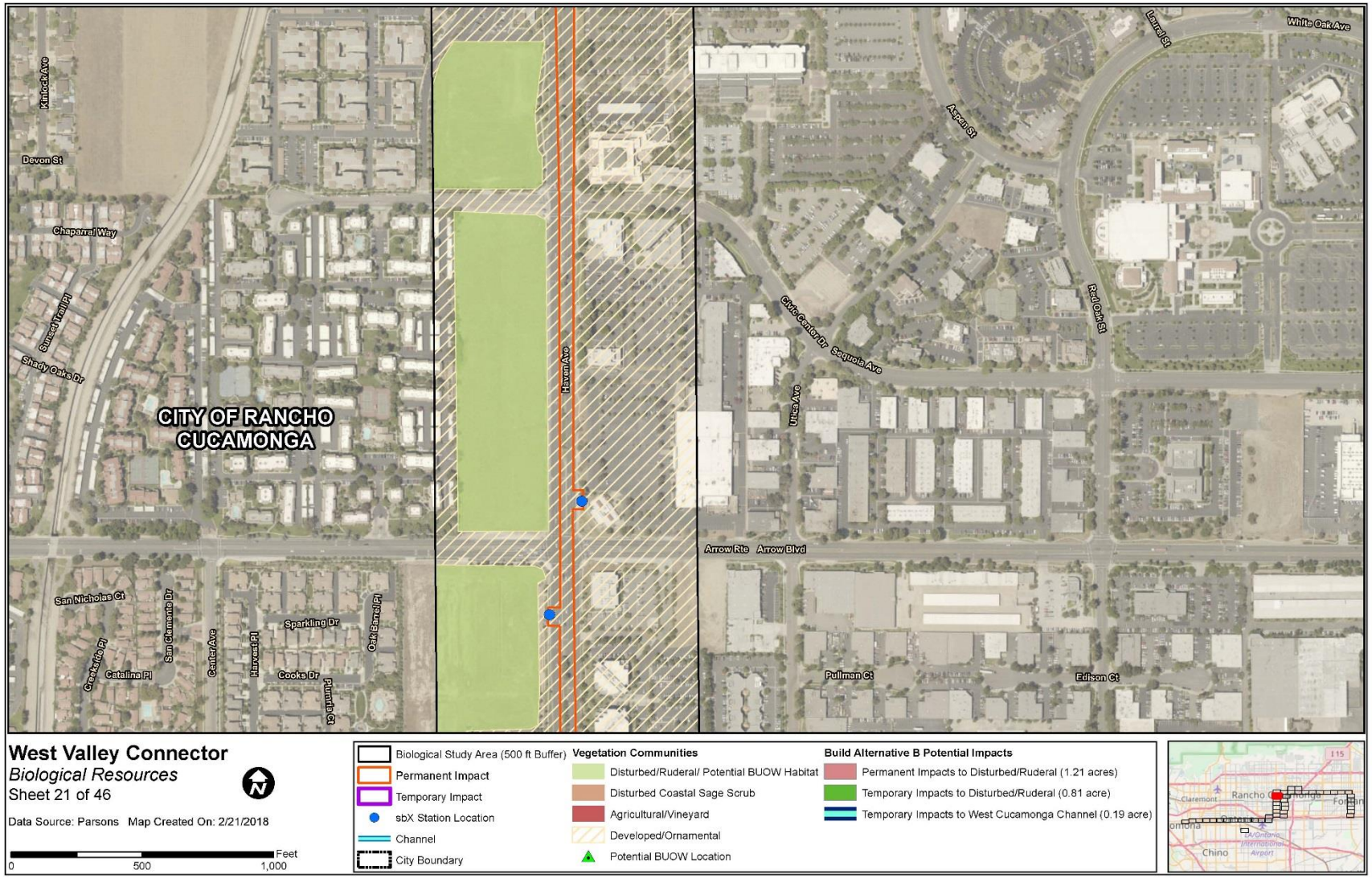
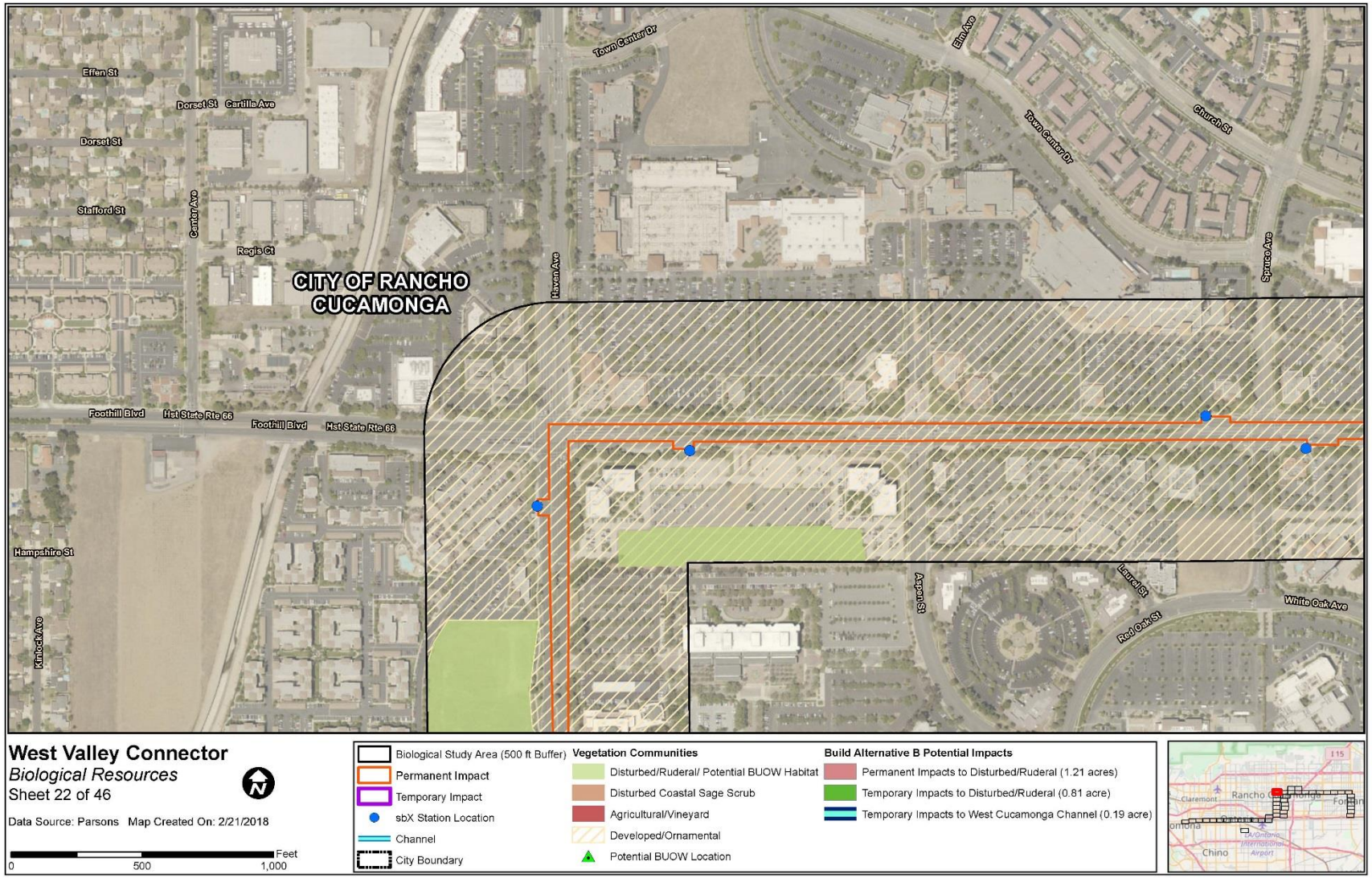
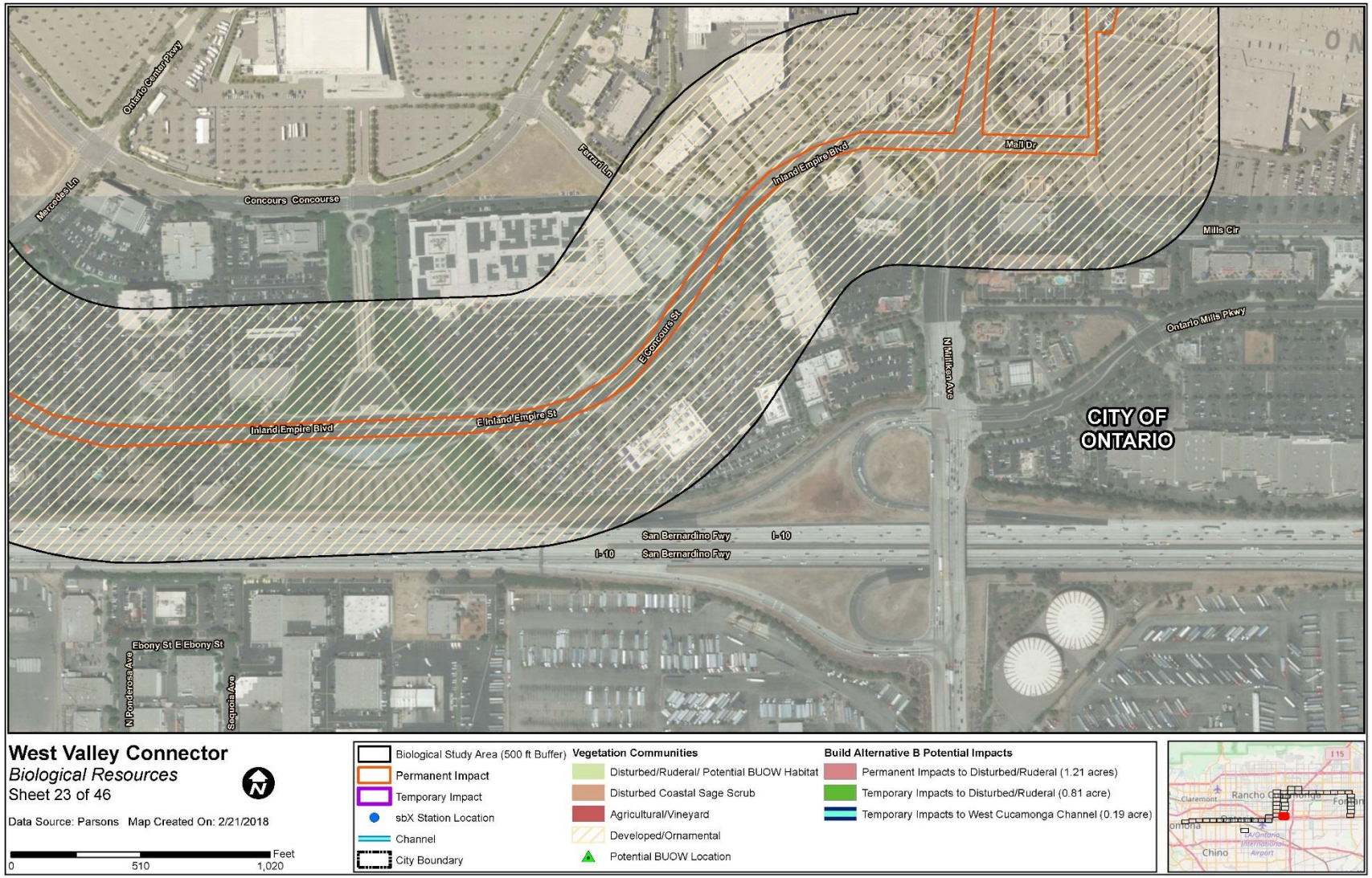
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino

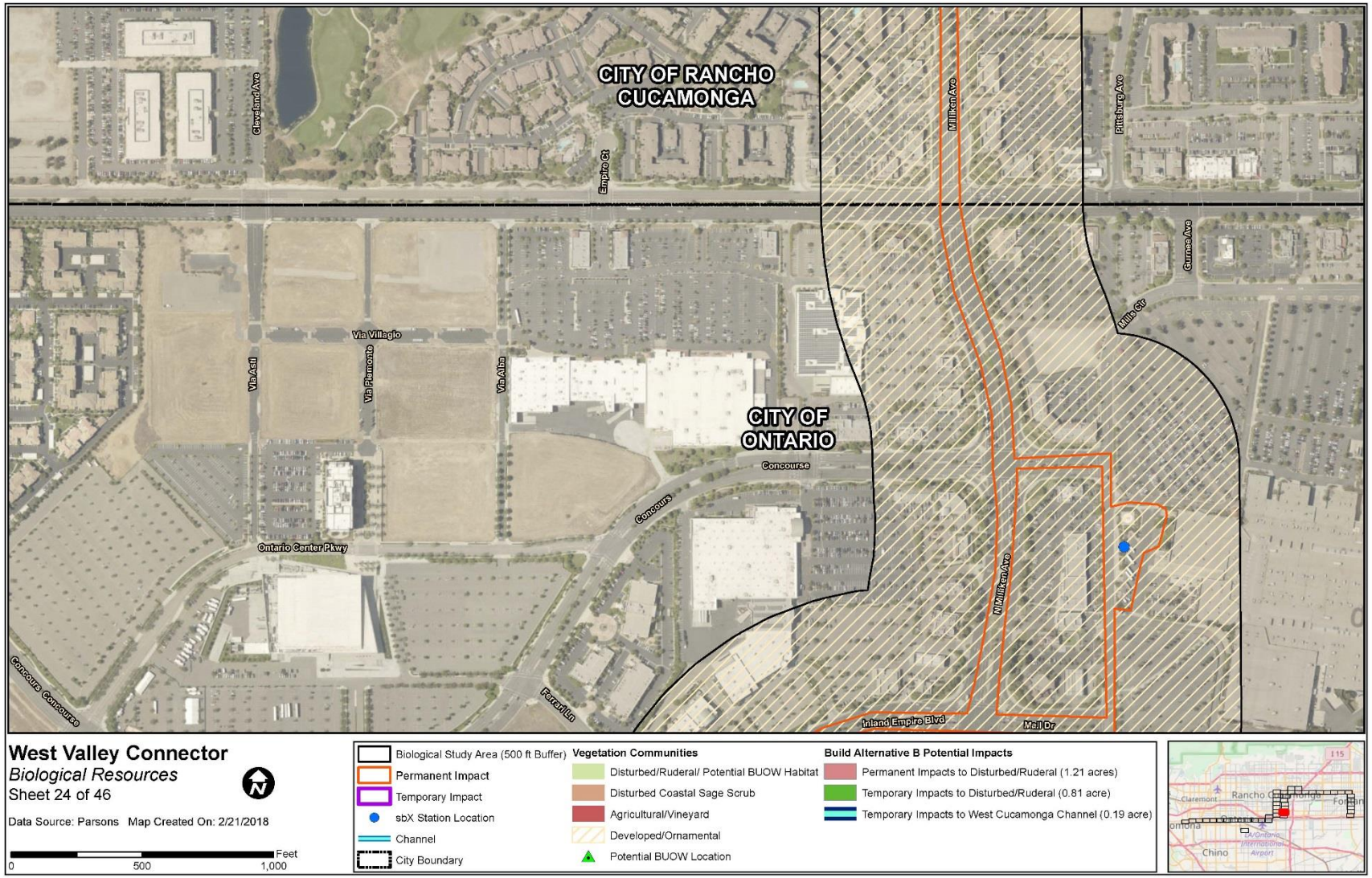

Humboldt Ave
Humbolt Ave
Marine Ave
Pacific Ave
8th St
CITY OF RANCHO CUCAMONGA
Center Ave
Haven Ave
Utica Ave
Acacia St
Toronto Ave
7th St
Cleveland Ave
Bally Ct
West Valley Connector
Biological Resources
Sheet 19 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino

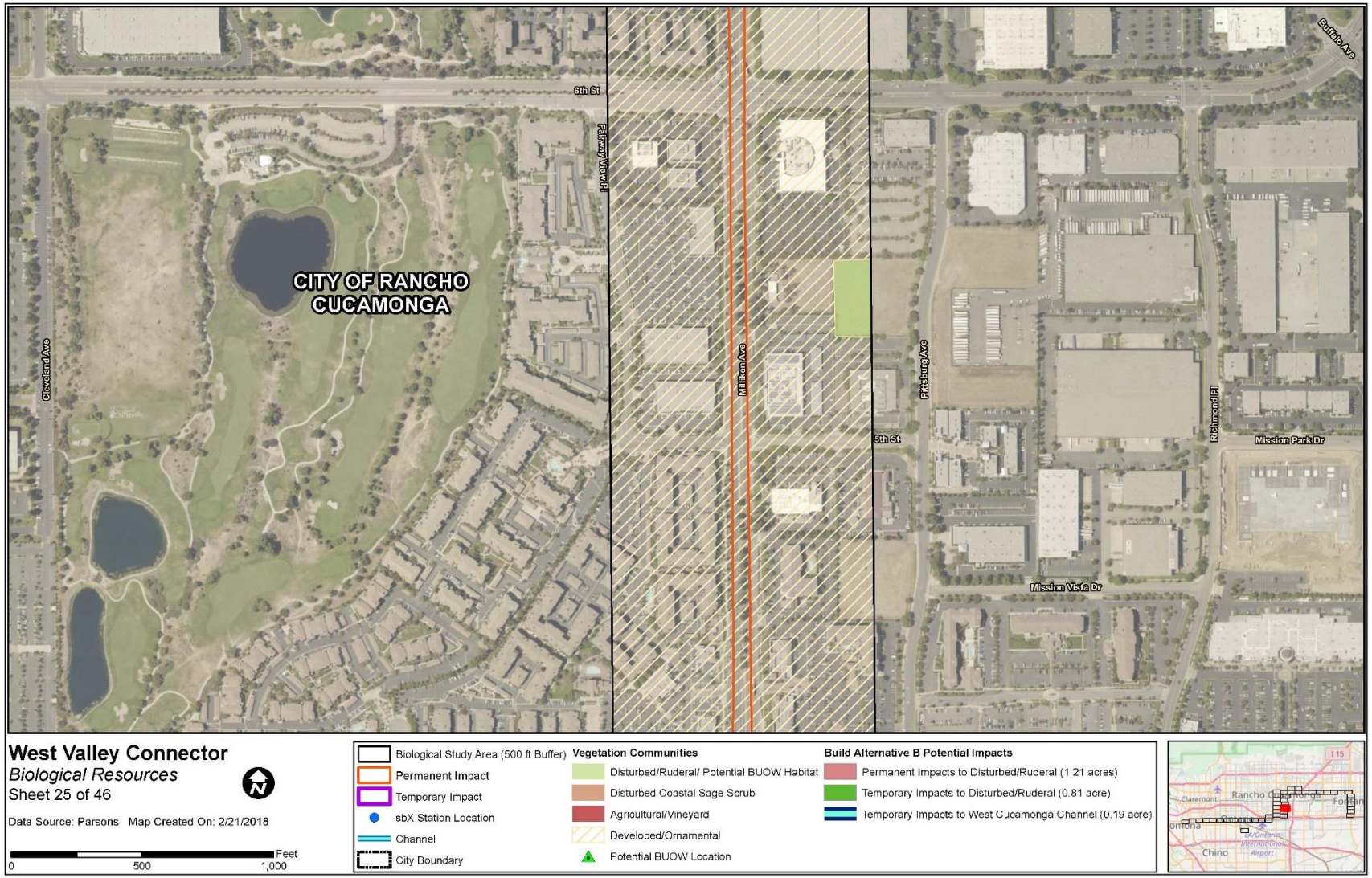

San Nicholas Ct
San Clemente Dr
Sparkling Dr
Oak Barrel Pl
Catalina Pl
Cooks Dr
Plumeria Ct
Creekside Pl
Harvest Pl
Santa Rosa Ct
Plumeria Ct
Santa Cruz Dr
San Miguel Pl
Bold Red Dr
Yellow Tail
Anacapa Ct
Sicilian Dr
26th St
Contour Ave
25th St
Marina Ave
24th St
Humboldt Ave
Humbolt Ave
Pacific Ave
8th St
Pullman Ct
Edison Ct
Red Oak St
Fulton Ct
Bell Ct
CITY OF RANCHO CUCAMONGA
Utica Ave
Monroe Ct
Haven Ave
Prestige Ct
Jersey Blvd
Vincent St
8th St
West Valley Connector
Biological Resources
Sheet 20 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


Knilock Ave
Devon St
Chaparral Way
Sunset Trail Pl
Shady Oaks Dr
CITY OF RANCHO CUCAMONGA
Haven Ave
Laurel St
White Oak Ave
Aspen St
Civic Center Dr
Sequoia Ave
Red Oak St
Utica Ave
Arrow Rte
Arrow Blvd
San Nicholas Ct
San Clemente Dr
Sparkling Dr
Oak Barrel Pl
Grenadier Pl
Catalina Pl
Center Ave
Harvest Pl
Cooks Dr
Pumpkin Ct
Pullman Ct
Edison Ct
West Valley Connector
Biological Resources
Sheet 21 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Chino


CITY OF RANCHO CUCAMONGA
Effen St
Dorset St
Cartilla Ave
Stafford St
Center Ave
Regis Ct
Foothill Blvd
Hst State Rte 66
Hampshire St
Kinlock Ave
Town Center Dr
Haven Ave
Elm Ave
Church St
Spruce Ave
Aspen St
Vineyard St
Red Oak St
White Oak Ave
West Valley Connector
Biological Resources
Sheet 22 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Rancho Cucamonga
Ontario International Airport
Chino


Ontario Center Pkwy
Mercedes Ln
Concours Concourse
Ferrari Ln
Inland Empire Blvd
Mall Dr
Mills Cir
Ontario Mills Pkwy
E Concours St
N Milliken Ave
CITY OF ONTARIO
Inland Empire Blvd
E Inland Empire St
San Bernardino Fwy
I-10
I-10
San Bernardino Fwy
Ebony St E Ebony St
N Ponderosa Ave
Sequoia Ave
West Valley Connector
Biological Resources
Sheet 23 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
510
1,020
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


CITY OF RANCHO CUCAMONGA
CITY OF ONTARIO
Cleveland Ave
Empire Ct
Milliken Ave
Pittsburg Ave
Carnegie Ave
Mills Cir
Via Villaggio
Via Asti
Via Piemonte
Via Alba
Concourse
Ontario Center Pkwy
N Milliken Ave
Inland Empire Blvd
Mall Dr
Ferrari Ln
West Valley Connector
Biological Resources
Sheet 24 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)


CITY OF RANCHO CUCAMONGA
6th St
Cleveland Ave
Milliken Ave
Pittsburg Ave
Richmond Pl
5th St
Mission Park Dr
Mission Vista Dr
Baseline Ave
West Valley Connector
Biological Resources
Sheet 25 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
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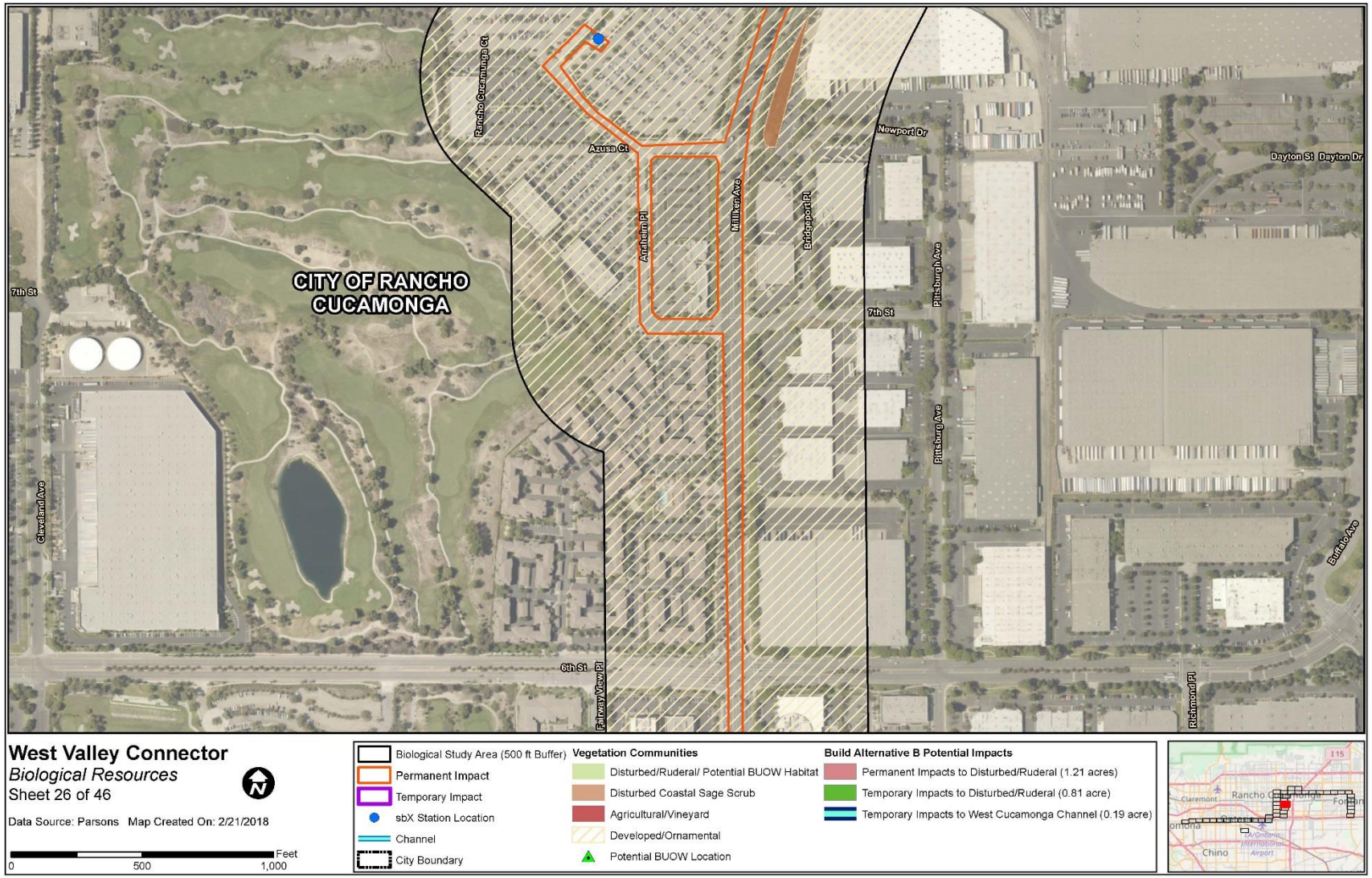
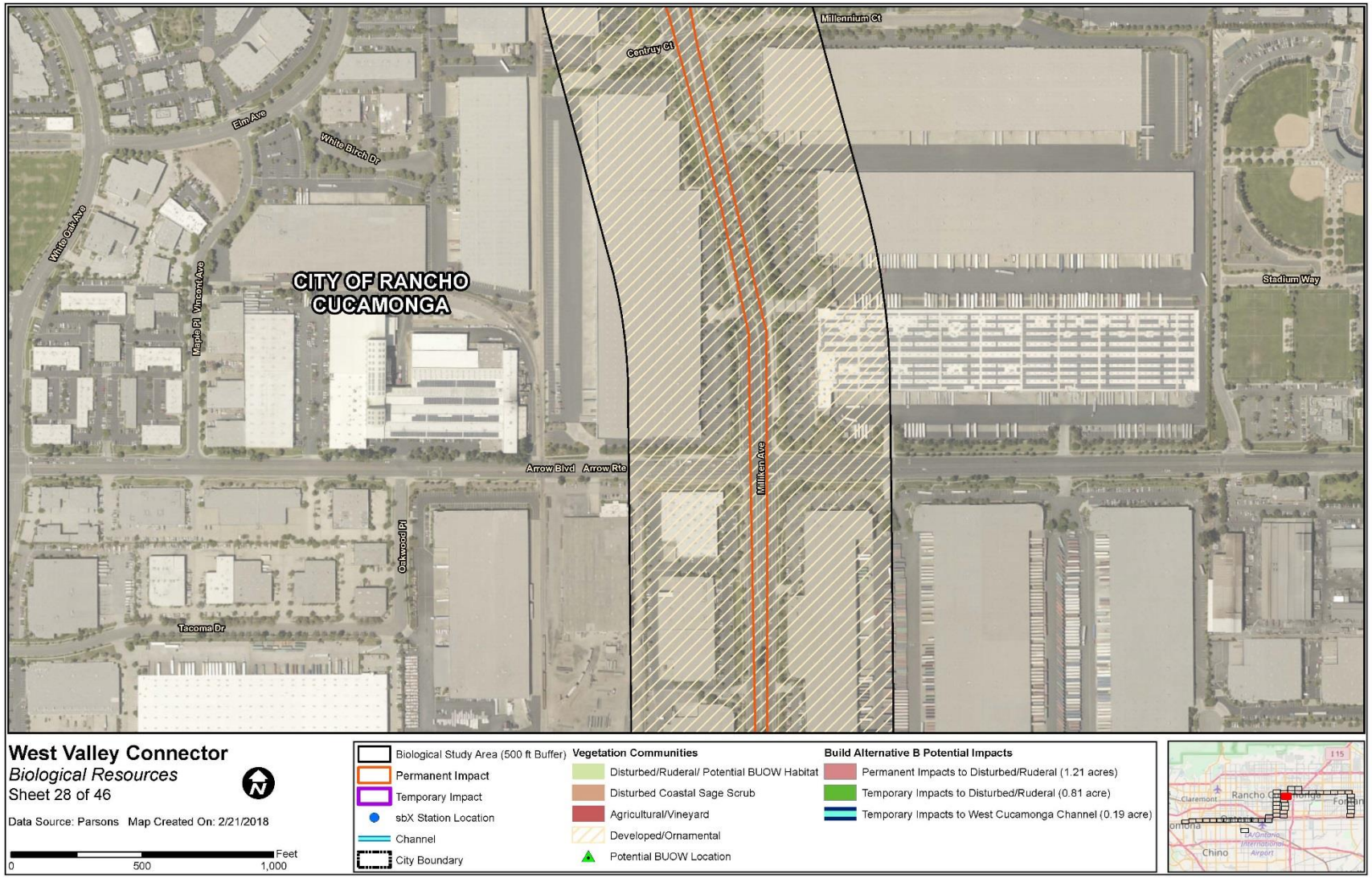
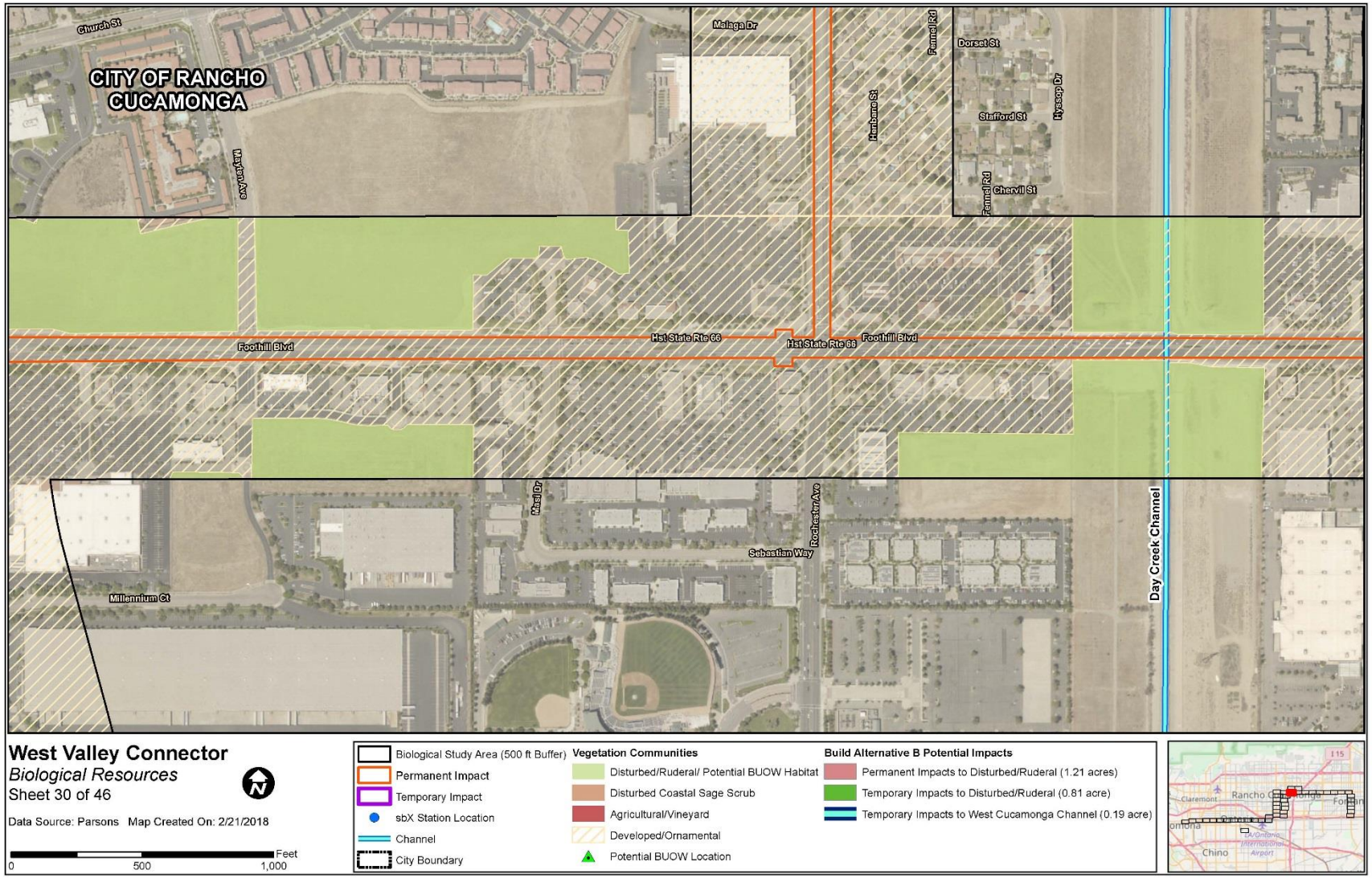
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


CITY OF RANCHO CUCAMONGA
Rancho Cucamunga Ct
Azusa Ct
Anaheim Pl
Milliken Ave
Bridgeport Pl
Newport Dr
Dayton St
Dayton Dr
Pittsburgh Ave
7th St
6th St
Fairway View Pl
Cleveland Ave
Richmond Pl
Buffalo Ave
West Valley Connector
Biological Resources
Sheet 26 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


Tacoma Dr
Bell Ct
Red Oak St
Prestige Ct
White Oak Ave
Jersay Blvd
Vincent St
CITY OF RANCHO CUCAMONGA
Milliken Ave
8th St
Rancho Cucamunga Ct
Newport Dr
West Valley Connector
Biological Resources
Sheet 27 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


Millennium Ct
Century Ct
Elm Ave
White Birch Dr
White Oak Ave
Maple Pl
Vinson Ave
CITY OF RANCHO CUCAMONGA
Stadium Way
Arrow Blvd
Arrow Rte
Milliken Ave
Oakwood Pl
Tacoma Dr
West Valley Connector
Biological Resources
Sheet 28 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


Town Center Dr
Spruce Ave
Church St
Milliken Ave
Mayten Ave
Hst State Rte 66
Foothill Blvd
Hst State Rte 66
Foothill Blvd
Laurel St
Red Oak St
Eucalyptus St
Elm Ave
White Oak Ave
CITY OF RANCHO CUCAMONGA
Maple Pl
Millennium Ct
Century Ct
West Valley Connector
Biological Resources
Sheet 29 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


CITY OF RANCHO CUCAMONGA
Church St
Maytum Ave
Malaga Dr
Hamner St
Fern el Rd
Dorset St
Hyssop Dr
Stafford St
Fern a Rd
Chervil St
Foothill Blvd
Hst State Rte 66
Hst State Rte 66
Foothill Blvd
Mayfield Dr
Rochester Ave
Sebastian Way
Millennium Ct
Day Creek Channel
West Valley Connector
Biological Resources
Sheet 30 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
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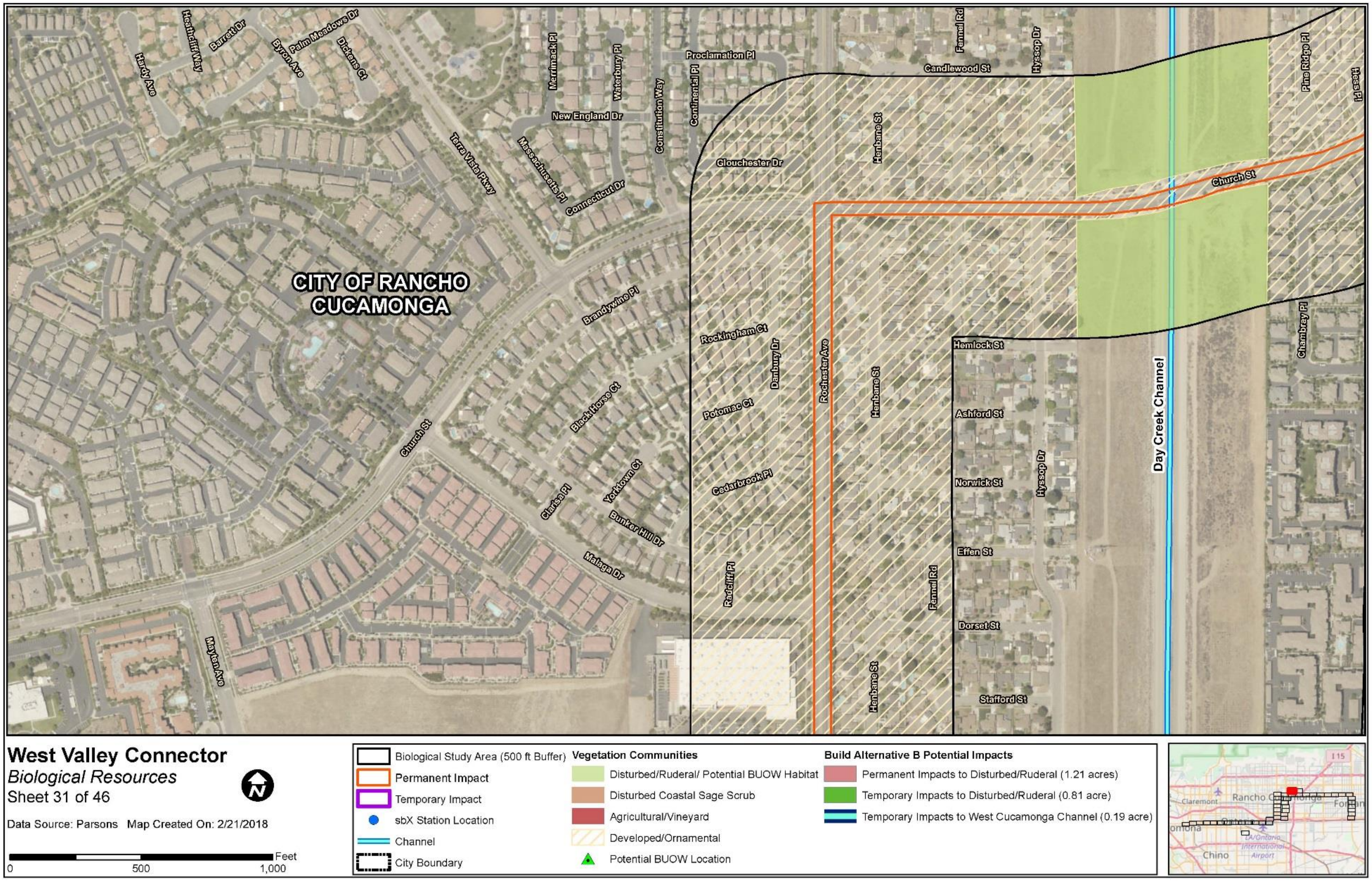
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


West Valley Connector
Biological Resources
Sheet 31 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
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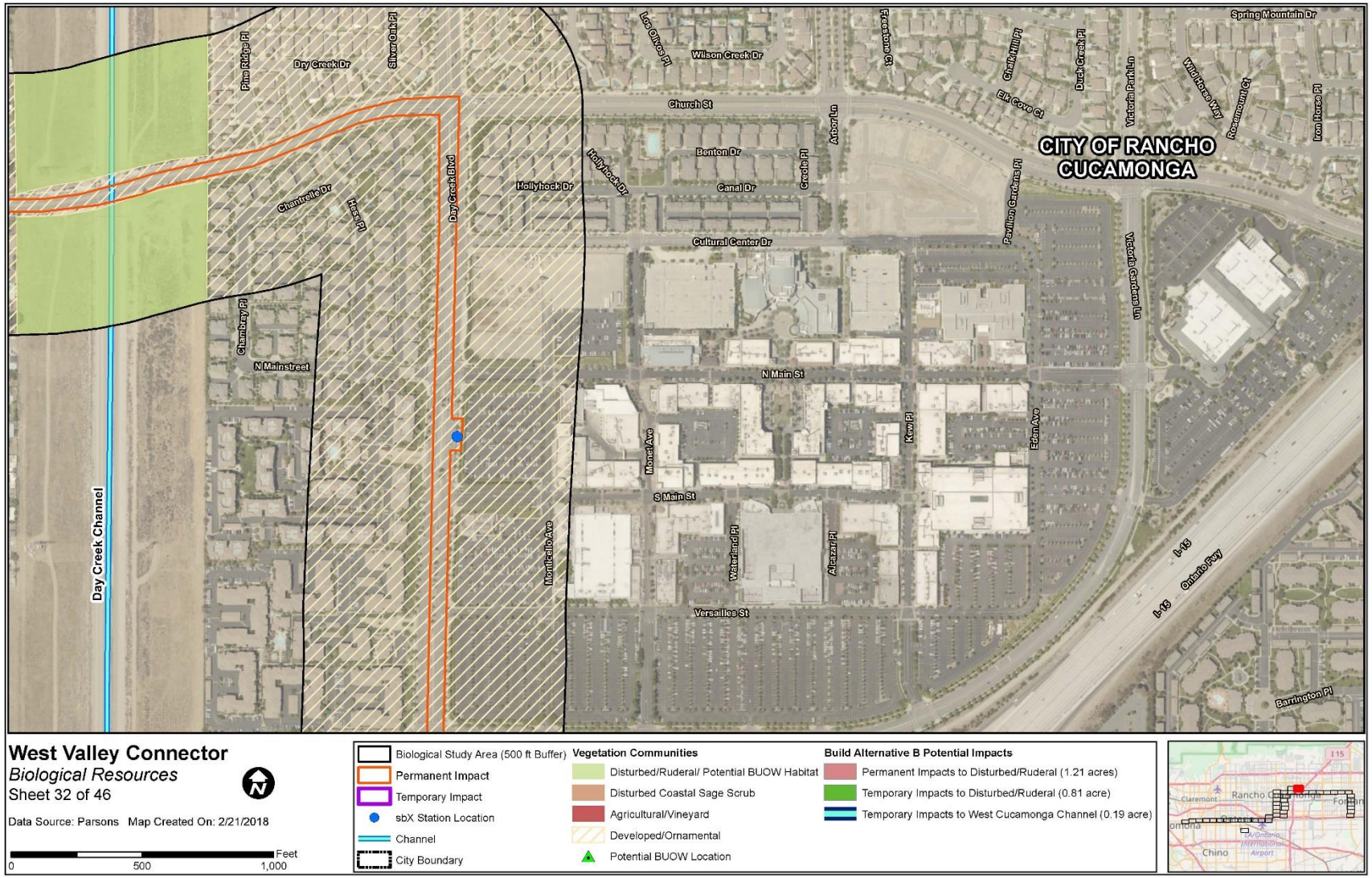
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
CITY OF RANCHO CUCAMONGA
Day Creek Channel
Church St
Candlewood St
Hemlock St
Ashford St
Norwick St
Effen St
Dorset St
Stafford St
Rochester Ave
Henbane St
Hyssop Dr
Fennel Rd
Proclamation Pl
Continental Pl
Constitution Way
Clouchester Dr
New England Dr
Merrimack Pl
Waterbury Pl
Connecticut Dr
Massachusetts Pl
Terra Vista Pkwy
Rockingham Ct
Danbury Dr
Potomac Ct
Cedarbrook Pl
Radcliff Pl
Brandywine Pl
Black Horse Ct
Yorktown Ct
Bunker Hill Dr
Clarissa Pl
Malaga Dr
Mayten Ave
Heathcliff Way
Barrett Dr
Palm Meadows Dr
Byron Ave
Dickens Ct
Hardy Ave
Pine Ridge Pl
Hess Pl
Chambray Pl
Rancho Cucamonga
Claremont
Fontana
Chino
Ontario International Airport
I 15


CITY OF RANCHO CUCAMONGA
Spring Mountain Dr
Wilson Creek Dr
Church St
Benton Dr
Canal Dr
Cultural Center Dr
N Main St
S Main St
Versailles St
Dry Creek Dr
Pine Ridge Pl
Silverton Pl
Los Olivos Pl
Hollyhock Dr
Day Creek Blvd
Chantrelle Dr
Hass Pl
Chambray Pl
N Mainstreet
Day Creek Channel
Monticello Ave
Monet Ave
Kew Pl
Eden Ave
Weyland Pl
Alcazar Pl
Victoria Gardens Ln
Pavilion Gardens Pl
Arbor Ln
Creola Pl
Elk Cove Ct
Duck Creek Pl
Victoria Park Ln
Wildhorse Way
Rosemount Ct
Iron Horse Pl
I-15
Ontario Fwy
Barrington Pl
West Valley Connector
Biological Resources
Sheet 32 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
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Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
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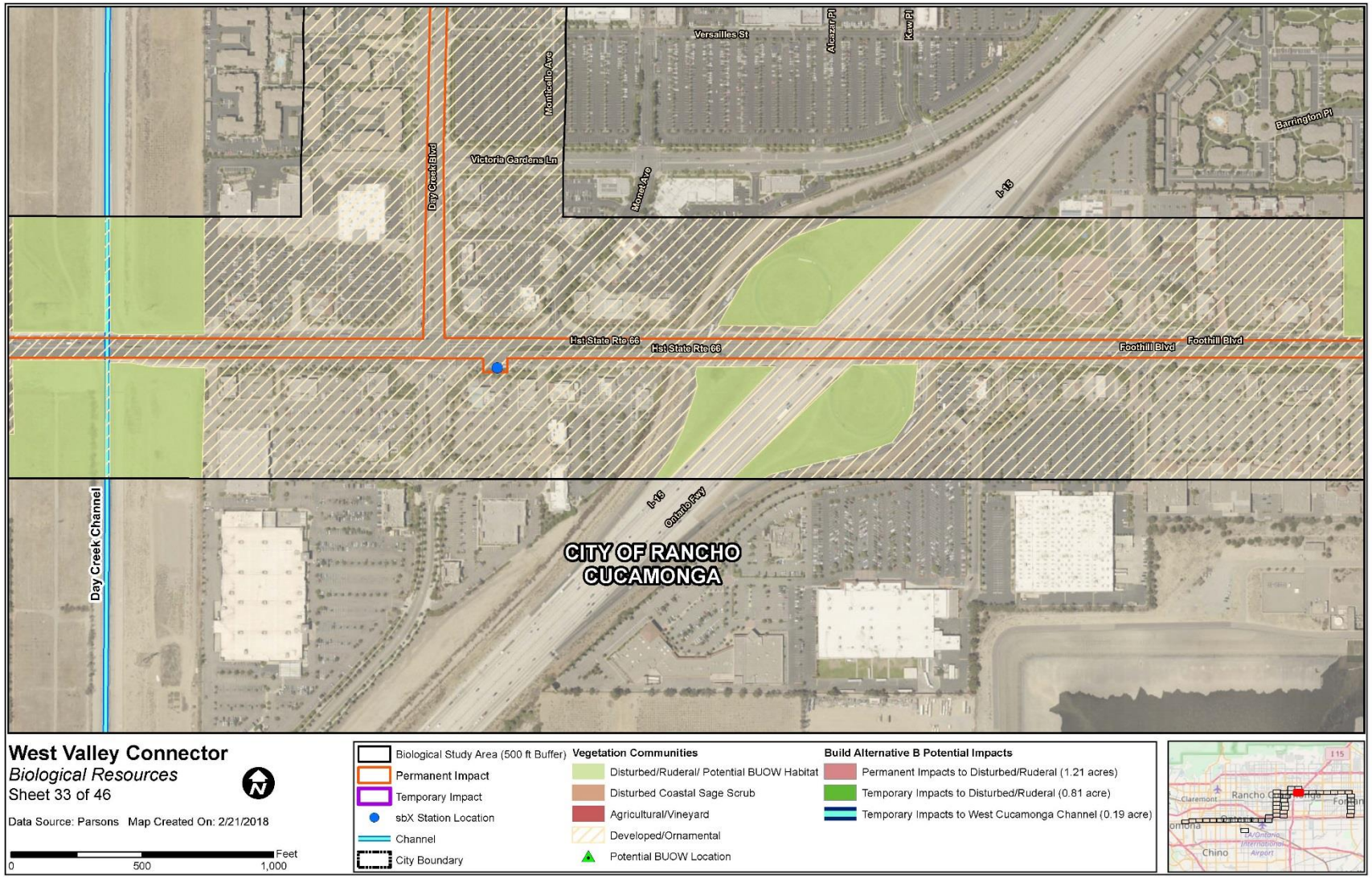
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


Versailles St
Alcazar Pl
Kew Pl
Barrington Pl
Monticello Ave
Victoria Gardens Ln
Day Creek Blvd
Monet Ave
I-15
Hst State Rte 66
Hst State Rte 66
Foothill Blvd
Foothill Blvd
Day Creek Channel
I-15
Ontario Fwy
CITY OF RANCHO CUCAMONGA
West Valley Connector
Biological Resources
Sheet 33 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
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Agricultural/Vineyard
Developed/Ornamental
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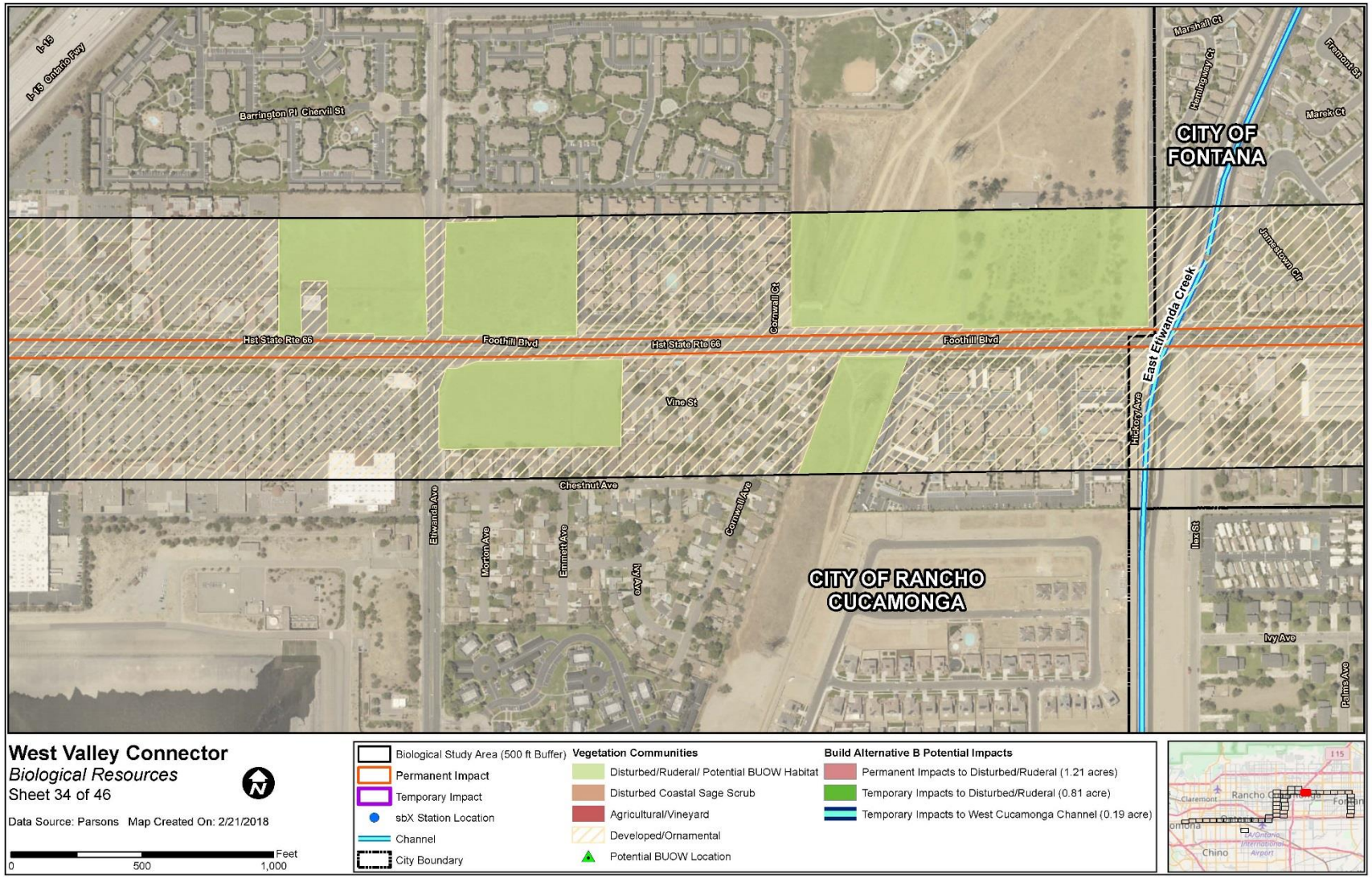
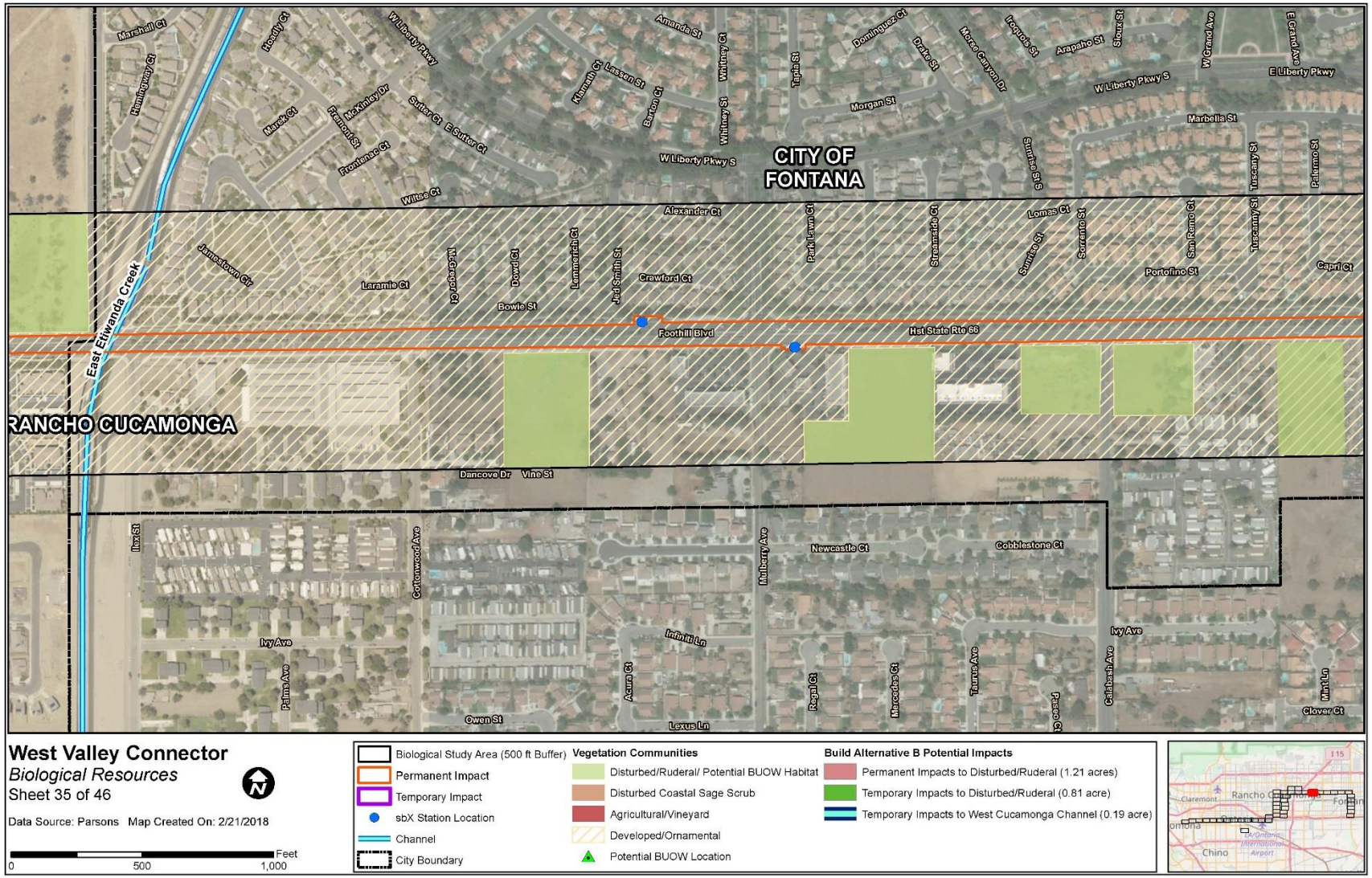
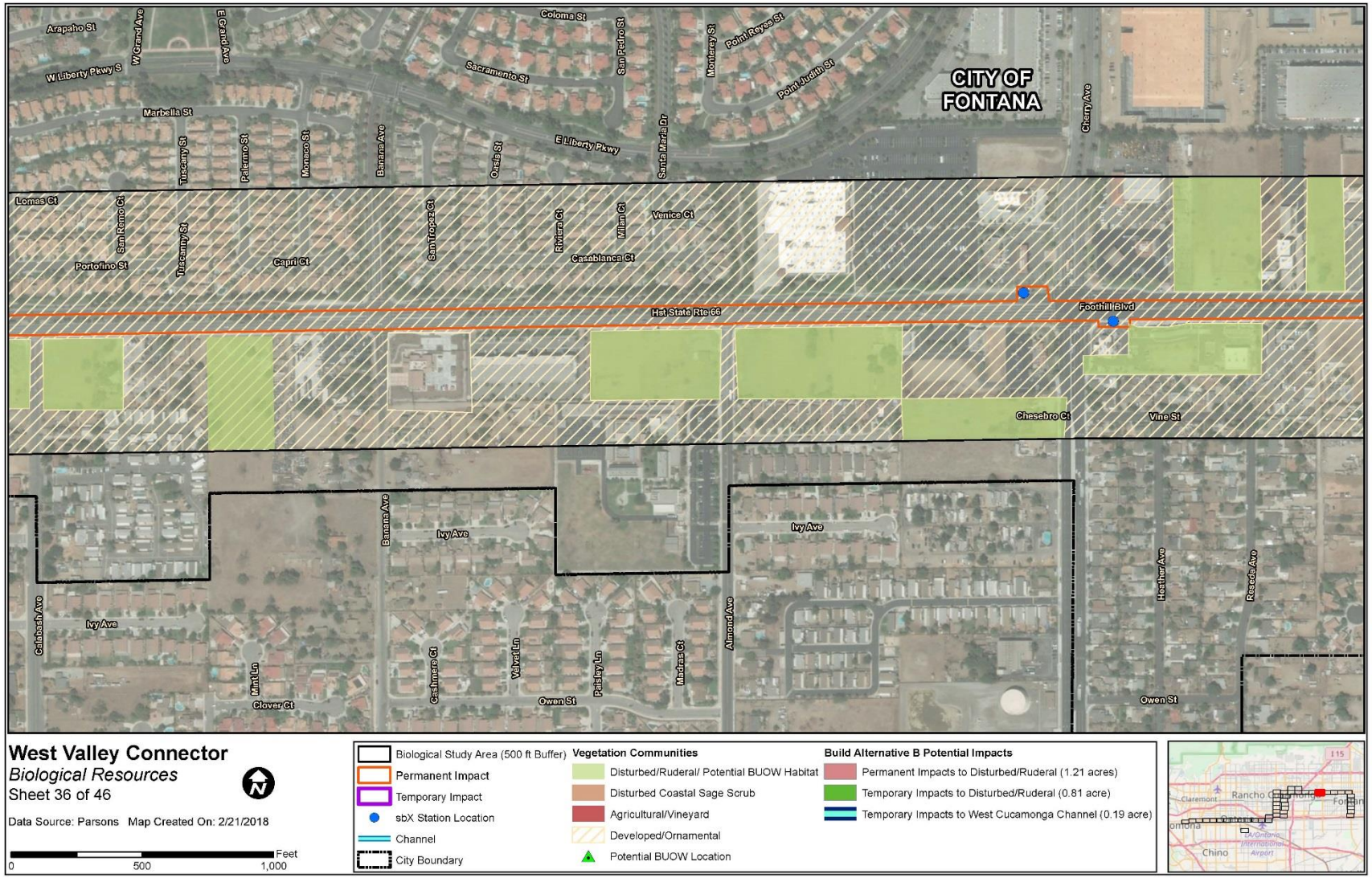
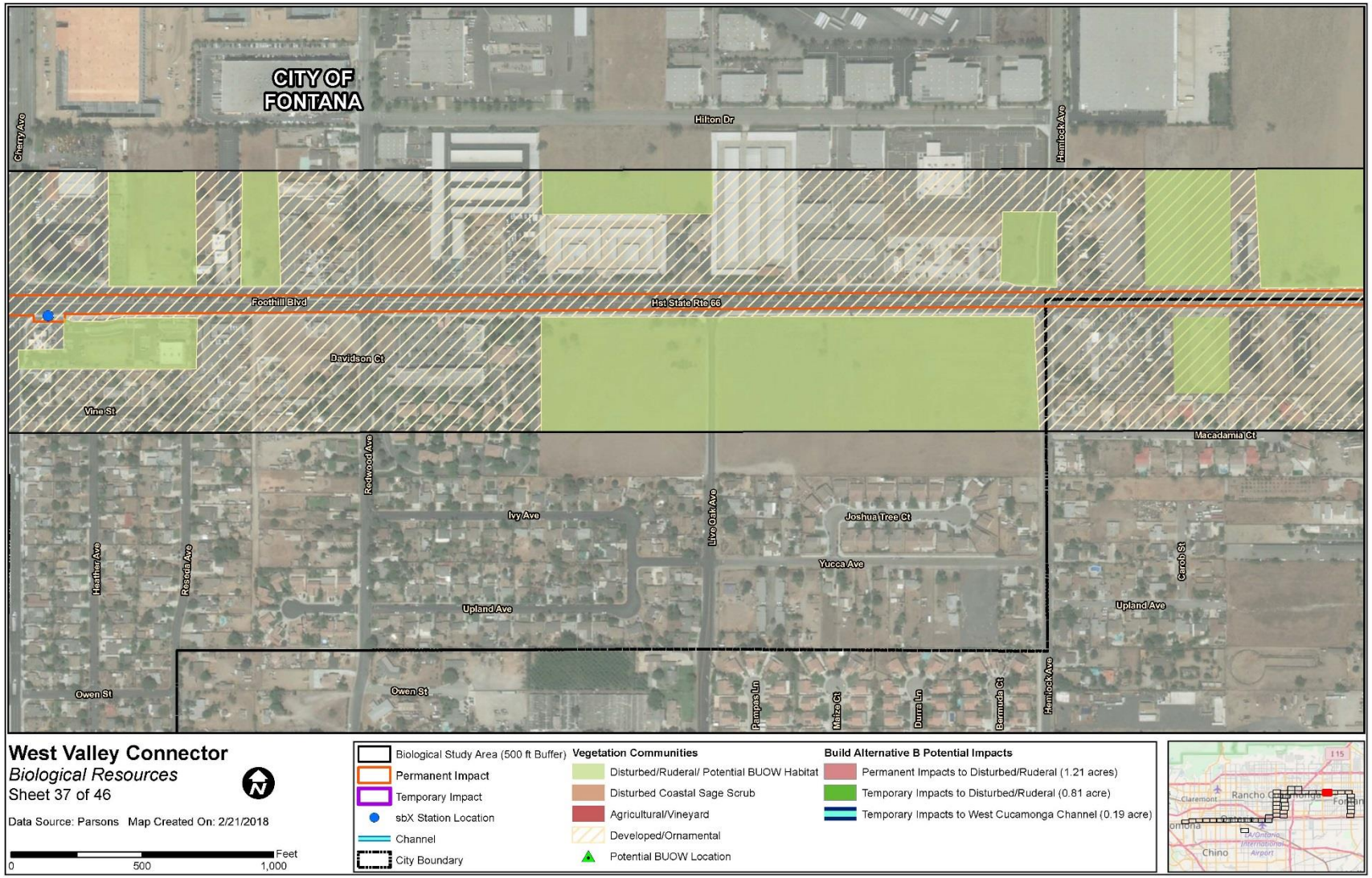
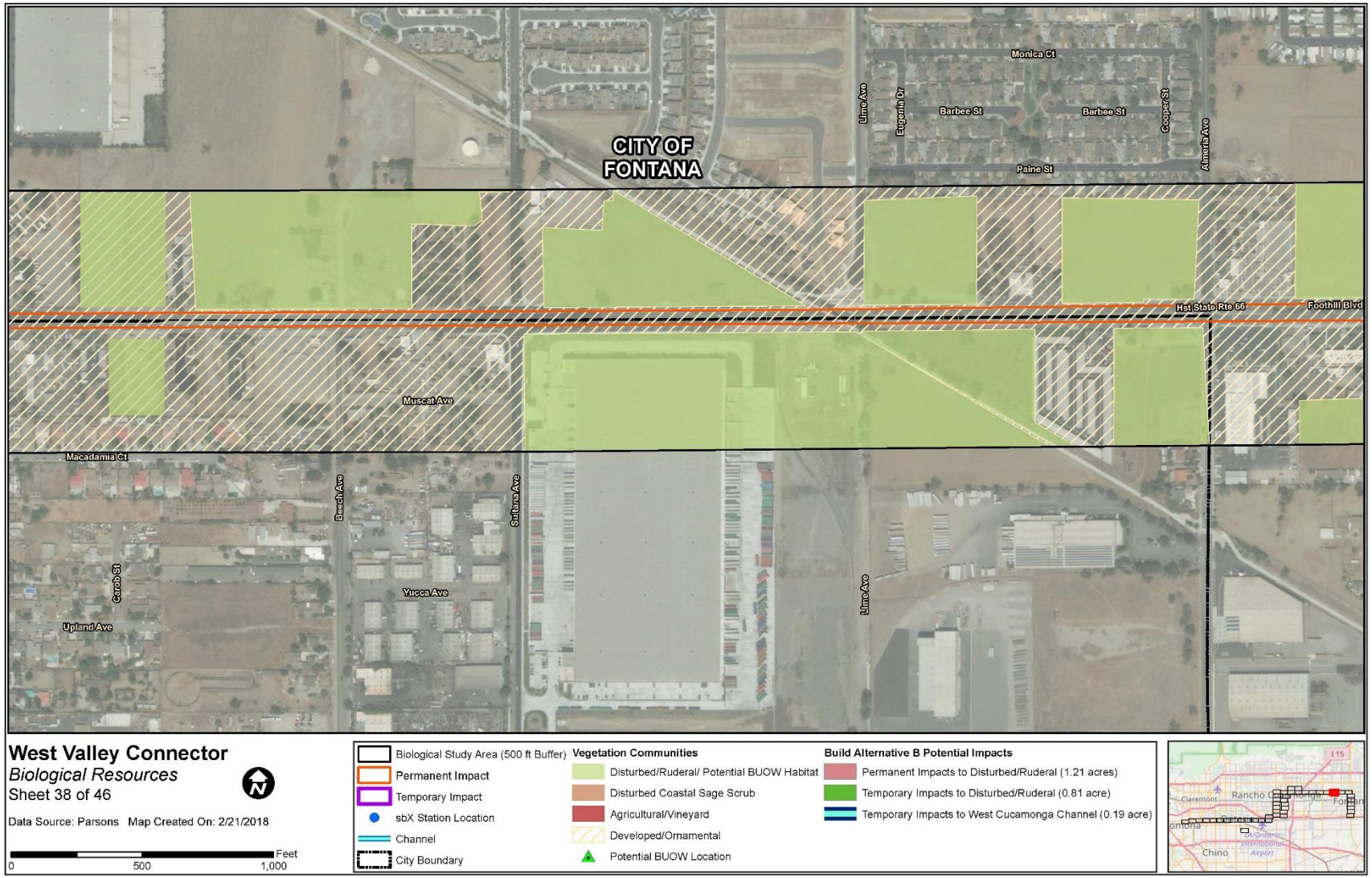
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino

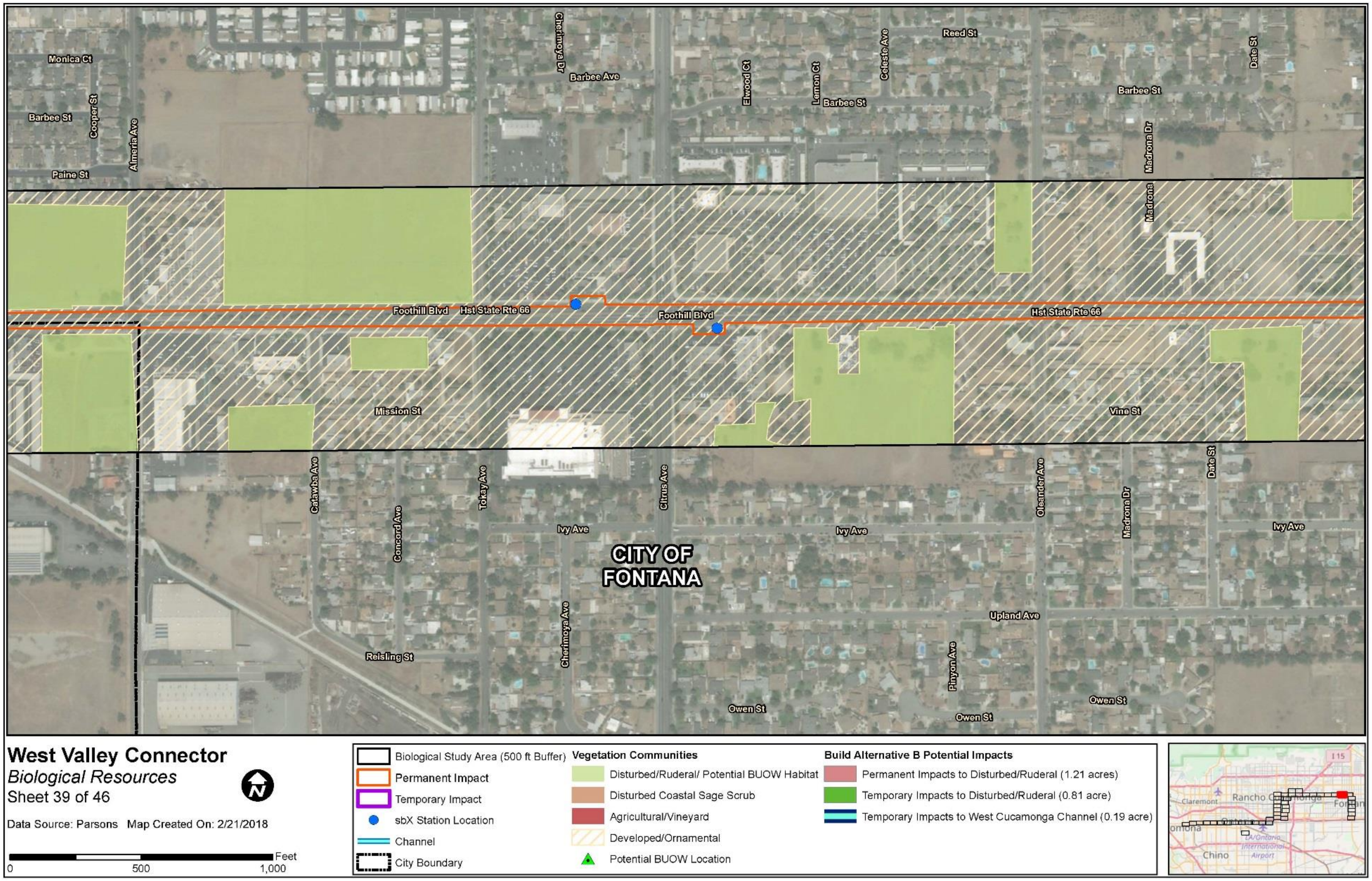

I-15
I-15 Ontario Fwy
Barrington Pl
Chervil St
Marshall Ct
Hathaway Ct
Fremont St
Marok Ct
CITY OF FONTANA
Jamestown Cir
East Etiwanda Creek
Hst State Rte 66
Foothill Blvd
Hst State Rte 66
Foothill Blvd
Cornwall Ct
Vine St
Hickory Ave
Chestnut Ave
Etiwanda Ave
Morton Ave
Emmett Ave
Ivy Ave
Cornwall Ave
Ilex St
CITY OF RANCHO CUCAMONGA
Ivy Ave
Palms Ave
West Valley Connector
Biological Resources
Sheet 34 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino
Ontario International Airport

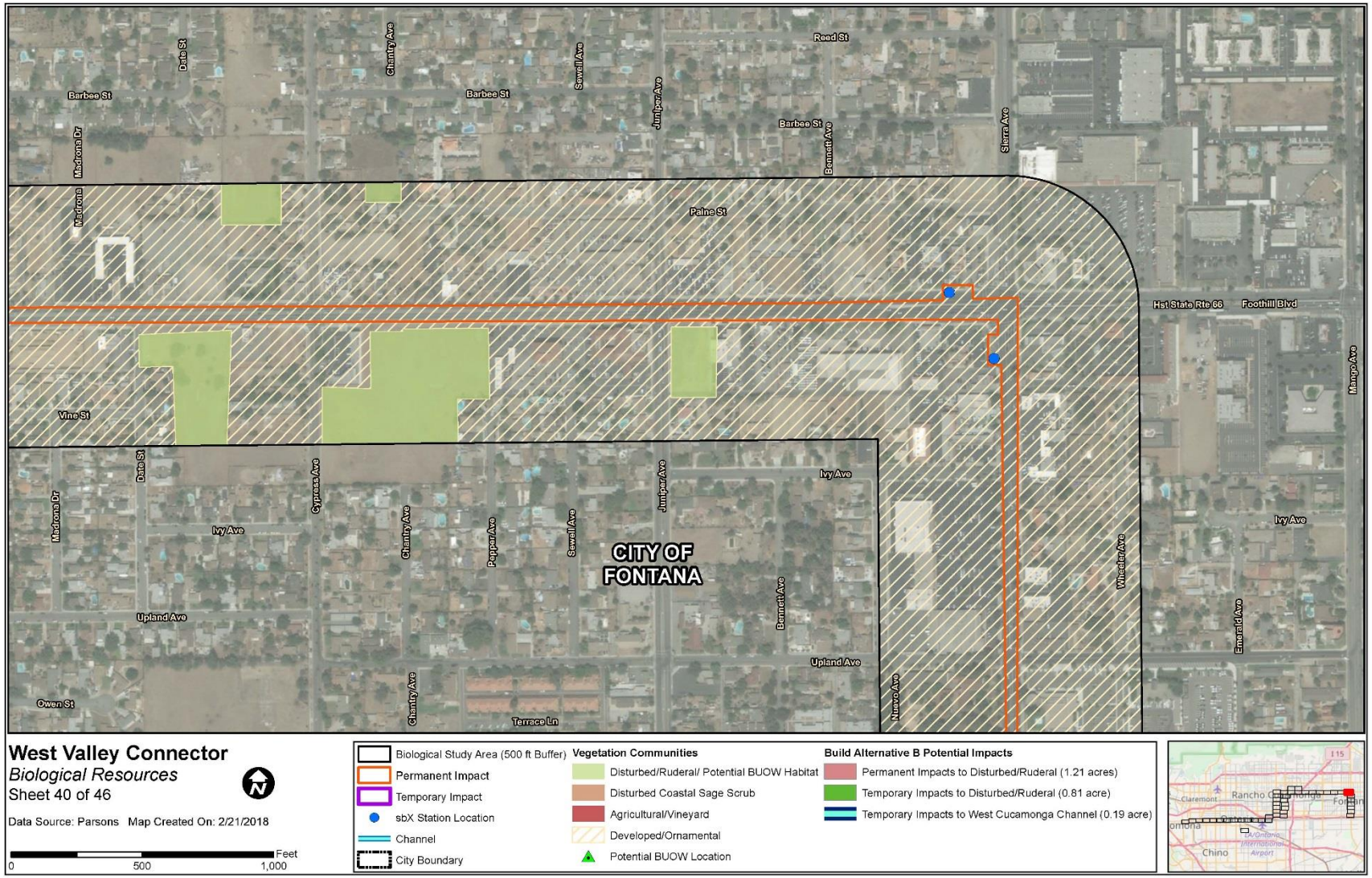

CITY OF FONTANA
RANCHO CUCAMONGA
East Etiwanda Creek
Foothill Blvd
Hst State Rte 66
W Liberty Pkwy S
Morgan St
Marbella St
Alexander Ct
Crawford Ct
Bowie St
Laramie Ct
Jamestown Cir
Dancove Dr
Vine St
Ivy Ave
Owen St
Lexus Ln
Infiniti Ln
Newcastle Ct
Cobblestone Ct
Portofino St
Capri Ct
Clover Ct
West Valley Connector
Biological Resources
Sheet 35 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)

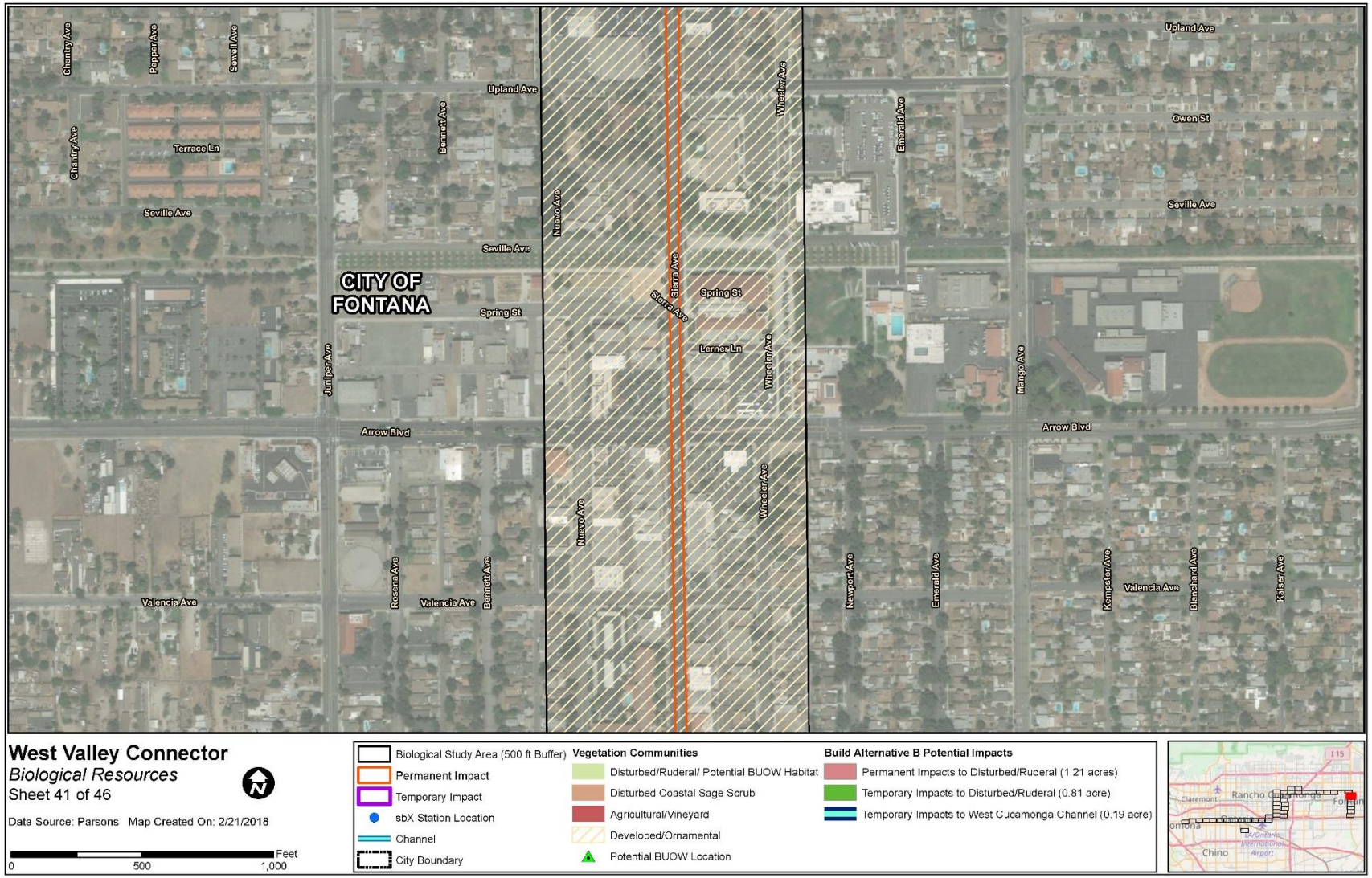

Arapaho St
W Grand Ave
E Grand Ave
Coloma St
W Liberty Pkwy S
Sacramento St
San Pedro St
Monterey St
Point Reyes St
Point Judith St
CITY OF FONTANA
Cherry Ave
Marbella St
Tuscany St
Palermo St
Monaco St
Banana Ave
Oasis St
E Liberty Pkwy
Santa Maria Dr
Lomas Ct
San Remo Ct
Portofino St
Tuscany St
Capri Ct
San Tropez Ct
Riviera Ct
Milan Ct
Venice Ct
Casablanca Ct
Hst State Rte 66
Foothill Blvd
Chesebro Ct
Vine St
Banana Ave
Ivy Ave
Ivy Ave
Ivy Ave
Citrusdale Ave
Mint Ln
Clover Ct
Cashmere Ct
Velvet Ln
Paisley Ln
Madras Ct
Owen St
Owen St
Almond Ave
Heather Ave
Reseda Ave
West Valley Connector
Biological Resources
Sheet 36 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Rancho Cucamonga
Ontario
Chino
Ontario International Airport

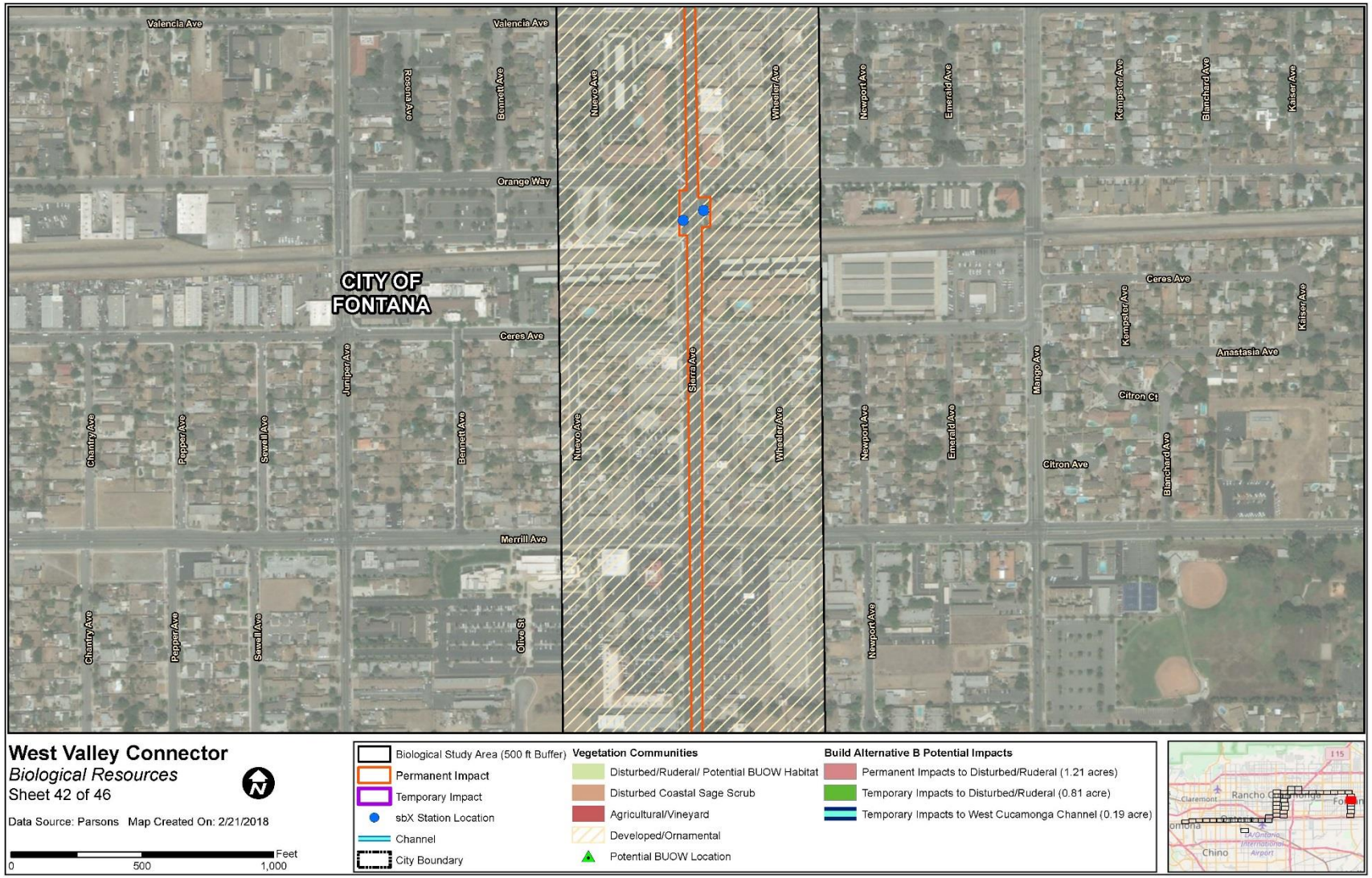

CITY OF FONTANA
Cherry Ave
Hilton Dr
Hemlock Ave
Foothill Blvd
Hist State Rte 66
Davidson Ct
Vine St
Macadamia Ct
Redwood Ave
Ivy Ave
Live Oak Ave
Joshua Tree Ct
Yucca Ave
Heather Ave
Rosedale Ave
Upland Ave
Carob St
Owen St
Pampas Ln
Maize Ct
Dorra Ln
Bermuda Ct
West Valley Connector
Biological Resources
Sheet 37 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino

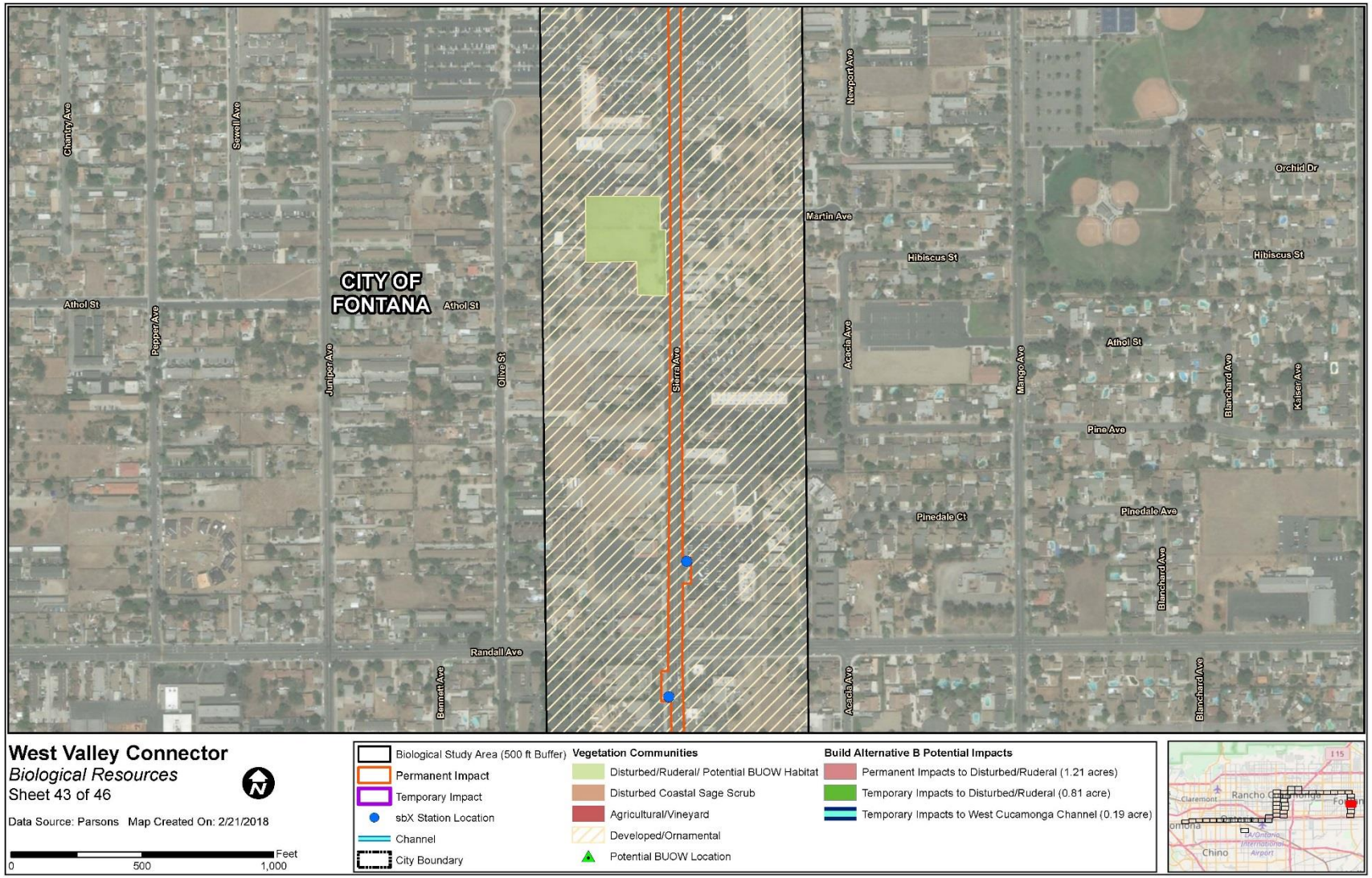

CITY OF FONTANA
Monica Ct
Lime Ave
Eugenia Dr
Barbee St
Barbee St
Cooper St
Almeria Ave
Paine St
Hst State Rte 66
Foothill Blvd
Muscat Ave
Macadamia Ct
Beech Ave
Sultana Ave
Cacob St
Yucca Ave
Upland Ave
Lime Ave
West Valley Connector
Biological Resources
Sheet 38 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino

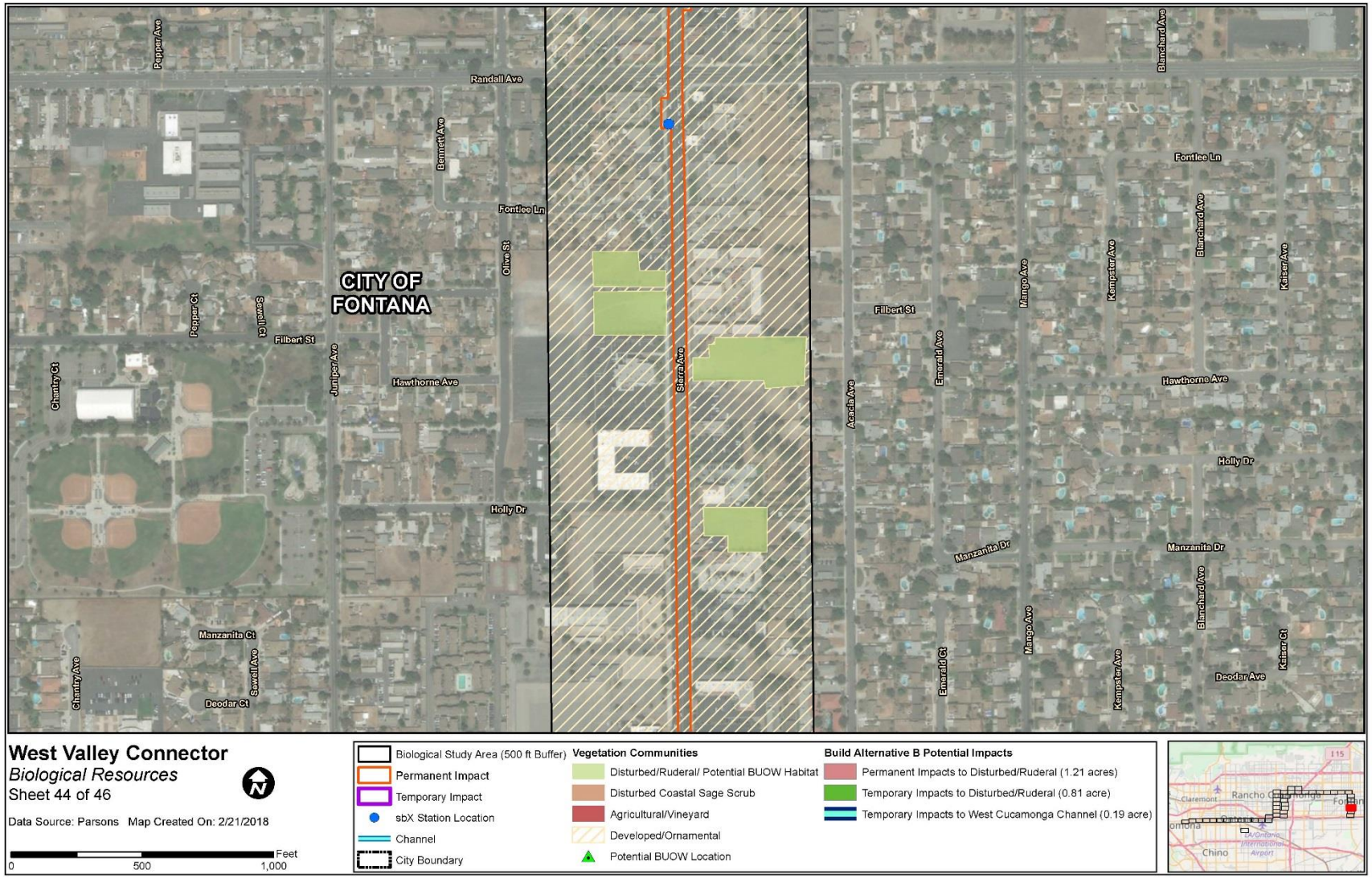

Monica Ct
Barbee St
Cooper St
Almeria Ave
Paine St
Chelmoya Dr
Barbee Ave
Elwood Ct
Lemon Ct
Barbee St
Celeste Ave
Reed St
Barbee St
Madrona Dr
Date St
Foothill Blvd
Hst State Rte 66
Foothill Blvd
Hst State Rte 66
Mission St
Vine St
Catawba Ave
Concord Ave
Tokay Ave
Citrus Ave
Oleander Ave
Madrona Dr
Date St
Ivy Ave
Ivy Ave
Ivy Ave
CITY OF FONTANA
Upland Ave
Reisling St
Chelmoya Ave
Pinyon Ave
Owen St
Owen St
Owen St
West Valley Connector
Biological Resources
Sheet 39 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Rancho
Chino

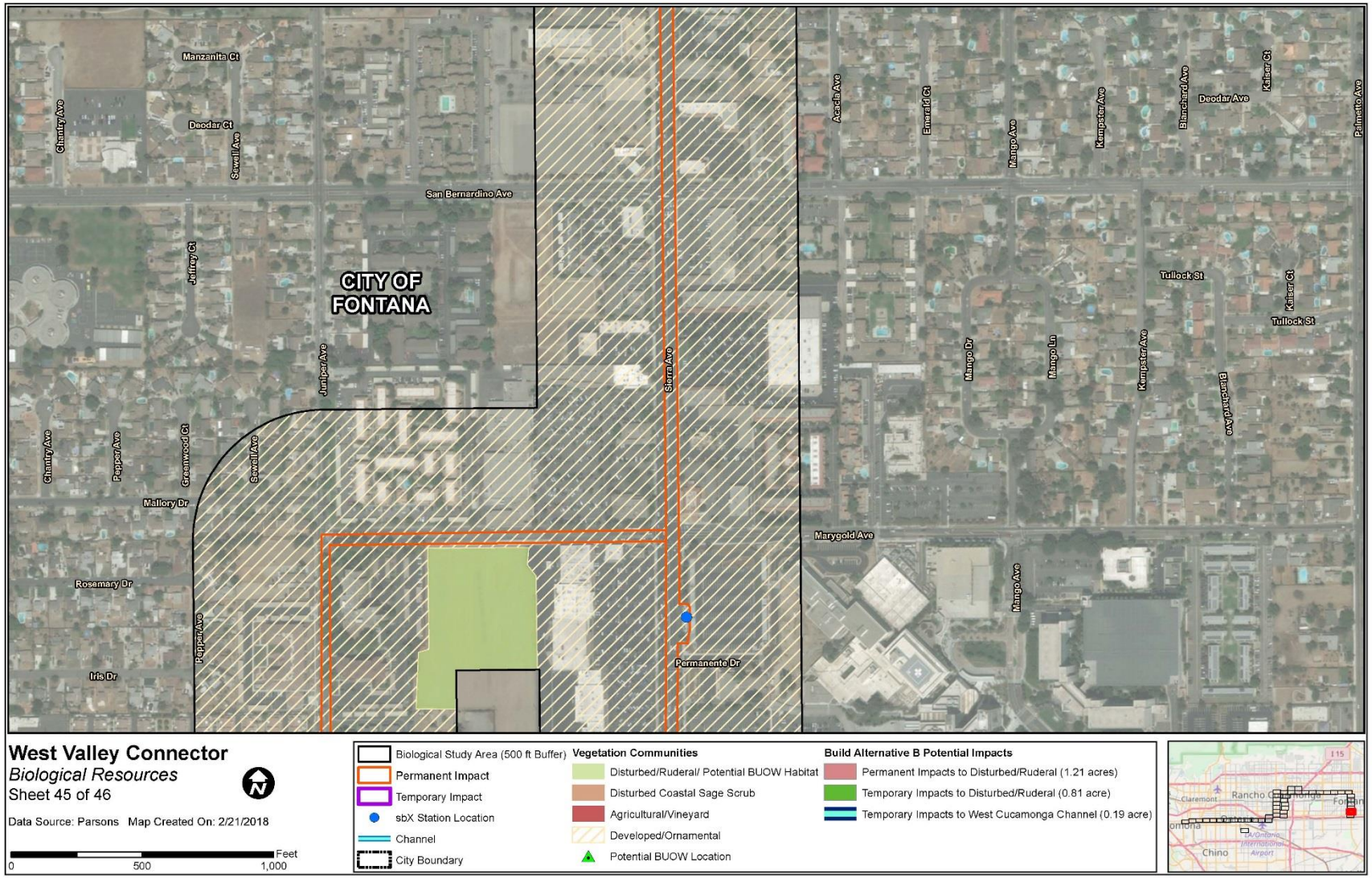

Reed St
Barbee St
Barbee St
Barbee St
Paine St
Vine St
Ivy Ave
Ivy Ave
Ivy Ave
Upland Ave
Upland Ave
Owen St
Terrace Ln
Hst State Rte 66
Foothill Blvd
CITY OF FONTANA
Date St
Madrona Dr
Madrona
Chantry Ave
Sewell Ave
Juniper Ave
Bennett Ave
Sierra Ave
Cypress Ave
Pepper Ave
Bennett Ave
Wheeler Ave
Mango Ave
Emerald Ave
Nuevo Ave
West Valley Connector
Biological Resources
Sheet 40 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Chino

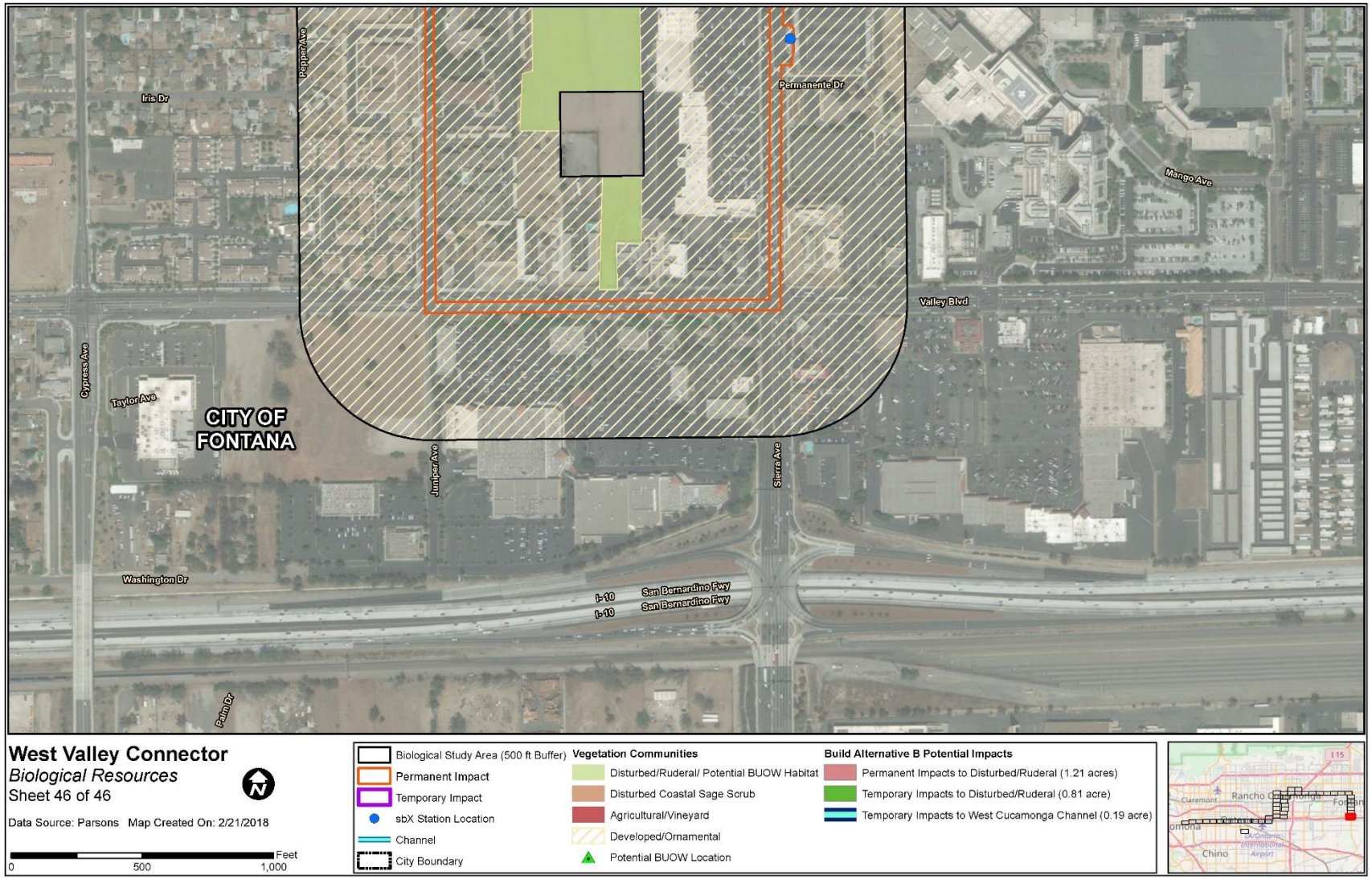

Chanity Ave
Pepper Ave
Sewell Ave
Upland Ave
Bennett Ave
Terrace Ln
Seville Ave
CITY OF FONTANA
Spring St
Juniper Ave
Arrow Blvd
Valencia Ave
Rosena Ave
Nuevo Ave
Sierra Ave
Wheeler Ave
Lerner Ln
Emerald Ave
Owen St
Mango Ave
Newport Ave
Kempster Ave
Blanchard Ave
Kaiser Ave
West Valley Connector
Biological Resources
Sheet 41 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino


Valencia Ave
Valencia Ave
Poplar Ave
Bennett Ave
Nuevo Ave
Wheeler Ave
Newport Ave
Emerald Ave
Kempster Ave
Blanchard Ave
Kaiser Ave
Orango Way
CITY OF FONTANA
Ceres Ave
Juniper Ave
Sierra Ave
Mango Ave
Anastasia Ave
Citron Ct
Citron Ave
Chantry Ave
Pepper Ave
Sewell Ave
Merrill Ave
Olive St
West Valley Connector
Biological Resources
Sheet 42 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I-15
Claremont
Chino


CITY OF FONTANA
Chantry Ave
Sawell Ave
Athol St
Pepper Ave
Juniper Ave
Olive St
Randall Ave
Bennett Ave
Sierra Ave
Newport Ave
Martin Ave
Hibiscus St
Orchid Dr
Acacia Ave
Mango Ave
Blanchard Ave
Kaiser Ave
Pine Ave
Pinedale Ct
Pinedale Ave
West Valley Connector
Biological Resources
Sheet 43 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


CITY OF FONTANA
Pepper Ave
Randall Ave
Bennett Ave
Fontlee Ln
Olive St
Pepper Ct
Sewell Ct
Filbert St
Juniper Ave
Hawthorne Ave
Chantry Ct
Holly Dr
Manzanita Ct
Chantry Ave
Sewell Ave
Deodar Ct
Sierra Ave
Blanchard Ave
Kaiser Ave
Mango Ave
Kempster Ave
Emerald Ave
Acacia Ave
Manzanita Dr
Kaiser Ct
Deodar Ave
West Valley Connector
Biological Resources
Sheet 44 of 46
Data Source: Parsons Map Created On: 2/21/2018
Feet
0
500
1,000
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


Manzanita Ct
Deodar Ct
Chantry Ave
Sewell Ave
San Bernardino Ave
Jeffrey Ct
CITY OF FONTANA
Juniper Ave
Sierra Ave
Acacia Ave
Emerald Ct
Mango Ave
Kempster Ave
Blanchard Ave
Deodar Ave
Kaiser Ct
Palmetto Ave
Tullock St
Mango Dr
Mango Ln
Chantry Ave
Pepper Ave
Greenwood Ct
Sewell Ave
Mallory Dr
Marygold Ave
Rosemary Dr
Iris Dr
Permanente Dr
West Valley Connector
Biological Resources
Sheet 45 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
I15
Claremont
Chino


Iris Dr
Hoppeay Ave
Permanente Dr
Mango Ave
Valley Blvd
Cypress Ave
Taylor Ave
CITY OF FONTANA
Juniper Ave
Sierra Ave
Washington Dr
I-10
San Bernardino Fwy
I-10
San Bernardino Fwy
Palm Dr
West Valley Connector
Biological Resources
Sheet 46 of 46
Data Source: Parsons Map Created On: 2/21/2018
0
500
1,000
Feet
Biological Study Area (500 ft Buffer)
Permanent Impact
Temporary Impact
sbX Station Location
Channel
City Boundary
Vegetation Communities
Disturbed/Ruderal/ Potential BUOW Habitat
Disturbed Coastal Sage Scrub
Agricultural/Vineyard
Developed/Ornamental
Potential BUOW Location
Build Alternative B Potential Impacts
Permanent Impacts to Disturbed/Ruderal (1.21 acres)
Temporary Impacts to Disturbed/Ruderal (0.81 acre)
Temporary Impacts to West Cucamonga Channel (0.19 acre)
Claremont
Chino

APPENDIX D: SOIL TYPES

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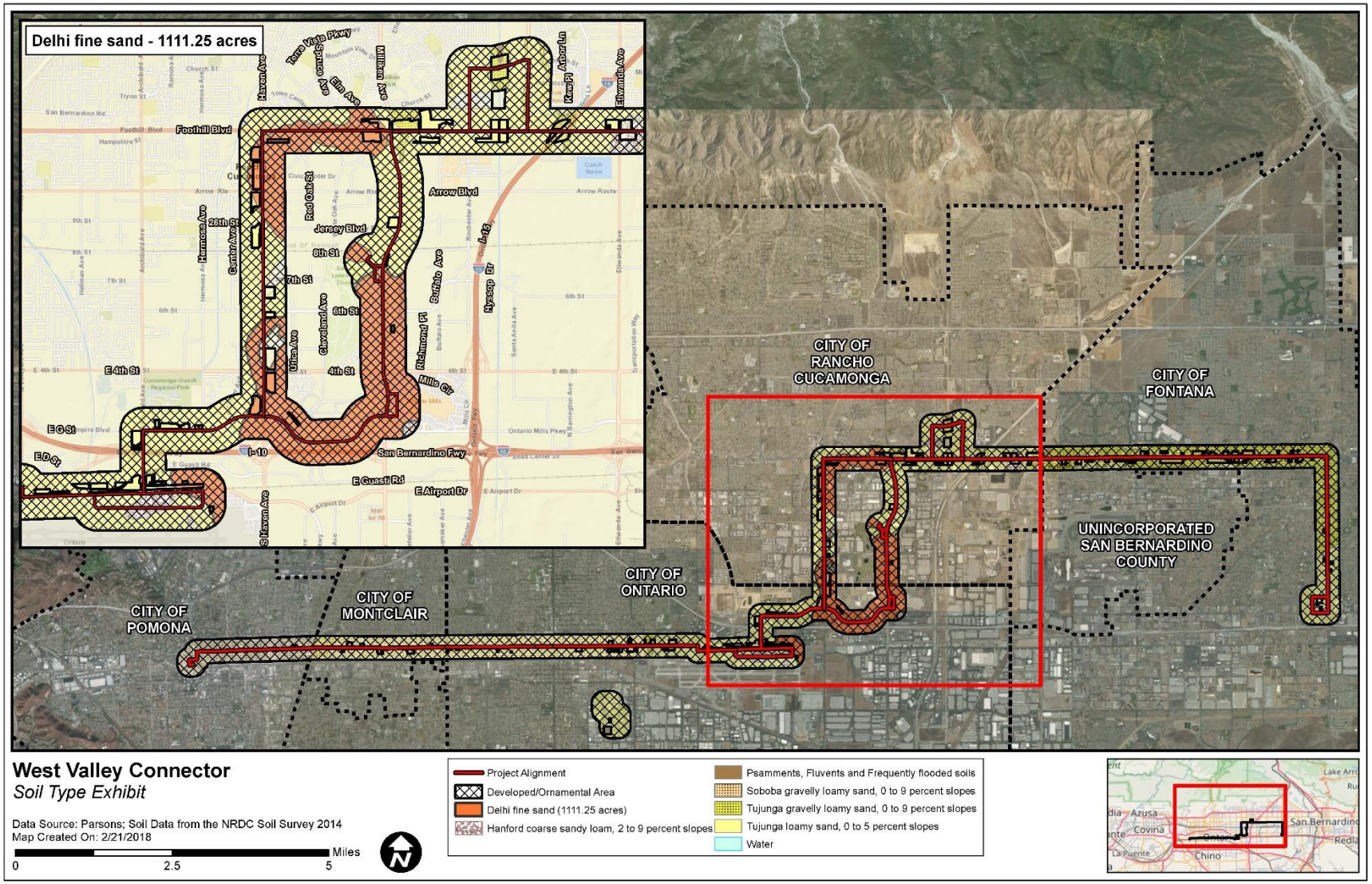
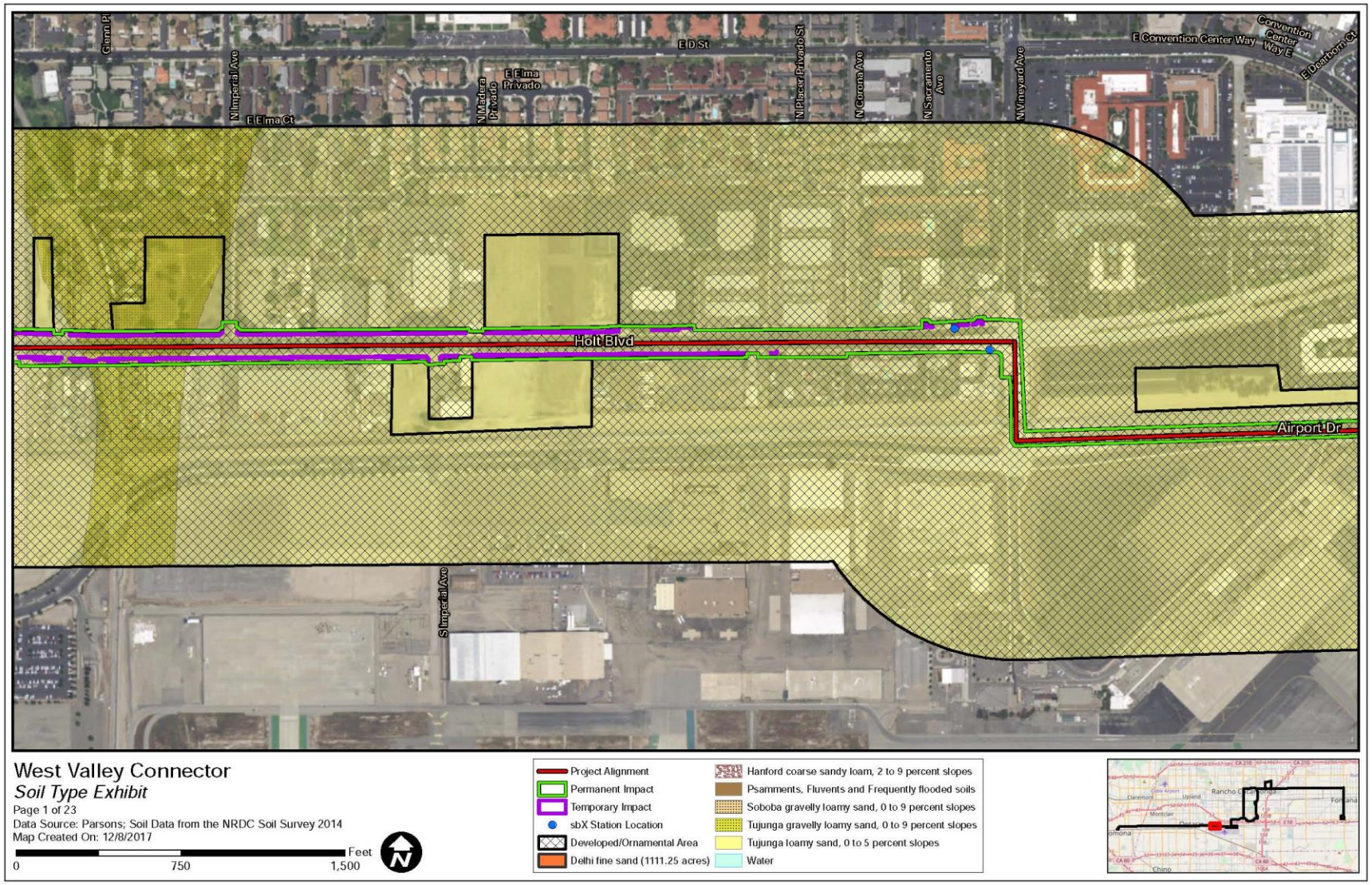
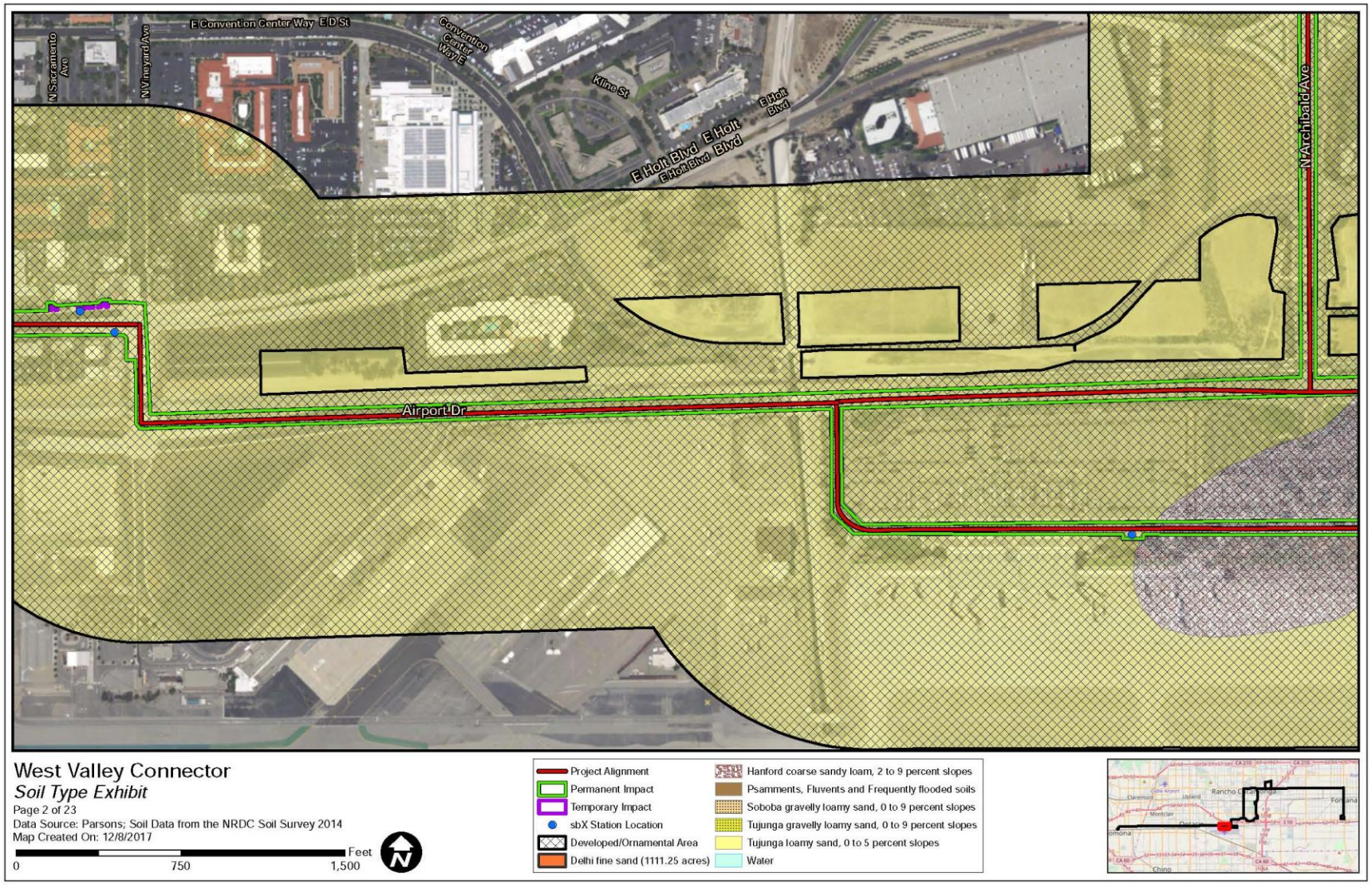
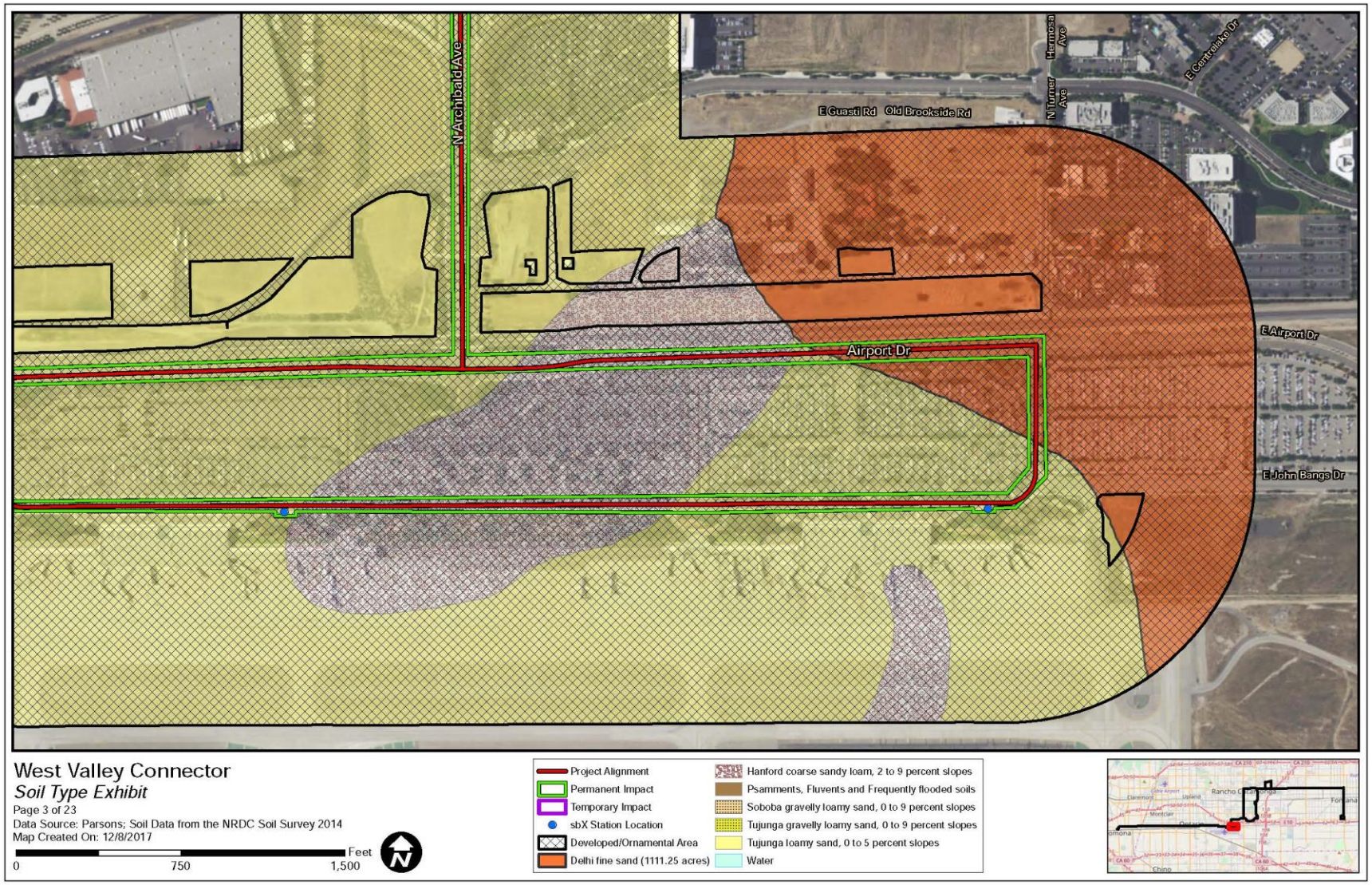
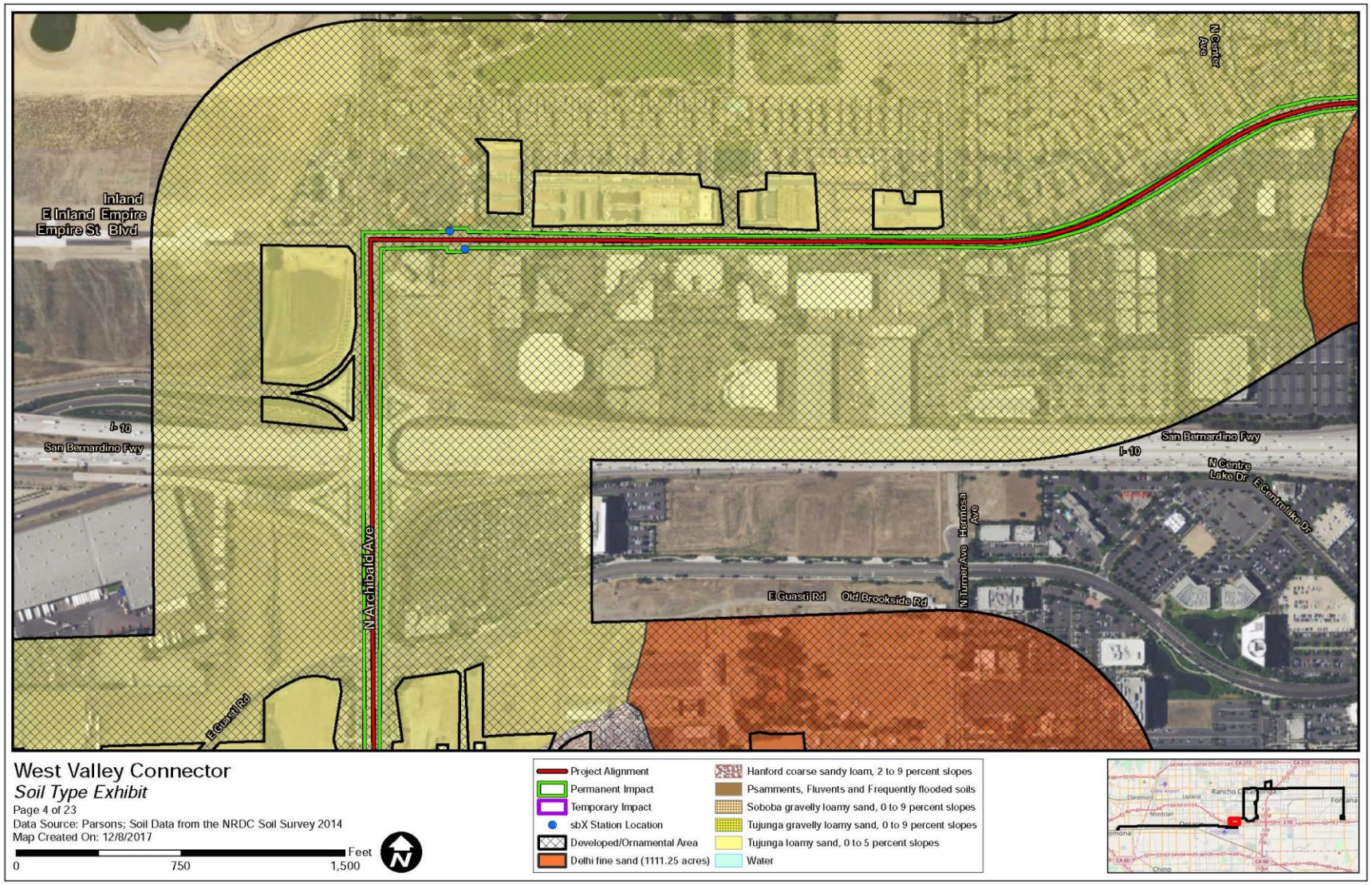
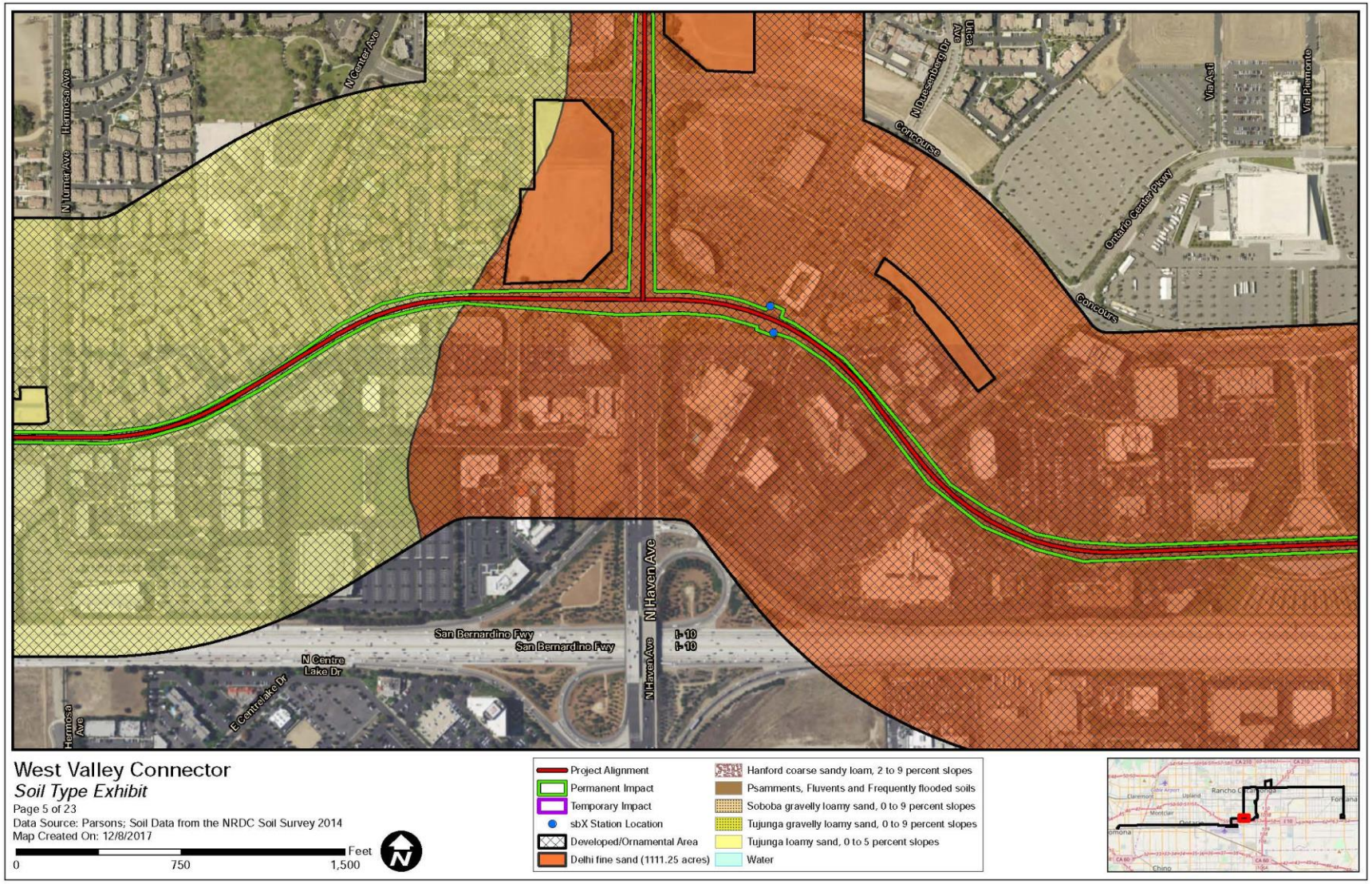

Delhi fine sand - 1111.25 acres
CITY OF RANCHO CUCAMONGA
CITY OF FONTANA
UNINCORPORATED SAN BERNARDINO COUNTY
CITY OF ONTARIO
CITY OF MONTCLAIR
CITY OF POMONA
Foothill Blvd
Arrow Blvd
Jersey Blvd
6th St
7th St
4th St
E 4th St
E G St
E D St
I-10
San Bernardino Fwy
E Guasti Rd
E Airport Dr
Mills Cir
Haven Ave
Vineyard Ave
Cucamonga-Guasti Regional Park
Ontario Mills Pkwy
West Valley Connector
Soil Type Exhibit
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 2/21/2018
Miles
0
2.5
5
Project Alignment
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water
Azusa
Covina
La Puente
Chino
San Bernardino


Glenn Pl
E D St
E Convention Center Way
Convention Center Way E
E Dearborn Ct
N Imperial Ave
E Elma Ct
N Madera Privado
E Elma Privado
N Placer Privado St
N Corona Ave
N Sacramento Ave
N Vineyard Ave
Holt Blvd
Airport Dr
S Imperial Ave
West Valley Connector
Soil Type Exhibit
Page 1 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


E Convention Center Way
E D St
Convention Center Way E
N Sacramento Ave
N Vineyard Ave
Kline St
E Holt Blvd
E Holt Blvd
E Holt Blvd
E Holt Blvd
N Archibald Ave
Airport Dr
West Valley Connector
Soil Type Exhibit
Page 2 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


N Archibald Ave
E Guasti Rd
Old Brookside Rd
N Turner Ave
Hermosa Ave
E Centrelake Dr
Airport Dr
E Airport Dr
E John Bangs Dr
West Valley Connector
Soil Type Exhibit
Page 3 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Inland
E Inland Empire
Empire St Blvd
I-10
San Bernardino Fwy
N Archibald Ave
E Guasti Rd
N Center Ave
San Bernardino Fwy
I-10
N Centre Lake Dr
E Centre Lake Dr
N Hermosa Ave
N Turner Ave
E Guasti Rd
Old Brookside Rd
West Valley Connector
Soil Type Exhibit
Page 4 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


N Center Ave
N Hermosa Ave
N Turner Ave
N Duesenberg Dr
Utica Ave
Via Asti
Via Piemonte
Concourse
Ontario Center Pkwy
Concourse
N Haven Ave
San Bernardino Fwy
San Bernardino Fwy
I-10
I-10
N Haven Ave
N Centre Lake Dr
E Centre Lake Dr
Hermosa Ave
West Valley Connector
Soil Type Exhibit
Page 5 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
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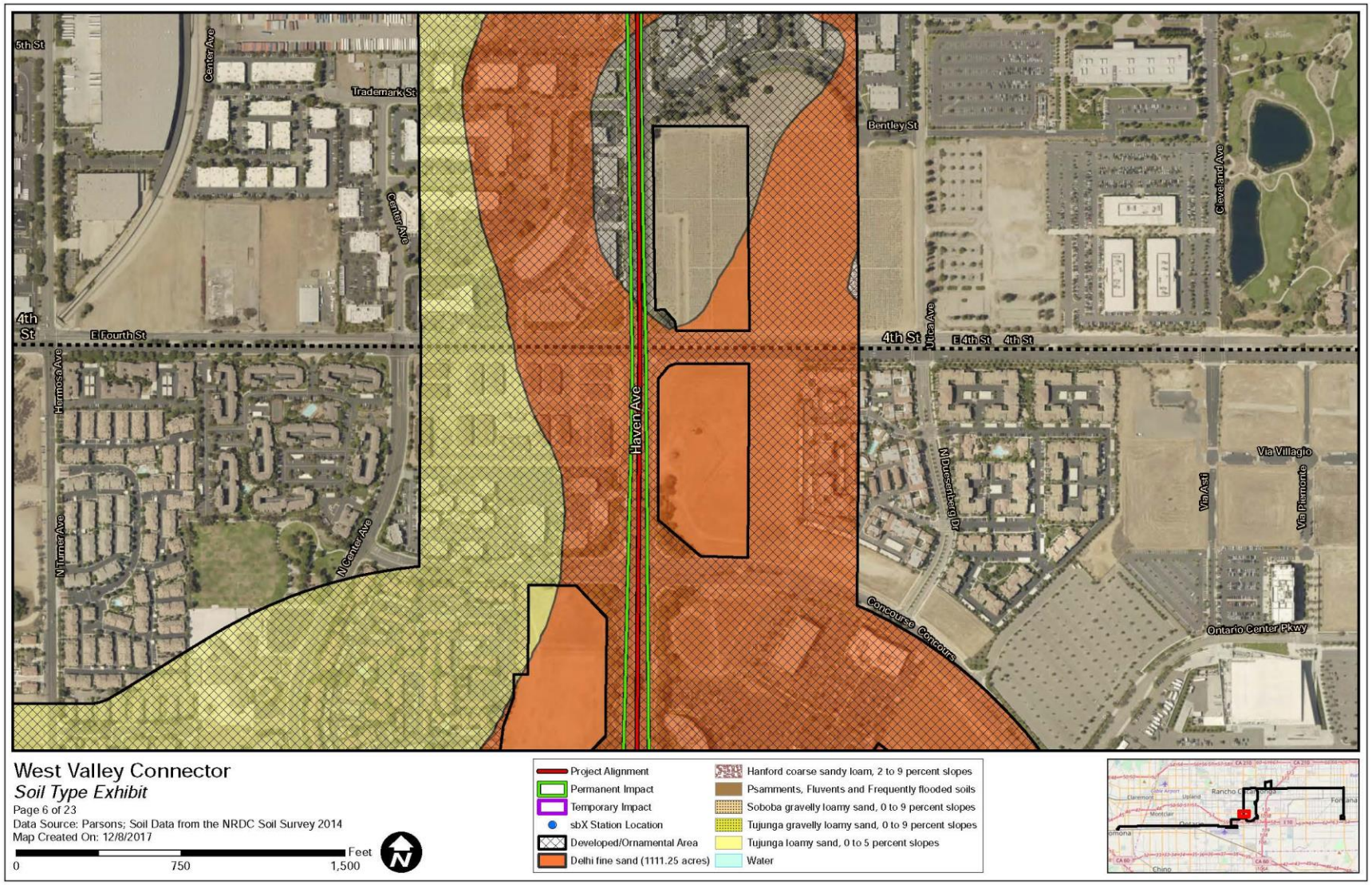
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


5th St
Center Ave
Trademark St
Center Ave
4th St
E Fourth St
Hermosa Ave
N Turner Ave
N Center Ave
Haven Ave
Bentley St
Cleveland Ave
4th St
Utica Ave
E 4th St
4th St
N Duesenberg Dr
Via Villagio
Via Asti
Via Piemonte
Concourse
Concours
Ontario Center Pkwy
West Valley Connector
Soil Type Exhibit
Page 6 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
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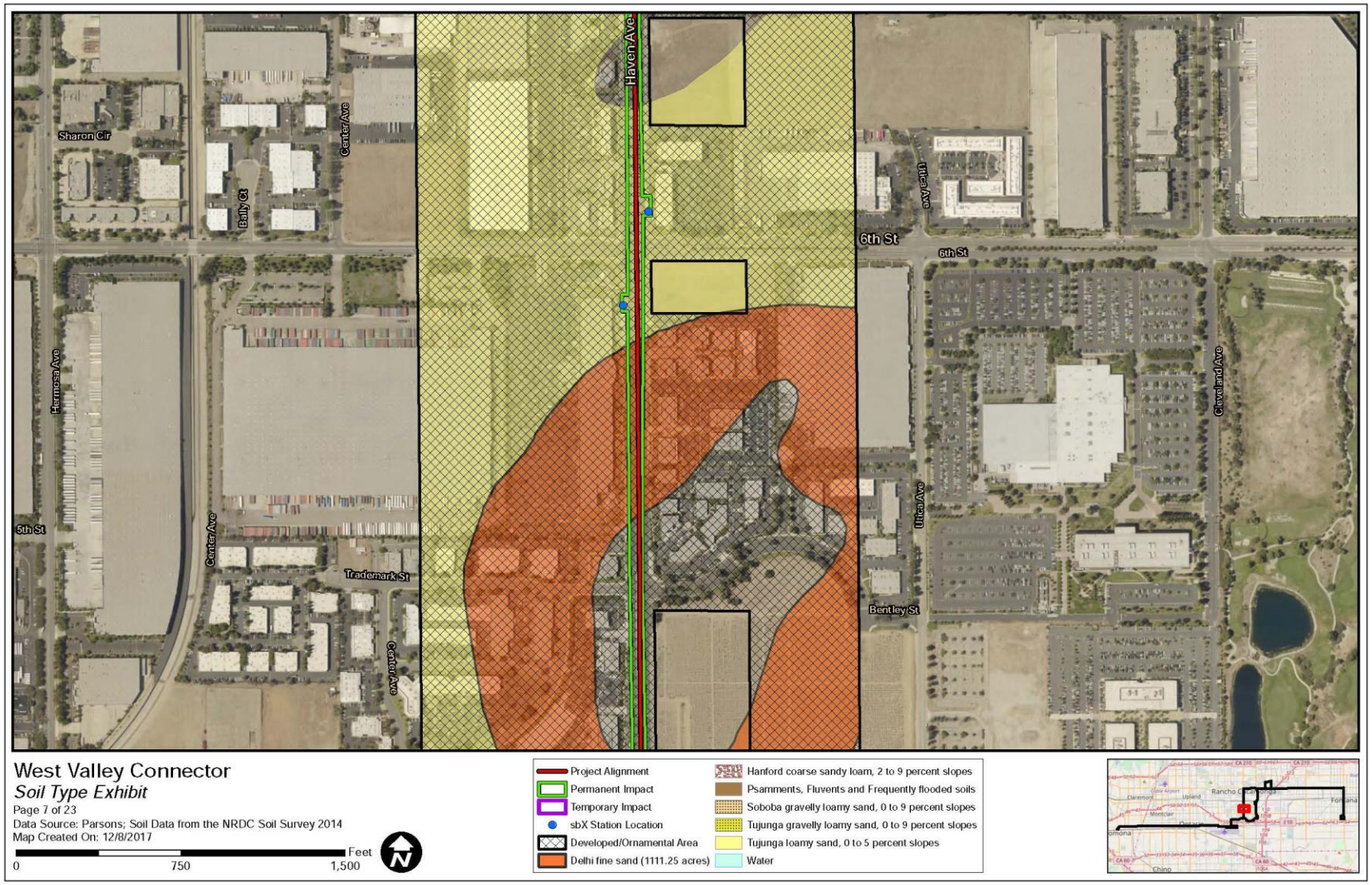
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Haven Ave
Sharon Cir
Bally Ct
Center Ave
Hermosa Ave
5th St
Center Ave
Trademark St
Center Ave
6th St
6th St
Utica Ave
Utica Ave
Cleveland Ave
Bentley St
West Valley Connector
Soil Type Exhibit
Page 7 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
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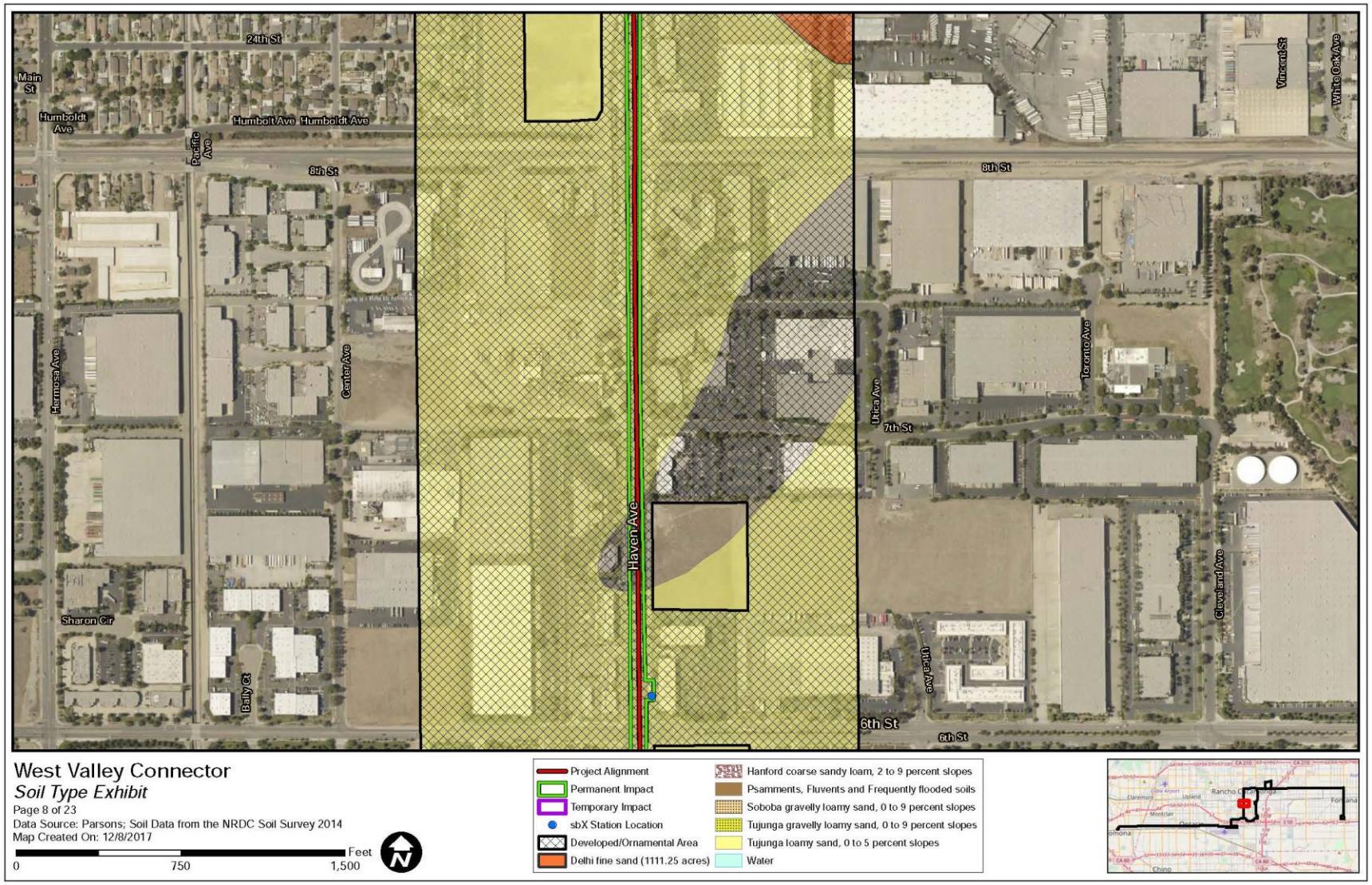
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


24th St
Main St
Humboldt Ave
Humboldt Ave
Humboldt Ave
Pacific Ave
8th St
Hermosa Ave
Center Ave
Sharon Cir
Bally Ct
Haven Ave
8th St
Vincent St
White Oak Ave
Toronto Ave
Utica Ave
7th St
Cleveland Ave
Utica Ave
6th St
6th St
West Valley Connector
Soil Type Exhibit
Page 8 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
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Temporary Impact
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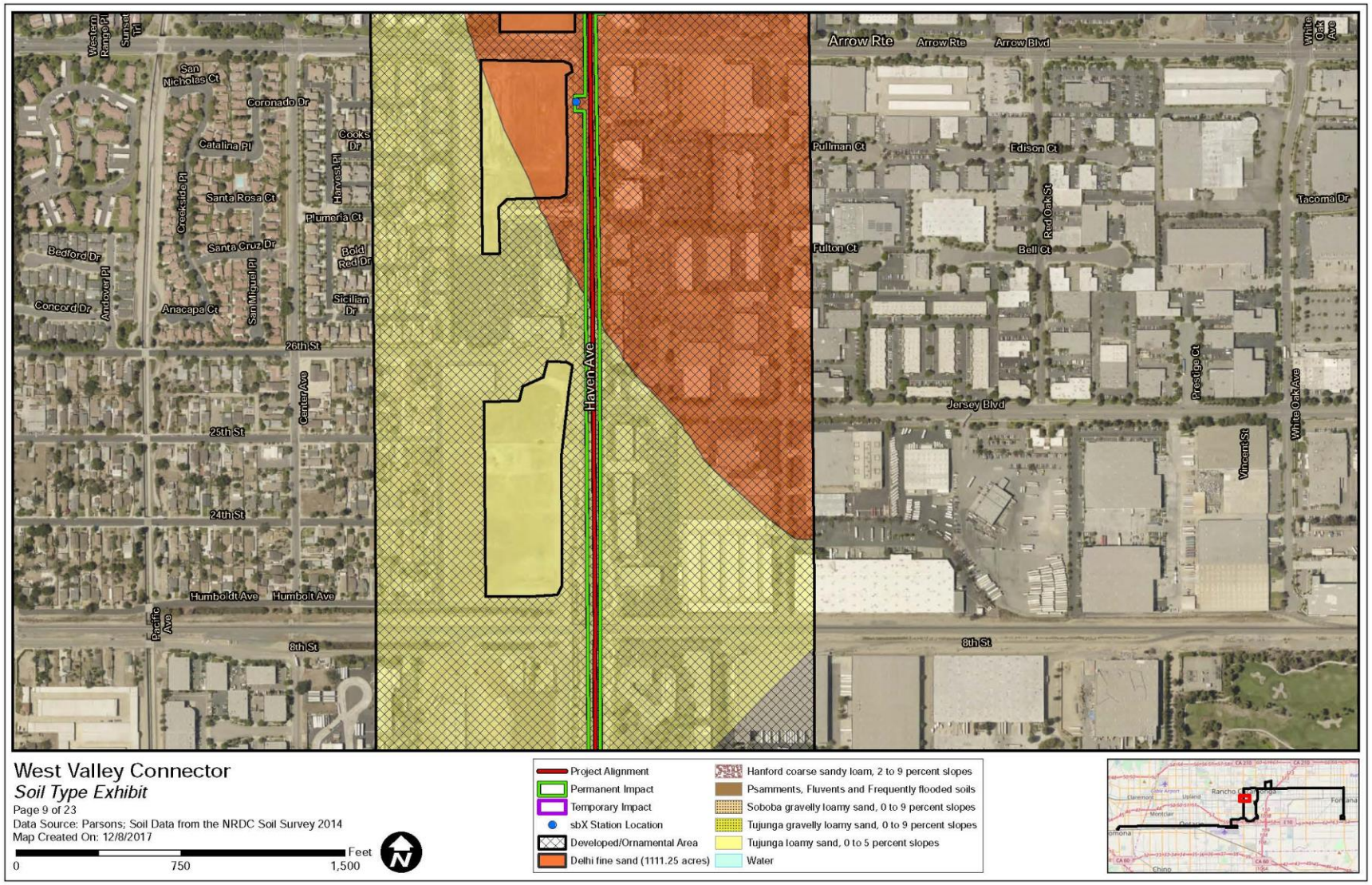
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Western Range Pl
Sunset Trl
San Nicholas Ct
Coronado Dr
Catalina Pl
Cooks Dr
Harvest Pl
Creekside Pl
Santa Rosa Ct
Plumeria Ct
Bedford Dr
Santa Cruz Dr
Bold Red Dr
Andover Pl
San Miguel Pl
Concord Dr
Anacapa Ct
Sicilian Dr
26th St
Center Ave
25th St
24th St
Humboldt Ave
Humbolt Ave
Pacific Ave
8th St
Haven Ave
Arrow Rte
Arrow Rte
Arrow Blvd
White Oak Ave
Pullman Ct
Edison Ct
Red Oak St
Tacoma Dr
Fulton Ct
Bell Ct
Prestige Ct
Jersey Blvd
Vincent St
White Oak Ave
8th St
West Valley Connector
Soil Type Exhibit
Page 9 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
N
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
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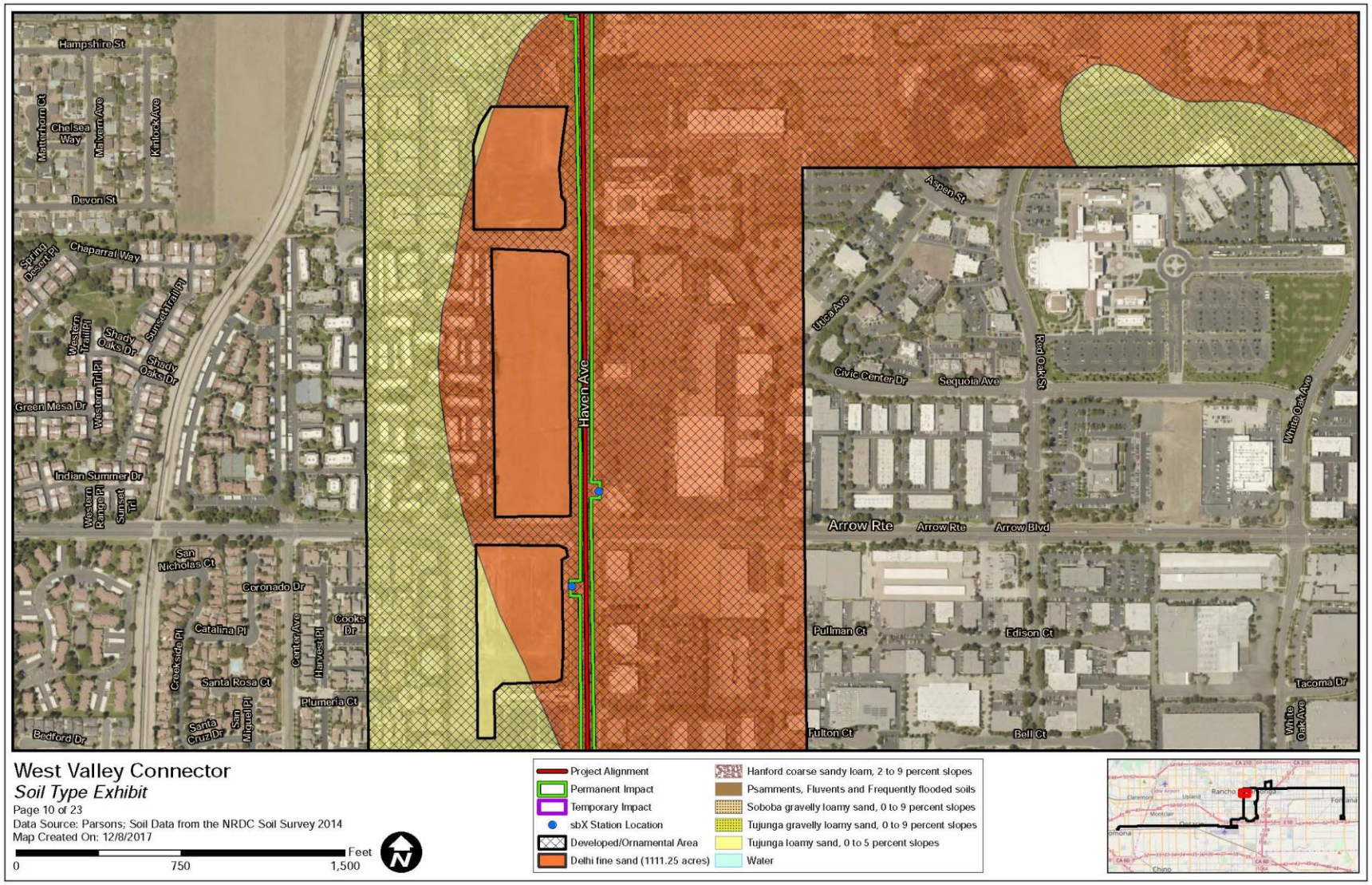
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Hampshire St
Matterhorn Ct
Chelsea Way
Malvern Ave
Kinlock Ave
Devon St
Spring Desert Pl
Chaparral Way
Sunset Trail Pl
Western Trail Pl
Shady Oaks Dr
Western Tail Pl
Green Mesa Dr
Indian Summer Dr
Western Range Pl
Sunset Trl
San Nicholas Ct
Coronado Dr
Catalina Pl
Creekside Pl
Center Ave
Harvest Pl
Cooks Dr
Santa Rosa Ct
Plumeria Ct
Santa Cruz Dr
San Miguel Pl
Bedford Dr
Haven Ave
Aspen St
Ulsa Ave
Civic Center Dr
Sequoia Ave
Red Oak St
White Oak Ave
Arrow Rte
Arrow Rte
Arrow Blvd
Pullman Ct
Edison Ct
Tacoma Dr
Fulton Ct
Bell Ct
White Oak Ave
West Valley Connector
Soil Type Exhibit
Page 10 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
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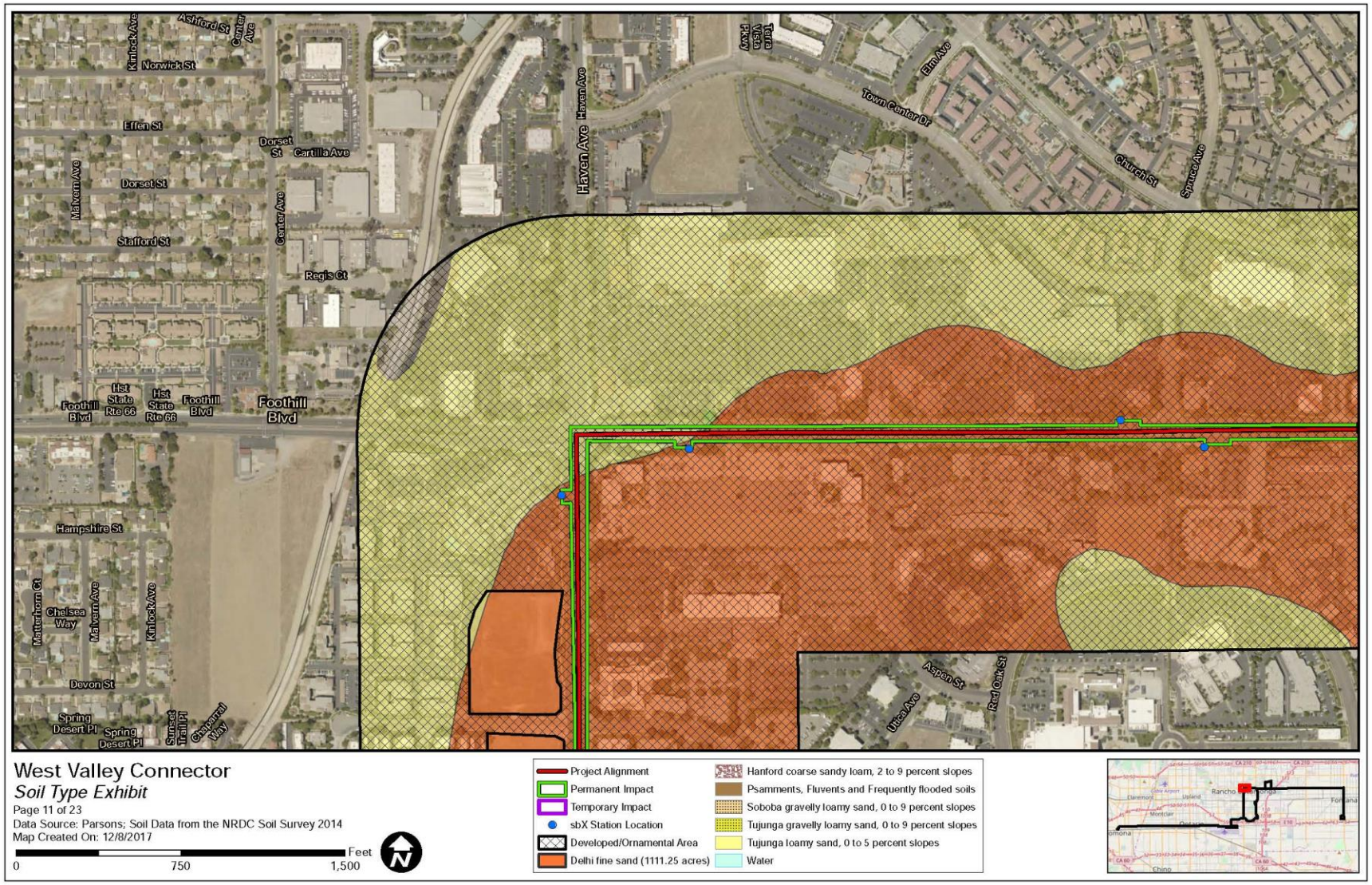
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Ashford St
Center Ave
Kinlock Ave
Norwick St
Effen St
Dorset St
Cartilla Ave
Malvern Ave
Stafford St
Regis Ct
Haven Ave
Vista Pkwy
Terra
Elm Ave
Town Center Dr
Church St
Spruce Ave
Hst State Rte 66
Foothill Blvd
Hampshire St
Matterhorn Ct
Chelsea Way
Devon St
Spring Desert Pl
Sunset Trail Pl
Orchard Way
Aspen St
Red Oak St
Utica Ave
West Valley Connector
Soil Type Exhibit
Page 11 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
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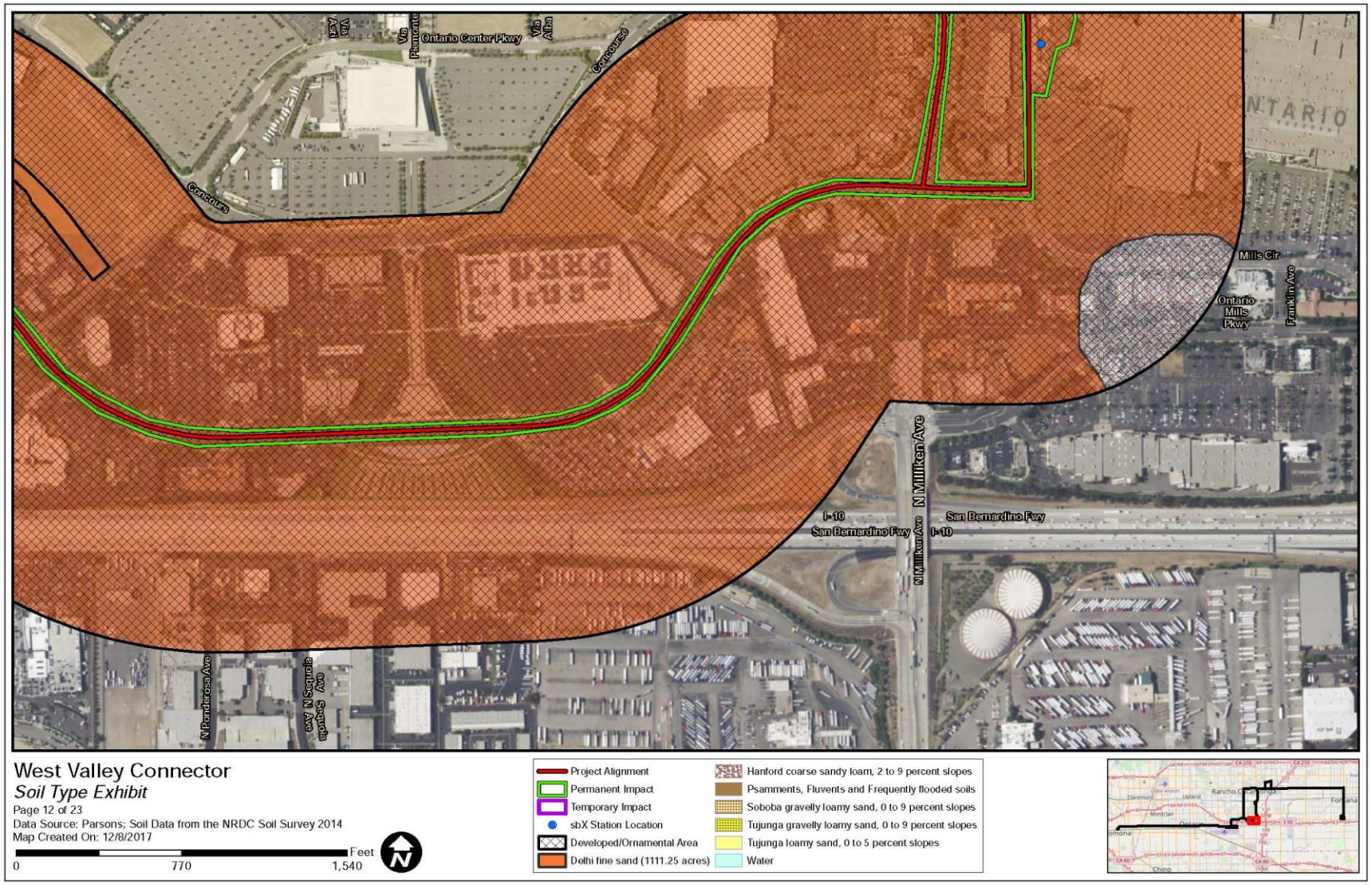
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Via Piemonte
Ontario Center Pkwy
Via Alba
Concourse
Concourse
Mills Cir
Ontario Mills Pkwy
Franklin Ave
N Milliken Ave
I-10
San Bernardino Fwy
N Milliken Ave
I-10
San Bernardino Fwy
N Pandarosa Ave
Segovia Ave
N Sierra Ave
West Valley Connector
Soil Type Exhibit
Page 12 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
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770
1,540
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
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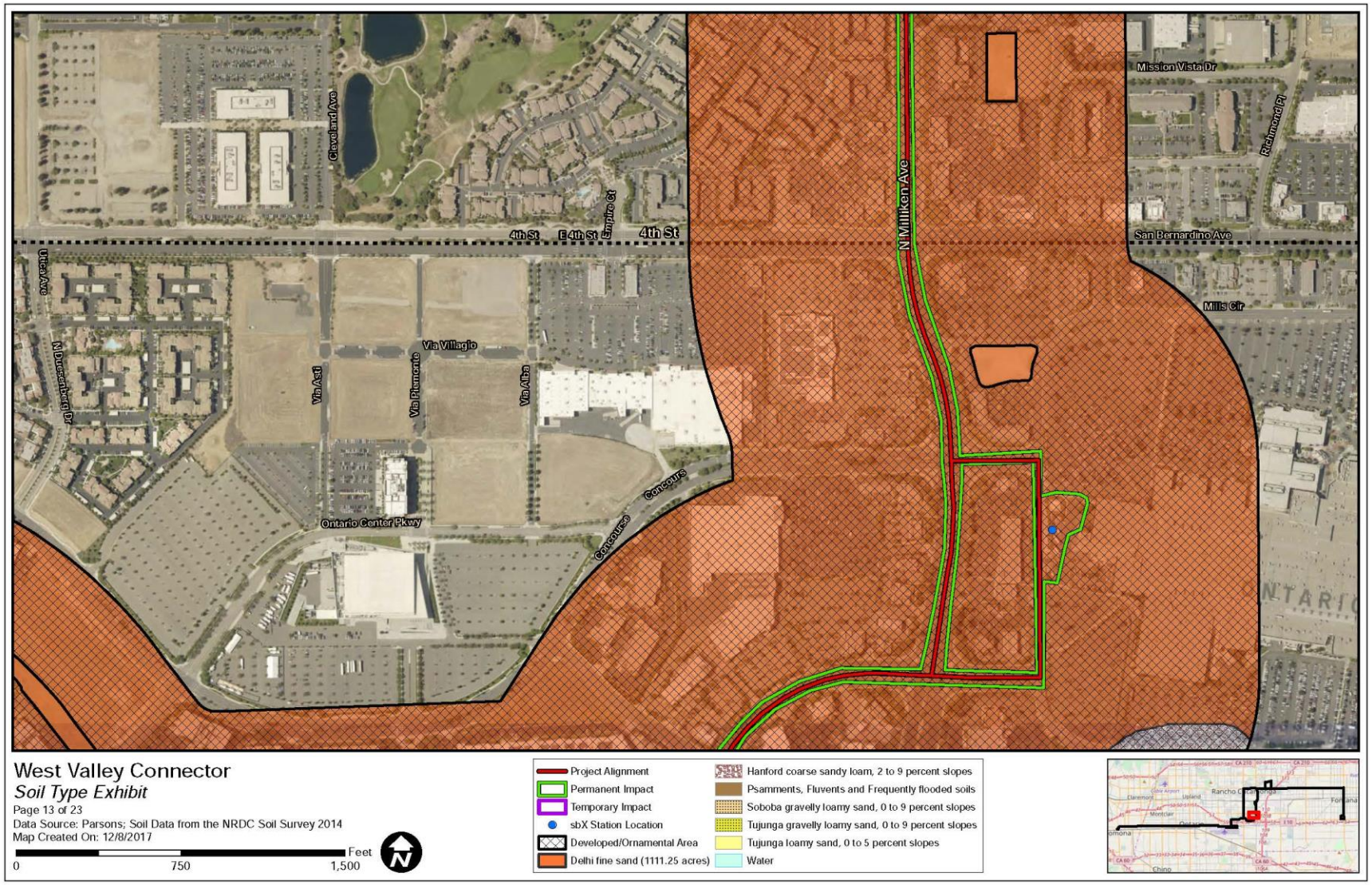
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


4th St
E 4th St
4th St
Empire Ct
Cleveland Ave
Ontario Ave
N Duesenberg Dr
Via Villagio
Via Asti
Via Piemonte
Via Alba
Ontario Center Pkwy
Concours
Concours
N Milliken Ave
Mission Vista Dr
Richmond Pl
San Bernardino Ave
Mills Cir
West Valley Connector
Soil Type Exhibit
Page 13 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
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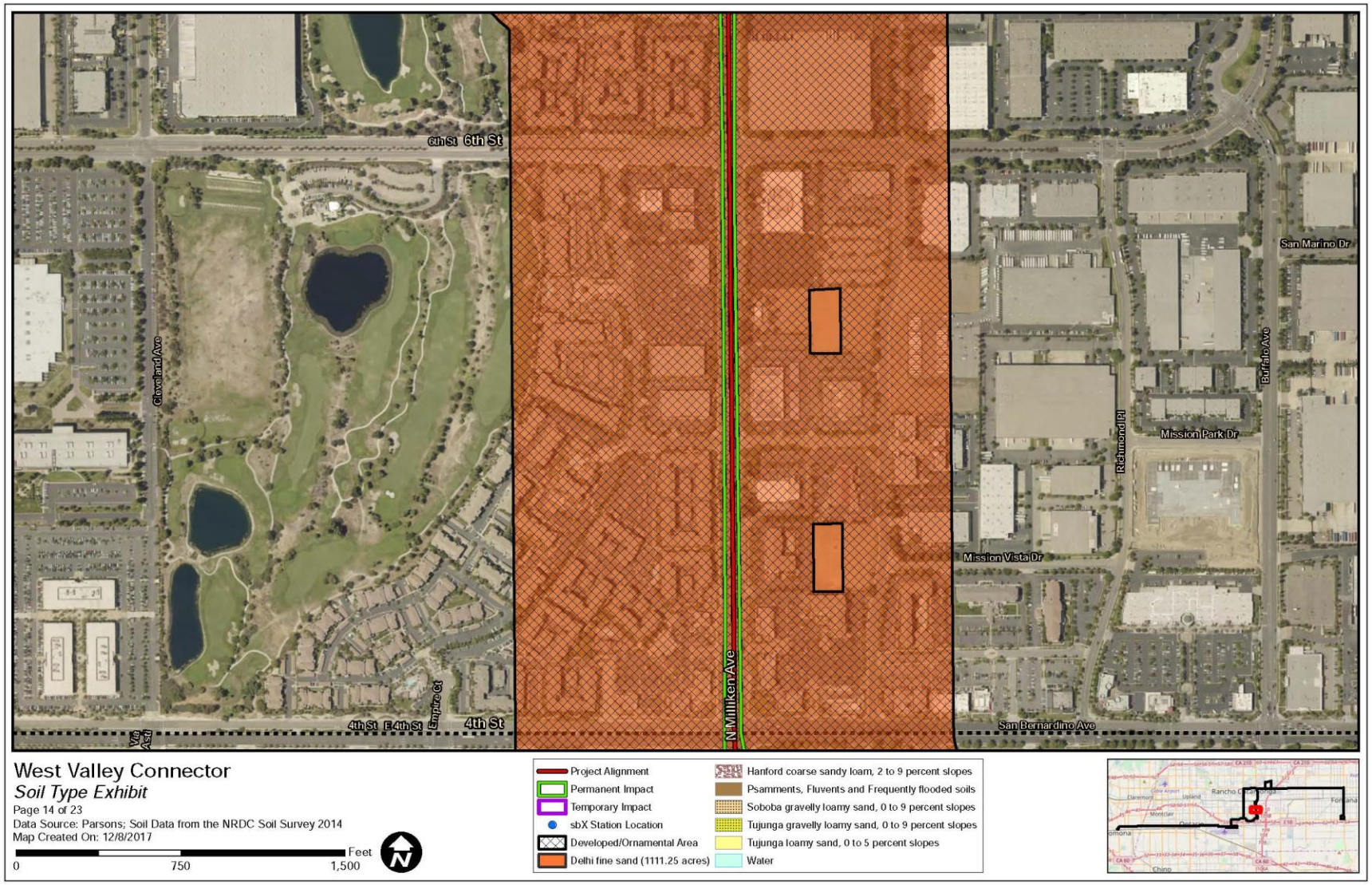
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


6th St
6th St
Cleveland Ave
San Marino Dr
Buffalo Ave
Richmond Pl
Mission Park Dr
Mission Vista Dr
N Milliken Ave
4th St
E 4th St
Empire Ct
4th St
Via Ash
San Bernardino Ave
West Valley Connector
Soil Type Exhibit
Page 14 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
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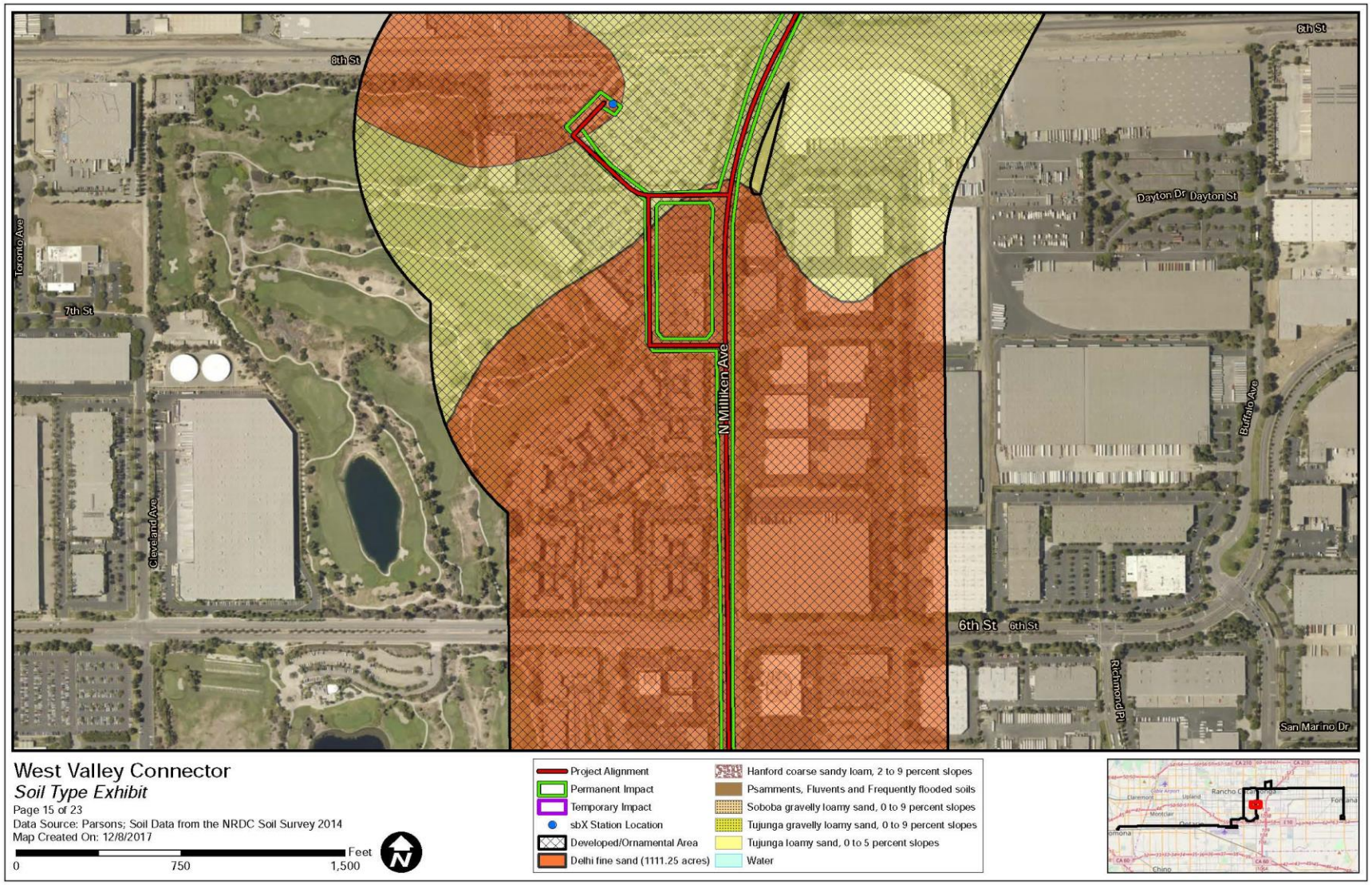
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


8th St
Toronto Ave
7th St
Cleveland Ave
N Milliken Ave
Dayton Dr
Dayton St
Buffalo Ave
6th St
Richmond Pl
San Marino Dr
West Valley Connector
Soil Type Exhibit
Page 15 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
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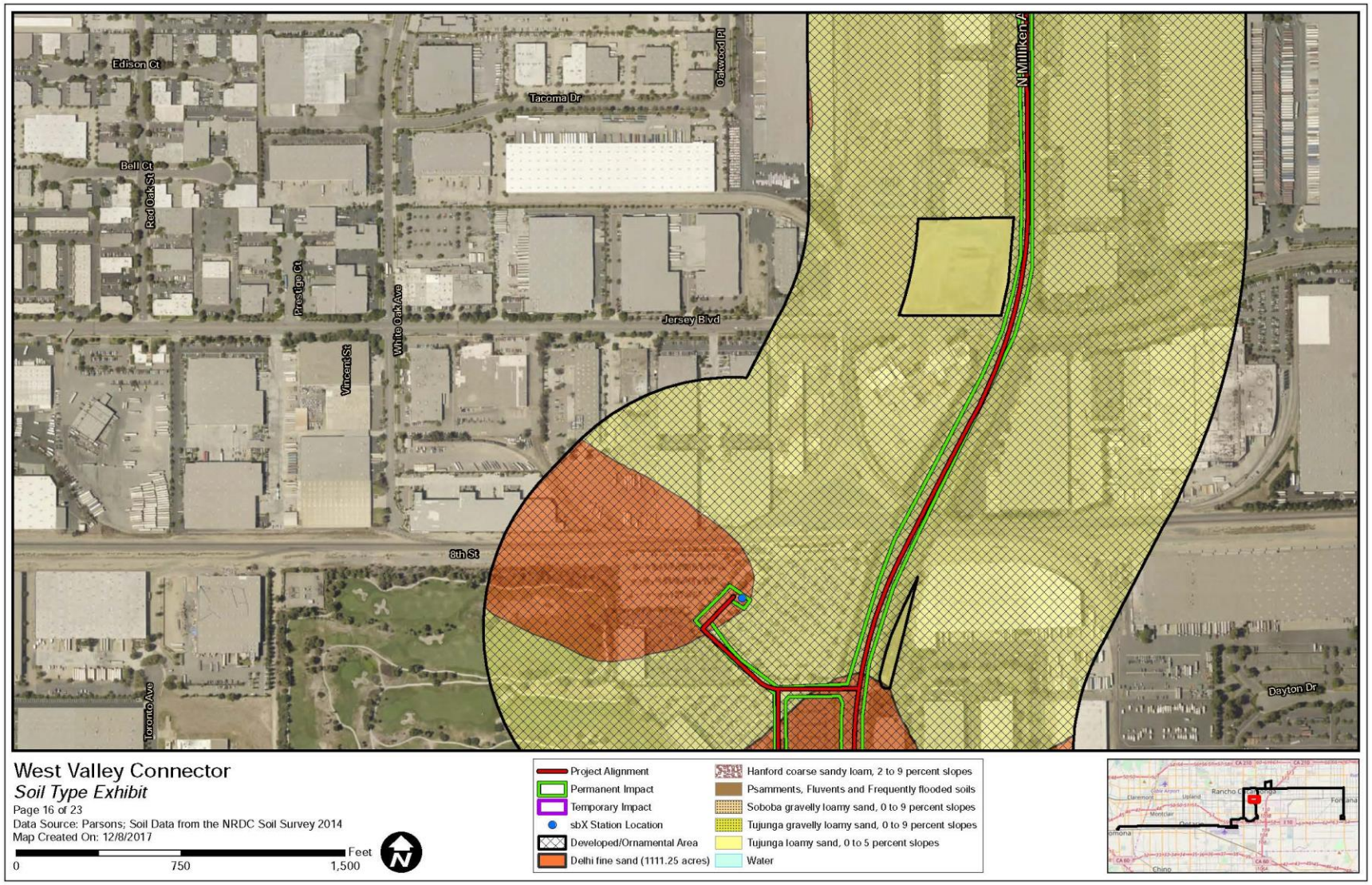
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Edison Ct
Tacoma Dr
Oakwood Pl
N Milliken Ave
Bell Ct
Red Oak St
Prestige Ct
White Oak Ave
Jersey Blvd
Vincent St
8th St
Toronto Ave
Dayton Dr
West Valley Connector
Soil Type Exhibit
Page 16 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
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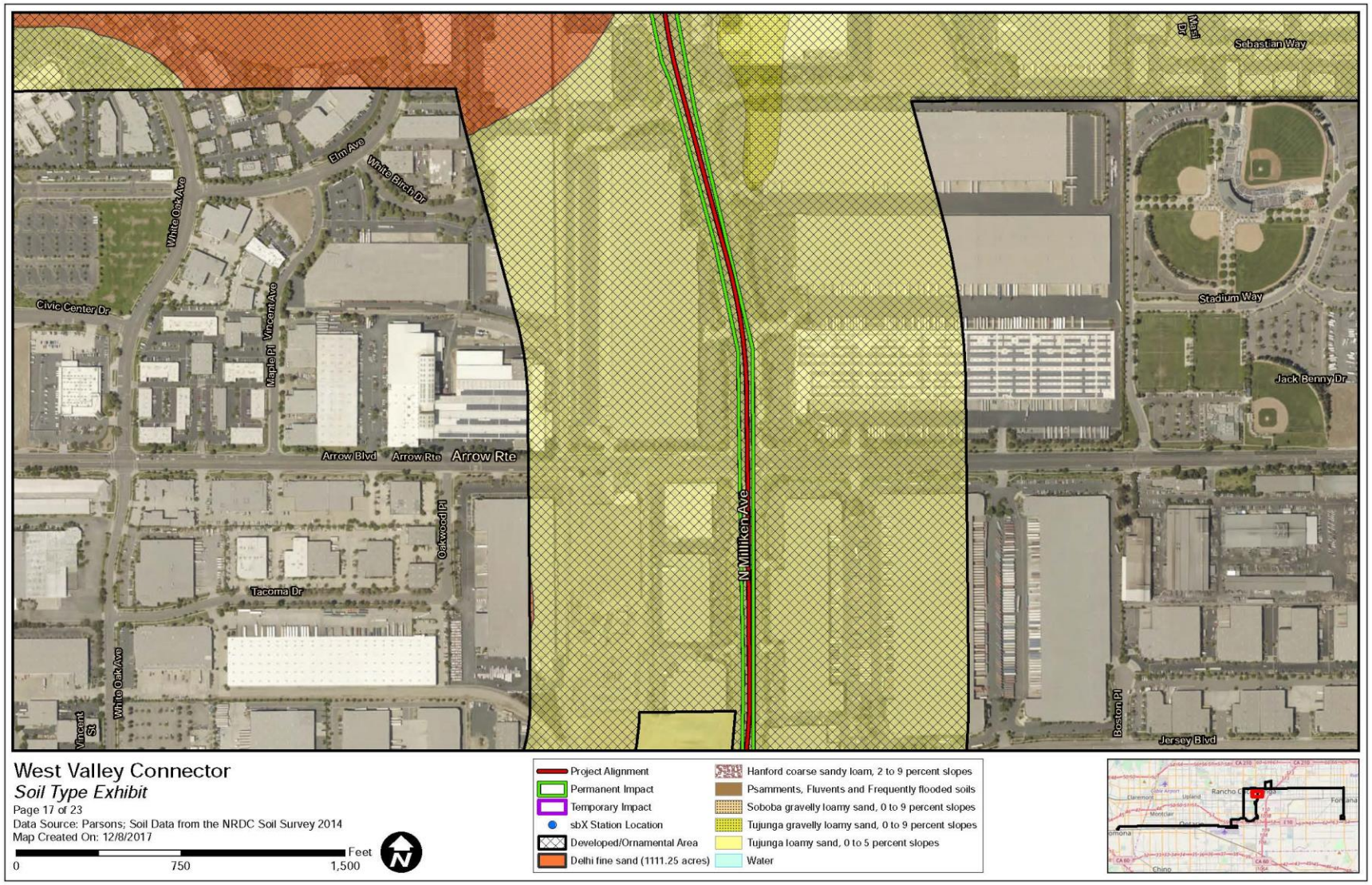
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Sebastian Way
Elm Ave
White Birch Dr
White Oak Ave
Civic Center Dr
Vincent Ave
Maple Pl
Arrow Blvd
Arrow Rte
Arrow Rte
Palmdale Pl
Tacoma Dr
N Milliken Ave
Stadium Way
Jack Benny Dr
Boston Pl
Jersey Blvd
Vincent St
West Valley Connector
Soil Type Exhibit
Page 17 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
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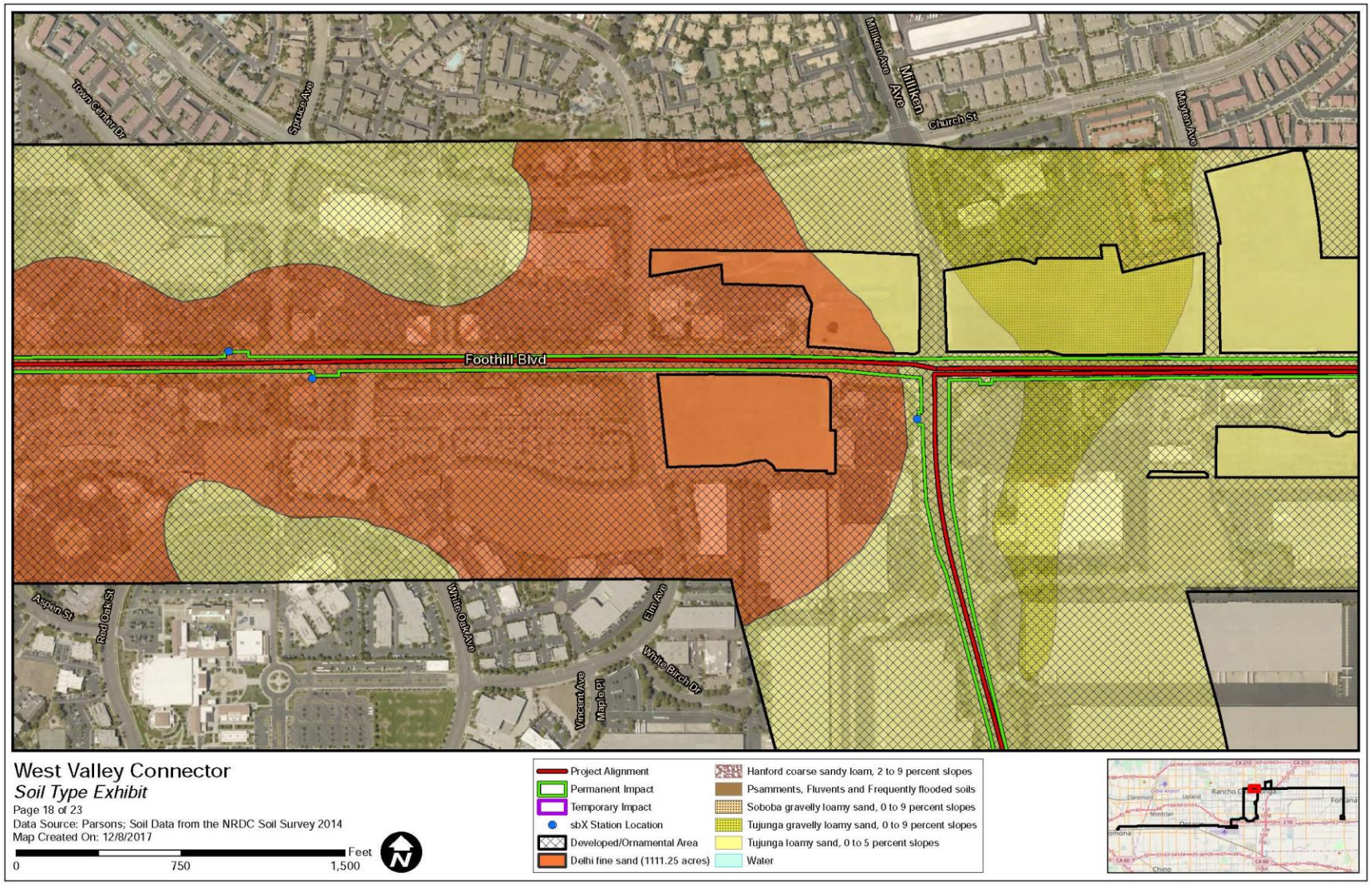
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Town Center Dr
Spruce Ave
Milliken Ave
Milliken Ave
Church St
Mayten Ave
Foothill Blvd
Aspen St
Red Oak St
White Oak Ave
Elm Ave
Vincent Ave
Maple Pl
White Birch Dr
West Valley Connector
Soil Type Exhibit
Page 18 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
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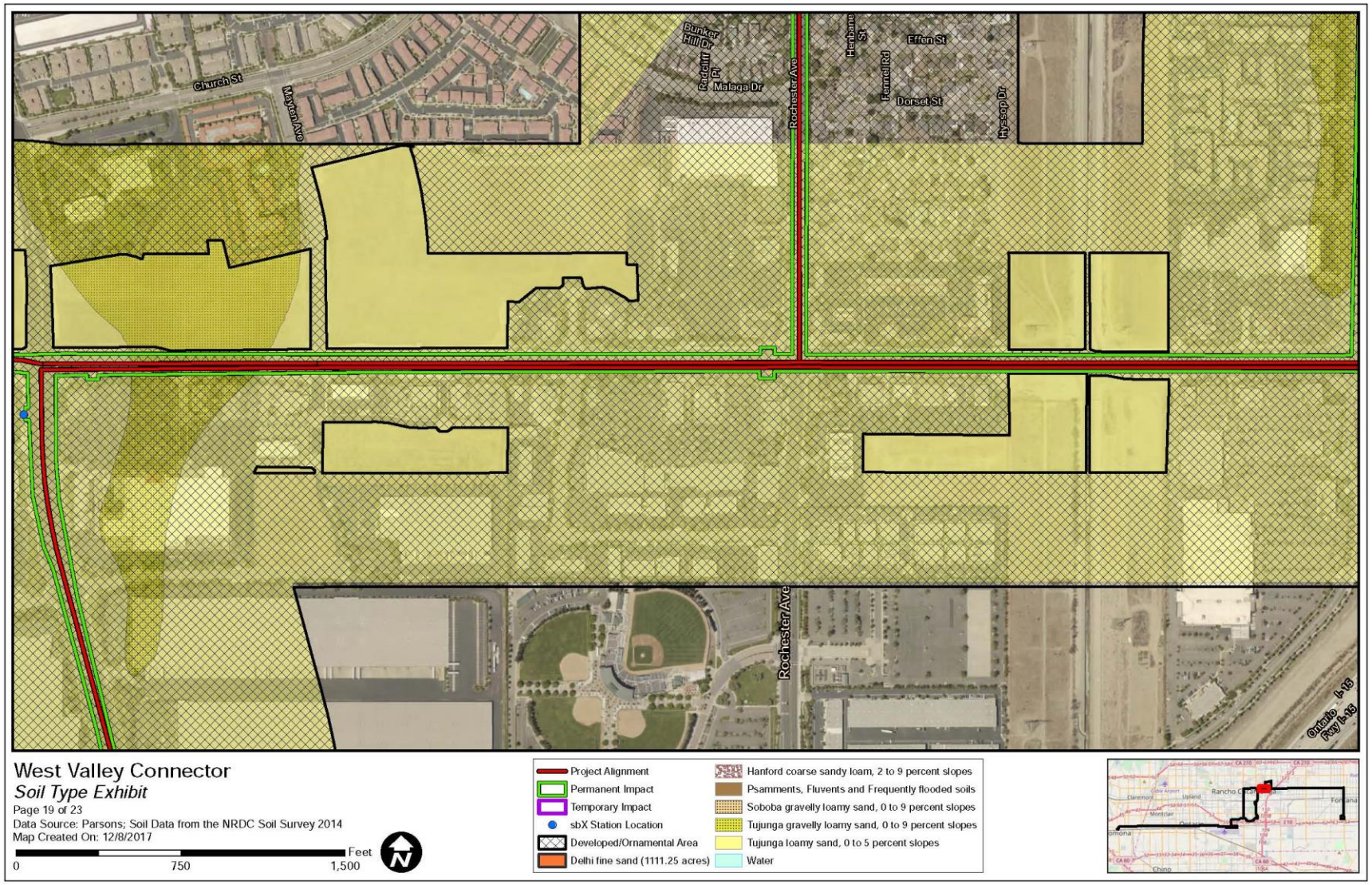
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Church St
Meyers Ave
Bunker Hill Dr
Redhill Pl
Malaga Dr
Rochester Ave
Henbane St
Effen St
Fennel Rd
Dorset St
Hyssop Dr
Rochester Ave
Orange Way
I-10
I-15
West Valley Connector
Soil Type Exhibit
Page 19 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
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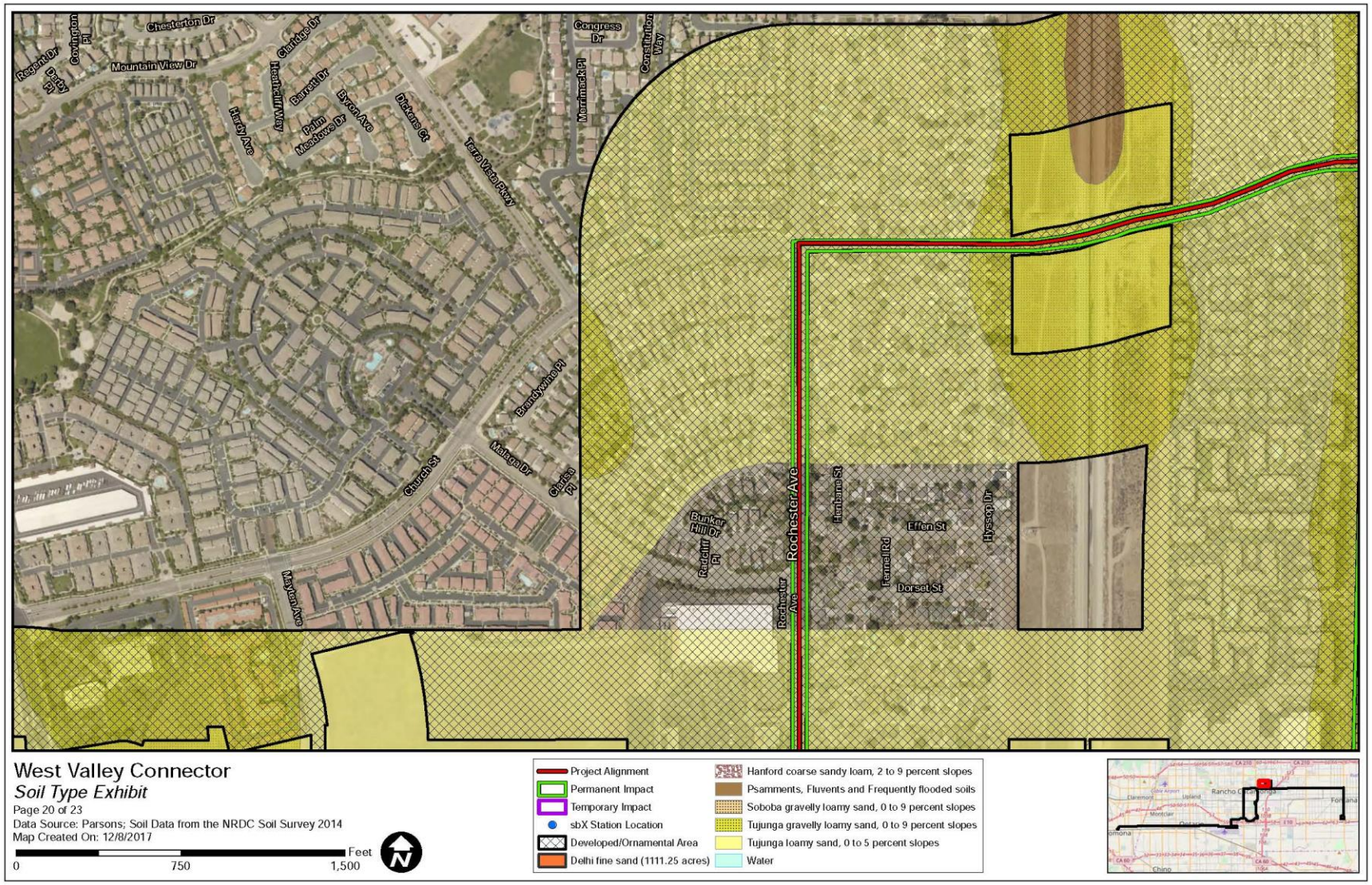
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Chesterton Dr
Covington Pl
Regent Dr
Derby
Mountain View Dr
Claridge Dr
Heathcliff Way
Barrett Dr
Byron Ave
Hardy Ave
Palm Meadows Dr
Dickens Ct
Terra Vista Pkwy
Congress Dr
Merrimack Pl
Constitution Way
Brandywine Pl
Malaga Dr
Church St
Chaffey Pl
Mayten Ave
Bunker Hill Dr
Redcliff Pl
Rochester Ave
Hanbane St
Effen St
Hyssop Dr
Fennel Rd
Dorset St
West Valley Connector
Soil Type Exhibit
Page 20 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
N
Project Alignment
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Temporary Impact
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Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
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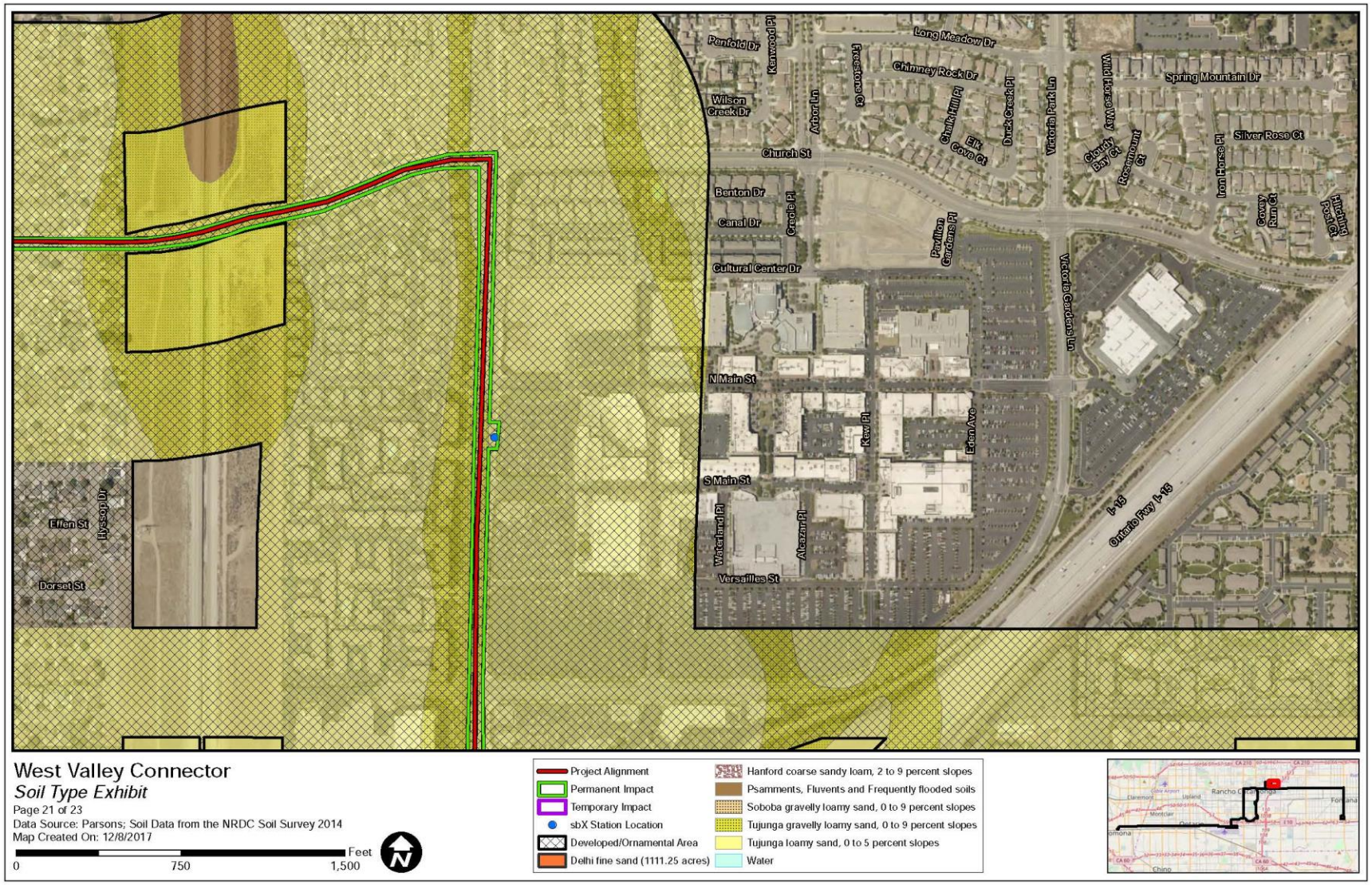
Penfold Dr
Kenwood Pl
Freestone Ct
Long Meadow Dr
Chimney Rock Dr
Wild Horse Way
Spring Mountain Dr
Wilson Creek Dr
Arbor Ln
Chalk Hill Pl
Elk Cove Ct
Brick Creek Pl
Victoria Park Ln
Cloudy Bay Ct
Rosemount Ct
Iron Horse Pl
Silver Rose Ct
Church St
Benton Dr
Canal Dr
Creole Pl
Pavilion Gardens Pl
Victoria Gardens Ln
Cultural Center Dr
Gossamer Run Ct
Hitching Post Ct
N Main St
Kew Pl
Eden Ave
S Main St
Waterland Pl
Alcazar Pl
Versailles St
Effen St
Hyssop Dr
Dorset St
I-15
Ontario Fwy I-15
West Valley Connector
Soil Type Exhibit
Page 21 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
Project Alignment
Permanent Impact
Temporary Impact
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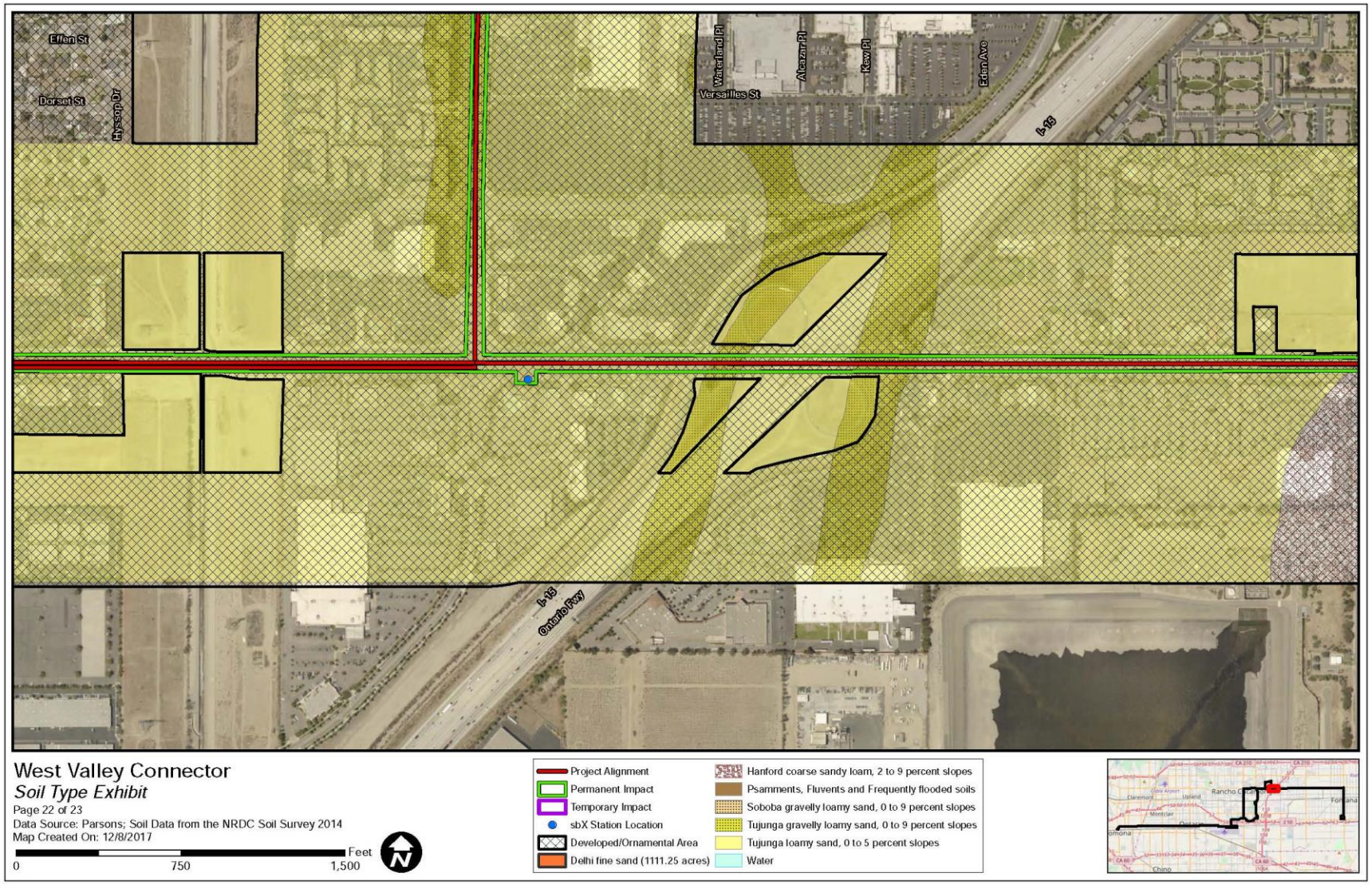
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Effen St
Dorset St
Hyssop Dr
Versailles St
Waterland Pl
Alcazar Pl
Kewy Pl
Eden Ave
I-15
I-15
Ontario Fwy
West Valley Connector
Soil Type Exhibit
Page 22 of 23
Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
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Temporary Impact
sbX Station Location
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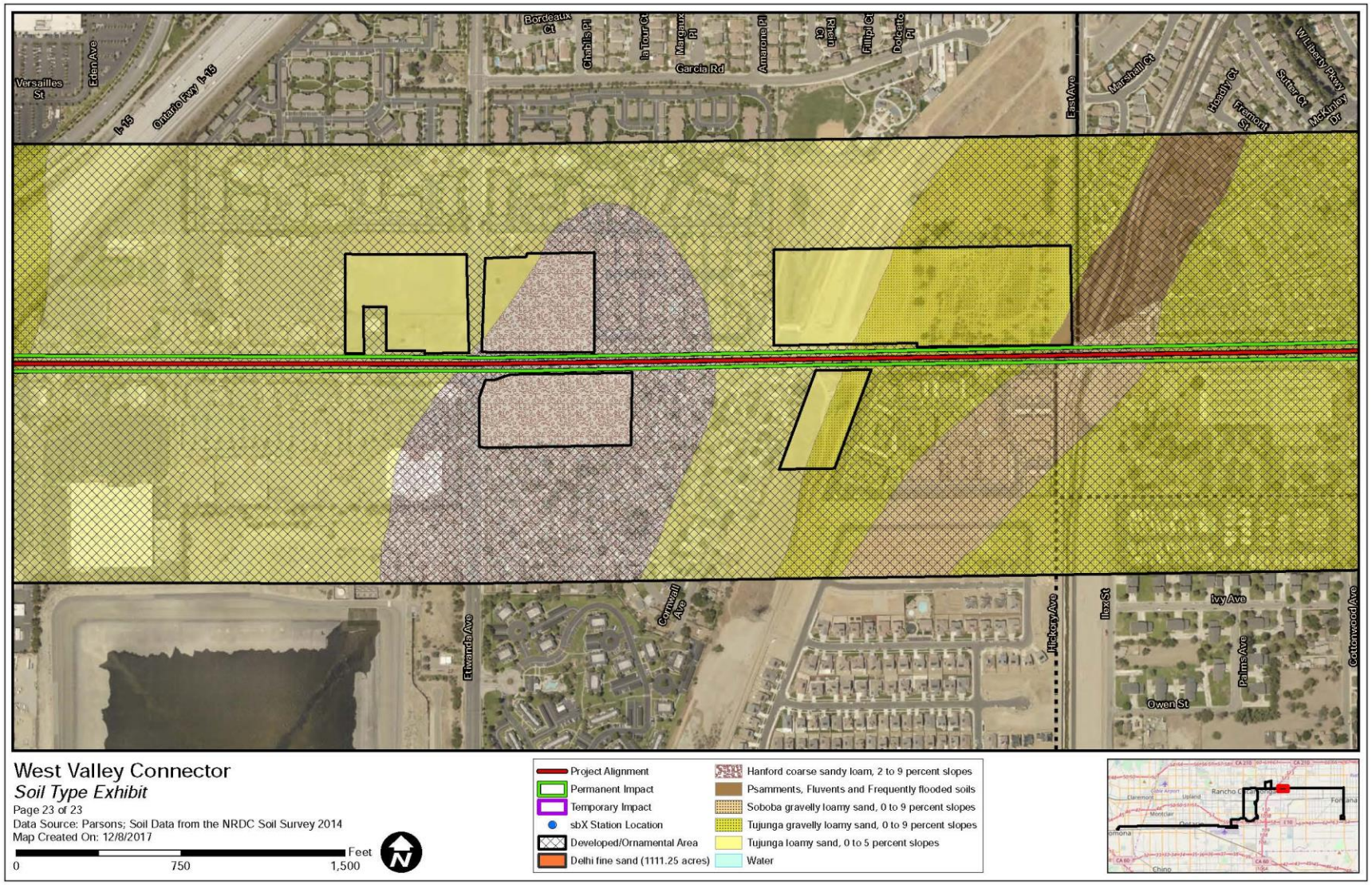
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water


Versailles St
Eden Ave
I-15
Ontario Fwy I-15
Bordeaux Ct
Chablis Pl
la Tour Ct
Margaux Pl
Garcia Rd
Amarone Pl
Ct
Filipi Ct
Dolcetto Pl
East Ave
Marshall Ct
Heady Ct
Fremont St
Sattler Ct
McKinley Dr
Wilbeaty Pkwy
Etiwanda Ave
Cornwall Ave
Hickory Ave
Ilex St
Ivy Ave
Palms Ave
Cottonwood Ave
Owen St
West Valley Connector
Soil Type Exhibit
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Data Source: Parsons; Soil Data from the NRDC Soil Survey 2014
Map Created On: 12/8/2017
Feet
0
750
1,500
N
Project Alignment
Permanent Impact
Temporary Impact
sbX Station Location
Developed/Ornamental Area
Delhi fine sand (1111.25 acres)
Hanford coarse sandy loam, 2 to 9 percent slopes
Psamments, Fluvents and Frequently flooded soils
Soboba gravelly loamy sand, 0 to 9 percent slopes
Tujunga gravelly loamy sand, 0 to 9 percent slopes
Tujunga loamy sand, 0 to 5 percent slopes
Water