APPENDIX D2

Built Environment Constraints Study

BUILT-ENVIRONMENT CONSTRAINTS STUDY for the PURE WATER PROGRAM, SAN DIEGO COUNTY, CALIFORNIA

City Project No. 438188

Prepared for:

City of San Diego

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Type of Study: Built-Environment Constraints Study **USGS Quadrangle:** Multiple (see figures) **Area:** 162.5 Square Miles **Key Words:** Constraints Study, City of San Diego

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MANAGEMENT SUMMARY

This report presents the results of Dudek's built-environment constraints study for the Pure Water Program, located in the City of San Diego, San Diego County, California. The current study area, measuring 162.55 square miles in size, includes the conceptual path of the proposed pipeline alignments and a surrounding one mile buffer. In general, the study area includes a major portion of southwestern San Diego County, extending from the Otay Reservoir to Chula Vista in the south and San Vicente Reservoir to Point Loma in the north.

South Coastal Information Center (SCIC) staff conducted a records search for the study area on April 16, 2015. In total, 1,257 historic built-environment resources have been previously recorded within this study area. SCIC records indicate that approximately 19% (30.92 square miles) of the study area has been included as part of one or more previous historical resources technical studies. It is unclear what portion of these focused on built-environment resources. The remaining 81% (131.63 square miles) appear to have not been subject to previous investigation.

As part of this pre-Phase I built-environment constraints analyses, Dudek compiled a database of all built-environment resources on file at the SCIC within the study area. Significance recommendations were reviewed

The City has developed a mitigation framework for the appropriate management of historic builtenvironment resources. Prior to issuance of any permit for a future development project implemented in accordance with the Program that would directly or indirectly affect a building/structure or other historic built-environment resources in excess of 45 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the Guidelines. Preferred mitigation for historic buildings, structures, or other historic built-environment resources shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Additional, specific requirements relating to the management of such resources are provided within the Pure Water Program EIR and the City of San Diego Historical Resources Guidelines.

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1 INTRODUCTION

1.1 **Program Location and Description**

The Pure Water Program (Program) includes a variety of facilities located throughout the central and southern coastal areas of San Diego County (Figure 1). The Program location can be generally described in three major geographic components: North City, South Bay, and the Central Area. The current constraints study area, covering 162.55 square miles, intersects the following California U.S. Geological Survey Quadrangles: Del Mar, El Cajon, Imperial Beach, Jamul Mountains, La Jolla, La Mesa, National City, Otay Mesa, Point Loma, and San Vicente Reservoir. New advanced water purification facilities (AWPFs) and the majority of pump stations would be located within the corporate boundaries of the City of San Diego (City). Pipelines would traverse a number of local jurisdictions, including the Cities of San Diego, La Mesa, El Cajon, Santee, Chula Vista, National City and the community of Lakeside in unincorporated San Diego County, in addition to federal lands within MCAS Miramar, Naval Base Point Loma and the U.S. Marine Corp Recruit Depot. The Program also includes reservoir augmentation at two City-owned and operated reservoirs outside of the City limits: San Vicente Reservoir and Otay Reservoir.

The Pure Water Program consists of the design and construction of new AWPFs and a new water reclamation plant (WRP); upgrades to existing wastewater treatment facilities; and design and construction of new pump stations and pipelines. The Program would construct AWPFs at the existing North City and South Bay WRPs; and a third AWPF and new WRP would be constructed. Upgrades would occur at the existing NCWRP and SBWRP in order to provide sufficient tertiary influent for the AWPFs. Pump station and pipeline facilities would convey different types of flows to and from the treatment facilities for: 1) diverting wastewater flows to water reclamation facilities; 2) conveying recycled water to advanced water purification facilities; 3) conveying purified water from AWPFs to either the San Vicente or Lower Otay Reservoirs; and 4) transporting waste flows (brine and sludge) from treatment processes to solids handling facilities or back into the Metro System. Upgrades would also occur at MBC and Point Loma Wastewater Treatment Plant (PLWTP) to handle the additional brine and sludge produced by the WRP expansions and advanced water purification process (see Figure 2 for a conceptual map of facilities proposed by the Pure Water Program).

The Program would create 83 MGD of locally controlled potable water and would reduce flows to the PLWTP, which in turn would reduce total suspended solids discharged to the ocean. The Program would construct facilities that have the ability to produce 15 MGD by 2023, 30 MGD by 2027, and 83 MGD by 2035. The NCAWPF could produce a total of 30 MGD of purified

water. The South Bay AWPF could produce up to 15 MGD of purified water. A third, Central Area AWPF could produce up to 53 MGD of purified water.

1.2 Regulatory Context

The following section provides a summary of the applicable regulations, policies, and guidelines relating to the proper management of historical resources.

1.2.1 State Level Regulations

CEQA requires that all private and public activities not specifically exempted be evaluated for the potential to impact the environment, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. It defines historical resources as "any object, building, structure, site, area, or place, which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Division I, Public Resources Code, Section 5021.1(b)).

Lead agencies have a responsibility to evaluate historical resources against the California Register criteria prior to making a finding as to a proposed project's impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource's significance.

The California Register is used in the consideration of historic resources relative to significance for purposes of CEQA. The California Register includes resources listed in, or formally determined eligible for some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory may be eligible for listing in the California Register and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) consisting of the following:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

- 2. It is associated with the lives of persons important to local, California, or national history; or
- 3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- 4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

1.2.1.1 City of San Diego Historical Resources Guidelines

The City of San Diego Historical Resources Guidelines (City of San Diego 2001) outlines its purpose as follows:

To provide property owners, the development community, consultants and the general public with explicit guidelines for the management of historical resources located within the jurisdiction of the City of San Diego. These guidelines are designed to implement the City's Historical Resources Regulations contained in the Land Development Code (Chapter 14, Division 3, Article 2) in compliance with the applicable local, state, and federal policies and mandates.

The City of San Diego Historical Resources Guidelines (City of San Diego 2001) observe that "historical resource" means:

Site improvements, buildings, structures, historic districts, signs, features (including trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to citizens of the city. They include buildings, structures, objects, archaeological sites, districts, or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to ne used.

The Purpose and intent of the Historical Resources Regulation of the Land Development Code (Chapter 14, Division 3, Article 2) is outlined (City of San Diego 2001) as follows:

To protect, preserve and, where, damaged, restore the historical resources of San Diego. The regulations apply to all development within the City of San Diego when historical resources are present n the premises regardless of the requirement to obtain Neighborhood Development Permit or Site Development Permit.

The City of San Diego General Plan Program Environmental Impact Report (PEIR) states the following:

The Historical Resources Regulations require that designated historical resources and traditional cultural properties be preserved unless deviation findings can be made by the decision maker as part of a discretionary permit. Minor alterations consistent with the U.S. Secretary of the Interior's Standards are exempt from the requirement to obtain a separate permit but must comply with the regulations and associated historical resources guidelines. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval.

Historical Resources Guidelines, located in the Land Development Manual, provide property owners, the development community, consultants and the general public explicit guidance for the management of historical resources located within the City's jurisdiction. These guidelines are designed to implement the historical resources regulations and guide the development review process from the need for a survey and how impacts are assessed to available mitigation strategies and report requirements and include appropriate methodologies for treating historical resources located in the City.

Any improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object may be designated a historical resource by the City's HRB if it meets one or more of the following designation criteria:

- a. exemplifies or reflects special elements of the City's, a community's, or a neighborhood's, historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development;
- b. is identified with persons or events significant in local, state or national history;
- c. embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
- d. is representative of the notable work or a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;
- e. is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been

determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or

f. is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

In order to assess the significance of the Program's effects on Historical Resources, the City of San Diego's Scoping Letter for the Program (City of San Diego 2014), as well as the City's *Significance Determination Thresholds* (City of San Diego 2011a), identifies the following thresholds:

- Result in the alteration or destruction of a prehistoric or historic archaeological site, or adverse physical or aesthetic effects to a prehistoric building, structure, object, or site.
- Result in any impact to existing religious or sacred uses or result in the disturbance of any human remains within the potential impact area

In general, the City's historical resources regulations build on federal and state historical resources laws and guidelines in an attempt to streamline the process of considering impacts to historical resources within the City's jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's guidelines. In order to apply the criteria and determine the significance of potential project impacts to a historical resource, the Area of Potential Effects (APE) of the project must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site, or visual impairment of a historically significant viewshed related to a historic building or structure.

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Built-Environment Constraints Study for the Pure Water Program

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2 PROJECT CONTEXT

2.1 Historical Context

In the years preceding European contact, Southern California was home to an estimated 10,000 Native Americans, many of whom were settled throughout the San Diego vicinity. European activity in the region began as early as AD 1542, when Juan Rodríguez Cabrillo landed in San Diego Bay. Sebastián Vizcaíno returned in 1602, and it is possible that there were subsequent contacts that went unrecorded. These brief encounters made the local native people aware of the existence of other cultures that were technologically more complex than their own. Epidemic diseases may also have been introduced into the region at an early date, either by direct contacts with the infrequent European visitors or through waves of diffusion emanating from native peoples farther to the east or south (Preston 2002). It is possible, but as yet unproven, that the precipitous demographic decline of native peoples had already begun prior to the arrival of Gaspar de Portolá and Junípero Serra in 1769.

Spanish colonial settlement was initiated in 1769, when multiple expeditions arrived in San Diego by land and sea, and then continued northward through the coastal plain toward Monterey. A military presidio and a mission were soon firmly established at San Diego, despite violent resistance to them from a coalition of native communities in 1776. Private ranchos subsequently established by Spanish and Mexican soldiers, as well as other non-natives, appropriated much of the remaining coastal or near-coastal locations (Pourade 1960–1967). It was during the Spanish period of California history (1769-1822) that most of San Diego was placed under the jurisdiction of the Mission San Diego de Alcalá. It was during the Spanish period that the Presidio, Mission San Diego de Alcala, Fort Stockton, and Fort Guijarros were established and early house lots and garden plots in what would become Old Town were developed. Several sites and features constructed during the Spanish period including Fort Guijarros and the Old Mission Dam and Flume have been designated by the San Diego Historical Resources Board (HRB) as historical resources. Constructed in 1850 as a plaza and now functioning as a park, Plaza de Pantjoa y Arriaga (now Pantoja Park) is the oldest park in downtown San Diego and has also been designated by the San Diego HRB as historical resource. It was during the Mexican period (1822-1846) that mission lands were transformed into vast cattle ranchos and Mexico granted San Diego official pueblo (town) status. Designated historical resources from the Mexican period include the Peñasquitos Ranch House in the Los Peñasquitos Canyon/Mira Mesa area, and Fort Stockton and the El Campo SantoCemetery in Old Town.

Mexico's separation from the Spanish empire in 1821 and the secularization of the California missions in the 1830s caused further disruptions to native populations in western San Diego County. Some former mission neophytes were absorbed into the work forces on the ranchos, while

others drifted toward the urban centers at San Diego and Los Angeles or moved to the eastern portions of the county where they were able to join still largely autonomous native communities. United States conquest and annexation, together with the gold rush in Northern California, brought many additional outsiders into the region. Development during the following decades was fitful, undergoing cycles of boom and bust that followed military funding, economic patterns, and a number of other regional and local trends.

Following the Mexican American War and the ratification of the Treaty of Guadalupe Hidalgo in 1848, California was admitted to the United States and the expansive ranchos lost their prominence. This also marked the beginning of the American Development period (1846-present) and earlier years included the establishment of the "New Town" San Diego development near the San Diego bay by William Heath Davis in 1850 and Alonzo Horton's arrive to the area in 1867. The late nineteenth century an early twentieth century experienced an expansion of trade which increased the availability of building materials that, in combination with industrial capitalism, land speculation, and early private infrastructure investment, contributed to an increased population and urban growth. Designate historical resources from the early years of the American Development period include the Davis-Horton house near the Gaslamp Quarter, Villa Montezuma in southeastern San Diego, and Rosario Hall in the Centre City area of San Diego (City of San Diego 2014). Significant elements of San Diego's historic built environment include the area's railroad and maritime history, the rise of the automobile and the post-war period of suburbanization, the role of recreation in the development of specific industries, the design and implementation of major regional planning and landscaping projects. Furthermore, both the role of international fairs on architecture, landscape architecture, and City buildings and the development of industrial and military technologies between World War I and II are other significant elements that have contributed to San Diego's historic built environment.

While examples of every major period and architectural style remain in San Diego, some areas have faced difficulties retaining older and substantial neighborhood-level architectural integrity due to major building booms which occurred prior to historical preservation movements and the adoption of stricter historic structure regulations. The recognized architectural styles in San Diego neighborhoods include Spanish Colonial, Pre-Railroad New England, National Vernacular, Victorian Italianate, Stick, Queen Anne, Colonial Revival, Neoclassical, Shingle, Folk Victorian, Mission Revival, Craftsman, Prairie, French Eclectic, Italian Renaissance, Spanish Eclectic, Egyptian Revival, Tudor Revival, Modernistic and International (City of San Diego 2008).

2.2 **Previous Built-Environment Resource Investigations**

South Coastal Information Center (SCIC) staff conducted a records search for the study area on April 16, 2015. In total, 1,257 historic built-environment resources (i.e., historical-era buildings, districts, features, etc.) have been previously recorded within this this study area.

2.2.1 Built-Environment Resources

In total, 1,257 historic built-environment resources have been previously recorded within this this study area (Figure 3). Of this total, 267 historic built-environment resources have been recommended for, or are currently listed in the Local register, CRHR, or NRHP. An additional 52 historic built-environment resources have been determined not eligible for listing. The remaining 904 historical addresses have not been formally evaluated, require additional evaluation, or have not been updated with their current status codes at the SCIC (Table 1).

 Table 1

 Historic Built-Environment Resource Frequency and Evaluation Status

Historic Built-Environment Evaluation Status	Total
Pending or Current Register Listing	301
Determined Not Eligible	52
Requires Additional Evaluation	16
No Record of Evaluation	888
Total Addresses on File at SCIC	1257

It is likely that that at least 150 of these built-environment resources are also historical-era "sites" recorded at SCIC. These are comprised of single and multi-family properties, engineering structures, commercial buildings, historical districts (primarily military properties) and other standing structures or features. Of these approximately 31 have been recommended for, or are currently listed on, the Local register, CRHR, or NRHP. At least 15 sites have been determined not eligible for listing, and the remaining resources either have no mention of evaluation status or are unevaluated (presumed eligible under City guidelines).

2.2.2 Previous Technical Studies

SCIC records indicate that approximately 19% (30.92 square miles) of the study area has been included as part of one or more previous historical resources technical studies. The remaining 81% (131.63 square miles) appear to have not been subject to previous investigation. A figure of survey areas can be made available upon request by the City, however is not appropriate for public dissemination due to confidentiality restrictions. These totals have excluded large regional

studies aimed at thematic discussions in favor of presenting a more site-specific analysis. Of the 1715 studies previously conducted within the one-mile buffer study area, 269 studies have been conducted in the last five years. An additional 47 studies have no provided date of submittal.

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3 METHODS

The current study is intended to provide a summary if information provided through a search of South Coastal Information Center archives. Relative resource sensitivity has been inferred from the information presented on DPR 523 and other site record forms, as well as data included within GIS data layers.

Future Program studies should apply methodological strategies with the intent of analyzing impacts to historical resources through implementation of the strategies defined within Section III of the City of San Diego Historical Resources Guidelines. The following portion of this section is drawn, in most areas, directly from these Guidelines (2001).

Defining Project Area (Area of Potential Effects)

Once the Program area has been defined, the associated Area of Potential Effects (APE) will represent the extent of additional historical resources investigation. The APE, as defined by the Historical Resources Guidelines (City of San Diego 2001), is the geographic area (or areas) within which a project may cause changes in the character or use of historical resources. Investigations and surveys are conducted within the APE to identify the presence or absence of historical resources which reasonably can be expected to be affected (resulting in a change to their historical, architectural, archaeological or cultural character) by a proposed project. The APE is project specific and should be large enough to accommodate minor project design changes. The APE may also differ for different types of historical resources (e.g., archaeological sites, historical buildings/structures or traditional cultural properties).Therefore, it is important that the project APE is defined on a case-by-case basis. Any off-site improvements must be included within the APE.

The APE for historical buildings/ structures often includes the entire affected parcel, or buildings within 200 feet of the area of direct impact, however this may be dependent on the City.

Determining Presence or Absence of Historical Resources

Background Research

As observed by the Historical Resources Guidelines, while the level of effort involved in background research may vary depending on the type of investigation, the basic ingredients remain the same: a records search, literature search, and interviews (City of San Diego 2001). The records search conducted at the South Coastal Information Center for the present pre-Phase I

Inventory has provided information relating to the results of previous technical studies that have included portions of the Program area. Per City requirements a copy of this records search has been provided as Confidential Appendix A.

Literature Review

A review of previous research conducted in the project area and vicinity is also required. For the most part, this includes unpublished historical resource reports identified through records searches, but may also include unpublished primary source materials and published studies. This information may help determine the potential for historical resources to exist on a property, as well as document the extent of previous investigations. Additional background information, including studies associated with specific research topics, may also be appropriate as part of the literature search for mitigation reports. A thorough review of construction records, lot book records, sewer records, Sanborn maps, engineering information, and other information needed to compile a rich historical context must be conducted. Consultants should also contact the San Diego Historical Society, Public library, or other local historical societies and knowledgeable individuals, as appropriate, for information about possible resources in the project area.

Field Reconnaissance

Built-Environment Resources

A survey for built-environment resources must be conducted by a specialist meeting the City's requirements in architectural history or a related field (City of San Diego 2001) The survey should document the character defining characteristics of the built-environment resource, and note the modifications affecting its integrity.

Historical Resource Documentation

All newly identified historical resources must be recorded on State of California Primary Record forms (DPR 523A). Historical resources forms for previously recorded resources should be updated and submitted in the appropriate manner. Procedures for completing these forms are presented in Instructions for Recording Historical Resources (2010). Consultants are responsible for submitting all historical resources forms to the South Coastal Information Center for assignment of a state trinomial. The state trinomial for each new and/or updated resource must be referenced in all subsequent reports.

In addition to the Primary Record form, historic buildings, structures or objects should be recorded on the Building, Structure and Object Record form (DPR 523B), Linear Feature Record

form, Photograph Record form, Location Map form, Sketch Map form and Continuation Sheet form, as appropriate.

Evaluating the Significance of Historical Resources

Evaluation of historic structures must include sufficient archival research in order to make a determination of significance. Standing structures, as well as architectural/engineering features are evaluated based on criteria such as:

- Age;
- Location;
- Context;
- Association(s) with an important person or event;
- Uniqueness; or
- Structural integrity.

Details such as the names of the architect, builder and the year built, along with information regarding past owners are an important asset in the evaluation process. In addition to the above criteria, it is necessary to include data discussing the significant contribution that was made to the area whether the historic structure is currently in use or not. It may also be appropriate to include a sampling of the site surface or subsurface by utilizing the methods outlined above for archaeological resources.

Research should include a chain of title and literature search conducted at local archives. The San Diego Historical Society, and the California Room of the San Diego Library are good sources for historical information. Sanborn Fire Maps for the City of San Diego, 1928 San Diego County Aerial Survey, County Assessor deed records and other pertinent archival materials should be utilized when necessary. Other sources for historic information include, The National Register of Historic Places and the California Office of Historic Preservation (City of San Diego 2001).

Mitigating Significant Impacts to Historical Resources

When significant historical resources are present within the Area of Potential Effect, mitigation is required prior to project implementation. The preferred alternative for mitigating impacts to historical resources is avoidance or preservation in place. If preservation is demonstrated to be infeasible, then alternative measures would be required.

Preferred mitigation is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures can include, but not be limited to:

- a. Preparing a historic resource management plan;
- b. Adding new construction which is compatible in size, scale, materials, color and workmanship to the historic resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric);
- c. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;
- d. Screening incompatible new construction from view through the use of berms, walls and landscaping in keeping with the historic period and character of the resource;
- e. Shielding historic properties from noise generators through the use of sound walls, double glazing and air conditioning; and
- f. Removing industrial pollution at the source of production.

If there are no other ways to save a building, structure or object other than relocation, such measures shall be performed in accordance with National Parks Service standards. Appropriate relocation sites shall duplicate, as closely as possible, the original location in terms of size, topography, neighborhood setting, orientation and site landscaping. Prior to the move, the resource shall be documented in its original location according to Historic American Building Survey (HABS) or Historic American Engineering Record (HAER) standards. Such documentation will serve as baseline data for historically correct reconstruction of the new site.

If the resource cannot be accommodated through project redesign and relocation is not feasible, it shall be documented according to HABS or HAER standards prior to demolition. Such documentation, including a written report, photographs, and in some cases, measured drawings and videotape, shall be prepared by a qualified professional to the standards determined by the National Park Service.

4 HISTORICAL RESOURCE SENSITIVITY

4.1 Historical Resource Sensitivity

4.1.1 North City

North City Advanced Water Purification Facility and North City Water Reclamation Plant

The immediate footprint of the North City Advanced Water Purification Facility (NCAWPF) and the North City Water Reclamation Plant (NCWRP) appear to be of low to moderate builtenvironment sensitivity. Many of the City facilities were built more than 45 years ago, making them of sufficient age to require historical evaluation under City and CEQA guidelines. Additional archival research should be conducted prior to any modifications to this facility.

San Vicente Purified Water Pipeline and Pump Stations

The purified water pipeline proceeds southeast for approximately 28 miles to the next substation, then northeast to between Mission Trails Regional Park and the San Vicente Reservoir Outfall / Discharge Structure. This section of the alignment appears to be of relatively low built-environment sensitivity.

Morena Boulevard Pump Station, Wastewater Force Main, and Brine Conveyance

These pipelines extend generally south from the North City facilities for 11.3 miles and appear to be low to moderate in resource sensitivity. The optimal route would follow existing roads through this entire length. The southernmost portion of the alignment runs through a concentration of historical-era buildings. A number of these buildings, dating to the early 1950s, have been previously evaluated for significance.

4.1.2 Central Area

Central Area Water Reclamation Plant

The approximate footprint of the CAWRP appears to be of relatively low built-environment sensitivity. The CAWRP directly intersects one historical-age building with unknown evaluation status, and several others are located near the site in the Liberty Station (formerly the historic Naval Training Center) area.

Central Area Tertiary Water Pipeline and Brine Pipeline

The approximate 7.5-mile alignment between the CAAWPF and CAWRP includes a number of highly sensitive areas. A total of 63 historical-era buildings and or properties have been previously recorded within 500 feet of this alignment. The alignment runs through the Old Town historical district, which is a known location of historical significance. The area is considered important to the local Native American community and the Descendants of Early San Diego Families (Robbins-Wade 2014).

Central Area Advanced Water Purification Facility

Based on available information regarding the likely location for the CAAWPF and recorded resources in the vicinity, the CAAWPF footprint appears to be of very low sensitivity for built-environment resources.

Central Area Purified Water Pipeline and Pump Stations

The 17.48-mile segment of pipeline between the CAAWPF and Willow Road (connection point to the San Vicente Purified Water Pipeline) is of low to moderate sensitivity for encountering built-environment resources based on the available information at the SCIC. No built-environment resources directly intersect the preferred alignment; however 20 properties have been recorded within 500 feet. Seven of these addresses have been evaluated as locally significant; there is no record of evaluation for the remaining resources. The majority of this portion of the study area has not been subject to previous investigation, which may partially account for the reduced density of recorded resources.

Central Area Sludge Conveyance: CAWRP to PLWTP

The approximate 5.5-mile pipeline segment between the CAWRP and the PLWTP runs through areas of high built-environment sensitivity. A total of 82 historical-era addresses have been previously recorded within 500 feet of the preferred alignment. The pump station may be older than 45 years old, requiring additional evaluation efforts should modification to these facilities be required.

Point Loma Wastewater Treatment Plant Improvements

Facilities to be constructed at the PLWTP include two raw sludge storage tanks, a thickener facility, and a thickened sludge pump station. While the PLWTP and immediate surrounding area are identified as highly sensitive for encountering built-environment resources, previous disturbance associated with construction of the PLWTP suggests that the potential for

encountering new resources within the PLWTP boundary would be low; depending on the age of the facility itself.

MBC Improvements

As proposed, improvements at the MBC would include the addition of one sludge degritter and one thickening centrifuge within an existing building. Given that the MBC is an existing facility and improvements would occur within an existing building/developed area, the MBC improvements area is of low sensitivity for encountering built-environment resources. The age of the facility should be confirmed to be less than 45 years old.

4.1.3 South Bay

South Bay Pump Station and Forcemain

The approximate 10.15-mile segment of the wastewater force main runs north from the proposed South Bay Advanced Water Purification Facility (SBAWPF). The area is relatively limited in recorded built-environment resources, with a single address on file at the SCIC within 500 feet of the preferred alignment.

SBWRP Expansion, South Bay Solids Processing Facility, and SBAWPF

The South Bay Solids Processing Facility (SBSPF) is proposed to be located on the SBWRP site. The SBWRP and surrounding area (including the SBAWPF site) exhibits low sensitivity for built-environment, with no resources identified in the vicinity.

South Bay Purified Water Pipeline and Pump Stations

The approximate 14.35-mile segment of pipeline between the SBAWPF east to the Otay Reservoir Outfall /Discharge Structure runs through an area of very low built-environment resource sensitivity. Recorded resources are very sparsely distributed in this portion of the study area and do not appear to present constraints to the preferred alignment.

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5 SUMMARY AND MANAGEMENT CONSIDERATIONS

CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource's significance. A project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (Sections 15064.5(b) and 21084). A substantial adverse change is defined as demolition, destruction, relocation, or alteration activities which would impair historical significance (Sections 15064.5(b)(1) and 5020.1). Any historical resource listed in or eligible to be listed in the California Register of Historical Resources, including archaeologically resources, is considered to be historically or culturally significant unless "the preponderance of evidence" demonstrates they are not. Finally, a resource that is not listed in, or determined to be eligible for listing in, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey as understanded to be eligible for listing in, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey as understanded to be eligible for listing in, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant, pursuant to Section 21084.1.

In order to best mitigate the effects of the proposed Pure Water Program on historical resources (including prehistoric and historical-age archaeological resources), a reasonable, good faith effort must be applied to identifying potentially impacted historical resources and determining their character and eligibility for listing in the local and state registers (CRHR; Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852).

5.1 Recommendations

In total, 1,257 built-environment addresses have been previously recorded within this study area. SCIC records indicate that approximately 19% (30.92 square miles) of the study area has been included as part of one or more previous historical resources technical studies. It is unclear what portion of these focused on built-environment resources. The remaining 81% (131.63 square miles) appear to have not been subject to previous investigation.

As part of this pre-Phase I built-environment constraints analyses, Dudek compiled a database of all built-environment resources on file at the SCIC within the study area. Significance recommendations were reviewed

The City has developed a mitigation framework for the appropriate management of historic builtenvironment resources. Prior to issuance of any permit for a future development project implemented in accordance with the Program that would directly or indirectly affect a building/structure or other historic built-environment resources in excess of 45 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the Guidelines. Preferred mitigation for historic buildings, structures, or other historic built-environment resources shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Additional, specific requirements relating to the management of such resources are provided within the Pure Water Program EIR and the City of San Diego Historical Resources Guidelines.

6 **REFERENCES**

- 16 U.S.C. 470–470x-6. National Historic Preservation Act of 1966, as amended.
- 36 CFR 60. National Register of Historic Places.
- 36 CFR 800.1-800.16 and Appendix A. Protection of Historic Properties.
- 48 FR 44720–44726. "The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act." April 24, 1998.
- Basgall, M.E., and M. Hall. 1990. "Adaptive Variation in the North-Central Mojave Desert." Paper presented at the 55th Annual Meeting of the Society for American Archaeology, Las Vegas, Nevada.
- Basgall, M. E., L. Johnson, and M. Hale. 2002. "An Evaluation of Four Archaeological Sites in the Lead Mountain Training Area, Marine Corps Air Ground Combat Center, Twentynine Palms, California." Submitted to U.S. Army Corps of Engineers, Fort Worth, Texas.
- Bean, L.J., and F.C. Shipek. 1978. "Luiseño." In *Handbook of North American Indians*, Vol. 8, *California*, edited by Robert F. Heizer550–563. Washington, D.C.: Smithsonian Institution.
- Boscana, G. 1846. "Chinigchinich; A Historical Account of the Origin, Customs, and Traditions of the Indians at the Missionary Establishment of St. Juan Capistrano, Alta California." In *Life in California*, by Alfred Robinson, 227–341. New York, New York: Wiley & Putnam.
- Byrd, B.F., and S.N. Reddy. 2002. "Late Holocene Adaptations along the Northern San Diego Coastline: New Perspectives on Old Paradigms." In *Cultural Complexity on the California Coast: Late Holocene Archaeological and Environmental Records*, edited by J.M. Erlandson and T.L. Jones, 41–62. Los Angeles, California: University of California– Los Angeles Press.
- CSP (California State Parks). 2009. "Preservation Matters." *The Newsletter of the California Office of Historic Preservation* 2(3):3–21.
- City of San Diego. 2014. Register of Historic Resources. July 24. Accessed online at http://www.sandiego.gov/ planning/programs/historical/.

DUDEK

City of San Diego. 2008. General Plan – Historical Preservation Element. March.

- City of San Diego. 2001. City of San Diego Historical Resources Guidelines, April 2001. (Land Development Manual); Historical Resource Technical Report Guidelines and Requirements Appendices – Appendix E, Part 1.1 ((October 2012) and Appendix E, Part 1.2 (May 2009)
- City of San Diego. 2000. City of San Diego Historical Resources Regulations (Land Development Code, 2000), Amended December 2013
- City of San Diego. 1997. City of San Diego Final MSCP Subarea Plan. Prepared by the City of San Diego Planning Department. March 1997.
- Davis, E.L. 1978. *The Ancient Californians: Rancholabrean Hunters of the Mojave Lakes Country*. Los Angeles, California: Natural History Museum of Los Angeles County.
- Fages, P. 1937. *A Historical, Political, and Natural Description of California* (1775). Translated by Herbert Ingram Priestly. Berkeley, California: University of California Press.
- Gallegos, D.R. 1987. "San Dieguito-La Jolla: Chronology and Controversy." San Diego County Archaeological Society, Research Paper No. 1.
- Gallegos, D., and C. Kyle. 1988. *Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric Site SDI-48 (W-164), San Diego, California.* San Diego, California: WESTEC Services.
- Geiger, M. and C.W. Meighan. 1976. As the Padres Saw Them: California Indian Life and Customs as Reported by the Franciscan Missionaries, 1813-1815. Santa Barbara Mission Archive Library, Santa Barbara, California.
- Golla, V. 2007. "Linguistic Prehistory." In *California Prehistory: Colonization, Culture, and Complexity,* edited by T.L. Jones and K.A. Klar, 71–82. New York, New York: Altamira Press.
- Griset, S. 1996. "Southern California Brown Ware." Unpublished PhD dissertation; University of California, Riverside.
- Gross, T.G and Ruth Alter. 1993.Phase One Testing of Archaeological Resources: SDI-203, Mission Trails Regional Park, San Diego, California. Affinis

- Hale, M. 2001. "Technological Organization of the Millingstone Pattern in Southern California." Master's thesis; California State University, Sacramento.
- Hale, M. 2009. "San Diego and Santa Barbara: Socioeconomic Divergence in Southern California." PhD dissertation; University of California, Davis.
- Harrington, J.P. 1934. "A New Original Version of Boscana's Historical Account of the San Juan Capistrano Indians of Southern California." *Smithsonian Miscellaneous Collections* 92(4).
- Hector, S.M. 1984. "Late Prehistoric Hunter-Gatherer Activities in Southern San Diego County." PhD dissertation; University of California, Los Angeles.
- Hector, S.M. 2006. Cultural Resources Study for the Maintenance of Old Mission Dam, Mission Trails Regional Park, San Diego, California. Prepared for the City of San Diego.
- Hector, S. M. 2007. Archaeological Investigations at University House Meeting Center and Chancellor Residence, CA-SDI-4669 (SDM-W-12), University of California at San Diego, La Jolla, California. ASM Affiliates.
- Johnson, J.R., and J.G. Lorenz. 2006. "Genetics, Linguistics, and Prehistoric Migrations: An Analysis of California Indian Mitochondrial DNA Lineages." *Journal of California and Great Basin Anthropology* 26:33–64.
- Kroeber, A. 1925. *Handbook of the Indians of California*. Washington D.C.: Smithsonian Institution.
- Laylander, D. 1985. "Some Linguistic Approaches to Southern California's Prehistory." San Diego State University Cultural Resource Management Center Casual Papers 2(1):14–58.
- Laylander, D. 2000. *Early Ethnography of the Californias, 1533-1825*. Salinas, California: Coyote Press Archives of California Prehistory.
- Laylander, D. 2010. "Lingiuistic Prehistory." Research Issues In San Diego Prehistory. Accessed August 31, 2012. http://www.sandiegoarchaeology.org/Laylander/Issues /index.htm
- Lightfoot, Kent J. 2005 Indians, Missionaries, and Merchants. Berkeley: University of California Press.
- Luomala, K. 1978. "Tipai and Ipai." In *California*, edited by Robert F. Heizer, 592-609.
 Handbook of the North American Indians, Vol. 8, William C. Sturtevant, general editor.
 Washington, D.C.: Smithsonian Institution.

DUDEK

- Meighan, C.W. 1959. "California Cultures and the Concept of an Archaic Stage." *American Antiquity* 24:289–305.
- Meighan, C.W. and D.L. True. 1977. Additional Comments on Molpa Archaeological Site. The Journal of California Anthropology, 4(2).
- NPS (National Park Service). 2009. Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated]. Electronic document, http://www.nps.gov/ history/local-law/arch_stnds_0.htm, accessed on March 19, 2009.
- NPS and ACHP (National Park Service and the Advisory Council on Historic Preservation).
 1998. The Secretary of the Interior's Standards and Guidelines for Federal Agency
 Historic Preservation Programs Pursuant to the National Historic Preservation Act.
 Published jointly by the National Park Service of the U.S. Department of the Interior and
 the Advisory Council on Historic Preservation.
- Office of Historic Preservation. 1995. "Instructions for Recording Historical Resources." California State Parks, Office of Historic Preservation. March 1995. http://ohp.parks.ca.gov/ pages/1054/files/manual95.pdf.
- Owen, R.C. 1965. "The Patrilineal Band: A Linguistically and Culturally Hybrid Social Unit." *American Anthropologist* 67:675–690.
- Pigniolo, A.R. 2004. "Points, Patterns, and People: Distribution of the Desert Side-Notched Point in San Diego." *Proceedings of the Society for California Archaeology* 14:27–39.
- Pigniolo, A.R. 2005. "Subsistence, Settlement, and Environmental Change at San Diego Bay." *Proceedings of the Society for California Archaeology* 18:255–259.
- Pourade, R.F. 1960–1967. *The History of San Diego*. 6 vols. San Diego, California: Union-Tribune Publishing Company..
- Robbins-Wade, Mary. 2014 Recycled Water System Cultural Resources Constraints Analysis. Affinis Environmental Services.
- Rogers, M.J. 1929. "The Stone Art of the San Dieguito Plateau." *American Anthropologist* 31:454–467.
- Rogers, M.J. 1945. "An Outline of Yuman Pehistory." Southwestern Journal of Anthropology 1:167–198.

DUDEK

- San Diego County Board of Supervisors. 2007. County of San Diego CEQA Guidelines. San Diego: San Diego County.
- Shipek, F.C. 1982. "Kumeyaay Socio-Political Structure." *Journal of California and Great Basin Anthropology* 4:296–303.
- Shipek, F.C. 1985. "Kuuchamaa: The Kumeyaay Sacred Mountain." *Journal of California and Great Basin Anthropology* 7(1):67–74.
- Spier, L. 1923. "Southern Diegueño Customs." University of California Publications in American Archaeology and Ethnology 20:295–358.
- True, D.L. 1966. "Archaeological Differentiation of Shoshonean and Yuman Speaking Groups in Southern California." Unpublished PhD dissertation; University of California, Los Angeles.
- True, D.L. 1980. "The Pauma Complex in Northern San Diego County: 1978." *Journal of New World Archaeology* 3(4):1–39.
- Wallace, W.J. 1955. "A Suggested Chronology for Southern California Coastal Archaeology." *Southwestern Journal of Anthropology* 11:214–230.
- Warren, C.N. 1964. "Cultural Change and Continuity on the San Diego Coast." Unpublished PhD dissertation; University of California, Los Angeles.
- Warren, C.N. 1968. "Cultural Tradition and Ecological Adaptation on the Southern California Coast." In Archaic Prehistory in the Western United States, edited by C. Irwin-Williams, 1–14. Portales, New Mexico: Eastern New Mexico University Contributions in Anthropology.
- Warren, C.N., G. Siegler, and F. Dittmer. 2004. "Paleoindian and Early Archaic Periods." In Prehistoric and Historic Archaeology of Metropolitan San Diego: A Historic Properties Background Study. Prepared for the Metropolitan Wastewater Department, City of San Diego. Encinitas, California: ASM Affiliates.
- Wilken, M. 2012. "An Ethnobotany of Baja California's Kumeyaay Indians." Master's thesis; San Diego State University.

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APPENDIX A (CONFIDENTIAL) SCIC Records Search Results