SEELEY COUNTY WATER DISTRICT

SERVICE AREA PLAN

Prepared By:

Seeley County Water District

1898 Main Street

Seeley, CA. 92273

Submitted to:

IMPERIAL COUNTY

LOCAL AGENCY FORMATION COMMISSION

801 Main Street

El Centro, CA 92243

1601 N. Imperial Avenue

El Centro, CA. 92243

Final August 2017

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1.0 EXECUTIVE SUMMARY

This Executive Summary provides a brief summary of the population projections to provide a context for the analysis and findings presented for each individual public facility in terms of the performance standard, existing facilities, existing facility demand versus anticipated future demand and its adequacy, mitigation, funding sources, annual budget and cost per capita.

1.1 POPULATION PROJECTIONS

This Service Area Plan uses population projections based on existing serviced residential connections tied to the average household size and anticipated development, as provided in the Growth Projections section of this document with an application of a modest 2.08% growth rate. The Seeley service population is estimated to be 2,140 based on the number of actual residential service connections multiplied by 3.53 persons per household as established on the 2010 Census data for household characteristics. This existing population is estimated to increase to 3,111 by the year 2035 due to natural growth that assumes a modest 2.08% annual growth rate. This number does not take planned development into account. If the approved and planned development comes into fruition, the population can increase up to 9,889 by the year 2035 (based on a construction start date of 2019 and a build rate of 120 new dwelling units per year). The following table, **SCWD Population Projections**, projects the future population of the District through Year 2035 in five-year increments under both the assumption that planned development does or does not come through.

Table 1-A
SCWD Population Projections

Year	Population Projections At 2.08% Growth Rate[1]	Population Projections with Planned Development and 2.08%
2017	2,140	2,140
2020	2,278	2,702
2025	2,528	5,069
2030	2,804	7,464
2035	3,111	9,889

[1]Calculated by actual residential service connections and multiplying by 3.53 person per household for base population.

1.2 PUBLIC FACILITY ANALYSIS

This section provides an overview of findings for both facilities serviced by the Seeley County Water District and other public agencies. The following facilities and services were reviewed: Administrative Facilities, Wastewater Treatment Plant and Wastewater Collection System, Water Treatment Plant and Water Distribution System, Parks and Recreation Facilities, and other services provided by Imperial County and other agencies including Fire Facilities, Law Enforcement Facilities, Library Facilities, Transportation Facilities, Drainage Facilities and School Facilities.

1.2.1 Services Provided by the Seeley County Water District

The proceeding tables summarize the findings for services provided by the Seeley County Water District but may also include coordination with other agencies who extend similar services. The findings are based on information obtained from existing reports such as Preliminary Engineering Reports (PER's), infrastructure studies, Specific Plans, adopted budgets, and discussions with District Staff. Also incorporated is reference to the Imperial County 2011 Draft Municipal Service Review.

1.2.1.1 Administrative Facilities

Administrative Facilities Summary of Findings	
Performance Standard	None Applied
Existing Facilities	1,059 square feet reserved for offices & administrative functions.
Existing Demand	393 square feet of office space per 1,000 in population
Adequacy	The current administrative offices for District Staff are adequate.
Future Demand	No additional facilities warranted through 2035. Facility Expansion Necessary at Full Build-Out.
Mitigation	Recommended Mitigation: **A-1** Establish an Administrative Budget **A-2** Consider Adopting an Administrative Developer Fee **A-3** Initiate Administration & Operations Building Plans
Funding Sources	Current: SCWD Water Fund and Wastewater Fund Future: SCWD Water Fund and Wastewater Fund and Developer Fees
Annual Budget	Not Separately Budgeted at This Time.
Cost Per Capita	Not Applicable

Administrative Facilities were generally found to be adequate to meet the projected service demand to the SCWD during the Planning Period. No Capital Improvements are necessary at this time, however, mitigation measures are proposed for administrative facilities that are discussed in more detail under the respective section.

1.2.1.2 Wastewater Facilities

Wastewater Treatment and Sewer Capacity Summary o f Findings	
Performance Standard	Must meet or exceed peak demand and meet effluent discharge requirement of the RWQCB.
Existing Facilities	Treatment Capacity: 0.25 MGD
Existing Demand	Average Annual Demand up to 0.11 MGD (2017) Peak Flow Demand 0.38 GPD (2017)
Adequacy	Demand at 45% of Capacity at 0.11 MGD (2017) In Compliance with RWQCB.
Future Demand	Based on Natural Growth Rate 2020: 0.139 MGD 2025: 0.164 MGD 2035: 0.224 MGD
Mitigation	Recommended Mitigation: **WW-1** Adequate Reserves **WW-2** Solicit Funding Resources **WW-3** Evaluate Impact Fees **WW-4** Develop Wastewater Master Plan **WW-5** Impose Fair Share Costs on Developers **WW-6** Develop Sewer System Management Plan
Funding Sources	Current: Wastewater Fund and Grant Resources. Future: Wastewater Fund and Grant Resources.
Annual Budget	Approximately $455,651 (17/18 Adopted Budget)
Cost Per Capita	$212.92

Wastewater Facilities are found to be generally adequate in meeting the near term and mid-term (2035) demands of the SCWD but would require capital investment via facility expansion to address the projected future demand that may

be generated by the planned development Sunbeam Lake Estates, Phase I. These additional demands and a full discussion of the mitigation measures proposed for wastewater facilities are more detailed in the respective section.

1.2.1.3 Water Facilities

Water Treatment and Distribution System Findings	
Performance Standard	Meet minimum flow, pressure, and storage requirements, and minimum quality standards established by the California Department of Public Health (CDPH).
Existing Facilities	Treatment Capacity: 1.08 MGD Storage Capacity: 1 MG
Existing Demand	Average Daily Demand 0.214 MGD (2016) Peak Demand 0.39 MG
Adequacy	Demand Adequate at 20% of Capacity (2017) In Compliance with CDPH Standards.
Future Demand	Based on Natural Growth Rate 2020: 0.37 MGD 2025: 0.63 MGD 2035: 1.15 MGD
Mitigation	Recommended Mitigation: **W-1** Adequate Reserves **W-2** Solicit Funding Resources **W-3** Evaluate Impact Fees **W-4** Develop Water Master Plan **W-5** Impose Fair Share Costs on Developers
Funding Sources	Current: Water Fund and Grant Resources Future: Water Fund and Grant Resources.
Annual Budget	Approximately $350,628 (17/18 Adopted Budget)
Cost Per Capita	$163.84

Water Facilities were found to be generally adequate to meet the near term demands of the SCWD but would require mitigation to address future demand during the Planning Period by 2030. Mitigation measures are proposed for water

facilities and are more detailed in the respective section. However, capital investment via facility expansion to address the projected future demand that may be generated by the planned development Sunbeam Lake Estates, Phase I would be necessary. This demand is addressed in more detail under the respective section.

1.2.1.4 Park and Recreation Facilities

Parks and Recreation Facilities Summary of Findings	
Performance Standard	5 acres per 1,000 in population
Existing Facilities	3.58 Acres of parkland owned by SCWD 66.55 Acres of parkland owned by Imperial County 70.13 Total Acres of Parkland
Existing Demand	10 acres (based on population of 2,140)
Adequacy	Surplus: 32 acres per 1,000 in population
Future Demand	None (Existing Acreage Supported through 2035)
Mitigation	Recommended Mitigation: **PR-1** Seek Financial Resources for Operation/Services **PR-2** Seek Grant Resources for Capital Improvements
Funding Sources	SCWD Current: Grant Resources. SCWD Future: Grant Resources.
Annual Budget	Not Separately Budgeted at This Time.
Cost Per Capita	Not Applicable

Park Facilities were found to be adequate in dedication to meet the near term and long term demands of the SCWD but would require mitigation to address park facilities and program needs. SCWD is restricted from using enterprise funds for park facilities thus funding challenges throughout the planning Period for the proper development, repair and maintenance of park facilities may exist. Currently both parks are operated and maintained by Imperial County, but the Robert Bates Memorial Park (leased out to the Imperial County) has seen little investment. Mitigation measures for financial resource examination are proposed for park facilities and are more detailed in the respective section.

1.2.2 Services Provided by Imperial County

This sub-section provides an overview of findings for the following facilities and services administered, financed, and implemented by Imperial County, in whole or in part: Fire Facilities, Law Enforcement, Library Facilities, and Transportation Facilities. The findings for each of these sections and the discussion in Section 5.2 – Services Provided by Imperial County are based on the Draft 2011 Municipal Service Review prepared for the County of Imperial by Hofman Planning and Engineering.[1]

1.2.2.1 Fire Facilities Findings

The most recently drafted Service Area Plan (2011) for Imperial County identified the existing fire facilities as adequate in size. However, the existing Seeley Fire Station did not meet all the current building code requirements. Service, however appears to be adequate according to the Fire Chief of the County of Imperial, which stated that as of the date of this SAP, the existing staffing levels are sufficient based on the current demands and average response times.

1.2.2.2 Law Enforcement Findings

The service demand is currently deficient eight (8) law enforcement officers as of the date of this Service Area Plan. The calculated demand is for 56 officers (based on 1.43 officers per 1,000 in population) for County-wide services. According to the Sheriff's office, it is currently operating with 48 officers dedicated to patrol. Although this is beyond the service responsibilities of the SCWD, this is an area that may require representation if crime rates or response time become an issue in the Seeley Community given that the nearest station is seven miles away from Seeley.

1.2.2.3 Library Facilities Findings

The current library service levels for the Seeley population are currently substandard given the current population of 2,140 and the limited hours of the local library station. The library station operates only two hours and thirty minutes (2.5 hours) a month, not open on weekends, and open no later than 6:45 p.m. thus somewhat restricting accessibility to the community.

1.2.2.4 Transportation Facilities Findings

Per the Imperial County Circulation Element, updated in 2008, all roadways within the SCWD Sphere of Influence are operating at a Level of Service C or better, with the exception of Dogwood Road between Seeley Road to Jasper Road which had a Level of Service D. Additionally, several roadway segments within the Seeley

[1] Although the Imperial County Municipal Service Review has been under review by Imperial County since January 2011, as of June 2017, Imperial County has not commented on the document. As such, the Municipal Service Review has not been and adopted by Imperial County or approved by LAFCO.

community were found to be deficient and in need of significant repair. The findings are more detailed under the respective section of this Service Area Plan.

Facilities for pedestrians are also found to be non-existent or substandard. Recommended Mitigation involves a closer relationship with the Imperial County Public Works Department and pursuit of funding opportunities through the California Department of Transportation and the Federal Highway Administration.

1.2.2.5 Stormwater and Drainage Facilities Findings

Engineered drainage structures within the Seeley community are virtually non-existent. Minimal curb and gutter exists along County roadways in the community. Stormwater facilities that do exist are limited to recent developments that have included design and construction of on-site retention basins only to accommodate their demand. Runoff discharges naturally flow (overland) towards the New River, but there are no constructed or engineered drainage outlets into the New River. These conditions result in significant flooding throughout the community. These findings are more detailed under the respective section of this Service Area Plan.

1.2.3 Services Provided by Others

This sub-section discusses findings for services not provided by the Seeley County Water District or the County of Imperial. The findings are based on information provided by the Imperial Irrigation District for drainage facilities and the Seeley Elementary School District for education services. Other data for utility services are sourced as referenced.

Solid Waste Service Findings

There is no agency representing Seeley customers under solid waste services. Individual homeowners are under contract with three solid waste facilities: Lucky Tire Inc., CR&R, and Republic Services. This may pose an opportunity for the SCWD to establish a Solid Waste Enterprise and negotiate lower rates for residents and other community benefits such as community clean-up days, scholarship contributions and other community donations as benefitted by other jurisdictions and districts.

Lighting Facilities Findings

Although the street lights are within the County Right-of-Way and thus owned by the County of Imperial, it appears that the SCWD has been responsible for the operation of these facilities. The existing lighting facilities are adequate to serve the community as long as they remain in service. As development occurs, developers will be required to expand lighting facilities into all new development and maintained through Community Facility Districts or Lighting and Maintenance Districts and not be borne to the SCWD. The SCWD had an operating budget of

$4,200 for existing Street Lights (FY 17/18). Enterprise Funds are restricted from paying for the power service demands, thus mitigation measures to offset these costs are recommended.

School Facilities Findings

The existing Seeley Union School District facilities are adequate to meet the educational needs of the current population. The Seeley Union School District, however, will not be able to meet the expected demand from the projected population growth associated with the planned Sunbeam Lake Estates. It is most likely that the developer will be subject to mitigation in addition to the adopted impact fees.

2.0 INTRODUCTION

The Seeley County Water District (SCWD) last updated its Service Area Plan in 2003. Since then the City has experienced moderate growth and interest in new development is increasing. This 2017 Service Area Plan is being updated to provide the SCWD and Seeley Community with a general outlook of anticipated growth and the ability of the SCWD to provide adequate services. This document is designed to provide the District and general public with an overview and introduction of policies regulating this document and an introduction to the SCWD and the community it serves. An executive summary of service findings is presented in order to facilitate review, followed by a detailed discussion of growth projections and phasing of development, existing public service conditions, (including essential services provided by others) and a financing plan for those services under the responsibility of the SCWD.

2.1 HISTORY OF THE MUNICIPAL SERVICE REVIEW/SERVICE AREA PLAN

In 1997, Assembly Bill (AB) 1484 established the Commission of Local Governance for the 21st Century. The role of the Commission of Local Governance was to evaluate local government organization and operational issues and develop a statewide vision and determine how the State should grow. The Commission in their final report identified four critical findings, as follows:

- *The future will be shaped by continued phenomenal growth;*
- *California does not have a plan for growth;*
- *Local Government budgets are perennially under siege;*
- *The public is not engaged.*

Within this framework, the Local Governance Commission concluded that Local Agency Formation Commission's (LAFCOs) powers should be expanded and be a participant in regional growth and planning forums. Further, the Local Governance Commission recommended that State law be amended to require that spheres of influence be regularly updated and that LAFCOs initiate periodic regional municipal service reviews, also known as service area plans, to ensure the efficient provision of governmental services. A sphere of influence is defined by law as a "plan for the probable physical boundaries and service area of a local agency, as determined by the commission" (GC 56076).

As a result of the Local Governance Commission's recommendations, on September 26, 2000, Governor Gray Davis signed into law AB 2838, titled the Cortese-Knox-Hertzberg Local Government Reorganization Act. The Cortese-Knox-Hertzberg Act requires each LAFCO to review and update as necessary the spheres of influence for all applicable agencies within each County. In Imperial County, service area plans are recommended to be updated every five years in order to be in compliance (Governor's Office of Planning and Research, LAFCO Municipal Service Review Guidelines, p.10 2003.)

2.2 PURPOSE OF THE SERVICE AREA PLAN

Service area plans are intended to assess current service demand and future service needs within an agency's sphere of influence, and demonstrate that future public facilities, for the provision of services have been identified in accordance with the Cortese-Knox-Hertzberg Act. Service area plans provide each LAFCO with a tool to comprehensively study existing and future public service conditions and to evaluate organizational options for accommodating growth, preventing urban sprawl, preserving open save and prime agricultural lands, and efficiently extending government services. The SCWD 2017 Service Area Plan intends to provide the Imperial County Local Agency Formation Commission with a detailed description and analysis of how facilities will be provided in the proposed sphere of influence.

2.2.1 Requirements of a Service Area Plan

The requirements of the contents of a service area plan are determined by the State's Government Code. Once a service area plan is prepared, it must be reviewed by the local Commission. LAFCO review of public services is in response to the identified need for an orderly and efficient public service structure which will support California's anticipated growth. Per Government Code Section 56430, LAFCO shall prepare a written statement of its determinations with respect to each of the following:

1. *Growth and population projections for the affected area;*
2. *Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.*
3. *Financial ability of agencies to provide services.*
4. *Status of, and opportunities for, shared facilities.*
5. *Accountability for community service needs, including governmental structure and operational efficiencies.*
6. *Any other matter related to effective or efficient service delivery, as required by commission policy.*

2.2.2 Imperial County Local Agency Formation Commission

The Imperial County Local Agency formation Commission (IC LAFCO) is charged with the review and approval of the SCWD Service Area Plan. The Imperial County LAFCO is comprised of two County Supervisors appointed by the Board of Supervisors, two City Council members appointed by the City Selection Committee and one public member approved by LAFCO, for a total of five members. LAFCO has the authority to review, approve or deny boundary changes, city annexations, consolidations, special district formations, incorporations for cities and special districts, and to establish local spheres of influence.

The Imperial County LAFCO responded to the new mandates of AB 2838 by adopting State Municipal Service Review Guidelines from the Governor's Office of

Planning and Research (OPR) as the Imperial County LAFCO's new Service Area Plan Guidelines. Imperial County LAFCO requires a service area plan be approved prior to approval of a sphere of influence amendment and/or annexation. Imperial County LAFCO must be able to ascertain that there will be sufficient public facilities within the requested sphere of influence or annexation.

2.2.3 Current Status of the SCWD Service Area Plan

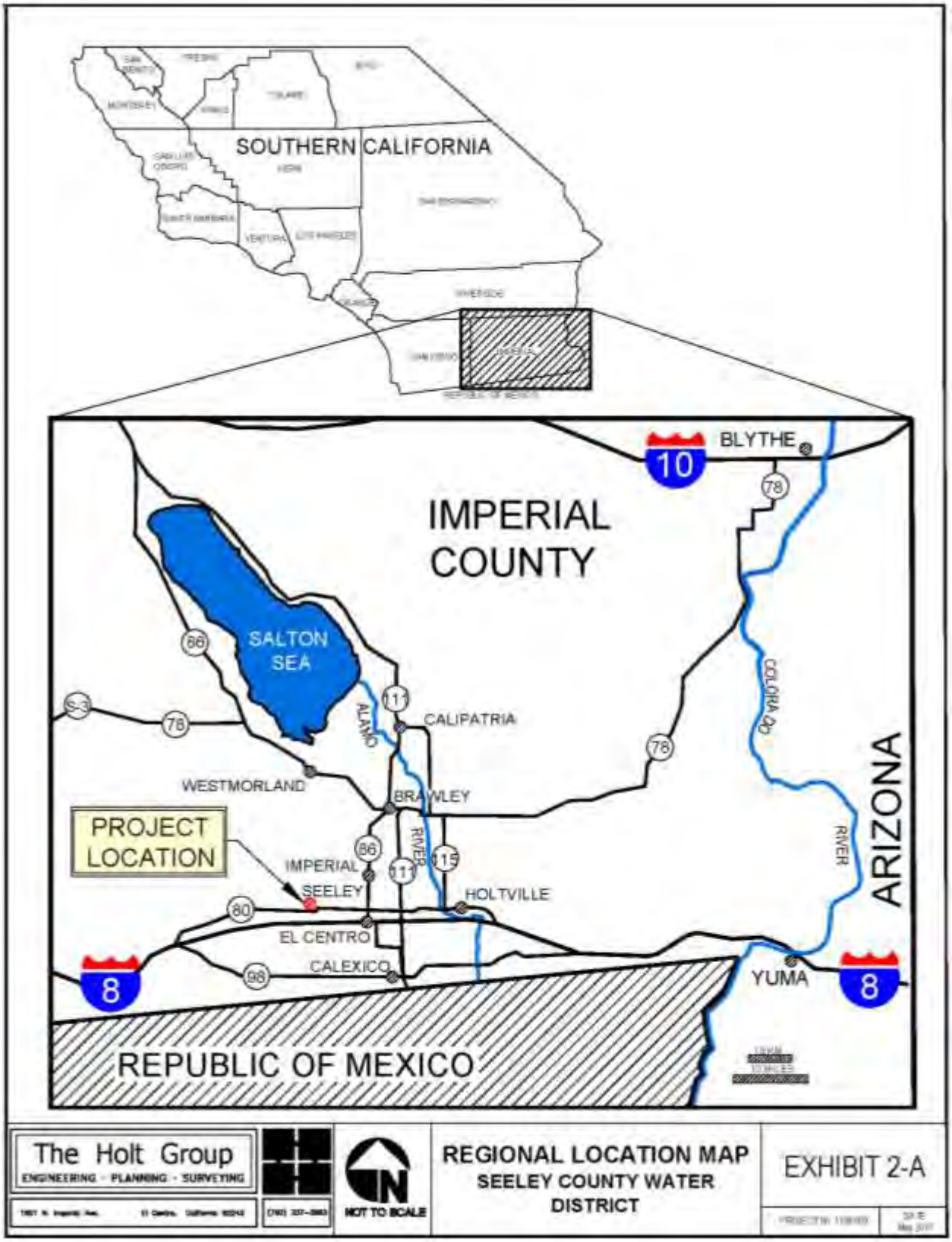
The existing SCWD Public Utility District Service Area Plan (SAP) was prepared in 2003 by Nolte Associates, Inc and was approved by the Imperial County LAFCO on July 10, 2003. The 2003 SAP only discusses potable water facilities and services, and wastewater collection facilities and services. A comprehensive discussion of all services is necessary to demonstrate that there will be sufficient public facilities to provide public services within the sphere of influence. The 2003 SAP does not include a discussion of other services provided by SCWD such as administrative facilities, park facilities, and street lights. Facilities and services provided by other agencies such as fire protection, law enforcement, library, circulation (roads), street drainage and education are also excluded from the 2003 SAP. Inclusion of these facilities and services is critical for the orderly growth and development of the community and to ensure any potential service deficiencies are addressed by the corresponding agency.

2.3 BACKGROUND ON SEELEY AND THE SEELEY COUNTY WATER DISTRICT

The Townsite of Seeley is a small community situated west of the City of El Centro approximately 7.5 miles from El Centro. Seeley is an unincorporated community within Imperial County and partially serviced by the County of Imperial and other public agencies, including a school district and public utility districts. The SCWD was formed in 1960 under the Public Utility Act of 1921 for the specific purpose of providing wastewater and water services to the Seeley community. A district is different from a city in that it delivers a limited number of public services to a geographically limited area and does not have police authority.

Geographic Location of the Townsite of Seeley

Seeley is located approximately 10 miles northwest from the U.S./Mexico border and Calexico Port of Entry. (Refer to **Exhibit 2-A – Regional Location Map**). Seeley's developed area covers an approximate 2.37 square miles and is accessed from the


SOUTHERN CALIFORNIA
IMPERIAL COUNTY
BLYTHE
10
78
SALTON SEA
86
111
CALIPATRIA
ALAMO
WESTMORLAND
BRAWLEY
PROJECT LOCATION
IMPERIAL
SEELEY
115
HOLTVILLE
80
EL CENTRO
CALEXICO
98
8
YUMA
ARIZONA
COLORADO RIVER
REPUBLIC OF MEXICO
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NOT TO SCALE
REGIONAL LOCATION MAP
SEELEY COUNTY WATER DISTRICT
EXHIBIT 2-A

east from Evan Hewes Highway and from the south by Interstate 8 which traverses the community at a west/east orientation. Interstate 8 connects to San Diego located approximately 106 miles to the west of Seeley.

Seeley County Water District

The Seeley County Water District office is located at 1898 Main Street, Seeley, CA 92273 and serves a population of 2,140 and a constituency of 718 persons (Imperial County Elections Office, May 15, 2017)[2]. The Seeley County Water District provides limited public services to the Seeley community consisting of water, wastewater and limited parks and recreation services. The Seeley County Water District consists of a five-member Board of Directors elected by the public. A General Manager reports directly to the Board of Directors and is charged with overseeing the District's operation and employees. The District also has a legal counsel that reports to the Board of Directors. The District currently operates with eight (8) employees and is operating under a $950,000 budget for the 2017/2018 fiscal year.

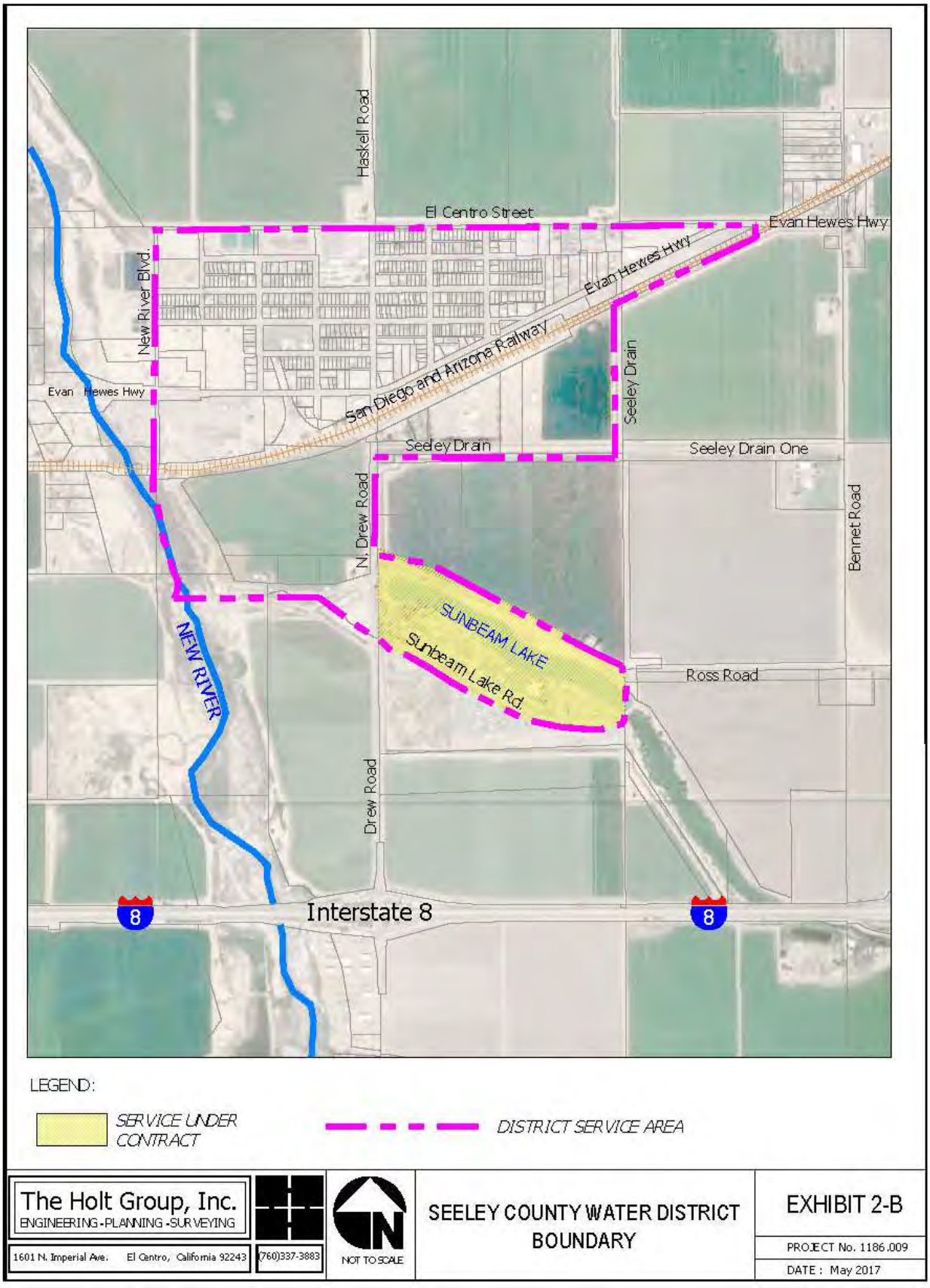
Official District Boundary

The legal Seeley County Water District Boundary is uniquely shaped and may be generally described as bound by El Centro Street to the north, extending south to Sunbeam Lake Road, Seeley Drain to the east, and reaching New River Boulevard to the west. (Refer to **Exhibit 2-B – Seeley County Water District Boundary**). The Seeley County Water District boundary was last modified on January 22, 2004 as the LAFCO approved boundary (LAFCO Seeley Service Area Plan, Exhibit 19). No changes to the Service Area boundaries are proposed under this 2017 Service Area Plan Update.

Annexing Land Into The District Boundary

In order for land to be annexed into SCWD's Service Area Boundary, a LAFCO Annexation Application shall be submitted and all applicable LAFCO fees shall be paid. After the Application is deemed complete by LAFCO then analyzes the proposed annexation in light of the commission's State mandated evaluation criteria and responsibilities and its own adopted policies. LAFCO makes a decision on the annexation with or without conditions of approval. According to LAFCO policies, the boundaries of the District may be altered and unincorporated, contiguous or noncontiguous territory of at least 10 privately owned acres lying within three miles of the closest District boundary and may be annexed to the District (Public Utilities Code Sections 17301, 17362).

[2] Number of Registered Voters within the Seeley County Water District per Imperial County Elections Office May 15, 2017.


Haskell Road
El Centro Street
Evan Hewes Hwy
Evan Hewes Hwy
New River Blvd.
Evan Hewes Hwy
San Diego and Arizona Railway
Seeley Drain
Seeley Drain
Seeley Drain One
N. Drew Road
Bennet Road
SUNBEAM LAKE
Sunbeam Lake Rd.
NEW RIVER
Ross Road
Drew Road
Interstate 8
8
8
LEGEND:
SERVICE UNDER CONTRACT
DISTRICT SERVICE AREA
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PROJECT No. 1186.009
DATE : May 2017

Seeley County Water District Sphere of Influence

The Sphere of Influence for SCWD is a much broader area intended to accommodate future growth. The approved sphere of Influence boundaries are described as El Centro Street to the north, New River to the west, Interstate 8 to the south and Bennet Road to the east (Refer to **Exhibit 2-C – SCWD Sphere of Influence/District Boundary**). Growth within the Sphere of Influence is planned for and taken into account under the Service Area Plan. The delineation of this Sphere of Influence is important to Seeley community leaders because it defines the primary area within which urban development is to be encouraged and limits up to which areas services should be extended to.

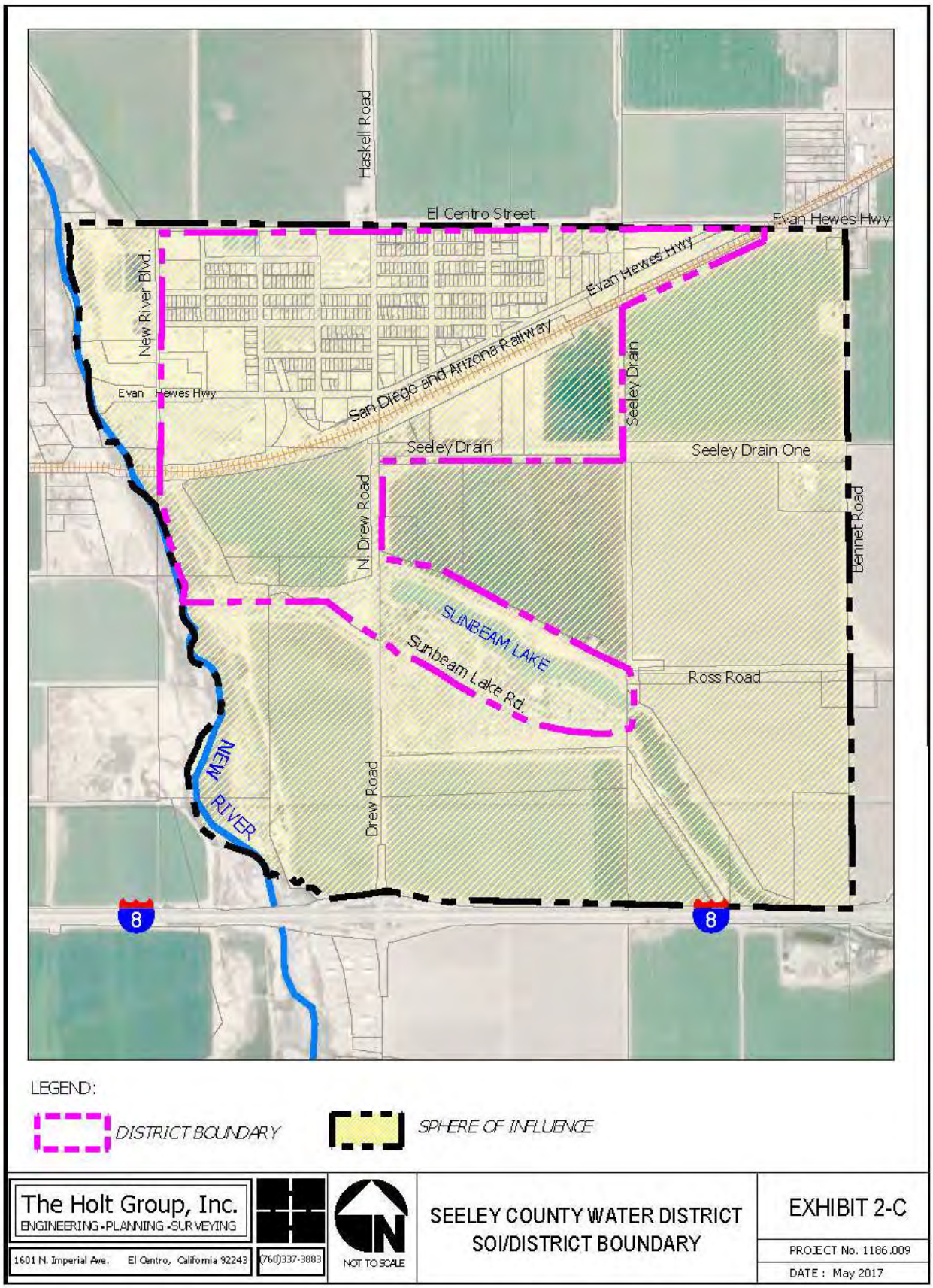
Population and Demographics

Although Seeley is a sparsely populated unincorporated community in Imperial County, it has experienced steady growth that averages 2.08 percent between 1990 and 2010. Seeley has a current population estimate of 2,140 (based on residential service connections reported to the State in 2016). The population was calculated based on 606 serviced dwelling units multiplied by 3.53 average number of persons per household according to last US Census taken in 2010.

Seeley is part of the El Centro Metropolitan Statistical Area which has a much larger population base, estimated at 64,489 persons (MSA, American Community Survey, 2015) and is influenced by regional growth. El Centro is located 7.5 miles east of Seeley. Seeley's ideal location to El Centro and approximately one mile north of Interstate 8 connecting to San Diego, make it an ideal community for individuals seeking a quiet rural lifestyle within close proximity to urban employment centers.

Over the last two decades Seeley has experienced significant growth and development. From 1990 to 2000, the Seeley population increased from 1,228 persons to 1,624 persons, or by 32% percent, per the US Census Bureau. From 2000 to 2010, the population increased from 1,624 to 1,739 per the 2000 and 2010 Census. Thus, from 1990-2017, the SCWD Service Area grew by over 60% percent to its current 2,140 population. Over the last decade, over 260 residential building permits were issued for residential construction in the Seeley area, according to Imperial County Building Department records.

Another significant factor contributing to the steady population growth may be attributed to population demographics. Over 88 percent of the Seeley population identifies as Latino (Source: ACS, 2015). Culturally, Latinos tend to share households with extended family members. Seeley's average household size of 3.53 persons per household is slightly higher than to the County's 3.34 persons per household and substantially larger than the State's average at 2.90 persons per household for the same time period (US Census 2010).


Haskell Road
El Centro Street
Evan Hewes Hwy
New River Blvd.
Evan Hewes Hwy
San Diego and Arizona Railway
Evan Hewes Hwy
Seeley Drain
Seeley Drain
Seeley Drain One
Bennet Road
N. Drew Road
SUNBEAM LAKE
Sunbeam Lake Rd.
Ross Road
NEW RIVER
Drew Road
8
8
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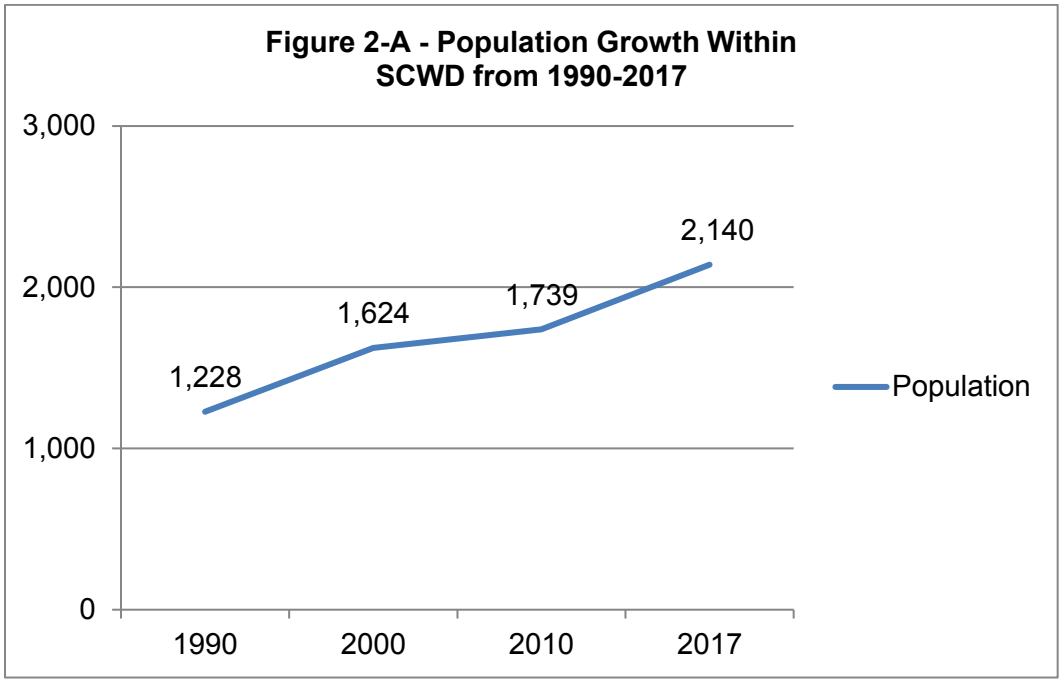
DATE : May 2017

These population statistics are important in determining what the service needs of the population are and how to project service demand when the same growth factors are applied. **Figure 2-A- Seeley Population Growth** provides the historic population from 1990 to present.

Figure 2-A



Source: US Census Bureau for Population 1990, 2000, 2010
Year 2017 estimates based Service Connection Data and 3.53 persons per household in June 2017.

2.4 PUBLIC FACILITIES AND SERVICES PROVIDED

The Seeley County Water District provides a limited amount of services including wastewater collection and treatment services, potable water treatment and distribution services, limited park and recreation services and the corresponding administrative services to residents within the District's service area. Given that Seeley is located within an unincorporated area of Imperial County, all other public services including law enforcement, fire protection, and roadway maintenance are provided by Imperial County. Additional public service purveyors currently providing services within the SCWD service area include the Seeley Union School District, Central Union School District, and the Imperial Irrigation District. The Seeley County Water District works closely with the respective entities to ensure that all public services are adequately provided for new development.

2.5 General Outlook on Population Growth

As previously noted, the Seeley County Water District service area has experienced significant residential growth over the last couple of decades. There is an equally vibrant population outlook associated with new development planned within SCWD Sphere of Influence. SCWD's service area, and thus potential growth areas, are comprised of relatively large tracts of vacant, low-priced land that is attractive to residential developers. Seeley is also bordered by Interstate 8 which is a Highway that has an Annual Average Daily Traffic of 15,800 vehicles at Drew Road (Source: Caltrans 2015 Traffic Counts). Highway access makes Seeley an attractive location for residential, commercial, and industrial development. As an example, there is currently interest in developing two major residential sites and to expand the Sunbeam Lake RV Resort to Sunbeam Lake Estates and build 403 single family residences along the lake and multi-family development to the southeast (Source: LAFCO 2005 District Annexation Application). These developments are expected to significantly contribute to the future growth and demand of SCWD services. At the time of the preparation of the Service Area Plan it was estimated that SCWD could have a population base of over 5,000 residents by the year 2035 if all planned development comes into fruition. These figures and projections highlight the importance of SCWD planning services to adequately serve the projected population. Population trends and projections are further discussed under **Section 3 Growth and Phasing Projections** of this Service Area Plan.

2.6 Organization of the Service Area Plan and Contents

The intent of the Service Area Plan is to demonstrate the District's ability to provide adequate services within the sphere of influence boundaries in the event of new development with the District Boundaries or new annexation into the District Boundaries. An approximate 20-year planning period is used to forecast growth and the estimated facility and service demands are based on population projections in five-year increments until 2035.

This Service Area Plan discusses the services currently provided by the Seeley Water County District, estimates the current and future demand for such facilities and services, and describes how necessary facilities and services will be or may be developed or improved on to meet population demands. Additionally, this Service Area Plan discusses services purveyed by Imperial County and their adequacy based on demand in a matter that satisfies the Guidelines adopted by Imperial County's LAFCO. These issues are organized into the following six sections, as briefly discussed in the introduction and elaborated below.

Section 1.0 – Executive Summary: Provides a brief summary of the Service Area Plan for the Seeley Water County District and highlights critical information regarding performance standards, existing facilities, demand, mitigation, funding sources, annual budget and cost per capita.

Section 2.0 – Introduction: Provides a brief description of the Seeley townsite and the Seeley Water County District as well as the general characteristics of the Service Area Plan.

Section 3.0 – Growth and Projections: Provides a discussion on existing and planned land uses in the District and the District's Sphere of Influence and describes potential impacts associated with population growth and projected service demand.

Section 4.0 – Buildout Phasing Projections: Provides a discussion on buildout phasing projections within the 20-year planning period.

Section 5.0 – **Public Services**: Provides a thorough description of current and planned facilities and services, and its current and projected adequacy. An analysis and assessment of public services provided by the District, Imperial County, and any other service purveyor will be addressed. The following facilities and services are reviewed: Administrative Facilities, Wastewater Treatment and Collection Sewer Facilities, Water Treatment and Distribution Facilities, Parks and Recreation Facilities, Fire Facilities, Law Enforcement Facilities, Library Facilities, Transportation Facilities, Stormwater Facilities and School Facilities as well as other utility purveyors in summary.

Section 6.0 – Mitigation & Financing Plan: Identifies and discusses existing and potential sources of revenue and financing mechanisms for public facilities and services available to the District. In addition, this section would identify cost saving opportunities for the District.

3.0 GROWTH AND PHASING PROJECTIONS

It is the intent of the Seeley County Water District to plan for growth via the orderly development of areas within the SCWD Sphere of Influence. Growth is influenced by location, land use restrictions, existing conditions, and availability of services. Orderly development is accomplished through planned improvements, phasing of service expansions and phasing of development projects. This Section of the Service Area Plan identifies the existing and planned land uses in the Seeley community, the intricate development process, and the anticipated population growth which are all critical factors on how the SCWD will service the community.

3.1 EXISTING LAND USE

Although the District's service area has shown modest growth in the last decade, it is small in comparison to nearby Cities. For example, the City of El Centro and its sphere of influence area is about 16,000 acres of land (El Centro Service Area Plan, 2016). The City of Imperial and its sphere of influence area is 7,507 acres (Imperial Service Area Plan, 2015). Whereas, the SCWD and its sphere of influence area is only approximately 1,520 acres.

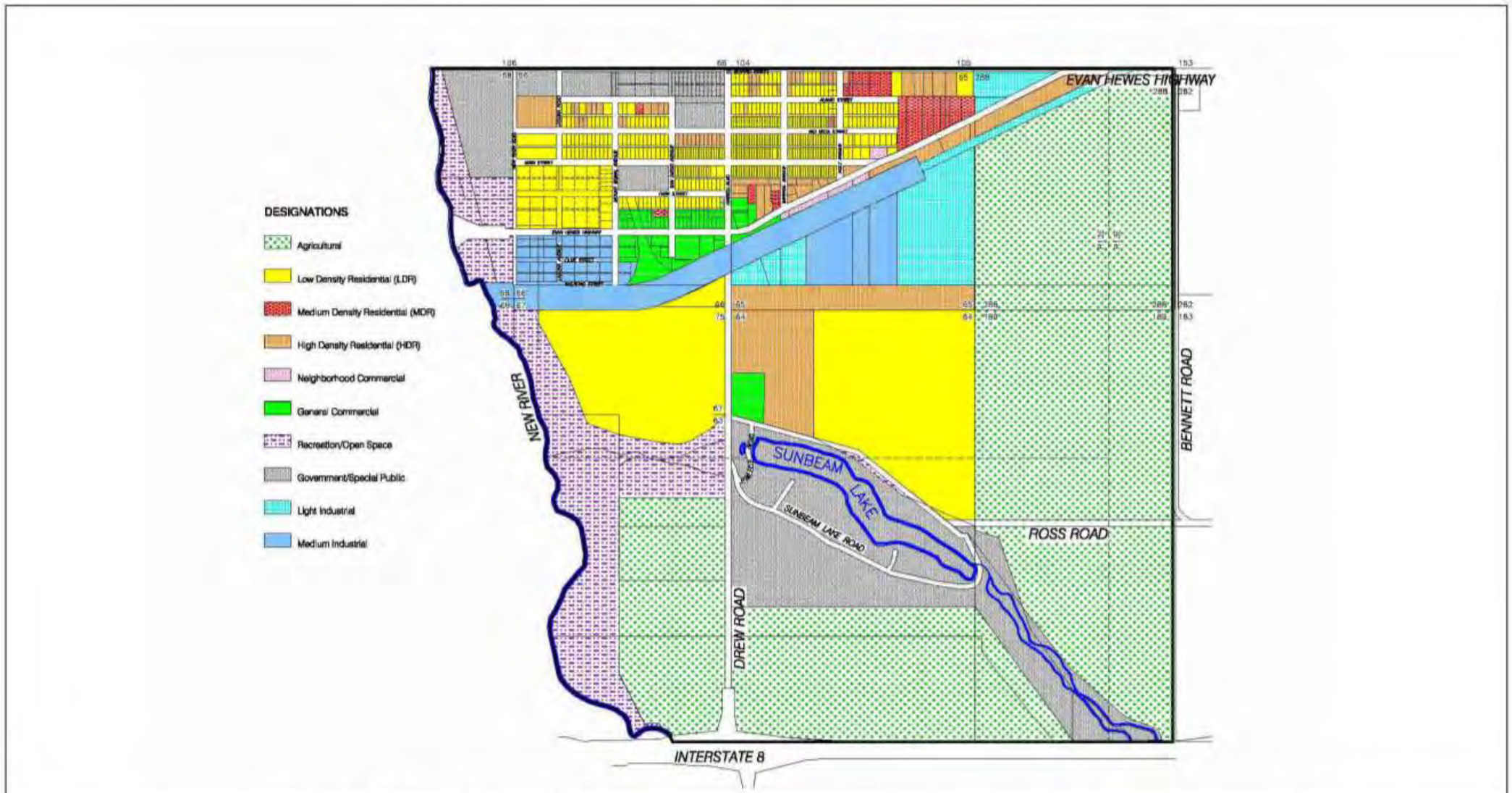
It is important to underscore Seeley's uniqueness as a townsite. The townsite of Seeley is located within an unincorporated area of Imperial County; therefore, it is not a City and does not dictate land use and zoning policies. Rather, the Seeley County Water District works closely with Imperial County to ensure orderly planned development. Existing land uses within the District include residential, commercial and light industrial. There are also over 196 acres of Government/Special Public land use tied to the Sunbeam Lake recreational area. There is also an operational railroad which bisects the town in a west/east orientation.

3.1.1 General Plan Land Use Policy

The Seeley community and service area land uses are regulated by Imperial County. Imperial County adopted Seely's Urban Area Map which provides a more in depth view of the Seeley County Water District's land use designation and was last revised in 2007. Designated land uses include a variety of land use designations including: low density residential, medium density residential, high density residential, general commercial, government/special public, and light industrial (Refer to **Exhibit 3-A – Seeley Urban Area Map**).

3.1.2 Zoning

Zoning within the Seeley County Water District is regulated by Imperial County. The District area has been assigned several zoning designations. The District is best characterized by the preponderance of zoning designations for residential development at various densities which include, R1 (low density residential),



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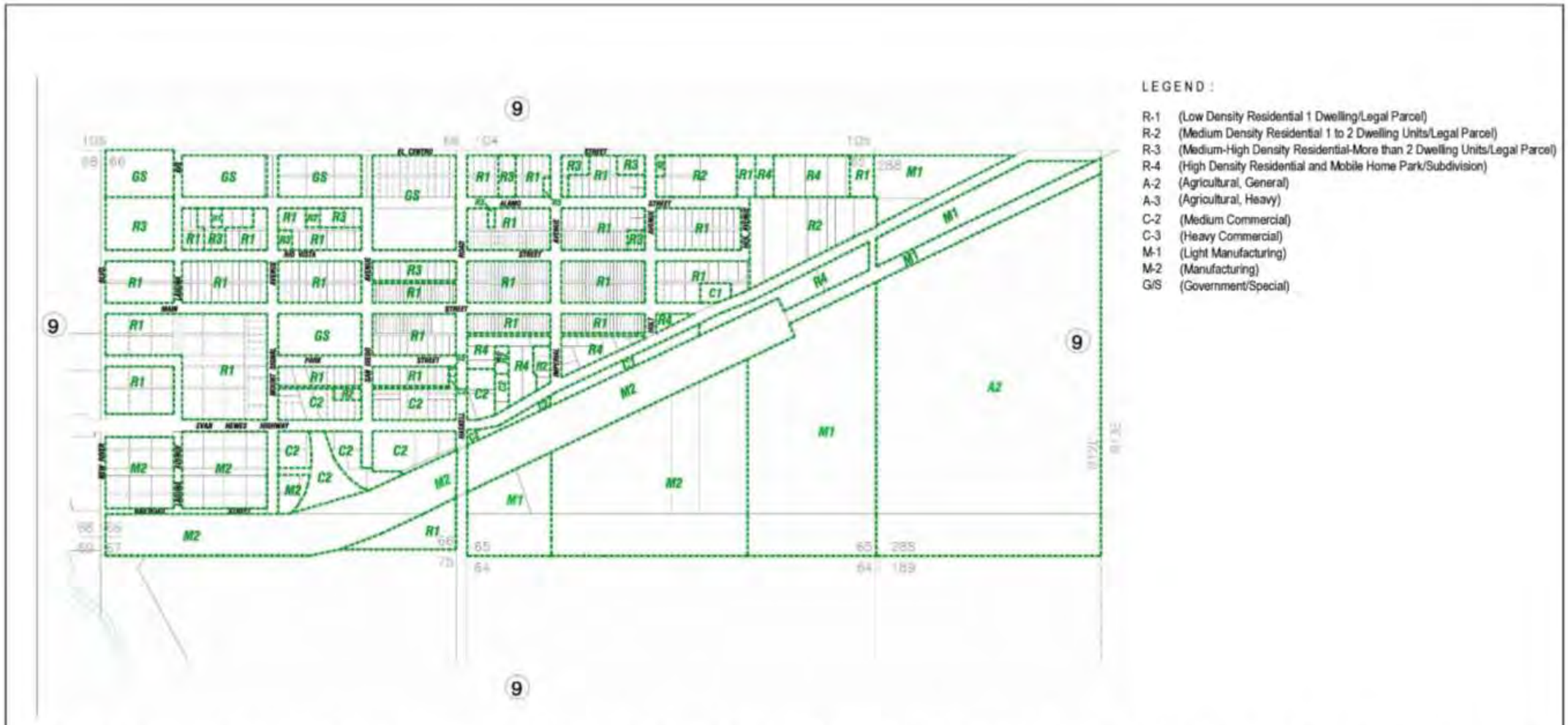
NOT TO SCALE

SEELEY URBAN AREA MAP
IMPERIAL COUNTY LAND USE ELEMENT
Adopted October 25, 1994

EXHIBIT 3-A

PROJECT NO THG 1196.009 | DATE April 2017



NOTE: Efforts have been made to insure zoning accuracy; however, this map may be revised at any time. Therefore this map is generally accurate, for zoning information only! Neither the County of Imperial nor the Planning/Building Department are responsible for erroneous information or improper use of this map. Adopted by M. O. # 19 (d) on Mar. 21, 1998 effective July 1, 1998.

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TOWNSITE OF SEELEY ZONING MAP
IMPERIAL COUNTY
Adopted May 26, 1998

EXHIBIT 3-B

PROJECT NO THG 1186.009 | DATE May 2017

R2 (medium density residential), R3 (medium to high density residential), and R4 (high density residential and mobile home parks). Generally, the land that abuts the railroad is zoned High Density Residential and Medium to High Industrial. Along Evan Hewes Highway various blocks are designated for General Commercial and Neighborhood Commercial. There are also several areas designated as recreational open space, providing a buffer along the New River (Refer to **Exhibit 3-B Zoning Map**).

3.2 PLANNED LAND USES

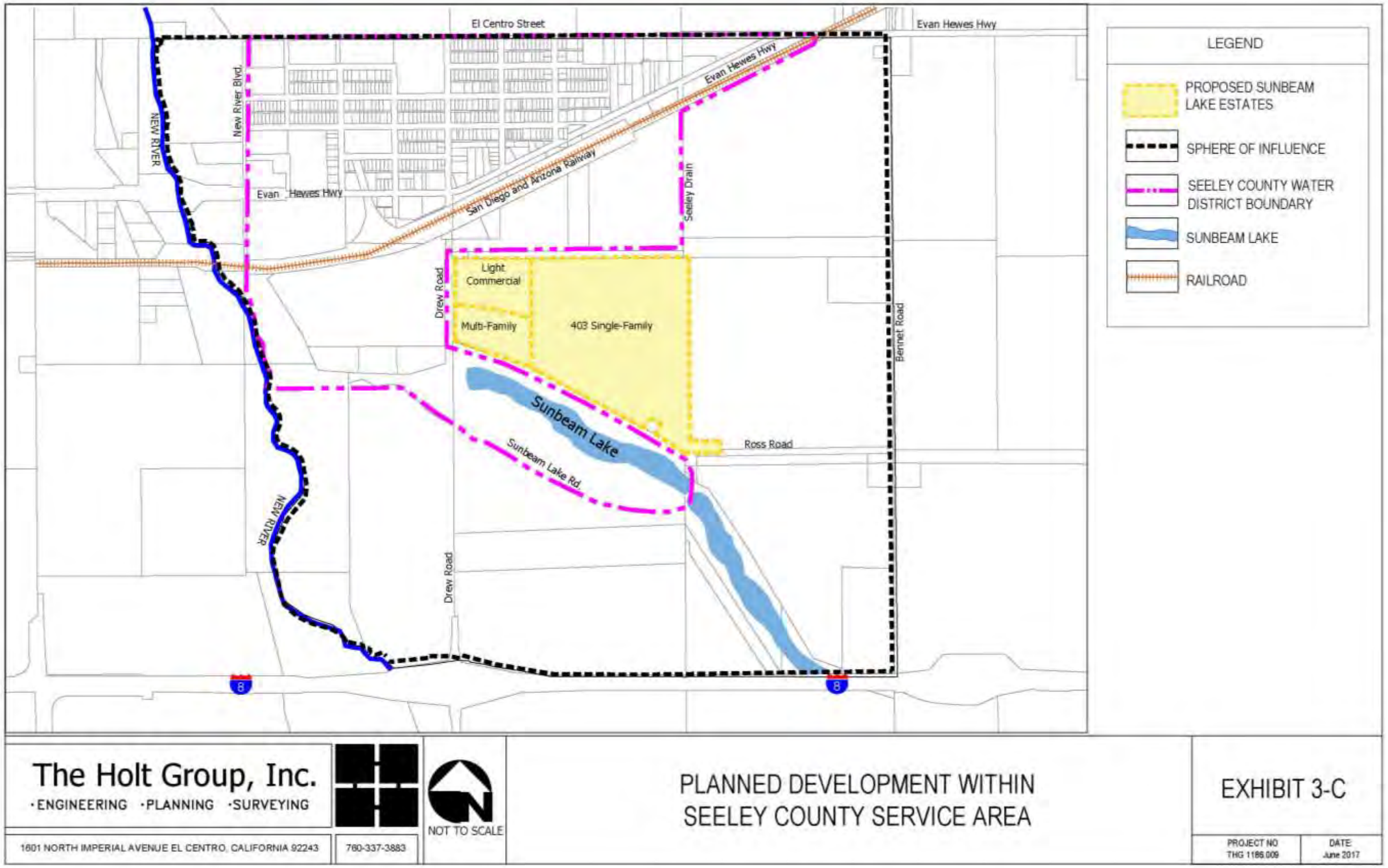
Within the established County Water District Sphere of Influence, there is ample opportunity for land development. Over 100 acres are vacant and undeveloped in addition to the approximate 119 acres already currently planned for development. The existing sphere of influence boundaries are El Centro Street to the north, Interstate 8 to the south, the New River to the west, and Bennet Road to the east as illustrated under **Exhibit 3-C – Seeley County Water District Sphere of Influence**.

As previously noted, land use within the Seeley County Water District is governed by Imperial County's Zoning Ordinance which is guided by the goals and policies established under Imperial County's General Plan. It is important to underscore that the Seeley County Water District does not have land use authority and works closely with Imperial County regarding new development proposals and service considerations to insure planned land uses are consistent with one another.

A project known as the Sunbeam Lake Estates was recently approved by the County of Imperial and LAFCO for development within SCWD's Sphere of Influence. The project can move forward for construction once improvement bonds are accepted by the County of Imperial. Sunbeam Lake Estates will result in the construction of 403 single family homes and approximately 312 multi-family apartment units (calculated based on maximum density allowed by County Code and the total acreages shown on Tentative Map #958). A total of 16.95 acres of commercial land is also designated for development. Refer to **Exhibit 3-C – Planned Development Within Seeley County Water District's Service Area** which delineates the Sunbeam Lake Specific Plan Area.

3.2.1 Development Process

The process of development varies depending on the location of the proposed commercial, industrial or residential development proposed. When a developer wants to develop land within the District Limits, land use restrictions are already in place and discretionary approval of the project is not necessarily required by the Imperial County Board of Supervisors as long as all development standards are met for the respective land uses. The SCWD reviews any offsite water and sewer facility extensions and proposed connection to services. The SCWD also collects impact fees (capacity fees) for water and sewer services. The District provides services to all development within the District limits.


El Centro Street
Evan Hewes Hwy
NEW RIVER
New River Blvd.
Evan Hewes Hwy
San Diego and Arizona Railway
Seeley Drain
Drew Road
Light Commercial
Multi-Family
403 Single-Family
Bennet Road
Sunbeam Lake
Ross Road
Sunbeam Lake Rd.
NEW RIVER
Drew Road
8
8
LEGEND
PROPOSED SUNBEAM LAKE ESTATES
SPHERE OF INFLUENCE
SEELEY COUNTY WATER DISTRICT BOUNDARY
SUNBEAM LAKE
RAILROAD
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PLANNED DEVELOPMENT WITHIN
SEELEY COUNTY SERVICE AREA
EXHIBIT 3-C
PROJECT NO
THG 1186.009
DATE
June 2017

The District, however, has discretionary authority in providing services to development projects outside its boundaries. As part of its discretionary authority, the District can require certain conditions of approval such as annexation into SCWD.

All building permits requested, within and outside of the District boundaries are processed by the Imperial County Building Department. When an applicant requests a building permit, they are required to complete an application as well as a site plan. The Imperial County Building Department is responsible for ensuring that all requests are completed in compliance with the International Building Code and applicable County codes.

Imperial County further imposes Development Impact Fees (DIF) for all development within the District and the District's Sphere of Influence. Development Impact Fees vary by land and a detailed table is available under **Appendix A**. DIF are used to offset regional impacts to roadways, law enforcement facilities, and similar municipal service facilities caused by the development. A more detailed discussion is under the Financing Section of this Service Area Plan.

All developers within Seeley's Sphere of Influence must work closely with the District and the Imperial County. Additional permits may be needed through the Imperial Irrigation District who owns or holds drainage and power easements throughout the Imperial Valley. In summary, when developing in Seeley and its Sphere of Influence, developers will need to work with multiple agencies.

3.3 PROJECTED POPULATION INCREASE

Population projections are difficult to ascertain because they are influenced by outside factors including the real estate market, employment opportunities, and fluidity of migration. Although projections are difficult to predict, they are necessary and critical for District planning to ensure that infrastructure is adequate and that levels of service are acceptable.

Anticipated Projects Within the SCWD Sphere of Influence

Population projections can be completed based on the number of anticipated projects and their proposed densities. As of the date of this Service Area Plan, one Specific Plan had been submitted to LAFCO and to Imperial County for development but has not secured any building permits. As previously noted, the project is comprised of 403 single family units. Multifamily and commercial development is proposed but will be developed as market demands increase. Based on current absorption rates throughout the County, it is estimated that 50 new homes will be built and occupied per year starting in 2019. Once all single-family homes are constructed, multi-family homes will follow at a rate of approximately 80 dwelling units per year. Direct impacts from Sunbeam Lake Estates is accounted for under this Service Area Plan projections. Table 3-A below provides a

summary of the proposed development. It should be noted that the developer of Sunbeam Lake Estates initially intends to build the single-family residential component of the project and no specific numbers were provided for multi-family development. For the purposes of this Service Area Plan to anticipate the needs of future population, the maximum density allowed by the County of Imperial was used to estimate the number of apartment units that can be built and the potential population resulting from those units.

Table 3-A

Specific Plan & Development Phasing

Subdivision	Proposed Land Uses	Equivalent Dwelling Units	Potential Population	Year
Sunbeam Lake Estates	Single Family	**403**	**1,423**	2025
	Multi-Family	**312**	**1,102**	2030
	Commercial	**15**	**53**	2050

Imperial County TTM #958 Planning Department Records

Non-residential uses are converted to equivalent dwelling units (EDUs) to ensure an equitable and comprehensive analysis. Due to the low amount of non-residential usage within the SCWD, statistical average would be skewed if actual data were to be applied. Instead, a survey of local service providers was conducted to determine an average demand corresponding to 1.5 EDU's for every 1,000 square feet of non-residential space. A total of 16.95 acres of land is dedicated for commercial development which result in a total building area of 295,336 square feet based on 40% lot coverage. Due to the low population and traffic, commercial development is expected to occur at a rate of approximately 5,000 square feet every five years with full buildout occurring well beyond the scope of this Service Area Plan. Table 3-A above projects the corresponding conversion into equivalent dwelling units (1.5 EDU's per every 1,000 SF of nonresidential space).

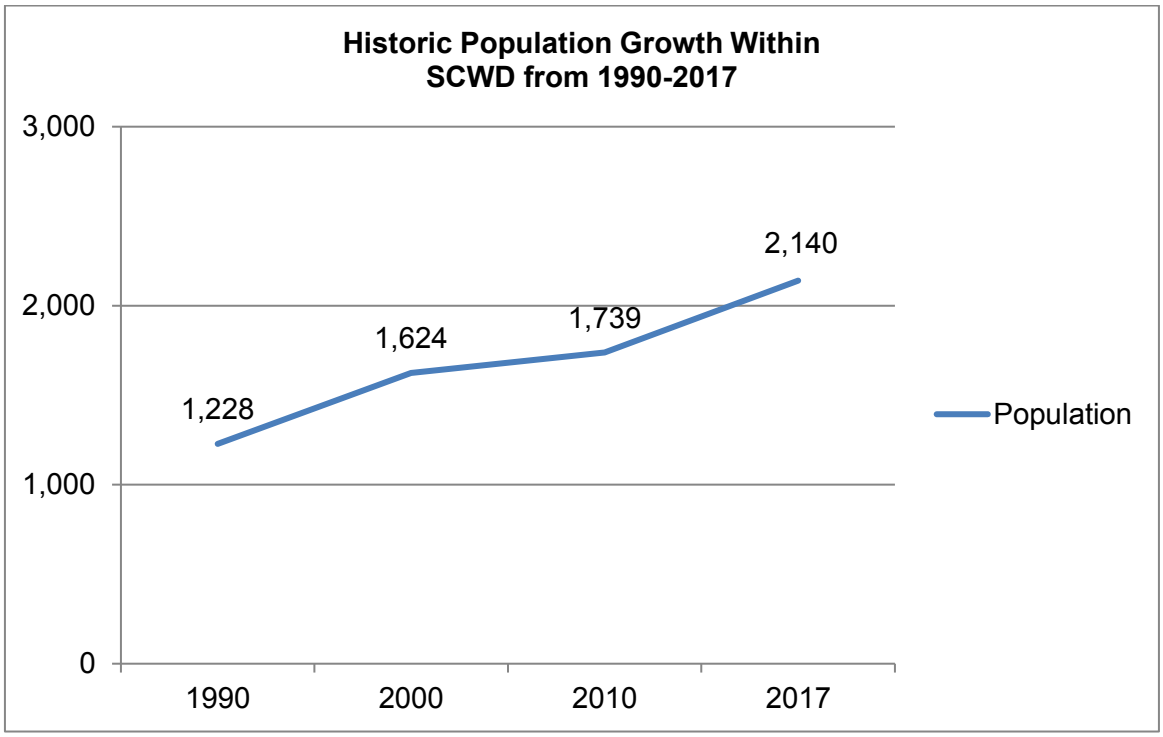
Current Population and Projection for the Next 20 Years

The population projections that follow are based on historic population growth rates and anticipated projects. For the Seeley population projections, a growth rate of 2.08 percent has been determined as adequate based on historic growth. According to Imperial County's Municipal Service Review (2011), the average annual growth rate over the last

40-year period for the countywide population is 2.28 percent.[3] This growth rate is comparable to the historic growth calculated for the Seeley community of 2.08 percent between 1990 and 2010 and will be applied to the entire twenty (20) year planning period analyzed under this Service Area Plan. Planned development as noted in prior discussions may significantly alter these population growth projections and are therefore discussed as probable scenarios affecting service demand.

From 2000 to 2010, the number of housing units rose 27.7 percent in Imperial County.[4] The Seeley County Water District Service Area had a base population of 2014 as of 2017 as calculated by dwelling unit service connections and an average household size of 3.53 (ACS). **Figure 3-A – Historic Population Growth Within Seeley County Water District (**from 1990-2017**)** documents a steady growth to 2,140 residents by 2017, representing a 3.29 percent growth between 2010 and 2017 seven-year period.

Figure 3-A
Historic Population Growth within SCWD



Source: US Census Bureau for Population 1990, 2000, 2010
Year 2017 estimates based Service Connection Data and 3.53 persons per household in June 2017.

[3] Imperial County Municipal Service Review, 2011 p. 6.
[4] Semuels, Alana. *Los Angeles Times* March 9, 2011. <http://latimesblogs.latimes.com/money_co/2011/03/census-california-housing.html> .

The Seeley County Water District's population grew in equal or higher percentages than most other rural areas in Imperial County when compared with small communities under 10,000 residents. Seeley surpassed all the incorporated communities except for the City of Imperial. This is significant as it identifies the Seeley Community as a competitive and attractive development community for investors. Please refer to Table 3-B for Population Growth Comparisons.

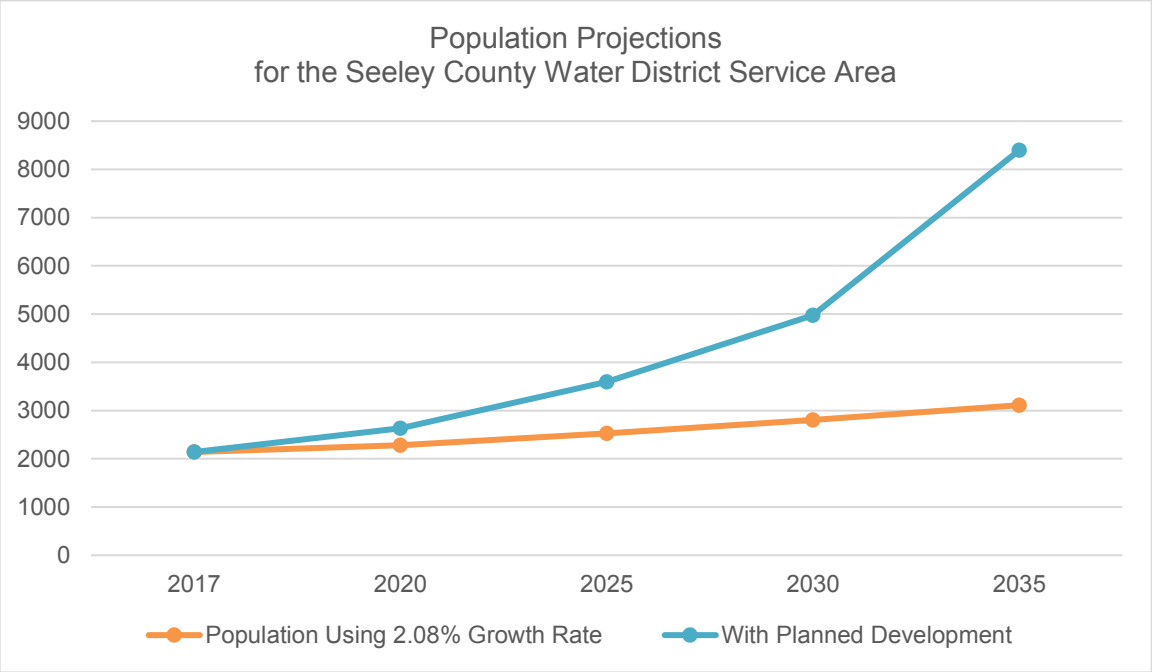
Table 3-B
Population Growth Comparison

Jurisdiction	2010	2017	Numeric Change	Percentage Change	Average Annual Growth Rate
Imperial	14,758	18,658	3,900	26.43%	3.78%
SCWD	**1,739**	**2,140**	**401**	**23.06%**	**3.29%**
Brawley	24,953	26,928	1,975	7.91%	1.13%
El Centro	42,598	45,628	3,030	7.11%	1.02%
Calexico	38,572	40,921	2,349	6.09%	0.87%
Holtville	5,939	6,255	316	5.32%	0.76%
Westmorland	2,225	2,302	77	3.46%	0.49%
Calipatria[1]	7,705	7,555	-150	-1.95%	-0.28%
Balance of Unincorporated Areas in Imperial County	36,039	37,947	1,908	5.29%	.76%

Source: 2000 U.S. Census and State of California, Department of Finance 2017
[1]Includes an institutionalized (prison) population of approximately 3,536 persons as of May 2017.

The future anticipated population growth within the existing District boundaries and service area is expected to be modest. **Figure 3-B – Population Projections for the Seeley County Water District Service Area** depicts a gradual population growth of 2.08 percent that would reasonably place the Seeley County Water District service population at 3,380 at the 20 year mark. If there are changes in the real estate market and the region development demand increases, the District will likely be directly impacted by new growth and expansion outside of the current District boundary within the Sphere of Influence. If and when the planned and approved development (Sunbeam Lake Estates) is developed and incorporated into the population projections, the District population spikes to by the 20 year mark.

Figure 3-B
Population Projections within SCWD Service Area



4.0 BUILDOUT PHASING PROJECTIONS

A significant task for District management and leadership is to plan for service facilities concurrently with the projected population growth and to do so in a proactive manner. The phasing of new facilities must be coordinated with the phasing of new development in order to adequately meet the projected service demand, while other infill development opportunities exist throughout several zoning densities and designations within the District. Please refer **Table 4-A – Available Undeveloped Land Within Seeley County Water District** below which includes a list of undeveloped land within the Seeley County Water District and acreage by zoning designation.

Table 4-A
Available Undeveloped Land Within Seeley County Water District

Zoning	Acreage
R-1 Low Density Residential	73.95
R-2 Medium Density Residential	.96
R-3 Medium-High Density Residential	5.37
R-4 High Density Residential & Mobile Home Park	4.58
A-2 Agricultural, General	0
C-1 Light Commercial	2.46
C-2 Medium Commercial	6.06
M-1 Light Manufacturing	5.58
M-2 Manufacturing	6.62
G/S Government/Special	3.85

Source: The Holt Group, Inc.2017

The District has much potential for residential development within its District boundaries. It is difficult to project how infill may be phased out over time, but for planning purposes, a reasonable estimate is based on county-wide residential new-construction absorption rates and historical development rates within the District. Seeley's developable parcels can result in a maximum 536 dwelling units which could be built out over a 20-year period at a rate of approximately 26 new dwelling units per year. **Table 4-B – Potential Developable Units per Residential Zone** is a summary of the potential number of dwelling units per zone based on the allowed density for each zone.

Table 4-B
Potential Developable Units per Residential Zone

Zone	Total Acres	Allowable Density	Potential Developable Units
R1	73.95	5 units/Net Acre	369Units
R2	.96	10 units/Net Acre	9 Units
R3	5.37	29 units/Net Acre	155 Units
R4	4.58 (3 lots)	1 unit/ legal lot	3 Units
Total Maximum Dwelling Units			**536 units**

Source: The Holt Group, Inc. 2017

Population Projections at Full Build-Out

A steady job growth within the Seeley County Water District service area could certainly entice new developers to construct housing near a regional park and recreation center, contributing to the growth of the Seeley County Water District service area. There are over 84 developable acres available for new residential development in varying densities within close proximity to SCWD service facilities.

As stated earlier, Sunbeam Lake Estates consists of 715 dwelling units and all potential infill development can result in an additional 536 dwelling units. New residential development will add an estimated 1,255 new residents. With the natural growth rate of 2.08%, Seeley can have an estimate population of 3,828 at full buildout in 20 years. This represents a 56% increase over the current population.

Another potential contributor to indirect population growth is the El Centro Naval Air Facility Base. Expansion of the Navy Base is contingent upon mission changes assigned by the Navy Headquarters not at the discretion of the local Navy Base. There are currently no plans for expansion. Currently the Navy Base provides over 1,267 long-term jobs for the region (Source: Naval Air Facility El Centro Range Complex Area: Military Readiness, Economic Contribution and Community Partnerships).

5.0 PUBLIC FACITILITES AND SERVICES

This section addresses how public facilities and services will be provided to the Seeley County Water District and development areas over the course of the 20-year planning period. An analysis of the following facilities and services is provided in this document:

- Administrative Facilities - SCWD
- Wastewater Facilities- SCWD
- Water Facilities- SCWD
- Park Facilities- SCWD/Imperial County
- Transportation Facilities- Imperial County
- Drainage Facilities - Imperial County/Imperial Irrigation District
- Fire Protection Facilities - Imperial County
- Police Protection - Imperial County
- Library Facilities - Imperial County

Each facility is analyzed in detail based on the standards developed by LAFCO for Service Area Plans. Each facility analysis is divided into four sections as follows:

***Performance Standard*:** A description of the desired level of service that a public facility must provide.

***Facility Planning and Adequacy Analysis*:** A description of the existing facilities, the current adequacy of the facilities, the future demand for facilities and the phasing of the demand for facilities as follows:

- Inventory of Existing Facilities
- Adequacy of Existing Facilities
- Inventory of Approved Facilities
- Growth Demand for Facilities
- Buildout/Phasing of Facilities

***Mitigation*:** A series of recommendations to ensure that adequate facilities will be provided for throughout the planning period.

***Financing*:** An explanation and identification of how the service and facilities are currently being funded, including a per capita cost, and how future services and facilities may be funded.

Findings are presented under the respective service provider as noted above. Each analysis is subsequently presented by facility sections and will provide a description of the nature of each service to be provided, a description of the service level capacity and demonstrate that adequate services will be provided within the demanded time frame. Presentations of maps that clearly indicate the location of existing and proposed facilities are provided for each facility. Discussion of any conditions which may be imposed or required within the affected territory are also noted.

5.1 SERVICES PROVIDED BY THE SEELEY COUNTY WATER DISTRICT

The Seeley County Water District, as a special district, provides a limited amount of services that include wastewater collection and treatment services, potable water treatment and distribution services, incidental administrative services and limited parks and recreation services to residents within the District's service area. This section also provides a cursory review for all other services provided by other agencies. Facilities planned for and financed by the District for services provided by the Seeley County Water District are described below and a full analysis is provided under this Service Area Plan Section.

- **Administrative Facilities-** Administrative facilities include buildings that house administrative staff that provide general administrative services to Seeley residents and business owners. Examples of administrative services include utility billing and collection, services to the Board of Directors, and other functions of the District.

- **Wastewater Treatment and Sewer Facilities-** Wastewater treatment and sewer facilities include the District's Wastewater Treatment Plant and the sewer collection system that collects and conveys the wastewater to the Wastewater Treatment Plant. Wastewater Facilities also includes sewer lift stations owned by the Seeley County Water District.

- **Water Treatment and Distribution Facilities-** Water treatment and distribution facilities include the District's Water Treatment Plant and the distribution pipelines that convey potable water to residences within the Seeley County Water District Service Area. Water facilities may further include any water transmission lines and pump systems necessary for the adequate conveyance of water, water storage tanks and fire hydrants.

- **Parks and Recreation Facilities-** Parks and recreation facilities include open space areas, both improved and unimproved for recreational use, owned and operated by the District. Facility amenities within the parks may include swings, slides, and shade structures for the use of the public. Only those park facilities owned by the Seeley County Water District are applicable under this discussion or that are contracted by Seeley County Water District for the provision of services.

5.1.1 Administrative Facilities

Administrative services for the Seeley community are provided in part by the Seeley County Water District Water Enterprise Fund and Sewer Enterprise Fund. The Seeley County Water District provides administrative services for the community of Seeley incidental to wastewater collection and treatment, water treatment and distribution and parks and recreation services. Additionally, Imperial County provides a number of administrative services to the Seeley community and the general countywide population including but not limited to planning and development services, street maintenance and other governmental services.

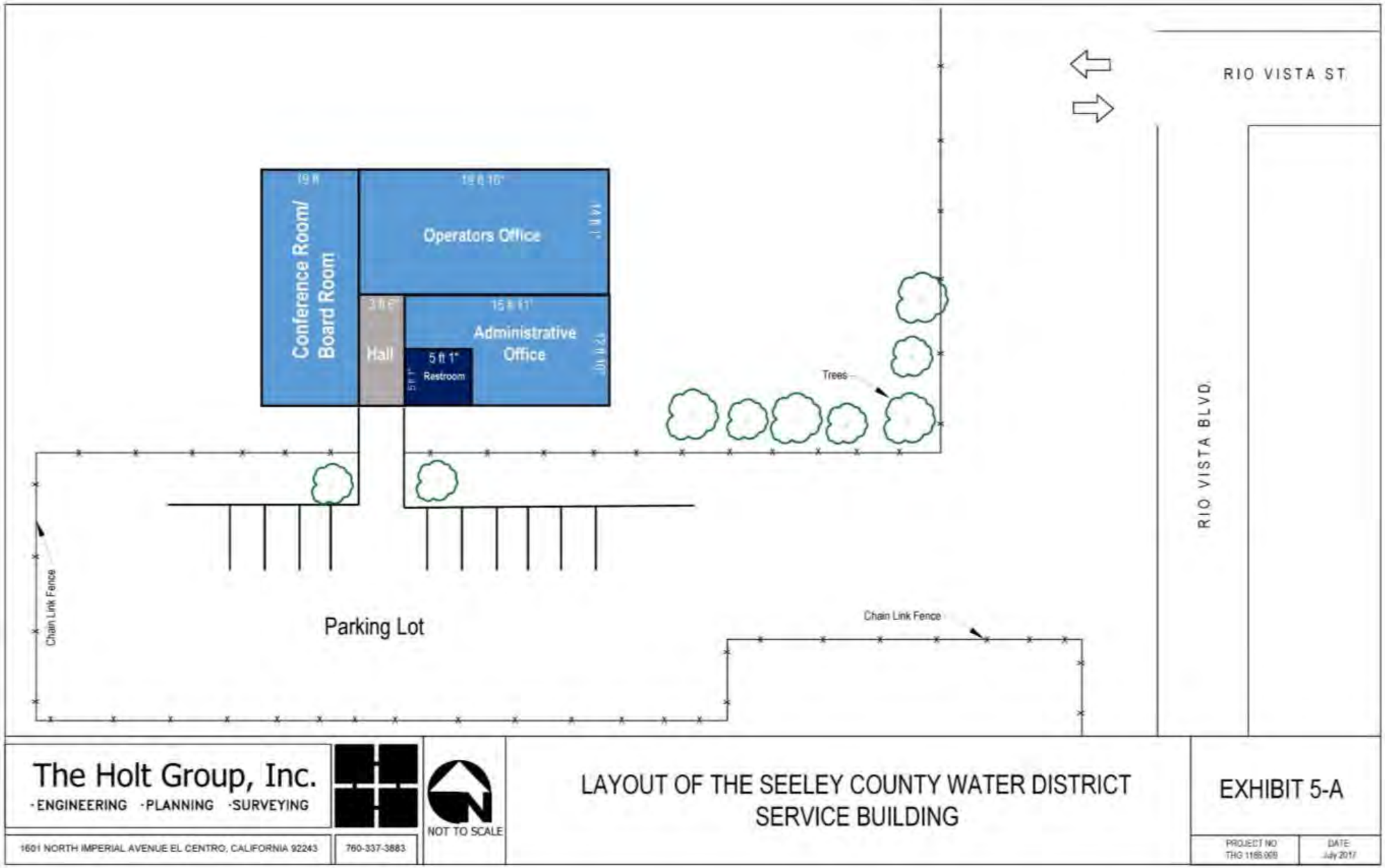
Performance Standard for Administrative Facilities

Imperial County's performance standard for administrative facilities in unincorporated areas is 1,030 square feet per 1,000 population (Source: County of Imperial Municipal Service Review Draft #3, 2011). The performance standard for administrative facilities under this analysis is based on existing administrative square footage at the time of preparation of the service area plan for facilities maintained and operated by the Seeley County Water District. Current management finds the current 1,059 square-foot building somewhat inadequate and unable to accommodate operations and staff for the natural population growth over the 20-year planning period. This finding is further consistent with the County ratio of 1,030 square feet per 1,000 in population. At the end of the planning period, the population of Seeley is anticipated to be 2,696, therefore if the performance standard is set at 1,030 square feet per 1,000 persons for the facility serving the Seeley community, the current 2,140 population would demand a 2,000 SF facility.

Inventory of Existing Administrative Facilities

The Seeley County Water District owns a 1,059 square-foot building at 1898 Main Street, Seeley, CA 92273. The building was constructed in 1966 and ~~is~~ appears to be in sound condition. The SCWD Board meets in a 513 square-foot space within the building, and the rest of the building is comprised of a 221 square-foot administrative office, and 277 square-foot operator office (**Refer to Exhibit 5-A**). Maintenance costs are shared between the Sewer Enterprise Fund and Water Enterprise Fund. According to the SCWD operation budget, administrative expenses are not tracked independently for the office building. Expenses such as utilities and building maintenance are simply allocated to either wastewater or sewer costs.

There are no local administrative offices maintained by Imperial County in the Seeley community. All planning and development services, and building services are housed out of the Imperial County Planning and Development Services office located at 801 Main Street in El Centro.


RIO VISTA ST
RIO VISTA BLVD.
19 ft
Conference Room/
Board Room
19 ft 10"
Operators Office
14 ft 1"
3 ft 6"
Hall
15 ft 11"
Administrative
Office
12 ft 10"
5 ft 1"
Restroom
5 ft 1"
Trees
Chain Link Fence
Parking Lot
Chain Link Fence
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SERVICE BUILDING
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PROJECT NO
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DATE
July 2017

Adequacy of Administrative Facilities

The Administrative Building is fifty-five years old and its size is insufficient to meet the needs of current staff and operations. The size of the existing facility would further be restricted from adequately serving the natural growth population during the planning period. Administrative staff and operators are in need of a larger work area that can either be accommodated by adding onto the current building or relocating to a new site.

The Seeley County Water District hired National Property Inspections to perform a site evaluation of the current administration and operations building. There were a number of typical repair needs noted due to normal wear and tear due to the age of the structure. One area of immediate need is to upgrade the electrical panel which is currently rate at 225 amps. While this is normally sufficient for a 1,030 square-foot office building, it appears that the panel is providing service to ancillary wastewater treatment plant operations exceeding the panel's capacity. An electrical disconnect for the electric water heaters was also noted.

Plumbing services also appear to be deficient due to age and general deterioration of cast iron pipes, albeit operable. The restroom facilities don't currently comply with the American with Disability Act standards.

Inventory of Approved Administrative Facilities

There are no approved administrative facilities at the time this Service Area Plan was prepared. However, given the condition of the existing administrative facilities, the Seeley County Water District is in the preliminary stages of discussing alternatives for improvements and relocation. It is anticipated that there will be a capital demand for administrative facilities during the 20-year planning period.

Buildout Demand for Administrative Facilities

A substantial increase in population will undoubtedly result in an increased demand for public services and the administration of the same. At full buildout of planned and infill development, Seeley's population will grow to 9,212 and at a ratio of 1,030 square feet of administrative office space per 1,000 residents, the administrative building will need to be at least 2,775 by the end of the planning period. A 9,490 square-foot building is required to service the full buildout population.

An administrative and operations building, built under traditional construction terms can range in cost from $150 SF to $240 SF. A premanufactured metal structure may cost $160 SF to $275 SF. A 2,775 SF building can therefore range between $416,250 and $763,125 for construction costs. An additional 14% would be needed for design and bidding services and 10% for construction management. The total amount the SCWD should budget for is between $516,150 and $946,275.

Opportunity for Shared Administrative Facilities

As previously stated, the SCWD Administrative office is shared between the two enterprise funds. The facility is not large enough to be shared with any other service providers. There may be an opportunity to share future facilities with the Imperial County Fire Department. These opportunities will be explored during the planning phases.

Phasing of Administrative Facilities

The District will consider designing the administrative facility in phases to be able to accommodate a 20-year planning period and ultimately accommodate the demand at build-out population.

Mitigation for Administrative Facilities

The Seeley Administrative Facilities are undersized and in need of moderate repair due to age of structure. A new facility will need to be planned for to continue to serve the anticipated population increase throughout a twenty (20) year planning term. Mitigation is recommended during this planning period. It is recommended that administrative expenses be budgeted and tracked separately in the future and then costs be equally shared between the sewer and water enterprise funds. It is also recommended that administrative fees be imposed to developers that require coordination of development plan review. The following are the recommendations for Administrative Facilities and Services:

A-1 Establish an Administrative Budget that includes office equipment, supplies, utilities, building repairs, etc.

A-2 Consider Adopting an Administrative Fee of 15% from developers above plan check review costs due to consultants. District policy would collect actual consultant cost + a 15% administrative fee.

A-3 Determine a design concept, budget and funding resources for the future development of an Administration and Operations Building.

5.1.2 Wastewater Treatment Plant and Sewer Collection Facilities

The Seeley County Water District owns, operates and maintains a Wastewater Treatment System which provides wastewater collection and treatment services to the Seeley community, and areas immediately outside of the District boundary, but within the Sphere of Influence. The wastewater treatment plant (WWTP) is located at 1898 West Main Street in Seeley, California. The existing wastewater treatment plant is currently situated on a 31 acre parcel but only 14 acres of the site is usable for existing operations and future expansion because the rest of the parcel is part of the New River bank. The treatment plant has a maximum permitted capacity of 0.25 million gallons per day (MGD).

The wastewater treatment plant services an area of approximately 2.26 square miles and a population of 2,140 residents. The Wastewater Treatment Plant was constructed in 1965 and there have been numerous upgrades to the facility completed over the years. The most recent improvements were completed in 2014 and 2016 consisting of the conversion of an abandoned lagoon to a primary oxidation pond and installation of an additional secondary treatment filter and an additional in-line UV unit for effluent disinfection. No major expansions have been initiated and the plant operates at an influent average of 0.11 MGD; 45 percent capacity as of 2017.

Performance Standards for WWTP Plant and Sewer Collection Facilities

Wastewater Treatment Plant- The Performance standards and requirements for the Seeley Wastewater Treatment Plant are governed by the National Pollution Discharge Elimination System (NPDES) discharge permit number CA 0105023 and Board Order Number R7-2012-0011 adopted by the California Regional Water Quality Control Board, Colorado River Basin Region. The NPDES permit under which the Seeley Wastewater Treatment Plant operates expires on September 30, 2017. The NPDES permit establishes the Waste Discharge Requirements (WDR's) for the wastewater treatment plant. The NPDES permit establishes the rated capacity of the wastewater plant, discharge prohibitions, effluent limitations and discharge specifications, receiving water limitations, standard provisions for the operation of the wastewater treatment plant, monitoring and reporting program requirements, compliance requirements and special provisions. The NPDES discharge permit also establishes the standards and criteria by which the Seeley Wastewater Treatment Plant operates.

Sewer Collection System- The Seeley County Water District utilizes standards established by the United States Environmental Protection Agency (EPA), State Water Resources Control Board's Regional Water Quality Control Board, the Water Environment Federation (WEF) and American Water Works Association

(AWWA) to establish performance standards and criteria for the wastewater collection system.

Design capacity of a pipeline is the general calculated capacity of the pipeline using the Manning formula. For system analysis, peak dry weather flow (PDWF) does not exceed 75 percent of the design capacity of the pipeline. Accordingly, 25 percent of the pipeline capacity is reserved to accommodate peak wet weather flow (PWWF) incurred during wet weather conditions. The 25 percent reserve is therefore provided to account for groundwater infiltration and rainfall dependent inflow, plus additional sewer capacity reserve allowance. This 25 percent reserve contingency factor is a commonly used allowance in evaluating wastewater utilities. The following are general design criteria for determining sanitary sewer pipeline capacity:

Table 5-A
Wastewater Pipeline General Design Criteria

Pipeline Size	Flow Capacity
8” to 10”	1/2 Full @ Peak Flow
12” to 18”	2/3 Full @ Peak Flow
21” and Greater	3/4 Full @ Peak Flow

Gravity pipelines should also have a general peak flow velocity of 2.0 feet per second (fps) at peak wet weather flow (PWWF) to ensure adequate flow. Pipelines that cannot reach this minimum flow velocity should be assisted with pump stations. Pump station adequacy is based on two criteria: 1) the ability of the pump station to pump the PWWF and 2) wet well adequacy for pump cycling. The Seeley County Water District incorporates one privately owned and operated lift station into its collection system.

Inventory of Existing WWTP and Sewer Collection Facilities

Wastewater Treatment Plant- The existing wastewater treatment plant consists of one influent lift station with (2) constant speed submersible pumps rated at 140 gpm each. The influent pump station then pumps the influent wastewater to an aerated pond. There is currently (1) one aerated pond in operation and (1) one aerated pond in standby. The (2) two ponds were originally constructed as percolation and evaporation basins each with a volume capacity of 4,000,000 gallons.

The aeration basin effluent flows by gravity to a series of five smaller aeration basins, where solid settling occurs, also referred to as Clemson Ponds. Each Clemson pond has a volume capacity of approximately 97,000 gallons.

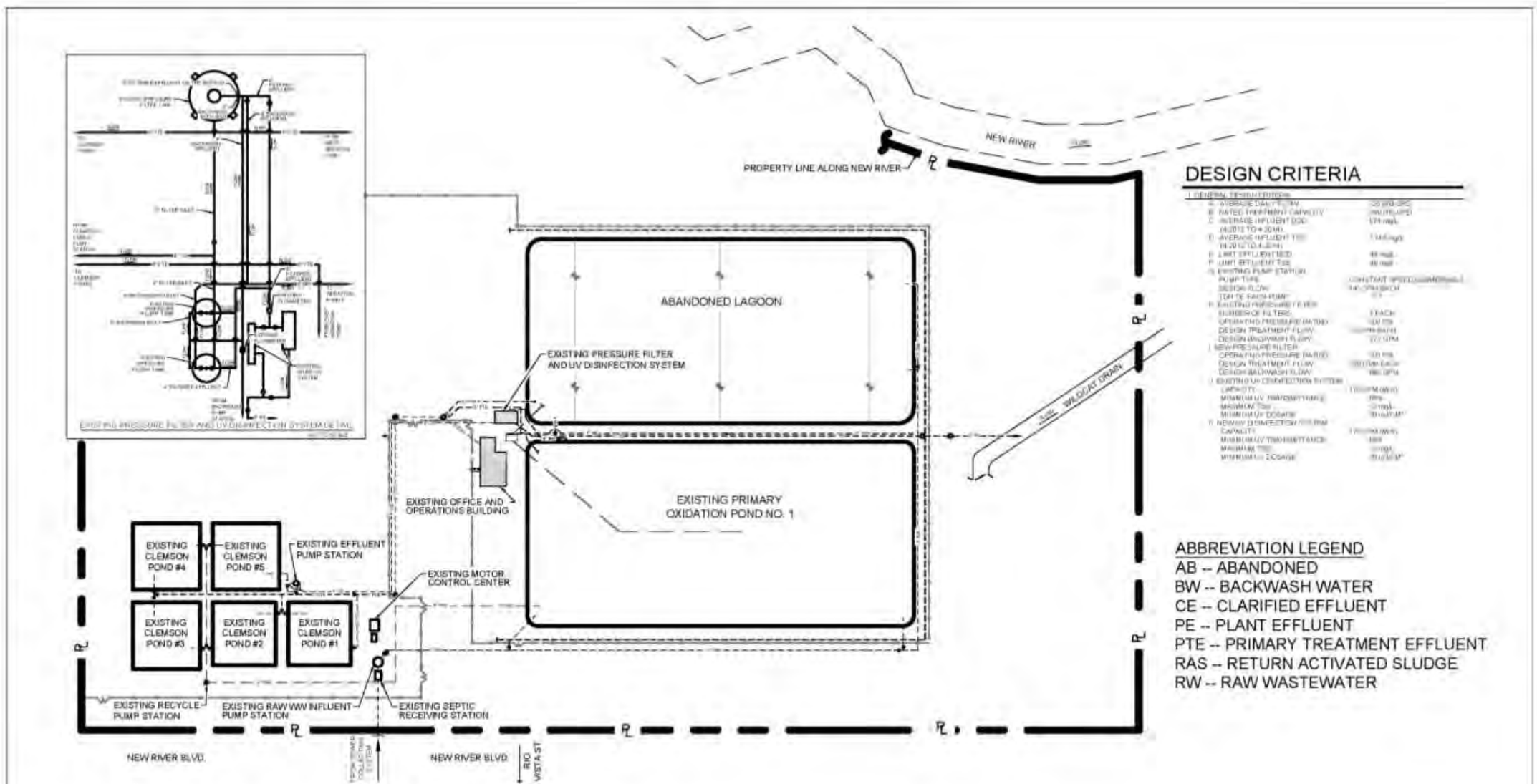
Wastewater from the Clemson ponds enters a secondary pump station that pumps wastewater through a 6-inch diameter force main to one or a combination of three pressure filters (sand media). The secondary pump station consists of (2) pumps rated at 140 gpm. Two of the sand media filters have a rated design treatment capacity of 140 gpm each. A third sand media filter, which was recently installed, has a rated design treatment capacity of 220 gpm.

Wastewater from the filters then gravity flows through one of two ultraviolet disinfection system units for disinfection. One UV disinfection unit has a treatment capacity of 170 gpm. The second UV disinfection unit was recently installed and is rated at 170 gpm. Treated effluent flows into a land outfall which then transports the effluent to the point of discharge into a tributary creek (Wildcat Drain) of the New River.

The existing wastewater treatment plant has a design capacity of 250,000 GPD and an average daily flow of about 120,000 GPD. According to John Kemp, consultant chief wastewater operator, the addition of the Clemson pond and ultraviolet disinfection have altered the original hydraulic and treatment capabilities of the system. A Wastewater Master Plan should be performed to determine the plants true capacity due to new regulations and modifications through the years.

A portion of the Seeley County Water District's Office Building is located on the wastewater treatment plant. A portion of the Office Building is used for operations of the wastewater treatment plant. The existing WWTP has two (2) separate electrical service panels: 1) Operations/Office Building and a portion of wastewater treatment facilities and 2) the wastewater treatment facilities. Only one of the power services, which only provide power to wastewater facilities, is supported with a backup system. No large-scale improvements have been accomplished at the WWTP since 2016. Please refer to **Exhibit 5-B Existing WWTP Design & Flow**.

Sewer Collection System- The SCWD owns over 5.4 miles (approx. 28,730 lineal feet) of sanitary sewer collection pipelines. The wastewater collection has a network of pipelines ranging in size from 6-inch to 12-inch in diameter. Most of the pipelines are predominantly located north of Evan Hewes and the Southern Pacific Railroad. There was a project completed circa 2008 that constructed a combination of force main and gravity flow sewer pipeline from the Sunbeam Lake RV Park along Drew Road to a point connecting with the existing WWTP collection system at manhole located at Mount Signal Avenue and Main Street. The existing wastewater collection system is composed of sanitary sewer gravity pipelines and sanitary sewer force mains. There is a sewer pump station that is privately owned and discharged into the sewer collection system. The collection system conveys wastewater from the residential, commercial, industrial, institutional, government, school and church developments to the Seeley County Water District Wastewater



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NOT TO SCALE

SEELEY COUNTY WATER DISTRICT
EXISTING WASTEWATER TREATMENT PLANT
DESIGN & FLOW

EXHIBIT 5-B

PROJECT NO THG 1166.009 | DATE May 2017

Plant for treatment and disposal. The following is a general inventory of the gravity flow Wastewater Collection Pipelines. An additional 4,000 LF of force main pipeline is also inventoried.

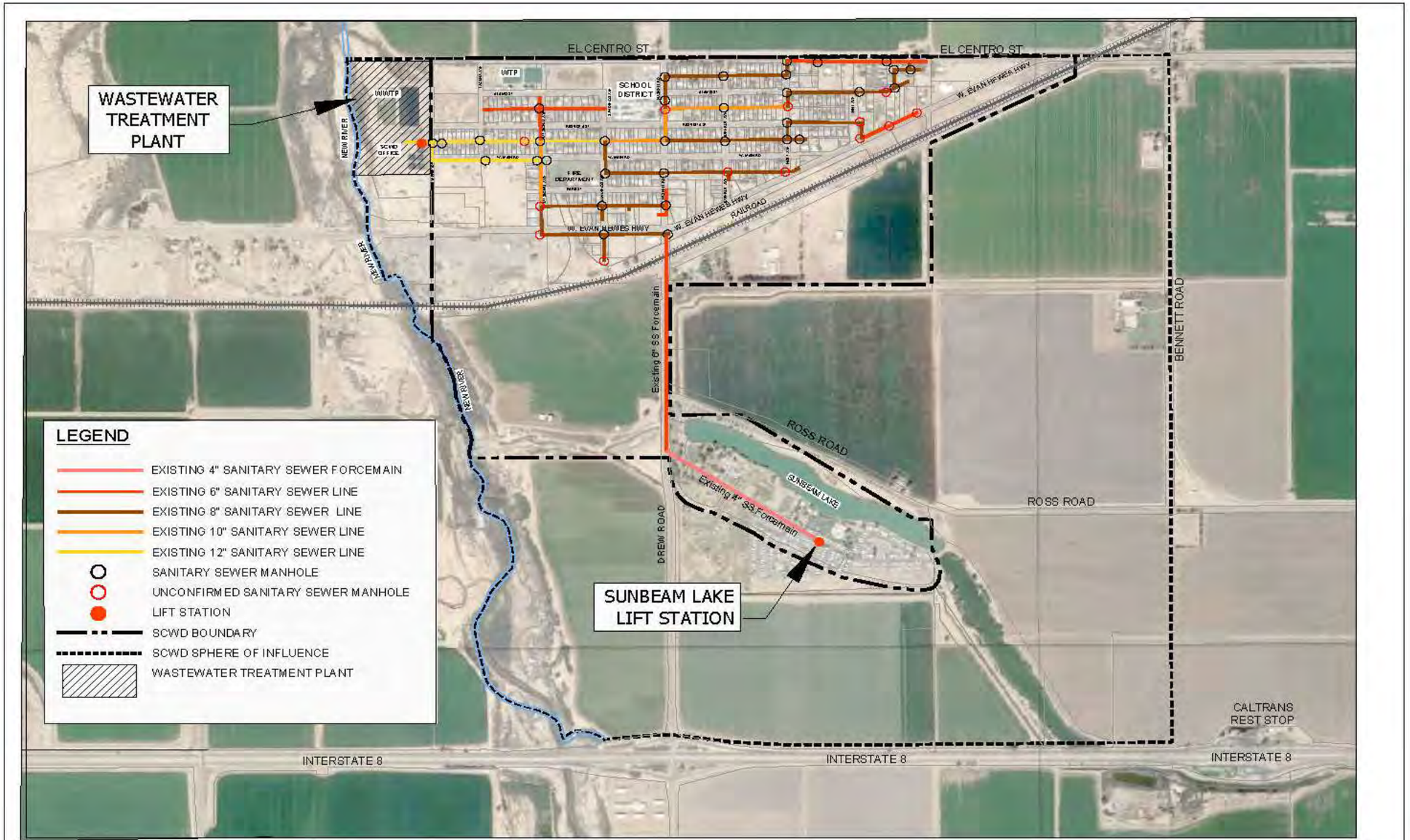
Table 5-B
SCWD Wastewater Collection Pipelines

Pipeline Diameters	Material	Length (FT)
12-inch	Vitrified Clay Pipe / PVC	3,810
10-inch	Vitrified Clay Pipe	3,200
8-inch	Vitrified Clay Pipe	13,040
6-inch	Vitrified Clay Pipe	4,680

Source: 2003 Service Area Plan-SCWD; Updated 2017 The Holt Group, Inc.The sewer collection system serves users within the SCWD District boundary except for a few users located on the exterior edges of the District Boundary, but within the Sphere of Influence. The wastewater collection system, generally, extends within the footprint of the Seeley Townsite. Refer to **Exhibit 5-C - Existing Wastewater Collection and Sewer Facility Schematic Map**. The wastewater flows in a westerly direction through a series of pipelines and via gravity flow into the Wastewater Treatment Plant. There is only one lift station within the entire system. The sewer lift station is owned by and located within the Sunbeam Lake RV Park.

Adequacy of Existing WWTP and Sewer Collection Facilities

Wastewater Treatment Plant- The average daily flow (design and permitted flow) received at the Seeley County Water District Wastewater Plant in 2017 was approximately 0.11 MGD with peak flows up to 0.380 MGD, as experienced March of 2016. Thus, the WWTP is operating below capacity. The WWTP, however, has experienced recent challenges for effective treatment of effluent discharge and operated under a Cease and Desist Order since 2011 due to increasing effluent quality violations. The violations were largely due to bacteriological quality involving E. Coli and Fecal Coliform. The Cease and Desist Board Order was amended and has a compliance date of August 2016 to meet the board imposed effluent limitations. The Seeley County Water District met the Cease and Desist Board Order requirements by completion of an approved Compliance Project prior to August 1, 2016 consistent with a Wastewater Treatment Plant Assessment that was prepared by The Holt Group, Inc in 2014 that identified three viable and cost-effective options for improvements to the SCWD WWTP to address the disinfection system effluent violations. The most expedient and least costly method of addressing the violations was to increase the performance of the existing pressure filters and UV disinfection unit. An additional pressure filter and an additional UV Disinfection System were completed in July of 2016.



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SEELEY COUNTY WATER DISTRICT
EXISTING WASTEWATER COLLECTION AND
SEWER FACILITY SCHEMATIC MAP

EXHIBIT 5-C

PROJECT NO: THG 1186.009P | DATE: May 2017

Sewer Collection System-The wastewater gravity pipelines within the Townsite of Seeley are composed of vitrified clay pipe (VCP). The vitrified clay pipelines are located within the alleys and streets. The VCP pipelines were cleaned and video camera inspected by the Seeley County Water District just prior to 2003 and were reported to be in fair condition. The investigation noted that some of the pipes were dirty with debris or that may contain tree roots. Hose jet cleaners have a maximum reach of 300 lineal feet making it difficult for operators to clean out clogged lines with distances exceeding 600 feet between manholes. There are eighteen (18) pipeline segments that exceed these length limitations.

The wastewater collection system is composed of a network of pipelines within the Townsite of Seeley with an additional pipeline extending south of the railroad tracks to serve Sunbeam Lake (refer to Exhibit 5-C). The network comprises of pipelines ranging in size from 6" to 12" within the Townsite and a 1,000 lineal feet of 4" force main transitioning to 3,000 lineal feet of 6" force main line serving Sunbeam Lake.

The existing system can support infill development but future growth areas would be required to construct new sewer mains. As noted earlier, the 12" sewer line on Main Street between Mount Signal Avenue and New River Boulevard is at capacity during peak flow. The other 12" line, located on Rio Vista Street between New River Boulevard and San Diego Avenue has approximately 25% capacity. These two lines are the only lines that connected directly to the treatment plant. New development projects would have to install new sewer main pipelines connecting directly to the treatment plant.

Inventory of Approved WWTP and Sewer Collection Facilities

There are currently no approved wastewater capital improvements approved for the Wastewater Treatment Plant. There are currently no approved wastewater collection pipelines planned within the service area. There are a number of projects recommended under build-out demand discussed in the proceeding section for SCWD Board consideration.

Buildout Demand for WWTP and Sewer Collection Facilities

Anticipated Capacity- The 2017 average daily wastewater flow entering the Seeley County Water District wastewater treatment plant was 0.12 million gallons per day according to operator records. The Seeley County Water District 0.25 million gallon wastewater treatment plant provides an average daily flow excess capacity of 0.13 million gallons per day. The average daily per capita (person) wastewater generation is estimated at 100 gallons per capita per day (gpcd). The residential per capita housing density in Seeley has been calculated at 3.53 persons per dwelling unit (2011-2015 ACS) as noted previously within the contents of this document. An equivalent dwelling unit (EDU) within the Seeley County

Water District is defined as the wastewater generation in a day by a single family residential housing unit. An EDU is therefore calculated as follows:

3.5 persons per dwelling unit x 100 gallons per capita per day (gpcd)

= 350 gallons per dwelling unit

Therefore,

1 EDU = 350 gallons per day

The additional capacity of the 0.25 million gallon wastewater treatment plant is 0.13 gallons and can be calculated as follows:

$$\frac{130{,}000\ gallons\ (excess\ capacity)}{350\ gallons/EDU} = 370\ single\ family\ residences\ or\ 370\ EDU's$$

At the current growth rate of 2.08% per year and an estimated demand of 100 gpcd, the treatment plant will be at capacity in 2039 (see Table 5-C). It should be noted that 100 gpcd is the industry standard used in projecting demand, but actual usage in Seeley is 59 gpcd. Using a 65 gpcd forecasting number (which is more in line with actual usage), capacity would be reached in 2050.

Table 5-C
Capacity Demand Based on Historic Growth Projections

Projected Population (Population Increase Based on Historic Growth Rate[1])		Wastewater Treatment Plant Capacity Demand
Year 2017	2,140	0.125 mgd
Year 2020	2,278	0.139 mgd
Year 2025	2,581	0.164 mgd
Year 2035	3,176	0.224 mgd
After 2045	3,907	0.297 mgd

[1]Historical Growth Rate was calculated at 2.08% percent over a 20 year period between 1990 and 2010.

[2]1 EDU = 350 gallons/day-Based upon 3.5 persons per residence and 100 gallons/capita-day of wastewater

A multi-use, multi-density residential subdivision within SCWD's sphere of influence was recently approved by the County of Imperial in 2016. The project consists of 403 single-family residences, up to 312 multi-family dwelling units, and 16.95 acres of commercial land. Development of the project can begin as soon as 2018 and the residential component can be built out within ten (10) years. This subdivision increases demand on the treatment plant, and along with natural

population growth, treatment capacity will be reached in 2027. **Table 5-D** shows the population numbers and treatment plant demand to the year 2045.

Table 5-D
Capacity Demand Based on Natural Growth Rate and Approved Projects

Projected Population (Natural Growth + Approved Residential Development[1])		Wastewater Treatment Plant Capacity Demand
Year 2017	2,140	0.124 mgd
Year 2020	2,867	0.155 mgd
Year 2025	4,110	0.215 mgd
Year 2035	6,340	0.359 mgd
After 2045	7,795	0.505 mgd

[1]Historical Growth Rate was calculated at 2.08% percent over a 20 year period between 1990 and 2010 and applied to projections. (Base year was derived from existing service connections).
[2]1 EDU = 350 gallons/day-Based upon 3.5 persons per residence and 100 gallons/capita-day of wastewater generation

If infill development were to occur at the same time as the approved subdivision project, capacity at the wastewater treatment plant would be reached much sooner. All developable infill parcels in Seeley's service area boundaries can support up to 536 residential units. A 20-year buildout schedule was used for population projection estimates. Table 5-E shows population size with natural growth, infill development, and growth from the approved Sunbeam Lake Estates project. Treatment demand would exceed capacity in 2025.

Table 5-E

Capacity Demand Based on Natural Growth Rate and Projected Development Anticipated

Projected Population (Natural Growth + Approved Residential Development[1] + Infill Development)		Wastewater Treatment Plant Capacity Demand
Year 2017	2,140	0.124 mgd
Year 2020	3,158	0.163 mgd
Year 2025	4,930	0.242 mgd
Year 2035	8,398	0.442 mgd
After 2045	10,643	0.647 mgd

[1]Historical Growth Rate was calculated at 2.08% percent over a 20 year period between 1990 and 2010 and applied to projections. (Base year was derived from existing service connections).
[2]1 EDU = 350 gallons/day-Based upon 3.5 persons per residence and 100 gallons/capita-day of wastewater generation

The Regional Water Quality Control Board generally requires agencies to begin engineering design at 80% capacity and begin construction at 90% capacity. At 2.08% growth rate, SWCD should begin design work between 2031 and 2038, but the added demand from the approved residential subdivision and infill development, design work should begin in 2022 and construction should begin in 2024. Design and construction is generally a 3-5-year process.

The existing wastewater treatment plant is not designed in a manner that would allow modular upgrades to increase capacity. A new 0.75 MGD plant will need to be constructed to meet demand through 2045 (assuming no other residential subdivision projects are approved). The estimated cost of a new treatment plant is $5-7 million. **Table 5-F** provides an overview of the Capital Improvement needs for the SCWD Wastewater facilities within the near-term.

Table 5-F
Projected Near-Term Wastewater Facility Improvement Needs

Projects	Estimate (2017)	Funding Gap (2017)
Wastewater Master Plan (2020)	**$150,000**	**$150,000**
Design Services for Wastewater Expansion (2022)	**$300,000**	**$300,000**
New Wastewater Main Pipeline 18” Diameter	**$267,000**	**$267,000**
Pond Lining and Six Aerators	**$750,000**	**$750,000**

Source: The Holt Group, Inc. 2017 Estimates

Opportunity for Shared Wastewater Treatment Facilities

As previously noted, the nearest community to the Seeley service area is the City of El Centro which is 7.5 miles to the east of Seeley. Another wastewater treatment facility is the wastewater treatment facility serving the Centinela State Prison located 5.27 miles to the northwest. These facilities are too far away from the Seeley Wastewater Treatment Plant for a feasible consolidation.

The Navy Base, located at 1605 3rd St in El Centro, is one mile east of Seeley and is served by U.S. Navy via an onsite wastewater treatment facility with a capacity of 0.30 MGD. The Navy base is located approximately two miles uphill from Seeley in a northeasterly direction. In order to consolidate with the Navy base, a new lift station will have to be constructed, along with approximately 11,033 lineal feet force main line at an estimated cost of $4.9 million. Consolidation with the Navy base may not be feasible due to military operations and potential security concerns.

Mitigation for Wastewater Treatment Plant and Sewer Collection Facilities

The Seeley County Water District should plan for immediate improvement to the WWTP associated with compliance and for future expansion needs. Strategies will include securing funding for all phases of facility development. Mitigation is noted as follows:

WW-1 The District shall maintain adequate reserves for the proper repair and maintenance of the collection system.

WW-2 The District should continue to pursue various means by which to obtain funding and provide for adequate wastewater treatment and collection/conveyance facilities for the existing and future residents of the District.

WW-3 The District shall evaluate impact fees are to ensure fees are sufficient to support the costs of the projected expansion needs at the WWTP.

WW-4 The District shall develop a Wastewater Master Plan, as funds become available, to ensure that new development will construct sewer main lines to be compatible with the sewer collection system.

WW-5 New Development shall continue to be held responsible for constructing adequate wastewater collection system facilities and the fair share costs.

WW-6 A Sewer System Management Plan (SSMP) should be developed and implemented to effectively manage the sewer system as well as assist in identification of facilities (pipelines, manholes, etc.) that are in need of rehabilitation.

5.1.3 Water Facilities

The District owns, operates and maintains a system for the treatment, distribution and storage of potable water resources that currently serves approximately 411 water service connections for residences, businesses, and public facilities within the District and the District's Sphere of Influence (Source: Seeley County Water District- June 5, 2017 Board Report). The water treatment plant is located at the northeast corner of the Alamo Street and Laguna Avenue intersection where the administration office is located. The District purchases all of its untreated water from the Imperial Irrigation District, which is conveyed to SCWD facilities via IID's Elder Canal located east of the water treatment plant. Water treatment and distribution facilities are owned and maintained by the Seeley County Water District. The SCWD sub-contracts the testing of the treated water to a certified laboratory.

Performance Standard for Water Facilities

Although the Seeley County Water District does not have an adopted performance standard for water facilities, there are design criteria that must be met to ensure that adequate potable water supply and fire flow needs are provided. Potable water must meet or exceed water quality standards established by the Water Resources Control Board, Division of Drinking Water and the US Environmental Protection Agency. SCWD's goal in the operation and maintenance of its water facilities is to provide adequate potable water service to every customer. Seeley County Water District operates under Domestic Water Supply Permit No. 05-14-05P-007 issued May 10, 2005.

The California Waterworks Standard requires that specific system pressures be maintained under normal and peak demand conditions. Additionally, each distribution system shall be operated in a manner to assure that the minimum operating pressure in the water main at the user service line connection throughout the distribution system is not less than 20 pounds per square inch at all times, per California Code of Regulations Title 22 related to drinking water and the 2016 California Fire Code related to fire flow.

The criteria outlined in **Table 5-G** considers adequate water pressure for service to customers in addition to technical specifications that assure a properly designed system. As discussed with the Imperial County Fire Department and based on the California Fire Code, the following fire flows are required: 1,000 gallons per minute for residential; 1,500 gallons per minute for commercial; and 2,000 gallons per minute for industrial. The fire flows are required to be maintained for a minimum duration of 2 hours.

Table 5-G
Water Flow Standards

Flow Demand	Maximum Velocity	Pressure Level
Maximum Day Demand + Fire Flow*	15.0 ft per second	20 psi - 35 psi
Maximum Day Demand	7.0 ft per second	≥ 20 psi

*Fire flow minimums are targeted at 1,000 GPM for residential, 1,500 GPM for commercial, and 2,000 GPM for industrial.

The water treatment plant capacity shall further meet the demand of the maximum daily flow, plus provide an operational storage capacity of at least 50 percent of the maximum day demand used. Systems with less than 1,000 service connections must have storage capacity that is equal to or greater than the Maximum Day Demand (MDD), unless the system can demonstrate that it has an additional source of supply or has an emergency source connection that can meet the MDD requirement.

Inventory of Existing Water Facilities

Water Treatment Plant- The SCWD owns and operates a public water treatment plant located on a 2.5 acre parcel on the northeast corner of the Alamo Street and Laguna Avenue intersection. The plant was originally constructed in 1965 and has a design capacity of 1.08 MGD and a current treatment demand average of 214,800 gallons per day. The Water Treatment Plant operates on a 24 hour a day basis.

Raw water is conveyed to the Seeley County Water District (SCWD) Water Treatment Plant (WTP) by gravity flow from the Imperial Irrigation District's canal. The WTP's raw water storage consists of two (2) raw water storage basins with a combined capacity of 4.3 million gallons (MG). The raw water pump station is supplied with raw water by gravity from the raw water basins. The inlet piping and outlet piping of the raw water pump station allow for a raw water pumping capacity of 700 gallons per minute (gpm) with two pumps running to the Treatment Units.

The Treatment Units are comprised of two (2) packaged water treatment units and coagulant storage and feed system. Each Treatment Unit is composed of a combined adsorption clarification and media filtration system which is designed to treat the capacity of 350 gallons per day (GPD) each. A finish water pump is located downstream of each Treatment Unit pumps 350 gpm to the potable water Storage Tanks. There are two (2) Storage Tanks which have total capacity of 1.0 Million Gallons (MG). Each Storage Tanks has four (4) baffles which will assist with contact time for chlorine disinfection.

Finished water is supplied from the Storage Tanks to the distribution pump station. The distribution pump station is downstream of the storage Tanks. The distribution pump station consists of two (2) 250 gpm pumps and four (4) 500 gpm pumps all drive by VFD's. The pump station has a maximum flow capacity of 2,500 gpm at 80 psi pressure. The pumps are operated via VFD drives, which allow efficient operation for various water distribution water demands. The pump station conveys potable water to the SCWD Water Distribution System at pressure range of 50 to 60 psi.

Treatment Units are equipped with a Programmable Logic Controller (PLC) which provides controls required for operation of the Water Treatment Plant. Disinfection is provided via a chlorine storage and chemical feed system. Chlorine is injected downstream of the Treatment Units, with an option to dose downstream of the Distribution Pump Station.

Potable Water Storage Facilities/Pump Stations-The SCWD maintains two storage sites at the 2.5-acre site to be used for finished or treated water. The treated water is stored in two (2) on-grade bolted steel tanks, each with a capacity of 500,000 gallons. The tanks operate in series and have the ability to operate separately in any case where one (1) of the storage tanks is placed out of service. Both storage tanks have baffles which were installed to improve CT disinfection conditions. The finished water is then pumped into the water distribution system by a variable frequency drive pump station capable of a maximum fire flow output of 2,500 gpm. This pump station is the only pump station used in the SCWD Water Distribution System.

Water Distribution Facilities- The SCWD operates approximately 8.75 miles of distribution pipeline. The pipelines range from 3-inch to 12-inch in diameter and are primarily situated in a grid-like pattern within an approximate 0.50 square mile radius, encompassing the Seeley Community. The distribution pipeline system within the community of Seeley is generally bound by El Centro St. to the north, Evan Hewes Highway to the south and southeast, and the wastewater treatment plant to the west. A 4-inch diameter distribution pipeline runs south from the Seeley Community along Drew Road for approximately half a mile to service the County of Imperial Sunbeam Lake Park and RV Resort. The 4-inch diameter distribution line then runs southeast from the County of Imperial Sunbeam Lake Park and RV Resort for approximately 1.25 miles to service the California Department of Transportation (Caltrans) Interstate 8 Rest Stop Area. The Caltrans rest area is the furthest point south in the distribution system and serves as the bacteriological and TTHM sampling site under the current Stage 2 Disinfection Byproduct Rule (DBPR). SCWD has 99 water valves and 48 hydrants within the

distribution system (**Refer to Exhibit 5-D – Seeley County Water District Existing Water Distribution System**).

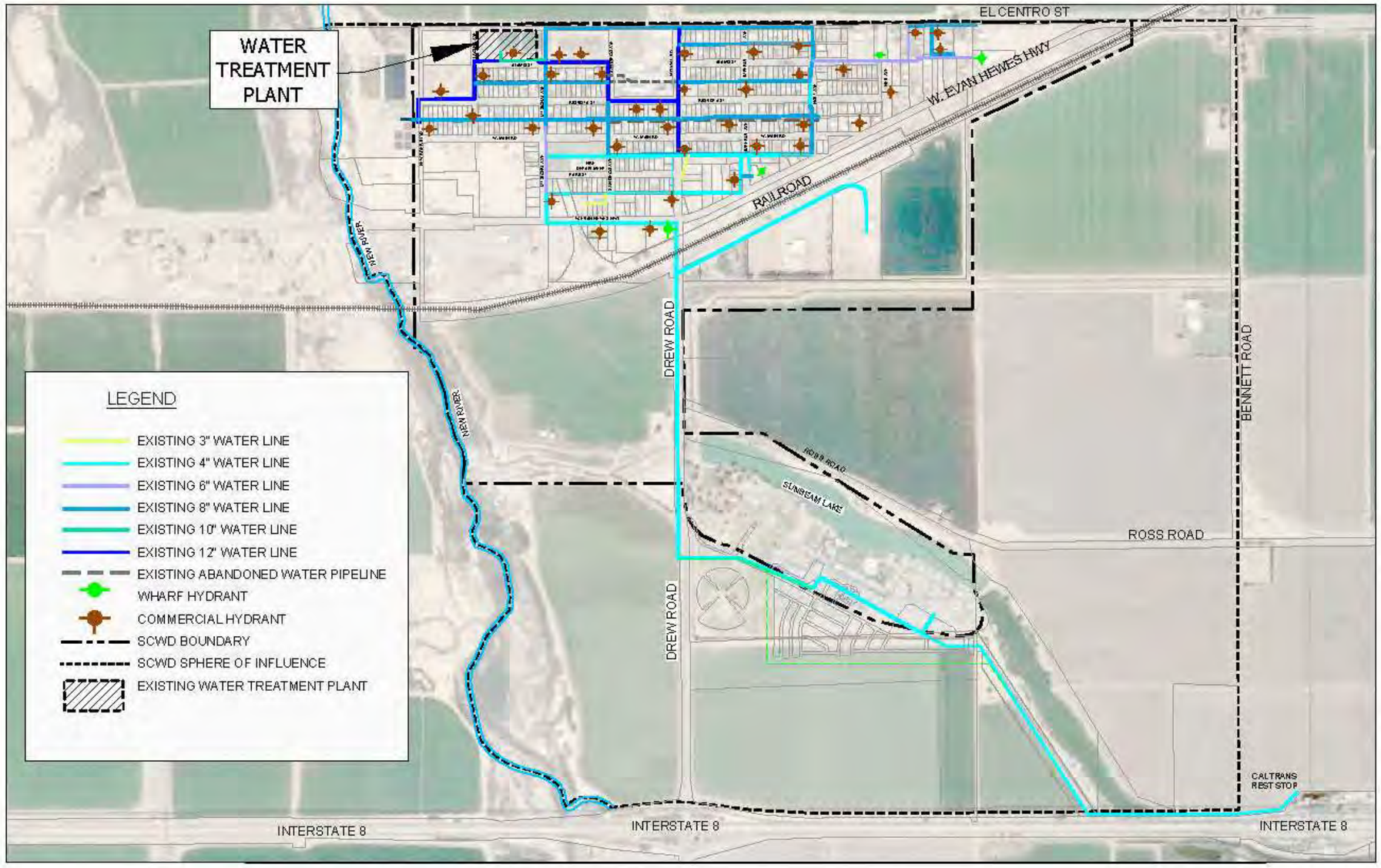
Adequacy of Existing Water Facilities

Adequacy of Treatment Capacity- The Seeley County Water Districts WTP's maximum operation capacity is 1.08 MGD. The plant is experiencing an average daily demand of .214 MGD with a peak flow demand of 0.39 MGD. The daily demand has substantial capacity at 20% of the maximum capacity. Thus the plant is capable of meeting the treatment demand projected for the planning period.

Seeley County Water District has been issued several citations by the California Department of Public Health between 2006 and 2014 after failing to comply with the drinking water Standard for the Running Annual Average Maximum of Total Trihalomethanes (TTHM) of a maximum of 80 micrograms per liter (µg/L). Most recently in April 29, 2015 an amendment was made to Citation No. 05-14-14C-001 after Seeley failed to comply with Directive 4 of the approved June 11, 2014 TTHM Reduction Plan. An updated TTHM Reduction Plan dated February 25, 2015 was approve where it was understood that the submitted project schedule was subject to change based on funding. Construction is scheduled to begin in August 2017. Improvements proposed to be made include the construction of a Trihalomethane Removal System which will be incorporated as part of the potable water storage tanks which will treat up to 500,000 gallons per day.

Adequacy of Storage System- Thus, the water treatment plant has adequate storage capacity of one (1) million gallons which is divided into two (2) storage reservoirs having a total storage capacity of five hundred thousand (500,000) million gallons each. The two (2) Storage Tanks operate in series and have baffles which were installed to improve CT disinfection conditions. The existing reservoirs have a water capacity that may supply more than two (2) days of water demand from its consumers.

Adequacy of Distribution System- In 2011 the Water District replaced approximately 70% of the water distribution system. As previously noted, the water distribution system consists of distribution pipelines ranging from three (3) inch diameter to twelve (12) inch diameter. The only 3-inch pipelines serve two different residential neighborhoods and are considered substandard. Per California Code of Regulations Title 22, the minimum allowed pipeline has a four (4) inch diameter. The inadequately sized pipelines serve residential homes at the north-west corner of the intersection at Evan Hewes Highway and San Diego Avenue and as well as the east side of the intersection at Haskell Road and Park Street (See **Exhibit 5-D**).



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SEELEY COUNTY WATER DISTRICT
EXISTING WATER DISTRIBUTION SYSTEM

EXHIBIT 5-D

PROJECT NO: THG 1186.009P | DATE: July 2017

The Seeley County Water District is proposing to conduct a complete hydraulic analysis of the existing water distribution system review to determine adequate demand, flow and pressure capacities of the distribution system during the Fall of 2017. In specific, Seeley County Water District is interested in the required fire protection flow and pressure capacities at fire hydrant locations throughout the distribution system, serving adequate demand for the residents and commercial facilities within its service area, and residence time of water in pipelines. Based on the hydraulic analysis, Seeley County Water District will evaluate recommended improvements and funding options for water distribution system improvements.

As of the current date, a portion of the hydraulic analysis has been conducted. The current distribution system has been evaluated for residence time (water age) in an attempt to identify long residence time of water pipeline sections, which may also contribute to the generation of Trihalomethanes (THM's) which have been reported at different sampling points throughout the system. A basic hydraulic model has been prepared and results imply that the water distribution system is flushing adequately based on the average daily demands that have been recorded for all existing water services. Residence times are low in all pipe segments with the exception of fire hydrant connections and dead end pipe segments near the Seeley WWTP.

There is a single 4-inch ACP pipeline that extends south of the railroad tracks and routes to the Sunbeam Rest Area along I-8. This 4-inch ACP pipeline is providing potable water to the Sunbeam Lake Recreation Facility, Sunbeam BMX, Sunbeam Ball Park, Sunbeam Lake R.V. Resort and the Sunbeam Rest Area. Based on average daily demand this pipeline provides potable water at a rate of about 26 GPM. This line would have to be replaced with a 12" Water Main Pipeline in order to accommodate future connections. The pipeline is considered to be operating at 100 percent capacity. The pipeline would require replacement in order to accommodate future connections.

Inventory of Approved Water Facilities

TTHM Treatment Improvements-The Seeley County Water District (SCWD) has designed and is in the process of constructing a Trihalomethane (THM) Removal System to be incorporated into and become a part of the potable water treatment process which would be able to treat up to 1,000,000 gallons per day. A modified spray aeration system with forced ventilation is proposed. The spray is proposed to be installed in the roof of the tanks stripping the TTHMs into the open head space. The head space will be fed with fresh air to optimize the TTHM removal, via forced ventilation to exhaust air into the atmosphere. The project is an improvement project which includes the following; installation of a pressure spray

aeration (via water pumps and piping) within the storage tank, and a forced air ventilation system (via blowers). The existing Storage Tanks will further need to be retrofitted for construction of the THM Removal System.

The intent of this Project is to serve as an action/response for SCWD to comply with Division of Drinking Water Citation requirements and Safe Water Drinking Act standards for drinking water. In specific, the TTHM Reduction improvements are proposed meet the TTHM's MCL standards and will not affect capacity. Please refer to **Exhibit 5-E- Proposed Water Treatment Improvements** that illustrates the planned improvements to the Water Tanks.

Buildout Demand for Water Facilities

Operator records show that 0.39 million gallons per day (MGD) is the peak demand produced by the SCWD water treatment plant with the average demand of 0.214 MGD. The current treatment capacity at the plant is 1.08 MGD and the plant is operating at 20% of its capacity with 0.86 million gallons of excess capacity. The average daily per capita (person) water demand is estimated at 150 gallons per capita per day (gpcd). The residential per capita housing density in Seeley has been calculated at 3.53 persons per dwelling unit (2011-2015 ACS) as noted previously. An equivalent dwelling unit (EDU) within the Seeley County Water District is defined as the water used in a day by a single family residential housing unit. An EDU is therefore calculated as follows:

3.5 persons per dwelling unit x 150 gallons per capita per day (gpcd)

= 525 gallons per dwelling unit per day

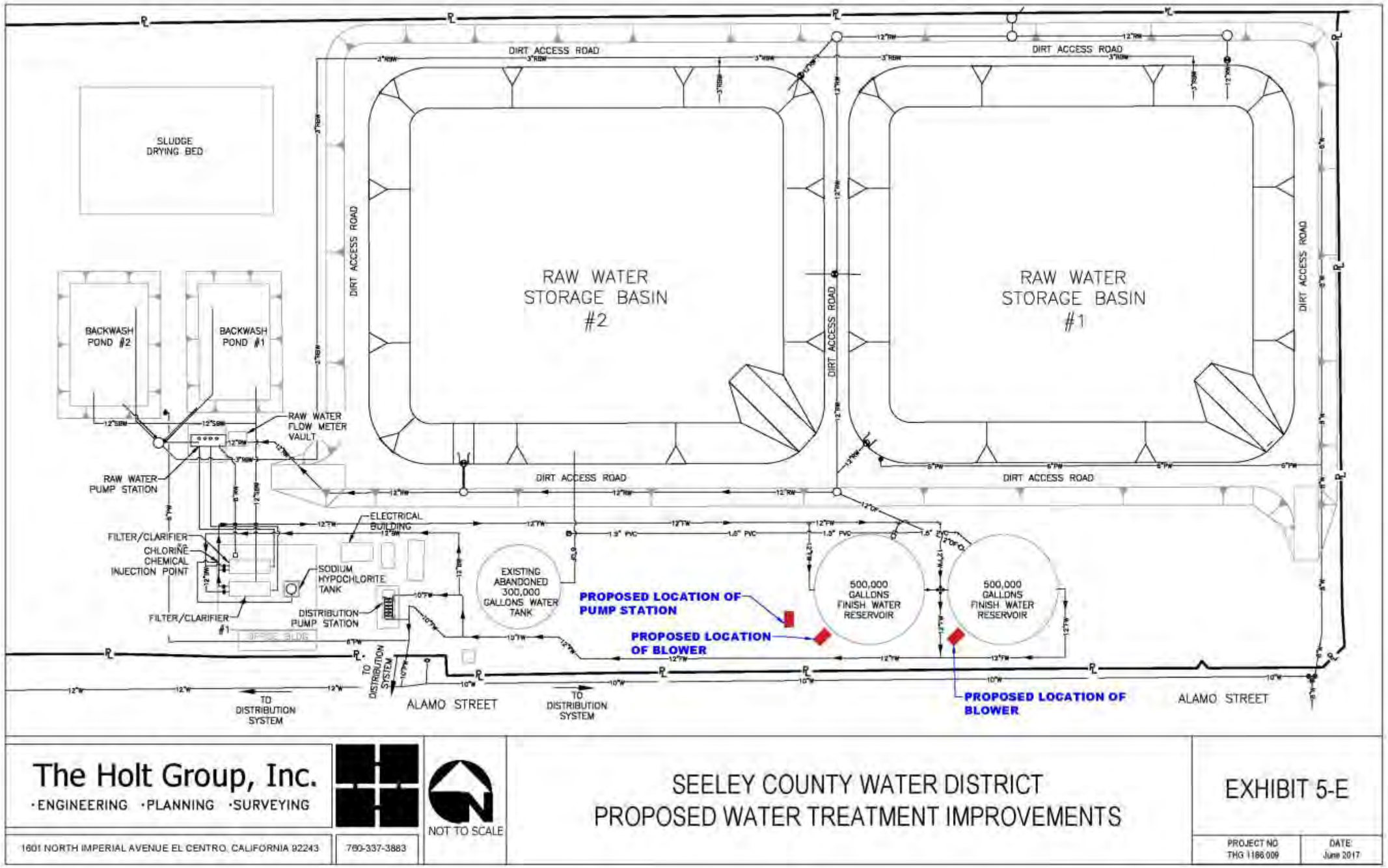
Therefore,

1 EDU = 525 gallons per day

The 0.86 million gallon per day excess capacity can provide service to 1,638 EDU's as calculated below:

$$\frac{860{,}000\ gallons\ (excess\ capacity)}{525\ gallons/EDU} = 1{,}638\ EDU's$$

At the current growth rate of 2.08% per year and an estimated demand of 150 gpcd, the treatment plant will be at capacity in 2079. It should be noted that 150 gpcd is the industry standard used in projecting demand, but actual usage in Seeley is 100 gpcd. Seeley's treatment plant will not reach capacity until the year 2079 if population growth remains the same as it has in the past. **Table 5-H** below shows the population project to the year 2045 and the level of demand on the treatment plant.


SLUDGE
DRYING BED
DIRT ACCESS ROAD
RAW WATER
STORAGE BASIN
#2
RAW WATER
STORAGE BASIN
#1
BACKWASH
POND #2
BACKWASH
POND #1
RAW WATER
FLOW METER
VAULT
RAW WATER
PUMP STATION
ELECTRICAL
BUILDING
FILTER/CLARIFIER
CHLORINE
CHEMICAL
INJECTION POINT
SODIUM
HYPOCHLORITE
TANK
FILTER/CLARIFIER
#1
DISTRIBUTION
PUMP STATION
EXISTING
ABANDONED
300,000
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OF BLOWER
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TO
DISTRIBUTION
SYSTEM
ALAMO STREET
TO
DISTRIBUTION
SYSTEM
PROPOSED LOCATION OF
BLOWER
ALAMO STREET
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SEELEY COUNTY WATER DISTRICT
PROPOSED WATER TREATMENT IMPROVEMENTS
EXHIBIT 5-E
PROJECT NO
THG 1186.009
DATE
June 2017

Table 5-H
Water Capacity Demand Based on Historic Growth Projections

Projected Population (Population Increase Based on Historic Growth Rate[1])		Water Treatment Demand
Year 2017	2,140	0.22 mgd
Year 2020	2,326	0.24 mgd
Year 2025	2,581	0.28 mgd
Year 2035	3,176	0.37 mgd
After 2045	3,907	0.48 mgd

[1]Historical Growth Rate was calculated at 2.08% percent over a 20 year period between 1990 and 2010.

[2]Based on an industry standard of 150 gpd per person, a peaking factor of 2.0.

Infill development and the recently approved Sunbeam Lake Estate project have an impact on population growth and the capacity of the water treatment plant. **Table 5-I** below shows what the population numbers would look like to the year 2045 if all infill areas are developed and the Sunbeam Lake Estate project were to be built. Capacity at the water treatment plant will be reached in 2033.

Table 5-I
Buildout Demand for Water Treatment Plant

Projected Population (Natural Growth + Approved Residential Development[1] + Infill Development)		Water Treatment Demand
Year 2017	2,140	0.22 mgd
Year 2020	3,158	0.37 mgd
Year 2025	4,930	0.63 mgd
Year 2035	8,398	1.15 mgd
After 2045	10,643	1.50 mgd

The Regional Water Quality Control Board generally requires agencies to begin engineering design at 80% capacity and begin construction at 90% capacity. At 2.08% growth rate, SWCD will not need to consider expansion until 2070, but the added demand from the approved residential subdivision and infill development, design work should begin in 2028 and construction should begin in 2032. Design and construction is generally a 3-4 year process.

The Seeley County Water District may expand the water treatment plant based on the same design facilities that are in place without significant alterations to the existing system. The Seeley County Water District may use the Clarifier/Filter Water Treatment Unit which are often referred to as "packaged treatment systems." The packaged water treatment systems are pre-assembled prior to delivery to a given water treatment plant. The packaged water treatment systems are purchased and delivered at a designated treatment capacity. Each of the existing packaged treatment system is designed to treat 1.08 MGD. Thus, SCWD would be upgrading the water treatment plant in 1.08 MGD pre-packaged units gradually, as water demand increases.

The near-term and mid-term demand on the water treatment and distribution system are tied to immediate needs or future planning expenses. Accommodating any new development south of Evan Hewes Highway would require replacement of the undersized 4" water pipeline that serves as the main distribution line to the Sunbeam Lake area and is unable to meet fire-flow demands. The previously noted deficient residential distribution lines north of Evan Hewes would also need replacement, and in order to proactively plan for community development with the adequate provision of treated water facilities and services, a Water Master Plan needs to be developed**. Table 5-J** provides a general estimate of these near-term to mid-term costs.

Table 5-J
Projected Near-Term to Mid-Term Water Facility Improvements

Projects	Estimate (2017)	Funding Gap (2017)
Water Master Plan (2020)	**$150,000**	**$150,000**
3" Water Distribution Residential Pipeline Replacement	**$60,500**	**$60,500**
4" Water Distribution Main Pipeline Replacement (12")	**$700,000**	**$700,000**

Source: The Holt Group, Inc. 2017 Cost Estimates

Opportunity for Shared Water Facilities

The District does not share water treatment, storage, or distribution facilities with other Districts or jurisdictions. As previously noted, the nearest community to the Seeley service area is the City of El Centro which is 7.5 miles to the east of Seeley. Another water treatment facility is the wastewater treatment facility serving the Centinela State Prison located 7.5 miles to the northwest. These facilities are too far away from the Seeley Water Treatment Plant for a feasible consolidation.

The Navy Base, located at 1605 3rd St in El Centro, is one mile east of Seeley and is served by U.S. Navy via an onsite water treatment facility with a capacity of 2 MGD. The Navy base is located approximately two miles uphill from Seeley in a

northeasterly direction. In order to consolidate with the Navy base, a new booster station will have to be constructed, along with approximately 11,033 lineal feet force main line at an estimated cost of $2.8 million. Consolidation with the Navy base may not be feasible due to military operations and potential security concerns.

Phasing of Water Facilities

The immediate water facility projects are near-term projects. No major capital improvement projects need to be programmed in phases beyond the Water Master Plan as the initial phase.

Mitigation for Water Facilities

In order for SCWD to assure adequate service to its water customers as development continues within the District boundaries and sphere of influence, the following measures should be implemented:

W-1 The District shall maintain adequate reserves for the proper repair and maintenance of the distribution system.

W-2 The District should continue to pursue various means by which to obtain funding and provide for adequate water treatment and distribution facilities for the existing and future residents of the District.

W-3 The District shall evaluate impact fees are to ensure fees are sufficient to support the costs of the projected expansion needs at the WTP.

W-4 The District shall develop a Water Master Plan, as funds become available, to ensure that new development will construct water main lines to be compatible with the water distribution system.

W-5 New Development shall continue to be held responsible for constructing adequate water distribution system facilities and the fair share costs.

5.1.4 Park and Recreational Facilities

Unincorporated communities such as Seeley are usually served by the County for parks and recreation services and facilities, however SCWD owns and actively seeks funding for improvements to Robert Bates Memorial Park. The community park is leased out to Imperial County for operation and maintenance. Sunbeam Lake Park, owned and operated by the County of Imperial as a regional park, is also located within the boundaries of SCWD and is available to its residents.

Performance Standard for Recreational Facilities

The Seeley County Water District has not adopted a performance standard ratio and relies on the County's adopted standard which is larger than the State's minimum ratio for park facilities of three acres of park space per 1,000 persons. The locally adopted standard is higher than the Quimby Act of 1975 and uses a service ratio of five (5) acres of parkland per 1,000 persons.

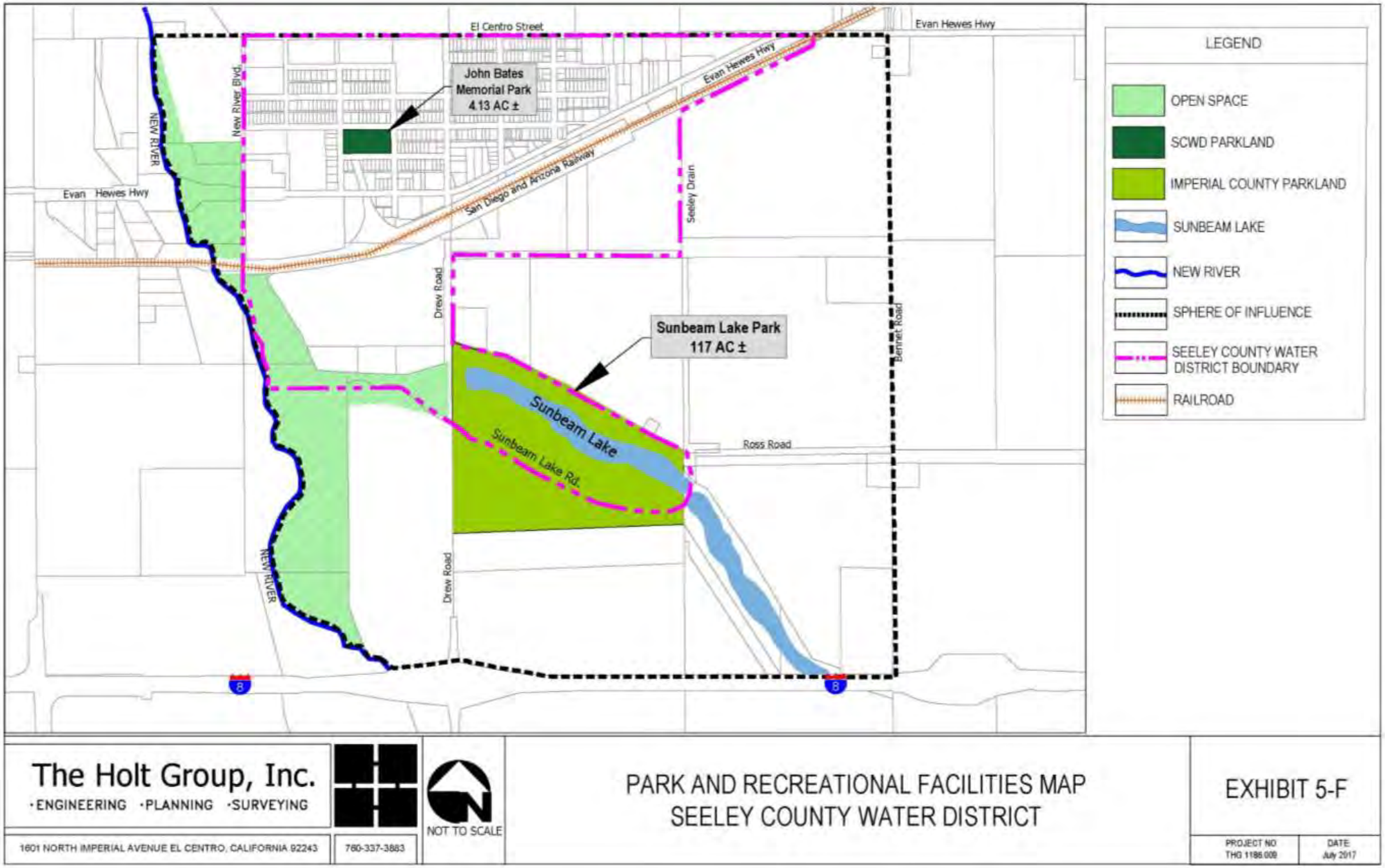
Inventory of Existing Recreational Facilities

There are over 70 acres of park facilities in the Seeley community (slightly over 11 acres are improved). They consist of two recreational facilities: 1) Robert Bates Memorial Park which is located at the northwest corner of San Diego Avenue and Park Street and 2) recreational area known as Sunbeam Lake Park located at 1750 Drew Road. **Table 5-K** lists the parks in Seeley with respective acreage while **Exhibit 5-F**-SCWD Park and Recreational Facilities Map, delineates park locations throughout the District's Service Area.

Table 5-K
SCWD Existing Parks

Park Name	Owner	Location	Size
Sunbeam Lake Park	County of Imperial	1750 Drew Road	66.55 AC
Robert Bates Memorial Park	SCWD	1826 Park Street	3.58 AC
		Total Acres of Parkland	**70.13 AC**

Robert Bates Memorial Park- The park is centrally located in Seeley at 1826 Park Street. It is important to note that both the fire station and the park are located on the same 4.13-acre parcel, but for the purposes of the Service Area Plan, Robert Bates Memorial Park is 3.58 acres in size. Amenities include a large playing field, playground equipment and a basketball court.


El Centro Street
Evan Hewes Hwy
Evan Hewes Hwy
Evan Hewes Hwy
New River Blvd.
NEW RIVER
John Bates Memorial Park 4.13 AC ±
San Diego and Arizona Railway
Seeley Drain
Drew Road
Bennet Road
Sunbeam Lake Park 117 AC ±
Sunbeam Lake
Sunbeam Lake Rd.
Ross Road
NEW RIVER
Drew Road
8
8
LEGEND
OPEN SPACE
SCWD PARKLAND
IMPERIAL COUNTY PARKLAND
SUNBEAM LAKE
NEW RIVER
SPHERE OF INFLUENCE
SEELEY COUNTY WATER DISTRICT BOUNDARY
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760-337-3883
NOT TO SCALE
PARK AND RECREATIONAL FACILITIES MAP
SEELEY COUNTY WATER DISTRICT
EXHIBIT 5-F
PROJECT NO THG 1186.009
DATE July 2017

Sunbeam Lake Park is located partially within SCWD's service boundaries and serves as a regional park for all of Imperial County. Amenities at the park include a man-made lake available for fishing and limited boating, improved playing fields for basketball, soccer, baseball, and BMX, covered playground, and a walking trail. Although the park is located on 117 acres of land, only 66.55 acres is included in the inventory. The remaining portion of the parcel is occupied by a gated, private RV resort. The baseball fields are home to the Sunbeam Little League while the BMX area is home to Imperial Valley BMX.

School Facilities - Seeley School contains a playing field, running track, and playground equipment, but the space area is restricted to student use during school hours. Community groups may request use of the facilities subject to the discretion of the school district and as long as the use does not interfere with class hours.

Adequacy of Existing Park and Recreational Facilities

Residents of the District have 70.13 acres of parkland available to them. With an existing population of 2,140 people, the park ratio is 32 acres per 1,000 persons. Due to the proximity of Sunbeam Lake Park, the park ratio exceeds the County standard of five (5) acres per 1,000 persons. The National Recreation and Parks Association (NRPA) published park location, size, and amenities standards in 1970 and is still widely used. The NRPA recommends that a neighborhood park of 1-2 acres in size for every 1,000 residents be located within a half-mile radius of all residential uses. Those dwelling units to the east of Heil Avenue are just beyond the recommended half-mile radius. NRPA standard further require certain amenities based on population size. For example, one (1) picnic shelter and one (1) playground equipment should be provided for every 2,000 residents, but the NRPA also recommends one (1) tennis court for every 2,000 residents. Most communities will use NRPA standards as a starting point in determining the type of amenities required. Neither Seeley nor the County of Imperial have adopted specific park development standards. Although the NRPA recommends a park every half-mile, this standard can not be applied in every situation and the distribution of parkland for Seeley is adequate given its population size.

Inventory of Approved Recreational Facilities

Robert Bates Memorial Park- the SCWD received a $150,000 from the Imperial Irrigation District Local Entity Grant Program for park improvements. The District proposes to install lighting, shade structure, pedestrian walkways and drinking

fountain. The District has further budgeted for a Master Plan Development in efforts to assist with future funding.

Sunbeam Lake Park-There are nine (9) acres of Sunbeam Lake park area that are proposed to be developed as part of the Sunbeam Lake Estates development project. Proposed improvements include shade structures, tot lot and play ground areas, picnic areas, bike racks, BBQ grills, lighting and dock area. Trees, plants and a landscaped retention basin area are also proposed.

Buildout Demand for Recreational Facilities

As previously noted, the performance standard for the District is currently 5 acres of parkland per 1,000 persons. Due to the size of the Sunbeam Lake Park, additional recreational facilities are not needed within the planning period. It is anticipated that the Seeley community will have a population of 9,212 by the year 2038 at which time the parkland demand would only be 40-45 acres, far less the current available acreage. At full buildout, the ratio would be 7.6 acres for every 1,000 residents.

Opportunity for Shared Recreational Facilities

As mentioned previously, Seeley School contains recreational amenities such as playing field, running track, and a playground but these are only available to students and by special permit. SCWD and the School District can enter into a Joint Use Agreement. The 6.7-acre field is approximately 1/8-mile from Robert Bates Memorial Park but does not provide the required half-mile for the residents east of Heil Avenue. Given the abundance of parkland for the current population and at buildout, the need for shared facilities is not necessary. There are no other parks within the vicinity of Seeley.

Phasing of Recreational Facilities

The only approved development project in the vicinity of SCWD is the Sunbeam Lake Estates residential subdivision with an anticipated buildout date of 2030. The subdivision is located outside of SCWD's current service boundaries but within its sphere of influence. The Mitigated Negative Declaration for the project states that the demand for additional parks and recreational services will be met by Sunbeam Lake Park and developers of Sunbeam Lake Estates will provide additional amenities at Sunbeam Lake Park to offset the impacts. Required improvements include additional playground equipment, shades, trees, sitting areas, BBQ tables, and landscaping. The timing and phasing of the improvements are to be determined at the time of residential development.

Mitigation for Recreational Facilities

The Seeley Parks and Open Space Facilities meet the established performance standards and are adequate in size and condition to continue to serve the current population. As new development is proposed, projects are required to incorporate park space per the performance standard of five (5) acres per 1,000 in population. It is anticipated that projects contributing to the population increase throughout a twenty (20) year planning term, will satisfactorily fulfill these requirements.

Although there is sufficient park space to support current and future population, the ability to maintain SCWD's own park and any future parks is an issue. SCWD should examine opportunities to generate revenues for park maintenance. In order for SCWD to assure adequate parks and recreation services, the following measures should be implemented:

PR-1 The District should examine opportunities to generate revenues for park maintenance and the provision of recreational programs.

PR-2 The District should continue to seek grant funding for capital improvements to the only neighborhood park-Robert Bates Memorial Park.

5.2 SERVICES PROVIDED BY IMPERIAL COUNTY

Given that the services provided by Seeley County Water District are limited, and that the District lies within an unincorporated area of Imperial County, there are numerous services provided by the County of Imperial including administration, transportation, fire protection, law enforcement, library facilities and to some extent, parks and recreation. Administration facilities and parks and recreation facilities through Imperial County have already been discussed indirectly in Section 5.1.1 and 5.1.4, respectively and will not be analyzed further. More detailed information regarding Imperial County administrative and parks and recreational services is available in the Imperial County Municipal Service Review and can be accessed through Imperial County's LAFCO or Imperial County's Website.

The following section discusses services provided directly by the County of Imperial within the Seeley County Water District boundaries and Sphere of Influence. The data collected for this discussion was obtained from Imperial County's Service Plan, prepared by Hofman Planning and Engineering in 2011 A cursory review is being provided for these services under this Service Area Plan Section.[5]

- Fire Facilities- Fire facilities include the fire station, and other support equipment including firefighting equipment such as fire engines, water tenders, and aircraft firefighting units. Fire facilities also include the staffing level needed to operate the aforementioned equipment and deliver emergency and fire-protection services.
- Law Enforcement Facilities- Law enforcement facilities include the sheriff's station, and other support facilities including patrol vehicles, the Imperial County jail, and the Coroner's office. Law enforcement facilities further includes the staffing level needed to provide law enforcement and protection services.
- Library Facilities- Library Facilities include the library space, the contents of the library as well as the Staff that manage the library. It also includes any support equipment such as computers, copy machines, and other office equipment that may be available to the general public.
- Transportation Facilities- Transportation facilities consist primarily of roadways including Local and State owned roadways. Transportation facilities may also include pedestrian facilities such as sidewalks.
- Stormwater & Drainage Facilities- Stormwater and drainage facilities consist primarily of storm-drain pipelines along roadways, open drain ditches, retention basins and any pumping facilites.

[5] Although the Imperial County Municipal Service Review has been under review by Imperial County since January 2011, as of June 2017, Imperial County has not commented on the document. As such, the Municipal Service Review has not been and adopted by LAFCo and has since been removed from LAFCo's project list.

5.2.1 Fire Facilities

Fire protection services are provided to the Seeley community by the Imperial County Fire Department (ICFD). The ICFD maintains and operates five (5) fire stations throughout the County of Imperial. Seeley is serviced by Imperial County Station #3, located at 1828 West Park Street in Seeley and was constructed in 1975.

Performance Standard for Fire Facilities

The National Fire Protection Association (NFPA) outlines performance standards related to deployment and organization of firefighting operations. NFPA 1710 recommends a response time of 8 minutes for first-alarm response and that each company be staffed with four (4) firefighters including a company officer. These standards are based on a typical 2,000 square-foot, two-story single-family residential structure. Personnel and equipment can be adjusted to ensure that the fire department can maintain the 8-minute response time.

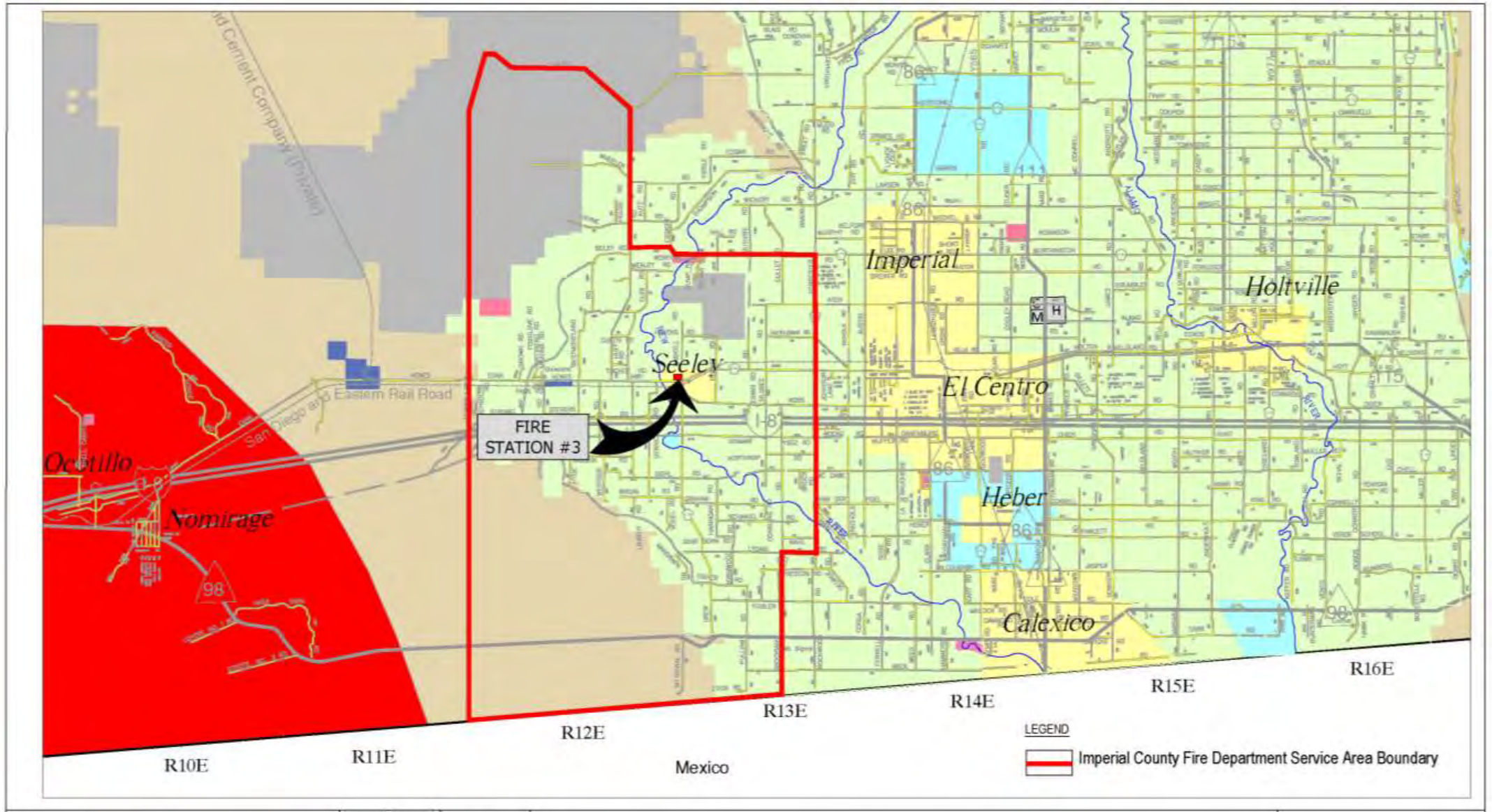
Inventory of Existing Fire Facilities

Station #3 in Seeley is one of the second oldest fire stations within the County. The station sits on a 4 acre lot that is shared with Joh Bates Memorial Park, and is situated within a 3,974 square foot building located at 1828 West Park Street. Existing equipment at the station includes one (1) Type I Engine, and one (1) Type III Brush Engine. The Seeley Station is operated by three County employees at any given time. There are three (3) firefighters per shift, including one (1) captain. Their average response time is 8 minutes for the entire service area which encompasses 160 square miles. The average response time for the area is 6.5 minutes. These ratios of service and response are reasonable and acceptable. Please Refer to **Exhibit 5-G– Imperial County Fire Station Location and Service Area**, for the service area.

Adequacy of Existing Fire Facilities

The average response time of 6.5 minutes is well within NFPA's standard of 8 minutes, and according to the Fire Chief, the existing staffing levels are sufficient based on the current demands. Numerous factors affect response time including development densities, population intensity, building height, building materials, and roadway configuration. Infill development north of Evan Hewes Highway can be reasonably supported by Station #3 and its current equipment and personnel.

Response times south of Evan Hewes Highway can be affected by delays caused by the railroad. Although it is a rare occurrence, delays would affect residents of Sunbeam Lake RV Resort and the approved Sunbeam Lake Estates residential subdivision. Response time is also affected by Station #3's vast service area (see Exhibit 3-G) which is much larger than SCWD's service area.



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IMPERIAL COUNTY
FIRE STATION LOCATION AND SERVICE AREA
County of Imperial Municipal Service Review 2011

EXHIBIT 5-G

PROJECT NO THG 744.046P | DATE 02-20-2012

When the Fire Department is responding to call to the outer portions of its service area, no additional personnel is available to residents of Seeley thereby affecting response times. Mutual Aid Agreements with the El Centro Fire Department and the Naval Air Facility Fire Department can minimize delays in response time.

The most recently adopted Emergency Services Master Plan (2012) for the County Fire Department identified various deficiencies in the existing fire facility given the fact that it is one of the oldest fire stations in the county. Heating, ventilation, and air condition (HVAC) will need to be updated; the building needs to be painted; a back-up power generator needs to be installed; and the entire Station needs to be retrofitted to comply with the requirements of the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA). There are currently no plans to improve the facility until grants or other funding sources are secured.

Inventory of Approved Fire Facilities

There are no additional fire facilities planned for the Seeley community. Fire Station renovations will be planned as funding opportunities arise. Facility improvements that have been budgeted are the following: making all four apparatus doors operable, slate apparatus doors for electrical operators, provide central air conditioning, paint, apparatus floor repairs, repair subfloor, and add a new staircase. Improvements such as backup generator and improvements for ADA compliance have not been budgeted as funding is not currently available.

Buildout Demand for Fire Facilities and Services

Increased development places a strain on the services, personnel, and equipment of County Fire Station #3. As calls volumes increase, the Fire Department will experience an increase in emergency and non-emergency response times which compromises the ability of the Fire Department to provide life-saving services to the residents of Seeley. SCWD's Sphere of Influence is already within Fire Station #3's service boundary would still be able to respond to the needs of future population resulting from infill development and the approved Sunbeam Lake Estates residential subdivision. The Sunbeam Lake Estates Mitigated Negative Declaration identified a potential impact to fire facilities and services unless a Community Facilities District is formed to provide revenues to offset the cost of additional personnel and equipment at Fire Station #3.

The Sunbeam Lake Estates Mitigated Negative Declaration only identified an additional 1,411 residents resulting from the single-family units but did not analyze population increase resulting from the proposed multi-family development which can potentially add another 1,102 residents to Station #3's service area can call volume. Again, Mutual Aid Agreement can minimize delays in response time but call volume needs to be examined further.

Opportunity for Shared Fire Facilities

The Imperial County Fire Department Station #3 does not share facilities but is located on parkland owned by Seeley County Water District. Thus the current site is shared with a park facility. Imperial County Fire Department has Mutual Aid Agreements with the El Centro Fire Department and the Naval Air Facility Fire Department to provide personnel and equipment as needed in emergency situations.

Phasing of Facilities

There are currently no new fire facilities planned within the Seeley County Water District Sphere of Influence. Future improvements only involve building modifications and will not impact capacity.

Mitigation for Fire Facilities

The Imperial County Fire Department is responsible for the continuous monitoring of the adequacy of the existing Imperial County Fire Department facilities to ensure that adequate fire protection services are provided. Seeley County Water District, however, shall periodically monitor and ensure that adequate fire flow suppressions are maintained throughout the District for fire protection services. SCWD should also review all future residential developments within its Sphere of Influence to ensure that any new construction will not diminish Fire Station #3's ability to provide life-saving services to its residents.

5.2.2 Law Enforcement Facilities

Law enforcement services are provided to the Seeley community by the Imperial County Sheriff's Department. The County Sheriff's department maintains one headquarters office located in El Centro, and five substations located in Brawley, Niland, Palo Verde, Salton City, and Winterhaven. The nearest sheriff station to the Seeley population is the South County Patrol located at 328 Applestill Road in El Centro which is the main headquarters. The Sheriff's Department provides services to the entire unincorporated areas of Imperial County with a population of approximately 39,902 persons (Source: County of Imperial Municipal Service Review Draft #3, 2011). Services include patrol, criminal investigations, civil services, bailiff enforcement, correctional services, crime prevention, off-highway law enforcement, waterway enforcement, and dispatch services. The Sherriff's Department only provides service to the unincorporated County population as Cities have their own police departments, unless there is a mutual agreement in place. This section will discuss patrol services provided to the Seeley community by Imperial County only.

Performance Standard for Law Enforcement Facilities

A general industry standard for law enforcement services is one (1) officer per 1,000 persons. This standard is widely recognized and used by jurisdictions. However, given the characteristics of Imperial County such as geographical challenges, size, and the fact that it is an international border, this ratio appears simplistic. Nevertheless, the ratio is a quantifiable standard that can provide a general basis for levels of service specifically for patrol. The existing patrol officer to population ratio for the entire unincorporated County of Imperial is 1.43 patrol officers per 1,000 persons (p.44 of County of Imperial Municipal Service Review Draft #3, 2011) which has been determined as an adequate service ratio by Imperial County.

Inventory of Existing Law Enforcement Facilities

The sheriff's administrative facility that serves the Seeley community is approximately 23, 274 square feet and is responsible for civil services for the entire County of Imperial along with the previously mentioned five (5) substations. Staffing of the Sheriff's Office includes sworn and non-sworn positions. Of the sworn positions there is 1 sheriff, 1 undersheriff, 2 chief deputies, 3 sheriff lieutenants, 20 sheriff sergeants, 26 senior deputy sheriffs, and 55 deputy sheriffs. Of the non-sworn positions there is one scientific investigation supervisor, 2 identification technicians and 88 administrative and support staff (County of Imperial Municipal Service Review Draft #3, 2011) The sheriff's office operates on two 12-hour shifts over four patrol areas. For each shift there are 12 patrol officers and there are a total of 4 shift teams. These patrol areas are divided as follows,

South County, North County, Winterhaven, and Salton City. The Seeley community is patrolled by South County.

Adequacy of Existing Law Enforcement Facilities

The South County serving Sheriff's office is located at 328 Applestill Road in El Centro at an approximate 7-mile distance from Seeley County Water District. (Please refer to **Exhibit 5-H – Law Enforcement Location Map**). Given the existing level of service ratio of 1.43 law enforcement officers per 1,000 persons, which is well about the 1.00 officer per 1,000 standard, the current demand is 58 officers assigned to patrol duties. Given that there is a demand of 58 officers and that currently there are only 48 deputies dedicated to patrol, there is a deficiency of 10 officers. Based on input from the Sheriff's Office, the staffing shortage should be addressed by hiring 6 deputies and 2 sergeants (County of Imperial Municipal Service Review Draft #3, 2011).

Inventory of Approved Law Enforcement Facilities

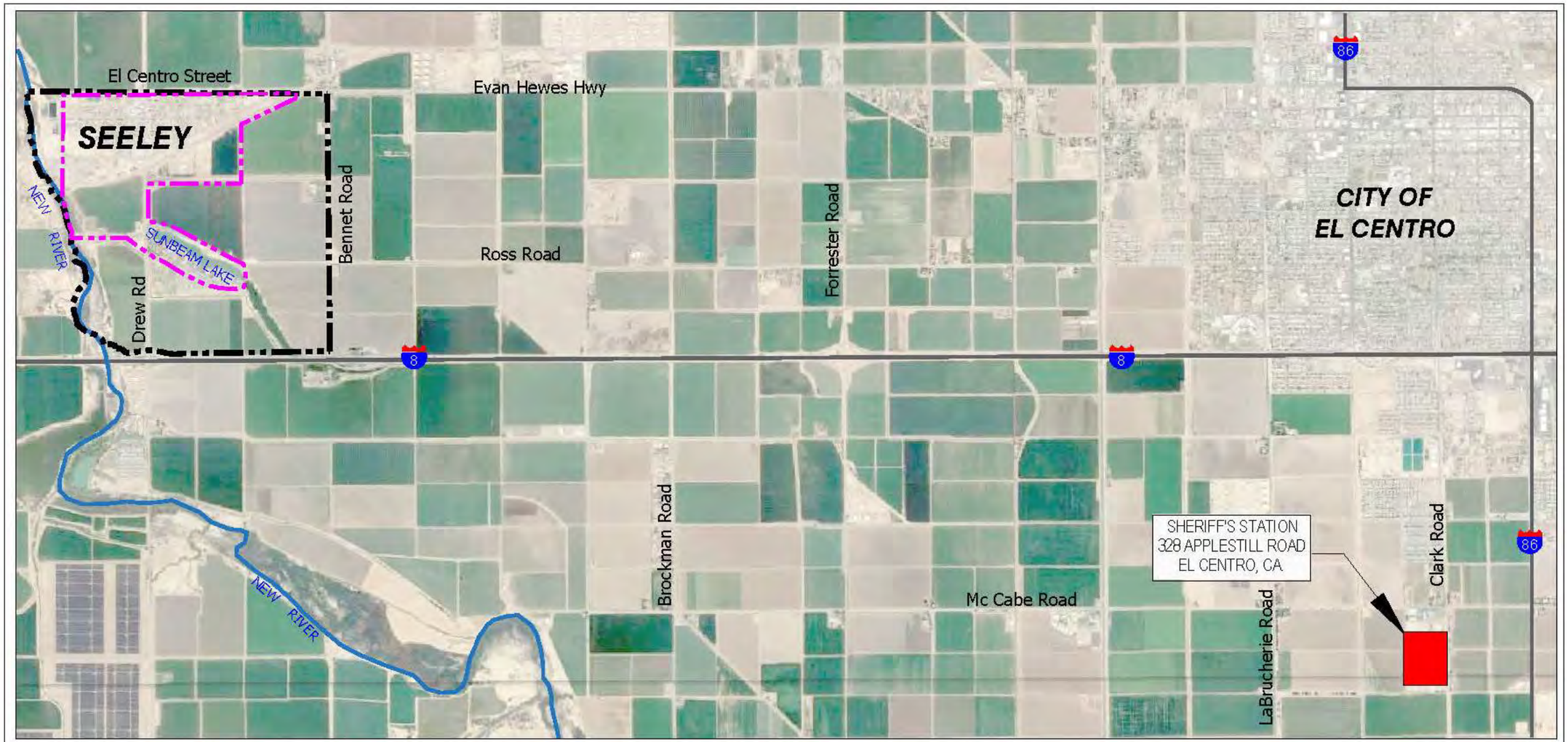
Imperial County's Service Area Plan notes there are no law enforcement facilities planned for within the Seeley County Water District or its Sphere of Influence. Upgrades to the Main Facility serving the South County Patrol Unit are planned and include a keyless entry system for security and access control, modernization of exercise rooms, replacement of roofs, and resurfacing of the parking lot. Improvements to equipment include installation of video recording in patrol units.

Buildout Demand for Law Enforcement Facilities and Services

There are no new law enforcement facilities planned within the Seeley County Water District Sphere of Influence within the next twenty years. However, it is noted in the 2011 County of Imperial Municipal Service Review Draft #3, that a law enforcement substation be considered for the Gateway Specific Plan project area by 2030 to meet the projected demand in Heber. The development of such a substation may alleviate some of the shared demand to other coverage areas.

The Mitigated Negative Declaration (MND) for the proposed Sunbeam Lake Estates residential subdivision only analyzed the impacts resulting from single-family residences. The MND noted that there would be impacts to law enforcement services and facilities, but the formation of a Communities Facilities District (CFD) would alleviate those impacts through additional revenues for hiring additional personnel.

The MND did not analyze the impacts from the multi-family units within Sunbeam Lake Estates which can potentially add another 1,102 residents. There is already a deficiency in the county-wide demand for patrol officers. The buildout population of 9,212 residents would require seven (7) additional deputies.



LEGEND:

DISTRICT BOUNDARY

SPHERE OF INFLUENCE

IMPERIAL COUNTY SHERIFF STATION

The Holt Group, Inc. •ENGINEERING •PLANNING •SURVEYING 1601 NORTH IMPERIAL AVENUE EL CENTRO, CALIFORNIA 92243	760-337-3883	NOT TO SCALE	SEELEY COUNTY WATER DISTRICT LAW ENFORCEMENT FACILITIES LOCATION MAP	EXHIBIT 5-H PROJECT NO THG1186.009 DATE: May 2017

Opportunity for Shared Law Enforcement Facilities

The Imperial County Sherriff's office does not currently have facilities in Seeley, and operate from the main Sherriff facility in El Centro. The call volume is relatively low and there is no need for a substation in Seeley, but Fire Station #3 can be used to house a report-writing desk to provide additional law enforcement presence in Seeley. At ultimate buildout, a substation may be necessary to address the increased population. A substation can be co-located with Fire Station #3.

Phasing of Law Enforcement Facilities

No new law enforcement facilities are planned during this 20-year period within the Seeley County Water District Sphere Influence nor within any proximity that would impact the service ratio to SCWD.

Mitigation for Law Enforcement Facilities

Periodic evaluations of law enforcement services are the responsibility of the Imperial County's Sheriff's Office. Evaluations should base service demand on not only population growth projections but incidents of crime, and emergency response times and service ratio of at least 1.2 patrol officers per 1,000 residents as noted in the 2011 County of Imperial Municipal Service Review Draft #3.

5.2.3 Library Facilities

The Imperial County Free Library (ICFL) formed in 1912 to serve the people of Imperial County who reside outside the city limits of Brawley, Calexico, El Centro and Imperial. There are currently four library branches open to the public in Calipatria, Heber, Holtville, and Salton City. The ICFL provides recreational and informational reading, audiotapes, some videos and DVDs, periodicals, and reference services to its patrons. Materials can be requested via interlibrary loan. Internet and public-access computers are available at most branches.

There are no libraries in Seeley. The nearest library to the Seeley is the El Centro Public Library located at 1140 North Imperial Avenue, El Centro, CA 92243, approximately 7.7 miles from Seeley.

Performance Standard for Library Facilities

The Imperial County Free Library does not have adopted performance standards for library facilities and the State Library system has not created standards. However, the State Library has definitions that provide a basis for facility needs and services. The County librarian provided the following information from the State Library:

- **Library Branch-** "A branch is an extension library, open at least five days a week, has at least 1,400 square feet of floor space, a general book collection of at least 7,000 volumes and staffed with at least one (1) librarian and one clerical employee during the hours open for service."
- **Library Station-** "A station is a smaller version of a branch with one (1) separate quarters, a permanent basic collection of at least one established paid position and a regular schedule for opening to the public."

The American Library Association, Subcommittee on Standards for Small Libraries published a brief 16-page report in 1962 outlining minimum space requirements for libraries serving population of less than 50,000. The report recommends that a 2,000 square-foot library is adequate to serve a population of under 2,499. The location of a library is also an important performance standard. The American Library Association recommends that patrons should be able to reach the library within 30 minutes travel in rural and suburban areas.

Inventory of Existing Library Facilities

Seeley County Water District does not have a library, nor does it have a library branch. The nearest public library is located in the City of El Centro, approximately 7.7 miles away. However, minimal library services are provided by the Imperial County Library team to the Seeley community on an average of two times per month. Light library services include story time for children and some books are brought to Seeley Community Church located at 1774 Rio Vista Street to be used

by patrons. The Brawley Public Library also provides a mobile library in the form of a 32' long specialty vehicle traveling throughout Imperial County giving underserved children ages 0-5 years and their parents access to literacy activities and services. The Literacy and Mobile Book Services (LAMBS) is outfitted with a wheelchair lift, a removable puppet stage, laptop computers with software for both parents and children, and ample shelf space to house the materials that will be available for parents and children to checkout and also for books that will be given to the children to keep at the end of each program.

Library Facilities Location

There are no facilities dedicated to Library resources in Seeley. The bi-weekly Light library services provided by the Imperial County Free Library are delivered at the Seeley Community Church located at 1774 Rio Vista Street.

Adequacy of Existing Library Facilities

Since there are no library facilities in Seeley, the limited service is considered inadequate due to the limited hours library services are brought in for the benefit of the public. The hours of service are the first and third Wednesday of each month from 5:30 pm to 6:45 pm.

Inventory of Approved Library Facilities

There are currently no planned or approved library facilities beyond the limited outreach services that are offered through Imperial County Library Services. As Seeley continues to grow, it may be necessary to plan for increased hours or for a full-service library branch. The Imperial County Free Library will be conducting a library needs assessment in late 2017 (Source: Crystal Duran, County of Imperial Librarian, April 11, 2017).

Buildout Demand for Library Facilities

The current Seeley population of 2,410 is unable to warrant a demand for a new facility. It is very likely that as the community grows within the next 20-year planning term, at minimum, the hours of operation for the Seeley Library Station will be extended. The Cities of Holtville (population 5,939) and Calipatria (population 4,019, excluding institutionalized population) have County Library branches. As Seeley approaches similar population size, a library branch in Seeley will be needed. The El Centro Public Library is within the 30-minute proximity recommended by the American Library Association but it is only able to serve El Centro's own resident population and cannot be counted as a resource to service Seeley residents.

Opportunity for Shared Library Facilities

Seeley does not have any dedicated library facilities but minimal services are collocated at the Seeley Community Church. Expanded hours and library materials

can continue to be housed at the Seeley Community Church. As Seeley's population increases, it may outgrow the Seeley Community Church and other shared facilities can be explored. Seeley School is an opportunity for shared library facility and its resources can be expanded through the inter-library loan program.

Phasing of Library Facilities

The County of Imperial does not propose any dedicated library facilities within the Seeley community during the planning period. It is likely that the hours of service will increase as the population increases and the demand for library services rises.

Mitigation

It is the responsibility of Imperial County to address the library service demand in unincorporated areas. As previously noted, the Imperial County Free Library will be conducting a library needs assessment in late 2017.

5.2.4 Transportation Facilities

Given that the Seeley County Water District area is within an unincorporated area of Imperial County, the information contained in this section is based on Imperial County's Circulation & Scenic Highways Element which was updated in 2008. Seeley's roadways and pedestrian facilities are maintained by the Imperial County Public Works Department with the exception of Interstate 8 which is maintained by the Federal Highway Administration through the State Department of Transportation (Caltrans).

Performance Standard for Transportation Facilities

The Circulation and Scenic Highways Element for the Imperial County has established a threshold of performance standards for the road segments located in the Seeley County Water District area. The Circulation Element identifies criteria upon which roadway capacity and flow are evaluated. The criteria are based on the level of service (LOS) classification system. The LOS is a professional industry standard by which the operation conditions of a given roadway segment or intersection are measured. LOS A indicates free flow of traffic with minimal vehicle delays, whereas LOS F indicates extreme congestion with significant delays. Refer to **Table 5-L – Roadway Performance Standard**.

Level of Service	Table 5-L Roadway Performance Standard
LOS "A"	Represents free flow. Individual drivers have a high degree of freedom to select their travel speeds and are unaffected by other vehicles.
LOS "B"	Represents stable flow, but individual drivers are somewhat affected by other vehicles in determining travel speeds.
LOS "C"	Represents stable flow, but the selection of the speeds of individual drivers is significantly affected by other drivers.
LOS "D"	Represents a condition of high density, stable traffic flow in which speed and freedom of movement are severely restricted by the presence of other vehicles.
LOS "E"	Represents operating conditions at or near capacity. Individual vehicles have little free to maneuver within the traffic stream and any minor disruptions can cause a breakdown in the flow of traffic.
LOS "F"	Represents breakdown conditions. At this level of service, speeds are low, delay is high, and there are more vehicles entering the roadway than can be accommodated.

It is the intent of the Imperial County that all roadways within unincorporated areas, including the Seeley County Water District area operate at a LOS "C" level or better. The criteria range is adjusted for the different street classifications depending on the street designation and thus designed capacity. **Table 5-M** describes the average vehicle trips that can be supported by the respective street classification in order to operate at LOS-C or better.

Table 5-M
Imperial County Standards Per Street Classification

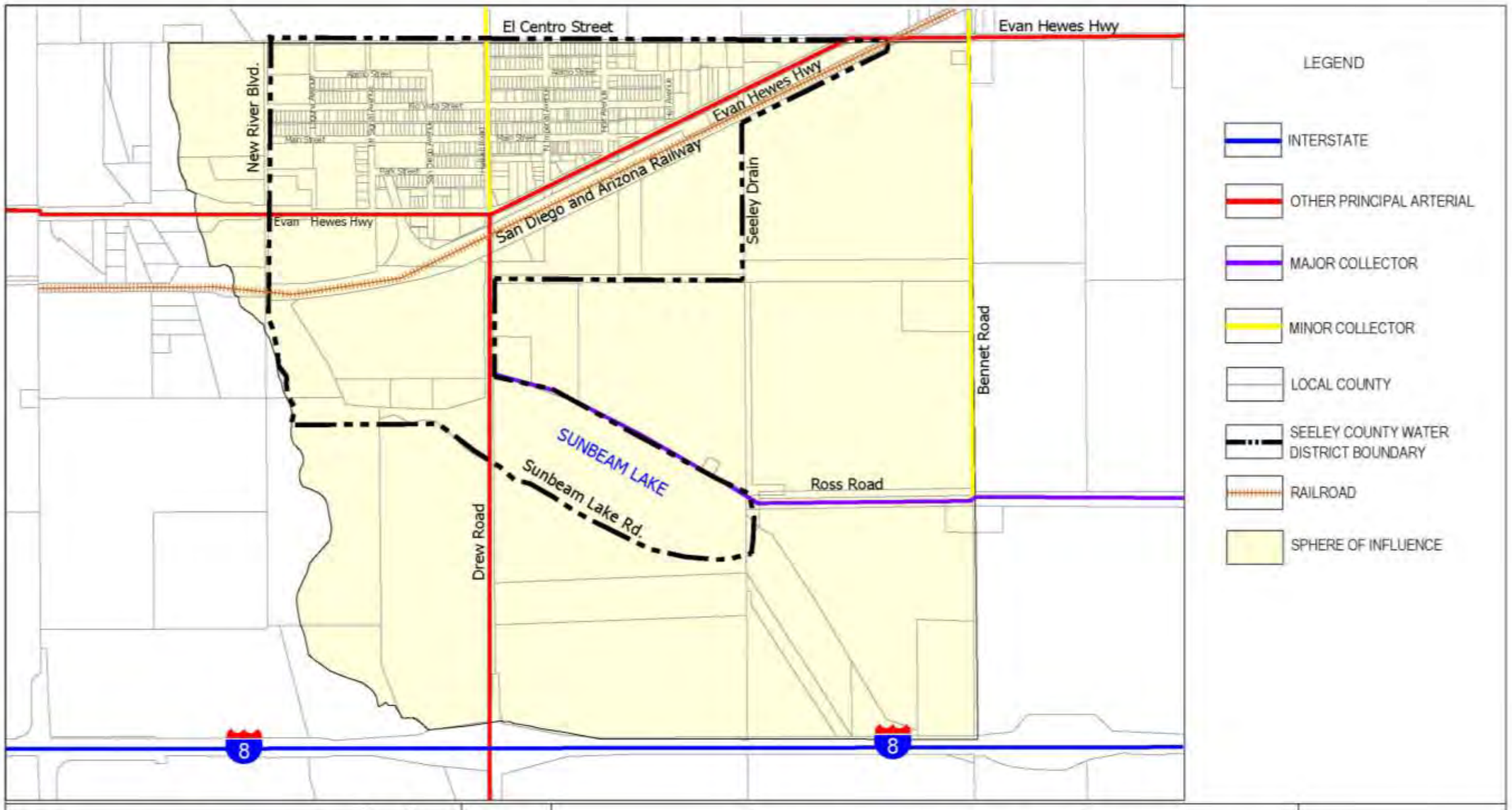
Street Classification	Average Daily Trips for Level of Service				
	A	B	C	D	E
Highway/Expressway	30,000	42,000	60,000	70,000	80,000
Prime Arterial	22,200	37,000	44,600	60,000	57,000
Minor Arterial	14,800	24,700	29,600	33,400	37,000
Major Collector	13,700	22,800	27,400	30,800	34,200
Minor Collector	1,900	4,100	7,100	10,900	16,200
Local County	*	*	<1,500	*	*

Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

Inventory of Existing Transportation Facilities

The circulation system within the Seeley County Water District is comprised of numerous grid style roadways under different classifications that are designed to accommodate varying traffic flows. Most local streets are oriented in a north/south and east/west grid style system and are not improved with curb, gutter or sidewalk. The Street Classification Map incorporated as **Exhibit 5-I** provides a visual display of the roadway system serving the Seeley community. The following is the identification of the different roadway classification and the applicable roadways within the Seeley Sphere of Influence that meet that respective classification:

Interstate Freeway-the main function of this roadway is to provide a system linking major cities within the contiguous states of the country. Features include high design standards with multiple travel lanes. The States own and operate the Interstate highway which means that the States establish the operating requirements, such as speed limits, and are responsible for enforcement. The following is a list of Interstates located within Seeley County Water District.



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NOT TO SCALE

SEELEY COUNTY WATER DISTRICT
STREET CLASSIFICATION MAP
Approved by Federal Highway Administration on 8/5/2011

EXHIBIT 5-I

PROJECT NO: THG 1186.009
DATE: July 2017

- **Interstate 8**- The Interstate 8 (I-8) is the primary east-west route through Imperial County and runs for 350 miles from the Pacific coast to its terminus in Arizona where it intersects with Interstate 10. With two travel lanes, it spans 79 miles within the Imperial County. It serves regional, cross-border, and interstate traffic and provides access to desert recreational areas. According to Caltrans' latest traffic census from 2015 (source: http://www.dot.ca.gov/trafficops/census/volumes2015/Route7-10.html) the annual average daily traffic (AADT) volumes on I-8 is 13,800 west of Drew Road and 15,600 east of Drew Road.

Prime Arterial – The main function of this classification is to provide regional, sub regional, and intra-county travel services. Features include high design standards with four to six travel lanes, raised and landscaped medians, highly restricted access, which in most cases will be a one mile (1 mile) minimum, provisions for public transit lanes, including but not limited to bus lanes, train lanes, or other mass transit type means and no parking. The following is the prime arterial located within Seeley:

- **Evan Hewes Highway** – Evan Hewes is an east/west roadway paralleling Interstate 8 to the North at an approximate distance of 2 miles. It was originally commissioned in 1926 as part of US Route 80 which was the first all-weather coast-to-coast route available to auto travelers. US 80 was gradually decommissioned between 1964 and 1974 as I-8, through San Diego and Imperial counties, was completed. The roadway eventually became Evan Hewes Highway connecting the communities of Ocotillo, Plaster City, Seeley, and El Centro. Daily traffic volumes range from 300 ADT in the Ocotillo vicinity to 9,000 ADT just east of the El Centro city limits. Most portions of this facility are constructed with one travel lane in each direction as within the community of Seeley. All commercial development in Seeley is located along Even Hewes Highway.
- **Drew Road (S29) –** Drew Road is a north/south roadway connecting Evan Hewes Highway to State Route 98 in the south spanning an approximate distance of 8.1 miles. Drew Road becomes Haskell Road through Seeley and continues on for another 1.6 miles connecting to Havens Road which extends to the Naval Air Facility. Currently this roadway is a two lane undivided roadway and provides access to Interstate 8 via a diamond-type interchange with stop sign controls at the east and westbound off ramps. Drew Roads carries 2,400 and 1,300 ADT north and south of Interstate 8, respectively.

Major Collector (Collector) – These roadways are designed for intra-county travel as a link between the long haul facilities and the collector/local facilities. The following is a list of the major collectors located within Seeley:

- **Ross Road** – A two lane east-west roadway that begins at Drew Road and runs approximately 17 miles to the east connecting Seeley and Sunbeam Lake with El Centro and the outskirts of Holtville. The primary land use on Ross Road in Seeley is Sunbeam Lake. Ross Road is proposed for a re-alignment to accommodate residential development within the approved Sunbeam Lake Estates.

Minor Local Collector (Local Collector) – These roadways are designed to connect local streets with the adjacent Collectors or arterial street system. The following is a list of the local collector located within Seeley:

- **Haskell Road** – A two lane north-south roadway that begins as Drew Road south of Evan Hewes Highway and terminates at Havens Road to the north connecting to the Naval Air Facility. Commercial uses are located at the intersection of Haskell Road and Evan Hewes Highway. Haskell Road also passes by the Seeley School. Otherwise, Haskell Road is primarily residential.
- **Bennett Road** – A two lane north-south roadway that begins at Ross Road and terminates at the Naval Air Facility. Bennett Road serves as the eastern boundary of Seeley's Sphere of Influence and collects traffic from Ross Road and Evan Hewes Highway to deliver traffic to and from the Naval Air Facility.

Residential/Local Street – The remainder of streets in Seeley are classified as (residential) local streets which provide direct access to abutting properties and to give access from neighborhoods to the Collector Street system.

Alternative Transportation

Pedestrian facilities such as sidewalks or transit facilities are also considered transportation facilities. Pedestrian facilities are owned and maintained by the County of Imperial while Transit Facilities are owned and maintained both by local jurisdictions and the Imperial County Transportation Commission.

Pedestrian Facilities- Imperial County was awarded grant funding via the Safe Routes to School grant program. The overall purpose of the grant was to improve the safety of the students who walk to school and bike to school. It was determined that various sidewalks in Seeley were absent, substandard and/or required linear improvements, and that Seeley was lacking bicycle parking within the community. (Source: IC Safe Routes to School Master Plan,

2016. The following is a listing of pedestrian project priorities for Seeley, and their current status:

1. Sidewalk improvements on Rio Vista Street from Laguna Avenue to Holt Avenue. ***Only San Diego to Imperial Avenue was completed.***
2. Sidewalk improvements along south side of El Centro Street from Haskell Avenue to Holt Avenue. ***Holt to 1400' east were completed.***
3. Sidewalk improvements along the west side of Haskell Road from Rio Vista Street to Evan Hewes Highway. ***Completed between Rio Vista and Alamo.***
4. Sidewalk improvements along the east side of Haskell Road from Park Street to Evan Hewes Highway. ***Not Completed yet.***
5. Sidewalk improvements along both sides of Evan Hewes Highway from Mount Signal Avenue to Haskell Road. ***Not Completed yet.***

Transit Facilities-The Imperial Valley Transit Services is an inter-city fixed route bus system subsidized by the Imperial County Transportation Commission. Existing ridership averages approximately 70,000 passengers a month (Source: ICTC, 2016). There is one IV Transit stop in the Seeley community, at the intersection of Evan Hewes Highways, and Haskell Road. Bus Line 4 starts and ends in Seeley and connects Seeley to El Centro where transfers can be made to other bus routes to connect to the rest of the county. A bus shelter is available on the east side of Haskell Road.

Freight Facilities

Seeley is traversed by a non-passenger, freight only rail system. Union Pacific owns the rail lines through Seeley connecting freight from all points east and Mexico to San Diego.

Adequacy of Existing Transportation Facilities

Roadways-Per the Imperial County Circulation Element, updated in 2008, all roadways within the Seeley Sphere of Influence are operating at a Level of Service C or better. As areas within the District and Sphere of Influence continue to develop road improvements to accommodate the existing and projected demand will be necessary. Future roadway improvements will be required to be constructed to the design standards set forth by the County of Imperial.

Roadway conditions are evaluated by the County of Imperial. Imperial County prepared a Pavement Management Report in February of 2012. Under the report, roadway improvement projects were identified based on condition. There are three steps to the pavement management process; 1) system configuration, 2) field surveys, and 3) analysis and reporting. System configuration involves identifying all roadways in the County's network where they are given an identification number, noting their physical characteristics such as length and width, pavement

type, traffic, and functional classification. The second step of the pavement management process is field surveys. Pavement Management Software uses a Laser Road Surface Tester (Laser RST) which observes the condition of the pavement surface, collects digital imagery, and spatial coordinate information. Data collected by the Laser includes rutting, roughness index which measures bumps per mile, and surface distress index which observes the extent and severity of the distress on pavement. The final step is Analysis and reporting which creates a single score that represents the overall condition of the pavement known as the Pavement Condition Index (PCI). The PCI adds thirty-three percent (33%) of the roughness index and sixty-seven percent (67%) of the surface distress index to provide a range. PCI ranges are divided into the following six descriptions: 100-85 are described as excellent, 70-85 are described as very good, 60-70 are described as good, 40-60 are described as fair to marginal, 25-40 are described as poor, and 0-25 are described as very poor. The PCI is used along with the priority weighting factor (PWF) to determine the priority ranking if each road way as shown in the following formula: Priority=(100 –PCI) X PWF. The priority weighting factor (PWF) are predetermined numbers used by the County which gives emphasis to arterial roadways, and is followed by residential road ways, and leaves collector roadways with the lowest priority weighting factors.

The Pavement Management Analysis determined that certain roadways within the Seeley community necessitated improvement (See **Appendix B**). Roadways assessed within the Seeley County Water District include but are not limited to the following:

Alamo Street	**PCI = 26, 38, 46**	**Rehabilitated 2012**
El Centro Street	**PCI = 20, 32**	**Rehabilitated 2012**
Haskell Road	**PCI = 24**	**Rehabilitated 2012**
Heil Avenue	**PCI = 14**	**Rehabilitated 2012**
Holt Avenue	**PCI = 27, 36**	**Rehabilitated 2012**
Laguna Avenue	**PCI = 30, 55**	**Rehabilitated 2012**
Main Street	**PCI = 26, 44, 43**	**Rehabilitated 2012**
Mount Signal	**PCI = 52**	**Rehabilitated 2012**
New River	**PCI = 44**	**Rehabilitated 2012**
Imperial Avenue	**PCI = 48, 57**	**Rehabilitated 2012**
Rio Vista Street	**PCI = 20, 35**	**Rehabilitated 2012**
San Diego Avenue	**PCI = 37**	**Rehabilitated 2012**

The entire street system in the Seeley Townsite was improved (rehabilitated in 2012). The streets received a 1 inch A.C. leveling course followed by an asphalt rubber aggregate membrane (ARAM) followed by a slurry sealcoat at a cost of approximately $2 Million dollars due to the level of disrepair. The Holt Group, Inc. completed a windshield survey of the Seeley Street System in August 2017. The street surface was found to be generally in good condition except that cracking is

evident on the street surface. Cracking is evident throughout the entire street system. Although cracking is unsightly, the pavement surface is presently in good condition, the street sections are smooth and "ride" adequately and the street system should last for 10 to 15 years if adequately maintained.

It should be noted that although the pavement cracks did not pose a significant pavement surface problem, at the time of the field review, the cracks will result in a significant deterioration of the pavement if not addressed within a short time period. Cracks allow water to enter the subbase of the street and ultimately result in the alligator cracking and complete failure of the pavement. Crack Sealing is regarded as street maintenance work and can be completed relatively inexpensively at an estimated construction cost of $200,000 (including design, bidding and construction management services). It is recommended that the 7.2 mile Seeley Street System be crack sealed as soon as possible and no later than June of 2018 to prevent the deterioration of the pavement surface. As time goes on the cracks will to continue to increase in length and width. It is estimated there are approximately 250,000 lineal feet of cracks at this time.

It is important that these roadways be maintained at least every four years to prevent fast paced deterioration. Since the County has not adopted a Capital Improvement Program for roadway maintenance it is unknown as to when the next roadway maintenance will occur.

Sidewalks-There are minimal sidewalk facilities in Seeley. It is estimated that over 9,080 lineal feet (1.72 miles) of sidewalk are needed along school routes, the community park and developed neighborhoods. Accessible curb returns are also part of the need in conjunction with the sidewalks. Sidewalks should be constructed consistent with the County of Imperial Development Standards and concurrent with curb and gutter along paved streets. The community however is also lacking curb and gutter as discussed in the Stormwater & Drainage Section.

Buildout Demand for Transportation Facilities

Roadways are improved as development occurs and needs are determined under the environmental review process. Imperial County is responsible for ensuring that developers construct required street improvements associated with each project and/or impacted by each proposed development. Sunbeam Lake Estates residential development will generate approximately 14,611 trips per day with 639 vehicles per hour during morning peak hour and 1,393 vehicles per hour during afternoon peak hour at project buildout. The project is required to complete ultimate half-section street improvements on Drew Road and full ultimate cross-section street improvements for the re-alignment of Cross Road with signalization of Drew Road at Ross Road.

Opportunity for Shared Transportation Facilities

The Seeley community mainly uses County roadways with little opportunity for facility sharing with other agencies. The San Diego and Arizona Eastern Railroad system, however, may pose an opportunity for a shared facility. Passenger rail service is being studied to provide service between El Centro and San Diego. It presently provides freight rail service only between El Centro and the US Gypsum plant in Plaster City.

Phasing of Transportation Facilities

It is procedural that new improvements to transportation facilities be provided during the development process. As previously noted, the Sunbeam Lake Estates residential development is required to complete street improvements on Drew Road and Cross Road. The improvements must be completed during the first phase of the project (single-family residential development). The signalization of Evan Hewes Highway and Drew Road is not required until project buildout.

Mitigation for Transportation Facilities

Cooperative efforts between the District and the County will ensure that transportation facilities are adequately maintained and upgraded to prevent service deterioration. Additionally, Imperial County has adopted procedures and development standards in place for facility adequacy from new development.

5.2.5 Stormwater & Drainage Facilities

The primary purpose of maintaining, planning, designing and constructing drainage facilities is to control flooding. Generally, in urbanized areas, stormwater is collected through a network of surface (roadway) gutters and stormwater pipelines. In some cases, stormwater is deposited to a retention basin where it percolates into the ground. Stormwater can also be directed to a detention basin where it is held before it is discharged into IID drainage canals which ultimately drain into the Alamo River or New River, both of which are a tributary to the Salton Sea. In Seeley, surface drainage facilities are part of the street system which is a responsibility of the County of Imperial.

Performance Standard for Drainage Facilities

The County of Imperial adopted design standards for specific components of drainage systems, but there are no adopted performance standards. The goal of any drainage system is to prevent or minimize the impacts of flood conditions that would adversely affect residences and businesses. Requirements established by the National Pollution Discharge Elimination System, Colorado River Basin Water Quality Control Plan, and the Federal Emergency Management Agency (FEMA) affect the local drainage system. Since most of the stormwater discharges onto IID drainage canals, certain IID requirements must also be followed.

The County typically evaluates drainage conditions of for all new development and for the project site and requires the construction of any necessary drainage infrastructure. The County requires developers to construct all drainage facilities within each project as a condition of approval. Additionally, a drainage study be conducted by a registered civil engineer and submitted for review and approval by Imperial County and the IID prior to approval of a final subdivision map, a grading plan or development permit.

Inventory of Existing Drainage Facilities

Seeley's drainage facilities are primarily composed of non-engineered drainage swales adjacent to all roadways. There are currently no underground catch basins or stormwater pipelines with the original Seeley Townsite. The drainage system generally flows from east to west and ultimately discharges onto the New River via overland flow on natural terrain features along Evan Hewes Highway and north of the wastewater treatment plant. Although there are sporadic curbs and gutters throughout Seeley, the only sizeable curb and gutter system that conveys stormwater is located on the western part of town, specifically, on the east side of the entire length of Laguna Avenue, on the south side of Rio Vista Street between Laguna and New River Boulevard, and on the east side of New River Boulevard. A stretch of curb and gutter also exists on the south side of El Centro Avenue from Holt Avenue to a point approximately 1,400' to the east.

In urbanized areas, retention or detention basins are used to minimize overflowing conditions on regional drainage systems that ultimately flow to a natural body of water. Because of Seeley's size and proximity to the New River, there are no retention or detention basins, but according to the 2010 Drainage Master Plan prepared for County of Imperial (see **Appendix C**) several topographic low spots and isolated drain inlets function as impromptu retention facilities due to lack discharge locations. The topographic low spots are located on the south side of El Centro Avenue in front of the water treatment facility spanning approximately 1,300'; at the intersection of Imperial Avenue and El Centro Avenue; and at the intersection of Holt Avenue and Alamo Street.

Drainage within the Sunbeam Lake Park area sheet-flows onto IID's drainage system before it ultimately discharges to the New River. Sunbeam Lake itself acts as a retention basin with a drainage outlet connecting to a drain extending east across Drew Road and connecting to the New River.

Inventory of Approved Drainage Facilities

The 2010 Drainage Master Plan identified seven (7) prioritized improvement recommendations to convey a 25-year storm event. None of these recommendations are currently planned for construction due to lack of funding.

The Sunbeam Lake Estates residential subdivision includes a network of curb-and-gutters, stormwater pipelines, and a 5.2-acre retention basin to address the subdivisions drainage impacts. Stormwater from the subdivision will then discharge onto IID's drainage system.

Adequacy of Existing Facilities

Imperial County participates in the National Flood Insurance Program (NFIP) which is managed by the Federal Emergency Manager Agency (FEMA). The Flood Insurance Rate Map (FIRM), effective September 26, 2008 identifies portions of the New River as a Zone A floodplain subject to inundation by the 1-percent-annual-chance flood event. The area immediately surrounding Sunbeam Lake is also identified as Zone A. The remaining portions of Seeley's service boundaries and Sphere of Influence is within Zone X where flood hazard is minimal and higher than the elevation of the 0.2-percent-annual-chance flood.

Standing water from nuisance water and the occasional rainfall has been observed and indicates deficiencies in the drainage system. Drainage swales are not maintained and erosion over time has changed the slopes and carrying capacities of those slopes. Construction of driveways across surface drainage flowlines have also impeded the flow of water. Recommendations from the 2010 Drainage Master Plan indicate there are deficiencies in the system that must be addressed. The following **Table 5-N** summarizes the recommended improvements and the estimated project costs, in order of priority.

Table 5-N
Recommended Drainage Improvements

Project ID	Location	Pipe Sizes	Total Length	Number of Inlets	Estimated Cost
SD-01	Rio Vista Street, Haskell Road, San Diego Ave	36'-84"	4,512 FT	12	$7,828,700
SD-02	Rio Vista Street, Imperial Avenue	24"-72"	1,853 FT	8	$2,096,700
SD-03	San Diego Ave, Park Street	36"- 48"	1,547 FT	9	$1,110,700
SD-04	Rio Vista, Holt Ave, West Main, Evan Hewes HWY	36"-60"	1,769 FT	5	$1,619,900
SD-05	Holt Avenue, El Centro Street	36"-48"	2,228 FT	8	$1,619,500
SD-06	Laguna Avenue	36"	804 FT	4	$555,700
SD-07	Evan Hewes Highway	36"-48"	3.477 FT	5	$3,210,400
				Total	**$18,041,600**

Buildout Demand for Drainage Facilities

Development activity alters natural slope and the decrease of pervious areas which lead to additional runoff. As development occurs, stormwater drainage systems must be installed to ensure adequate removal of runoff. Developments will be required to construct grass lined detention basins to retain stormwater that may be generated by a 100-year, 24-hour storm. Stormwater will be discharged into existing drains upon the IID's approval. Some development projects will also be required to relocate and underground the existing canals and drains within their project areas to satisfy Imperial Irrigation District requirements.

Opportunity for Shared Drainage Facilities

The primary drainage system within the SCWD service area is managed by IID and is not intended to convey stormwater generated by urban runoff, although some storm water does flow into the IID drainage system as previously noted. The County of Imperial, Imperial Irrigation District, and Seeley County Water District maintain different components of the total drainage system which in essence are connected and shared facilities.

Future planned detention basins could be used for joint use as parks. However, that would require public ownership of the basins by either the Seeley County Water District or the County of Imperial, both of which have no established revenue source for the ongoing maintenance and repairs that would be needed over time.

Phasing of Drainage Facilities

The construction of future storm water drainage facilities is based on the rate of new development. Additional storm water drainage facilities will be needed in the proposed development areas in order to properly convey storm water into the IID drainage system. The storm water systems will be determined during the Tentative Map and designed during the Final Map stage of development. The stormwater systems will be approved by the County of Imperial and Imperial Irrigation District.

Mitigation for Drainage Facilities

Imperial County will continue to review all development proposed, prior to development approval and shall ensure design standards of stormwater facilities are per Best Management Practices prior to issuing permits. Seeley County Water District Mitigation recommendations are as follows:

D-1 Seeley County Water District shall not accept the granting of improved retention basin for dual park use and stormwater infrastructure unless the District has adopted Stormwater Standards, and;

D-2 Seeley County Water District shall not accept the granting of improved retention basin for dual park use unless there is a financing mechanism in place that will cover anticipated maintenance and repair costs of shared facilities.

D-3 Seeley County Water District shall periodically note any incidents of violations from stormwater facilities and report them immediately to Imperial County for enforcement.

5.3 SERVICES PROVIDED BY OTHERS

There are additional services provided within the Seeley Service Area by agencies other than Seeley County Water District or Imperial County. These special services include educational facilities and other utility services from various purveyors. The sections that follow will discuss these services that are provided by other special districts in brief overview as follows:

- Solid Waste Facilities- Solid Waste services consist of the collection and transport of solid waste generated by households and businesses and transported to a landfill for disposal.
- Public Lighting Facilities- Lighting facilities refer to the existing street lighting system within the Seeley County Water District service area. The street lighting system consists of the street lights and supporting facilities such as poles and wires.
- School Facilities- School facilities consist of improvements necessary to provide educational services including classrooms, libraries, cafeterias, etc. School facilities may further incorporate support services such as school buses, gym or lab equipment and recreational facilities.

5.3.1 Solid Waste Services and Facilities

Typically, the jurisdictional agency oversees contracts for waste collection and disposal. In some communities, it may be the sewer facility district while in others it may be the governing body. The Seeley community does not receive solid waste services under any umbrella contract with a solid waste service purveyor. Citizens independently obtain solid waste services with the company of their choosing. Currently there are three companies that service Seeley: 1) Republic Services, 2) Lucky Tire Inc., and 3) CR&R.

Performance Standards for Solid Waste Services

The State regulates solid waste via laws such as the California Integrated Waste Management Act (AB 939) which requires solid waste reduction, recycling and composting and environmentally safe transformation and land disposal. Municipalities will typically enter into a franchise agreement with solid waste collection purveyor and performance standards are outlined in the franchise agreements. Collection times and schedules, noise and disruption, solid waste containers, bulky item pick-up, electronic waste, green waste, and commercial roll-off provisions are typically spelled out in the franchise agreement to ensure order pick-up and disposal of solid waste. Franchise agreements will also details regarding compliance with recycling, source separation, and other State

requirements. Since Seeley is located in an unincorporated area, the County of Imperial is responsible for ensuring compliance with AB 939.

Inventory of Solid Waste Facilities

There is no solid waste office or landfill within the Seeley community. All service purveyors collect and haul off solid waste to a legally permitted landfill. Republic Services transports waste collected to the Allied Waste Land Fill in a privately-owned landfill, located at 104 East Robinson Road, within an unincorporated area, east of the SCWD; Lucky Tire Inc. and CR&R both take their solid waste to the CR&R Landfill located out of State in Yuma, to a location at 19536 South Avenue 1E in Yuma Arizona.

Adequacy of Solid Waste Services and Facilities

Residents are provided receptacles from the company that they choose. CR&R does not provide recycling services. CR&R picks up solid waste on Fridays. Lucky Tire Inc. collects solid waste as the customer requires from Monday to Friday. Additionally, Lucky tire Inc provides recycling services approximately once a week, but frequency may increase based on customer needs. Republic Services collects solid waste on Thursdays. While they do not currently offer recycling services, it is currently being considered by the company.

An estimated 2,788 tons of solid waste are collected annually from the Seeley community. An Estimated 3 – 10 tons are collected from the Seeley community by CR&R alone. The following are the capacities of each of the landfills:

- **Imperial Allied Waste Landfill**, used by Republic Services and Lucky Tire Inc. was recently expanded and has a disposal acreage of 162 acres (15,054,198 Tons) and an expected closure date of December 31, 2040.
- **CR&R Landfill,** used by CR&R currently has 1,913,636 tons of solid waste on site. The land fill has a disposal acreage of and a closure year of 2050. The Allied Waste Landfill may be used in cases of emergency, or through negotiations between CR&R and Republic Services.

Solid waste can also be disposed of at other landfills within Imperial County if the purveyors negotiate agreements with them. There are currently four (4) Imperial County-owned landfills: near Imperial, Calexico, Niland, and Bombay Beach. Additionally, there are two (2) privately owned landfills located in Salton City and Brawley.

Inventory of Approved Solid Waste Facilities

There are no additional Solid Waste Facilities proposed.

Buildout Demand for Solid Waste Facilities and Services

There are no additional Solid Waste Facilities and Services proposed. Existing solid waste facilities are adequate in size and no additional facilities are necessary. As development occurs, through the entitlement process, developers are required to ensure that solid waste facilities are adequate and in place before any new development is approved. Given that the Imperial Landfill was recently expanded, there are adequate solid waste facilities. The Sunbeam Lake Estates Mitigated Negative Declaration found that there is sufficient capacity at the existing landfill and buildout of the project would create less-than-significant impact to solid waste facilities and services.

Opportunity for Shared Solid Waste Services and Facilities

The landfill are shared facilities with many other jurisdictions in Imperial County. There may be an opportunity, however, for SCWD to negotiate and contract for waste disposal services on behalf of the Seeley Community and establish an enterprise fund in the future for the purpose of maximizing these services.

Phasing of Solid Waste Facilities

There are no additional solid waste facilities being proposed under the SAP, as there is no contract with the District for the provision of these services.

Mitigation for Solid Waste Facilities

No mitigation measures are required.

5.3.2 Lighting Facilities

Public lighting facilities are typically owned by the jurisdiction owning the right-of way under which they are found. All rights-of-way within the Seeley Community belong to the County of Imperial. Operation costs for electrical services are typically borne by the jurisdiction owning the right-of-way unless a contract for service exists with private owners or another entity.

Performance Standard for Lighting Facilities

There are no adopted performance standards by Imperial County or Imperial Irrigation District for lighting facilities. Typical street lights with 150-watt bulbs provide a coverage of approximately 150' diameter, and as such, street lights should be located every 300' to provide full coverage along sidewalks. Street lights should also be installed at intersections to ensure night-time visibility for vehicular traffic. Lighting provides safety and security but fixtures should be shielded to minimize light spill on to homes and to minimize light pollution to maintain a dark, night sky.

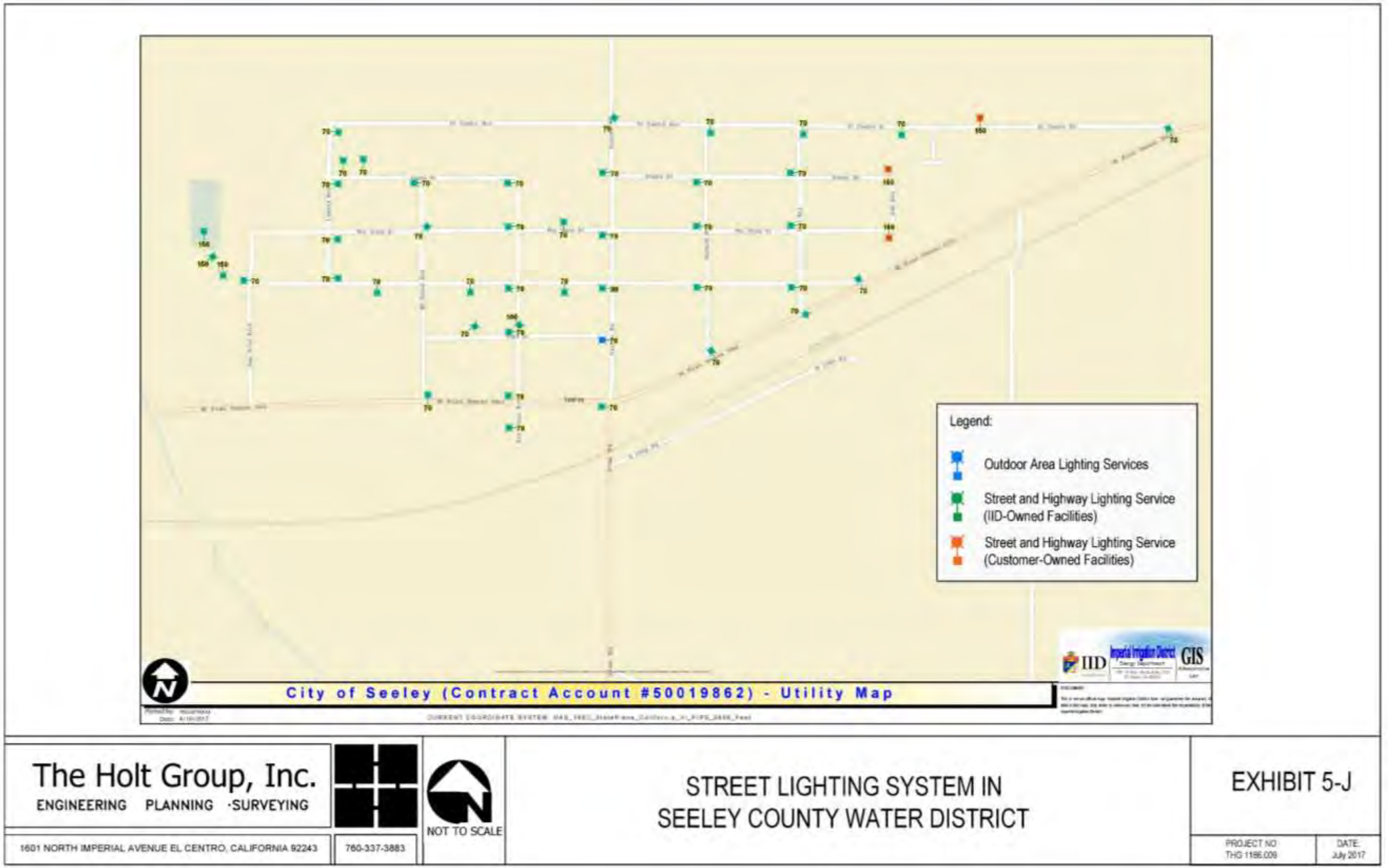
Generally, if lights are not functioning, IID makes the repair to the light and the cost is borne by designated owner. Older street lights generally have wooden poles and are owned by the Imperial Irrigation District while the newer lights within more recent developments consist of metal poles. It is important to note that IID incorporates energy efficiency components throughout its lighting facilities.

Inventory of Existing Lighting Facilities

There are approximately 47 street lights within the Seeley County Water **(Refer to Exhibit 5-J – Street Lighting System in Seeley).** There is an average of one light pole every 300 linear feet in north-south directions and 600 linear feet in east-west directions. Street lights within the Seeley County Water District Area are high-pressure sodium (HPS) bulbs varying from 70 Watts to 150 Watts.

Adequacy of Existing Lighting Facilities

As stated earlier, street lights should be located every 300' and at intersections to ensure full coverage for safety and security. Lighting in north-south streets appear to be adequate as there are light poles every 300'. Lighting in east-west streets, however, appear to deficient in that there are light poles every 600'. Most intersections appear to be lighted with the exception of Rio Vista-New River, Mount Signal-Main, Mount Signal-Park, and Evan Hewes-New River intersections.



The Holt Group, Inc.
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NOT TO SCALE

STREET LIGHTING SYSTEM IN
SEELEY COUNTY WATER DISTRICT

EXHIBIT 5-J

PROJECT NO: THG 1186.009 | DATE: July 2017

Buildout Demand for Lighting Facilities

As residential and commercial development occurs, developers work with the Imperial Irrigation District to install lighting facilities. Developers are required to submit various applications to the Imperial Irrigation District and pay applicable fees. The Developer is responsible for providing all project related documentation, inclusive of an approved Street Lighting Plan. After fees are paid, the Imperial Irrigation District's Distribution Engineering Section prepares a job package for construction. Imperial County approves the both the Street Lighting Plan and building permit as the District does not have land use authority. Should a development demand services beyond what can be supported by the existing substation, the costs of providing another substation are borne by the developer.

Opportunity for Shared Lighting Facilities

There are currently no opportunity for shared lighting facilities.

Phasing of Lighting Facilities

Lighting facilities are constructed on an as-needed basis for all new development. Phasing of lighting facilities is typically consistent with the phasing of residential or commercial development. As development occurs, street lights are incorporated to ensure safety.

Mitigation for Lighting Facilities

Public lighting is typically paid through the collection of property tax by the owning jurisdiction. SCWD shall ensure that prior to assuming any lighting service responsibilities that accompanying revenues be agreed to whether it be via tax share agreements or specific community facility districts.

5.3.3 School Facilities

Performance Standard for School Facilities

The schools' capacity is determined according to the methodology specified by Education Code Section 41376 and 41378. These calculations determine that kindergarten shall be at a maximum of 33 students per classroom, first through third grade classrooms at 32 students per classroom and fourth through eighth grade classrooms at 29 students per classroom. The Seeley Union School District has not completed a School Facilities Needs Analysis to determine the need for additional school facilities.

School Facilities Owned by Seeley Union School District

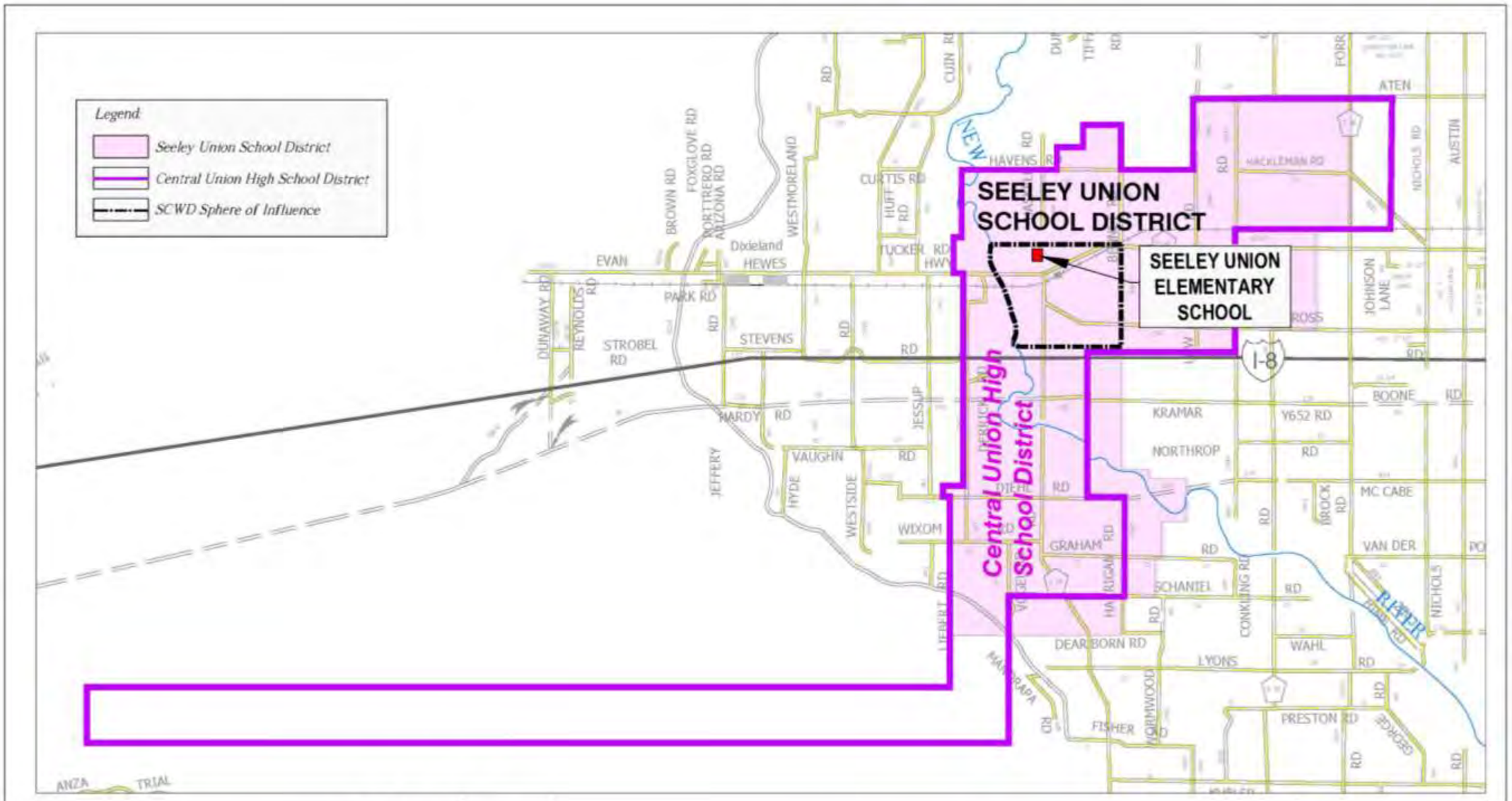
Educational facilities and services are provided within the Seeley County Water District by the Seeley Union School District which covers an area of approximately 22 square miles. The school district provides educational services to the Seeley community for grades kindergarten through eighth and does not provide high-school education. Central Union High School provides high school education services for the area.

Inventory of Existing School Facilities

The Seeley community is serviced by two school districts, Seeley Union School District and the Central Union High School District. (Please refer to **Exhibit 5-K – School Facilities Map**). The School District operates from one building that is located on the Seeley Elementary School campus.

Seeley Union School District was established in 1912 as a single-school elementary school that serves K-8 grade levels. The Seeley Union School District operates one elementary schools and the District office. The Seeley Union Elementary School is located at 1812 West Rio Vista Road in Seeley. There is one special education classroom and 16 classrooms for K-8 grade level. There are currently 337 students enrolled at the school and as of 2017 there is capacity for an additional 163 fourth through eighth grade students.

Central Union High School District is the district of the three high schools in El Centro, California — Central Union High School (CUHS), Southwest High School (SHS), and Desert Oasis High School (DOHS). The CUHSD main office and boardroom are located adjacent to DOHS and provide services to the Seeley Community. All incoming freshman from Seeley Union School District have to attend Southwest High School



The Holt Group, Inc. ENGINEERING PLANNING ·SURVEYING		NOT TO SCALE	SCHOOL FACILITIES MAP SEELEY COUNTY WATER DISTRICT	EXHIBIT 5-K
1601 NORTH IMPERIAL AVENUE EL CENTRO, CALIFORNIA 92243	760-337-3883			PROJECT NO THG 1198.008P / DATE: August 2017

Inventory of Approved School Facilities

The Seeley Union School District has an approved plan for the construction of a gymnasium. There are no approved plans for the construction of new classroom facilities as it was operating below capacity as of the date of this SAP. In the future, the Seeley Union School District might consider constructing new classrooms to accommodate any changes in increased demand for services to accommodate new development and population growth.

Adequacy of Existing School Facilities

The existing Seeley Union School District facilities are adequate to meet the educational needs of the current population. The Seeley Union School District, however, will not be able to meet the expected demand from the projected population growth. As new development is proposed, close coordination with the applicable school districts is required to ensure proper development impact fees are assessed and that necessary facilities are constructed to accommodate the new development.

Buildout Demand for School Facilities

The Sunbeam Lake Estates subdivision was approved by the County of Imperial for development along the north side of Ross Road at Drew Road. The project site is outside the current service boundaries of SCWD but within the boundaries of the Seeley Union School District. Buildout of the project, along with infill development, would result in an estimated population of 9,212 residents in the year 2038. Using a generic student generation rate of 0.475 for elementary and middle-school aged children for single family residences and 0.5346 for multi-family dwelling units (based on Calexico Unified School District), ultimate buildout of infill projects and the Sunbeam Lake Estates subdivision would result in 507 new students. The school's current capacity can accommodate 163 students but a new school is needed for the other 344 new students.

The Mitigated Negative Declaration identified potentially significant impacts to School District as a result of the proposed residential development project. To mitigate the impact, Sunbeam Lake Estate is required to pay an additional school impact fee on top of the established impact fee. The fees will help in the expansion of existing school facilities.

Phasing of School Facilities

Seeley School's current capacity can accommodate natural growth and growth from infill development through 2038. Additional classrooms may be needed or reconfigured depending on actual grade demand. Seeley School will be at capacity

within Year 3 of the development of Sunbeam Lake Estates. If Sunbeam Lake Estates were to start developing this year, new students would begin attending in the 2018 school year and capacity would be reached in the 2021 school year. School facility planning, design, funding, and construction could take up to five years.

Mitigation for School Facilities

Seeley Union School District should develop a School Facilities Need Assessment to use as a tool for planning a new school site. The Seeley County Water District should approach the School District regarding the timely development of the Assessment.

6. FINANCING PLAN

6.1 INTRODUCTION

Seeley County Water District's Profit and Loss Statement for July 2015 to June 2017 shows a total of $734,673.32 in expenses. Approximately 55.1% of those expenses were for wastewater operations, 42.4% for water operations, 1.2% for dumper operations, and the remaining 1.3% were administrative/other expenses. The financial statements for the fiscal year ended June 30, 2016 shows that the net position (the difference between assets and liabilities) was $8,674,673.00. SCWD has a current loan balance of $165,134.88 from the USDA with a loan maturation date of June 16, 2046. Loan payments are made on an annual basis for an amount of $8,040.00. Terms of the loan requires that SCWD maintain an annual fund reserve of $3,400.00. All other debt obligations were paid off in the fiscal year ended June 30, 2016.

The Financing Plan section of the Service Area Plan lists and describes potential revenue sources and various financing mechanisms available to the Seeley County Water District to meet the projected service and facility demands identified earlier in this document. It also describes how each existing facility and service is currently financed and how future financial demands for these facilities and services can be ensured.

Finance plans and available financing options are also discussed in this section and are largely subject to the guidelines of Proposition 218 which was enacted in 1996. Proposition 218 clearly defines general taxes and special taxes and sets guidelines on the issuance, use, and implementation of taxes, which includes water rates. Proposition 218 states that general taxes must be approved by a majority of voters before they can be imposed, extended or increased and special taxes require approval by a two-thirds vote.

6.2 EXISTING REVENUE SOURCES

This section provides a summary of the revenue sources available to finance the necessary public facilities and services within the District Boundary or as areas within the Sphere of Influence are annexed. The following list presents sources of revenue that are currently utilized by the District in order to accumulate finances necessary to develop and operate the various facilities and services discussed within the SAP. Complete budgetary information for financing mechanisms currently utilized is available for viewing at the District Office.

Property Tax

Property taxes generate revenue that can be used to support various improvements and services including general District expenses. Property taxes in California are governed by Proposition 13 which limits the property tax rate to 1%. Other voter approved bonds and assessment districts may also generate tax revenue. The County of Imperial, collects the property tax, and shares the tax revenue collected from property owners within the District. Property taxes are distributed to various entities including, Imperial County, cities, and special districts according to formulas and procedures established by California law and consistent with the "Teeter Plan" for distribution of delinquent taxes owed. Each eligible tax jurisdiction receives a base amount of property tax that increases or decreases based on the growth of that district. According to Property Tax Information issued by the County Controller's Office, taxes are allocated as follows: schools receive 59%, Cities receive 22%, County receives 12%, Special Districts share 3%, Fire Protection receives 3%, and Libraries receive 1%.

The District may enter into specific tax sharing agreements for tax revenue over and above the aforementioned proportion. There is however, no official tax share agreement in place for all District areas. The District cannot rely on tax revenue beyond the stipulated by California Law until an official agreement is put in place with the County. The District Finance Department estimates that approximately $2,500 in property tax revenue may be collected annually depending on assessed values. This tax is utilized by the District to cover non-water or sewer enterprise expenses including park maintenance and power services for street lighting.

Development Impact Fees

Development Impact Fees are charges to private developers to assure that the demand of physical and financial impacts to public services and facilities are adequately addressed. Development Impact Fees can be a significant funding source to finance large scale capital improvements to public facilities. Development impact fees are used exclusively to fund the capital costs of new and improved facilities specifically related to the category for which fees are charged. The District has an established impact fee as capacity fee and collects the fees for both Water Treatment Facilities and Wastewater Treatment Facilities. The level of Development Impact Fees collected on any given year is driven by the level of new development demand. Table 6-A Adopted Impact Fees depicts the fees in place at the time of the development of this Service Area Plan:

Table 6-A
SCWD Adopted Impact Fees

Fee	Residential	Commercial/ Industrial	School	RV Park	Dumpster/ Hauler
Sewer Fees					
Capacity	$2,450	$2,450	$2,450	$2,450	n/a

Water Fees					
Capacity	$3,700	$3,700	$3,700	$3,700	n/a

Source: Seeley County Water District

User Fees

Certain public services and facilities operated by the District entail various user fees that are charged to patrons or other users on a fee-for-service basis. User fees are typically applied to a monthly service. Monthly fees may be charged for services such as water, sewer, and trash to residential uses, commercial uses, industrial uses, and/or public agencies. User fees are also charged for reconnections, penalties, and late fees. The fees are typically used as a revenue source to maintain the systems in proper operating condition and for the construction of facilities needed to meet demand. The District's current user fees were adopted in 2016 and are depicted in Table 6-B and 6-C as noted.

Table 6-B
Water Rates

Customer Classification	Flat monthly fee	Water usage /1000 gallons
Average Single-Family Customer (=1 EDU)	**$32.73**	**$1.29**
Average Two-Family Customer, per Household (=7 EDU EA)	**$22.92**	**$1.29**
Average Multi-Family, per Household	**$22.92**	**$1.29**
Average Commercial Customer, 2 EDU's	**$65.46**	**$1.29**
Large Commercial Customer, 29.75 EDU's	**$973.72**	**$1.29**
Large Commercial Customer, 34.0 EDU's	**$1,112.82**	**$1.29**
Large Commercial Customer, 82.5 EDU's	**$2,700.23**	**$1.29**

*Rates are effective as of March 1, 2017 and will increase 5% annually for 5 years.
Source: Rate Increases Approved by SCC Board Table, Effective March 1, 2017

Table 6-C
Sewer Rates

Customer Classification	Flat monthly fee
Average Single-Family Customer (=1 EDU)	**$47.45**
Average Two-Family Customer, per Household (=7 EDU EA)	**$33.22**
Average Multi-Family, per Household	**$33.22**
Average Commercial Customer, 2 EDU's	**$94.90**
Large Commercial Customer, 34.0 EDU's	**$1,613.30**
Large Commercial Customer, 82.5 EDU's	**$3,914.63**

*Rates are effective as of March 1, 2017 and will increase 3.3% annually for 5 years.

Source: Rate Increases Approved by SCC Board Table, Effective March 1, 2017

On average, the Seeley County Water District receives an estimated $360,000 in annual service fee revenue from the Water Enterprise Fund. Additionally, the District receives an estimated $485,000 in annual service fee revenue from the Sewer Enterprise Fund. These revenues along with the project increase in revenues are projected to cover operation and maintenance costs. There are no outstanding loans thus no need for any loan reserves as of June 2017. Reserves for capital improvements may need to be re-evaluated on a continual basis.

Developer/Builder Contribution

Many of the sewer and water improvements required as a result of new development can be directly funded and constructed by the developer/builder. These required improvements would be in addition to Developer Impact Fees and User Fees. The County of Imperial would respectively request contributions for drainage, parkland and roadway improvements.

Other Local Revenue Sources

The District currently generates revenues from other sources such as interest earned from bank accounts. Although these miscellaneous revenues are useful, they account for negligible impacts to the District's total operational budget.

6.3 POTENTIAL REVENUE SOURCES

Community Facilities Districts

A Community Facilities District (CFD), not to be confused with a Community Services District (CSD), falls under the 1982 Mello-Roos Community Facilities Act. This Act allows a CFD to be established by cities, counties, special districts and school districts to fund a variety of facilities and services. Note that the boundaries of a CFD are not required to be contiguous as they are for a CSD. In order for a CFD to be formed, a public hearing must occur and an election held to authorize the specified tax levy to either provide direct funding or pay off bonds. The Seeley County Water District does not have any CFD within its District boundary as of the date of this 2017 Service Area Plan.

Private Financial Institutions

A financing opportunity may be via revenue bonds through private financial institutions as part of their Community Reinvestment Act (CRA) obligations. The Community Reinvestment Act was enacted by the U.S. Congress in 1977 to encourage depository institutions to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods,

consistent with safe and sound banking operations. The Community Reinvestment Act requires federal financial supervisory agencies to use their authority when examining financial institutions subject to supervision, to assess the institution's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods. Local institutions make keep a good standing in order to continue to grow, thus investment opportunities into small community capital improvements are actively sought be responsible financial institutions. The following lending institutions have local CRA obligations:

- Bank of America- Satisfactory rating as of 2015
- JP Morgan Chase Bank- Outstanding Rating as of 2006
- Rabobank- Satisfactory Rating as of 2007
- Union Bank of California- Outstanding Rating as of 2005
- Wells Fargo- Outstanding Rating as of 2006

Public Financial Institutions

North American Development Bank (NADBank)- The NADBank is a binational financial institution capitalized and governed equally by the United States and Mexico for the purpose of financing environmental projects certified by the Border Environment Cooperation Commission (BECC). The two institutions work together with communities and project sponsors in both countries to develop and finance infrastructure necessary for a clean and healthy environment for border residents. NADB can make loans to public and private borrowers, at market and low-interest rates, for the implementation of environmental infrastructure projects located in the U.S.-Mexico border region. Loans are available for the implementation of projects in all environmental sectors in which the NADBank operates.

California Infrastructure and Economic Development Bank (IBank)- The Infrastructure State Revolving Fund (ISRF) Program provides low-cost financing to public agencies for a wide variety of infrastructure projects. ISRF Program funding is available in amounts ranging from $50,000 to $25,000,000, with loan terms for the useful life of the project up to 30 years. Interest rates are set at the time the applicant is approved and are typically pegged at 67% of a generic A rated municipal bond with an equivalent term to the Loan. Preliminary applications are continuously accepted.

Federal Grant Agencies

USDA Rural Utility Service Program- USDA Rural Development provides funding opportunities in the form of payments, grants, loans, and loan guarantees, for the development and commercialization of vital utility services. These programs revitalize rural communities with a variety of infrastructure improvements, and

create sustainable opportunities for wealth, new jobs, and increased economic activity in rural America.

Utilities programs connect rural residents to the global economy by developing rural water and wastewater systems to help address water quality, amongst other infrastructure projects.

U.S. Environmental Protection Agency (EPA)- EPA's mission is to protect human health and the environment. Nearly half of their budget goes is used towards grants to state environmental programs, non-profits, educational institutions, and others. The funds are used for a wide variety of projects, from scientific studies that assist in EPA making decisions to community cleanups. Overall, grants assist EPA in achieving their overall mission: protect human health and the environment. EPA's Border Water Infrastructure Program provides grant assistance to communities along the U.S./Mexico border to develop and construct infrastructure to provide safe drinking water and adequate sanitation, and to improve water quality in shared and trans-boundary waters. EPA funds grant programs through the Border Environmental Cooperation Commission created in 1993 under a side agreement to the North American Free Trade Agreement (NAFTA) for the purpose of enhancing the environmental conditions of the US-Mexico border region. BECC and NADBank work closely with other border stakeholders including federal, state, and local agencies, the private-sector and civil society to identify, develop, finance and implement environmental infrastructure projects on both sides of the US-Mexico border. BECC focuses on the technical, environmental, and social aspects of project development, while NADBank concentrates on project financing and oversight for project implementation. Two Grant Programs available through BECC are the Project Development Assistance Program (PDAP) and Border Environmental Infrastructure Fund (BEIF) as follows:

- **Community Assistance Program (CAP)**: The Community Assistance Program is administered through BECC and funds smaller shovel ready projects up to $500,000. Funded with NADB's retained earnings, this program offers grant financing to support the implementation of projects sponsored by public entities in all environmental sectors eligible for NADB financing. The objective of this program is to support the implementation of critical environmental infrastructure projects for sponsors with limited capacity to incur debt.

- **Project Development Assistance Program (PDAP):** Funding is available for project development activities necessary for certification of projects including, but not limited to planning studies, environmental assessment, final design, financial feasibility, community participation, and development

of sustainability elements. Final design grant assistance is limited to 50% of the final design costs and cannot exceed $500,000.

- **Border Environmental Infrastructure Fund (BEIF):** Grants are intended to supplement funding from other sources in order to complete a project's financial package. Applicants must seek other sources of funding since BEIF is considered to be the funding of last resort. Actual BEIF participation is considered on a project-by-project basis and determined according to funding availability and based on an affordability analysis to be conducted by NADBank during project development.

State Grant Agencies

State Water Resources Control Board- The Division of Financial Assistance (DFA) administers the implementation of the State Water Resources Control Board's (State Water Board) financial assistance programs that include loan and grant funding for construction of municipal sewage and water recycling facilities, remediation for underground storage tank releases, watershed protection projects, nonpoint source pollution control projects, and other similar projects. The State Water Resource Control Board administers the Clean Water State Revolving Fund (CWSRF), the Drinking Water State Revolving Fund and Small Community Wastewater Grant (SCWG) Programs. More information on each Program is found below.

- **Clean Water State Revolving Fund Program (CWSRF)-** The Clean Water State Revolving Fund Program accepts applications on a continuous basis. The Federal Water Pollution Control Act (Clean Water Act or CWA), as amended in 1987, established the Clean Water State Revolving Fund (CWSRF) program. The CWSRF program offers low interest financing agreements for water quality projects. Annually, the program disburses between $200 and $300 million to eligible projects.

- **Drinking Water State Revolving Fund Program (DWSRF)-** The Drinking Water State Revolving Funds Program was established by the 1996 amendments to the Safe Drinking Water Act (SDWA). The DWSRF is a financial assistance program to help water systems and states to achieve the health protection objectives of the SDWA. The state DWSRFs have provided more than $32.5 billion to water systems through 2016. Small disadvantaged communities can obtain up to 100% grant funding for eligible projects.

- **Small Community Wastewater Grant (SCWG)-** The Small Community Wastewater Grant Program was created to aid small, financially

disadvantaged communities in correcting public health and water quality problems. The SCWG Program originally received funding through the Clean Water Bond Law of 1984, but has relied on several additional funding propositions to continue to assist small communities with water quality needs. Priority is given to small disadvantaged communities which have a significant water quality investment with wastewater rates of at least 1.5% of the communities MHI. Small disadvantaged communities can obtain up to 100% grant funding for eligible projects.

California Department of Housing and Community Development- The State Community Development Block Grant (CDBG) program was established by the federal Housing and Community Development Act of 1974, as amended (42 USC 5301, et seq.). The State CDBG program is implemented by California Health and Safety Code section 50825, et sequentia, and the California Code of Regulations (Title 25, Section 7050, et sequentia). The primary federal objective of the CDBG program is the development of viable urban communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low and moderate income. "Persons of low and moderate income" or the "targeted income group" (TIG) are defined as families, households, and individuals whose incomes do not exceed 80 percent of the county's median income, with adjustments for family or household size.

Each year the program makes funds available to eligible jurisdictions through several allocations. Under the General Allocation, jurisdictions may apply for funding to subsidize public facilities or special assessment districts. Although SCWD would not be able to access the funds directly, it may do so under an agreement with the County of Imperial.

6.4 FACILITY FINANCING

6.4.1 Administrative Facilities

Current Funding

The existing administrative facilities are currently owned by Seeley County Water District. The primary sources of revenue for operation and maintenance of the administrative facilities are water and sewer user fees, as the District's primary function is the provision of wastewater and potable water services.

Cost Avoidance Opportunities

There is currently no opportunity for Cost Avoidance. The operation and costs of the administrative facilities is shared by the two funds. The facility is used for Board meetings and all SCWD related business.

Recommended Funding

Existing funding sources will continue to be used to support administrative services and facilities. The District will continue to use water and user fees to offset the maintenance and operation of the administrative facilities operated by the District. Development Impact fees may become a key source of funding for capital facilities in the future as deemed necessary by the County of Imperial during the development review process.

It is further recommended that SCWD adopt deposit and fees for the cost of engineering review of developer plans. As new development occurs, it will be necessary for the District to review the proposed infrastructure improvement plans for facilities that will be taken over by the District or to ensure the new facilities don't adversely impact the Districts systems. The cost for the District engineer to review plans is a recoverable cost for the administrative/professional service.

Administrative costs may be borne to the General Fund, each enterprise fund, and a parks and lighting fund as deemed appropriate by the District.

6.4.2 Wastewater Facilities

Current Funding

The primary sources of revenue for wastewater facilities are user fees. Development impact fees (capacity fees) which have been collected over the years are only a revenue source for capital improvements to wastewater facilities and are limited due to slow growth. The current wastewater user fees were last

updated in 2016 and were made effective on March 1, 2017 and are established at $42.45 for single family residential as of the date of this document with a capacity fee of $2,450.

Cost Avoidance Opportunities

The District requires developers to construct wastewater-related infrastructure that will connect the specific development with the existing wastewater treatment system. This requirement helps the District avoid substantial costs associated with infrastructure development.

Recommended Funding

The District will continue to use the financing mechanisms described above. User fees will continue to finance the wastewater operation, maintenance, salaries, and equipment costs. The District will continue to use user fees and capacity fees to finance the City's wastewater service and capital improvement needs as well as ongoing operation and maintenance.

It is recommended that the Impact Fees (Capacity Fees) for all new wastewater services be reviewed and evaluated. The Sewer Impact Fees would be applicable for all new proposed development to offset their respective new demand such as WWTP expansion or new collection main lines with increased capacities.

System rehabilitation costs or pipeline replacement costs associated with system deficiencies that involve major capital investments and or improvements that are tied to Regional Water Quality Board demands should be addressed via grant funding programs. The SCWD qualifies for a number of subsidized funding sources, up to 100% grant funding under programs such as the Clean Water State Revolving Fund through the State Water Resources Control Board; Rural Assistance Community Facilities Program through the USDA; Community Assistance Program through the Border Environmental Evaluation Commission; Border Environmental Infrastructure Fund through NADBank and a possible indirect source accessing Community Development Block Grant HUD funds through the County of Imperial.

The SCWD should consider designating the wastewater fund as an independent fund from the water enterprise since these independent facilities have diverse capital needs and costs.

6.4.3 Water Facilities

Current Funding

The primary sources of revenue for water treatment and distribution facilities are the water service charges and water connection fees collected and deposited into

the Water Fund. Development impact fees (capacity fees) which have been collected over the years are the only current revenue source for capital improvements to water facilities and are also limited due to slow growth. User fees are collected for the continued operation and maintenance. The current user fees for water were last updated in 2016 and were made effective on March 1, 2017. The current user fee established at $32.73 for single family residential and $3,700 in capacity fees for residential connections as of the date of this document. However the current user fees will increase five percent (5%) annually for a total of five years.

Cost Avoidance Opportunities

The District requires developers to construct water-related infrastructure that will connect the specific development to District services. This requirement helps the District avoid substantial costs associated with new infrastructure development.

Recommended Funding

The District will continue to use the financing mechanisms described above. User fees will continue to finance the wastewater operation, maintenance, salaries, and equipment costs. The District will continue to use user fees and capacity fees to finance the City's water service and capital improvement needs as well as ongoing operation and maintenance. The current potable water user fees and capacity fees adopted in 2016 will continue to be in effect throughout the planning period unless modified by the District.

It is recommended that the Impact Fees (Capacity Fees) for all new water services be reviewed and evaluated. The Water Impact Fees would be applicable for all new proposed development to offset their respective new demand such as WTP expansion or new storage facilities, distribution lines or pump station with increased capacities.

System rehabilitation costs or pipeline replacement costs associated with system deficiencies that involve major capital investments and or improvements that are tied to Public Health Department notices of violations should be addressed via grant funding programs. The SCWD qualifies for a number of subsidized funding sources, up to 100% grant funding under programs such as the Drinking Water State Revolving Fund through the State Water Resources Control Board; Rural Assistance Community Facilities Program through the USDA; Community Assistance Program through the Border Environmental Evaluation Commission; Border Environmental Infrastructure Fund through NADBank and a possible indirect source accessing Community Development Block Grant HUD funds through the County of Imperial.

The SCWD should consider designating the water fund as an independent fund from the wastewater enterprise since these independent facilities have diverse capital needs and costs.

6.4.4 Park & Lighting Facilities

Current Funding

The primary sources of revenue for park facilities are property taxes for County parks followed by grant funds for improvements. SCWD does not set aside any funds for park operation and maintenance of the Robert Bates Memorial Park, however, it warrants to note that the District was successful in securing a one-time $150,000 grant through the Imperial Irrigation District Local Entity Program anticipated to be expended during the 17/18 Fiscal Year. Street Light costs are also paid from property tax, however the cost of power services for street lights exceed the property tax revenue.

Cost Avoidance Opportunities

Parks-Currently, all new development must incorporate park facilities as a County established development standard. This County driven development standard should eliminate the need for the District to provide recreational facilities. Under these development standards, the District is not responsible for the purchase or dedication of land or for park improvements. Continued operation and maintenance costs for parks should be planned for and collected through the establishment of Community Facilities Districts. The SCWD and the County of Imperial should jointly seek these cost avoidance measures.

Street Lights-Currently, all new development must incorporate street lighting facilities as a County established development standard. This County driven development standard should be borne to the County of Imperial and not the SCWD.

Recommended Funding

Parks The District will continue to use the existing financing mechanisms described above to finance the District's continued improvement, operation and maintenance of parkland. As new development occurs, the formation of a Landscaping and Lighting District or similar mechanism should be considered and coordinated with Imperial County. The collected property tax contribution from Imperial County is not significant enough for the capital improvement needs or continued maintenance costs of the aging park infrastructure at the Robert Bates Memorial Park. The District in partnership with Imperial County should seek grant

funding opportunities through the Department of Parks and Recreation and other State agencies or local entities to improve the Robert Bates Memorial Park and/or the Sunbeam Lake Park.

Street Lights- Continued operation and maintenance costs for street lights should be planned for and collected through the establishment of Community Facilities Districts. The SCWD should attempt to negotiate a separate tax share agreement to cover street light expenses in the established Seeley Townsite.

The SCWD should consider establishing a parks and lighting fund to ensure park costs are not borne to the water or enterprise fund and for proper management of revenue.

6.4.5 Drainage Facilities

Current Funding

Within the District Boundary and the Heber sphere of influence, drainage facilities are generally installed and funded by developers as projects are developed. Routine maintenance, operation, and personnel costs are not currently tied to any District Fund nor accounted for through any maintenance agreements.

Cost Avoidance Opportunities

The District, in concert with the County of Imperial is able to avoid some costs for the development of new drainage facilities by requiring developers to construct adequate facilities and retention basins for their projects. As the County of Imperial seeks street funds it should address storm drain facilities within the right-of-way as eligible costs under FHWA grant funded projects.

Recommended Funding

Funding responsibilities for project related facilities should continue to be the responsibility of developers and secured prior to issuance of any “will serve” letters for water and/or sewer services that may be requested by developer. The District shall make clear that the ongoing operation and maintenance of any drainage facilities including retention basins shall be the responsibility of Imperial County and or privately owned and operated. If for any reason a detention basin is proposed to be dedicated to the SCWD, it shall be necessary to establish a financing mechanism such as a Community Facilities District.

List of Appendices

Appendix A – County of Imperial Development Impact Fee's & Ordinance 1418

Appendix B – Pavement Management Analysis Report

Appendix C – Seeley Area Drainage Master Plan

Appendix D – SCWD Approved Budget and Financial Statement

Resources

Caltrans, Traffic Volumes: Annual Average Daily Traffic (AADT) 2015, Route 8 http://www.dot.ca.gov/trafficops/census/volumes2015/Route7-10.html

Census.Gov, American Fact Finder ACS Demographics and Housing Estimates 2011-2015 American Community Survey 5- Year Estimates, 3/16/17

County of Imperial Fire Department, Tony Rauhotas Jr., May 15, 2017

County of Imperial Planning and Development Services County of Imperial Land Use Element, 2007

County of Imperial Planning and Development Services, Seeley Urban Plan, 1994

County of Imperial Registrar of Voters/ Elections Department, Debbie Porter, April 10, 2017

County of Imperial, Zoning Map 9A Townsite of Seeley, 2006

CR&R Incorporated Environmental Services, Francisco Ochoa, April 12, 2017

Department of Finance, California, E-1 2015-2016 Population Estimates, 3/16/17

Emergency Services Consulting International, Imperial County Fire Department, Office of Emergency Services Master Plan, 2012

Imperial County Board of Supervisors Ordinance 1418 on County Development Impact Fees, Adopted 11/21/2006

Imperial County Free Library, Crystal Duran, March 20, 2017

Imperial County Local Agency Formation Commission, LAFCO Policy Manual, Chapter VII. Principal Act Section 30000-33900, Water Code, 2009

Imperial County Local Agency Formation Commission, Seeley Sphere of Influence

Imperial Irrigation District, City of Seeley Utility Map, April 10, 2017

IMS Infrastructure Management Services, County of Imperial, CA Pavement Management Analysis Report, February 2012

Lucky Recycling Group, Inc., Dan Drewek, April 12, 2017

Naval Air Facility El Centro, Kristopher Haugh , July 13, 2017

Naval Air Facility El Centro, William Kagele, MS, August 10, 2017

Nolte Associates Inc., Seeley County Water District, Service Area Plan, 2003

Republic Services, Michael Jowell, April 12, 2017

Rick Engineering Company, Seeley Area Drainage Mater Plan, June 2010

Seeley Union School District, Cecilia Dial, April 20, 2017

Vanir Construction Management, Inc, Municipal Service Review Draft #3, January 2011

APPENDIX A

County of Imperial Development Impact Fee's
& Ordinance 1418

Appendix A - County of Imperial Development Impact Fee's

A. Sheriff		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$619	$317	$936
	Multi-Family	$484	$243	$727
	Mobile home (private lot or Park)	$415	$217	$632
Non-Residential (Per 1,000 SF)	Comm/Shop Ctr (50,000 SF or less)	$407	$349	$756
	Comm/Shop Ctr (50,001-100,000 SF)	$356	$305	$661
	Comm/Shop Ctr(100,000-200,000 SF)	$308	$264	$572
	Comm/Shop Ctr (over 200,000 SF)	$264	$227	$491
	Office/Inst (25,000 SF or less)	$116	$142	$308
	Office/Inst (25,001 - 50,000 SF)	$141	$121	$262
	Office/Inst (50,001 - 100,000 SF)	$120	$103	$223
	Medical-Dental Office	$326	$280	$606
	Hospital	$158	$136	$294
	Business Park	$115	$99	$214
	Light Industrial	$63	$54	$117
	Manufacturing	$34	$29	$63
	Warehousing	$44	$38	$82
	Elementary School	$131	$112	$243
Other Non-residential (per unit):	Lodging (per room)	$50	$43	$93
	Day Care (per student)	$40	$34	$74
	Nursing Home (per bed)	$21	$18	$39
B. General Government		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$1,349	$350	$1,699
	Multi-Family	$1,057	$267	$1,324
	Mobile home (private lot or Park)	$906	$239	$1,145
Non-Residential (Per 1,000 SF)	Comm/Shop Ctr (50,000 SF or less)	$264	$44	$308
	Comm/Shop Ctr (50,001-100,000SF)	$230	$38	$268
	Comm/Shop Ctr(100,000-200,000 SF)	$205	$34	$239
	Comm/Shop Ctr (over 200,000 SF)	$184	$30	$215
	Office/Inst (25,000 SF or less)	$383	$64	$447
	Office/Inst (25,001 - 50,000 SF)	$361	$60	$421
	Office/Inst (50,001 - 100,000 SF)	$340	$56	$396
	Medical-Dental Office	$374	$62	$436
	Hospital	$312	$52	$364
	Business Park	$291	$48	$339
	Light Industrial	$213	$35	$248
	Manufacturing	$165	$27	$192
	Warehousing	$118	$19	$137
	Elementary School	$84	$14	$98

Other Non-residential (per unit):	Lodging (per room)	$40	$6	$46
	Day Care (per student)	$14	$2	$16
	Nursing Home (per bed)	$33	$5	$38
C. Fire		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$-	$1,273	$1,273
	Multi-Family	$-	$977	$977
	Mobile home (private lot or Park)	$-	$871	$871
Non-Residential (Per 1,000 SF)	Comm/Shop Ctr (50,000 SF or less)	$-	$501	$501
	Comm/Shop Ctr (50,001-100,000SF)	$-	$438	$438
	Comm/Shop Ctr(100,000-200,000 SF)	$-	$389	$389
	Comm/Shop Ctr (over 200,000 SF)		$351	$351
	Office/Inst (25,000 SF or less)	$-	$728	$728
	Office/Inst (25,001 - 50,000 SF)	$-	$686	$686
	Office/Inst (50,001 - 100,000 SF)	$-	$647	$647
	Medical-Dental Office	$-	$710	$710
	Hospital	$-	$593	$593
	Business Park	$-	$554	$554
	Light Industrial	$-	$405	$405
	Manufacturing	$-	$314	$314
	Warehousing	$-	$224	$224
	Elementary School	$-	$161	$161
Other Non-residential (per unit):	Lodging (per room)	$-	$77	$77
	Day Care (per student)	$-	$28	$28
	Nursing Home (per bed)	$-	$63	$63
D. Parks and Recreation		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$452	$-	$452
	Multi-Family	$354	$-	$354
	Mobile home (private lot or Park)	$303	$-	$303
E. Public Works		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$-	$1,897	$1,897
	Multi-Family	$-	$1,453	$1,453
	Mobile home (private lot or Park)	$-	$1,296	$1,296
Non-Residential (Per 1,000 SF)	Comm/Shop Ctr (50,000 SF or less)	$-	$1,857	$1,857
	Comm/Shop Ctr (50,001-100,000SF)	$-	$1,625	$1,625
	Comm/Shop Ctr(100,000-200,000 SF)	$-	$1,407	$1,407
	Comm/Shop Ctr (over 200,000 SF)		$1,207	$1,207
	Office/Inst (25,000 SF or less)	$-	$757	$757
	Office/Inst (25,001 - 50,000 SF)	$-	$645	$645
	Office/Inst (50,001 - 100,000 SF)	$-	$550	$550
	Medical-Dental Office	$-	$1,491	$1,491
	Hospital	$-	$725	$725

	Business Park	$-	$526	$526
	Light Industrial	$-	$287	$287
	Manufacturing	$-	$157	$157
	Warehousing	$-	$204	$204
	Elementary School	$-	$598	$598
Other Non-residential (per unit):	Lodging (per room)	$-	$232	$232
	Day Care (per student)	$-	$184	$184
	Nursing Home (per bed)	$-	$97	$97
F. Library Service District		County	Unincorp	Total
Residential (Per Housing Unit):	Single-Family	$-	$-	$387
	Multi-Family	$-	$-	$368
	Mobile home (private lot or Park)	$-	$-	$279

Imperial County Ordinance No. 1418 Approved November 21, 2006

An Ordinance of the County of Imperial
Enacting Development Impact Fees

ORDINANCE NO. 1418

The Board of Supervisors of the County of Imperial ordain as follows:

Section 1:
Chapter 4.32 (sections 4.32.010 through 4.32.130) and Chapter 4.36 (sections 4.36.010 through 4.36.130) of Title 4 of the Codified Ordinances of the county of Imperial are hereby rescinded.

Section 2: A new Chapter 4.32 (sections 4.32.010 through 4.32.160) to Title 4 of the Codified Ordinances of the county of Imperial is enacted to read as follows:

Ordinance 4.32
New Development Impact Fees

4.32.010. Title.
This ordinance shall hereafter be known as the Year 2006 Development Impact Fees Ordinance.

4.32.020. Purpose.
The purpose of this ordinance is to enact Imperial county policies requiring New Development in both the Countywide and Unincorporated Areas of the county to supplement the fair share of the costs of public facilities, equipment and services necessitated by such new development.

Imperial county provides certain services on a Countywide basis while others are provided only in the Unincorporated Areas of the county. For example, the Imperial fire

department serves residential and non-residential development in the Unincorporated Areas, providing fire protection and emergency medical services to residents and businesses.

In contrast, parks and recreation facilities serve all residents of the county, including those living in the incorporated cities and the Unincorporated Areas, by providing parkland, amenities, community centers and recreational facilities, and vehicles and equipment.

Some departments provide services to both areas, though with varying service levels in each area. For instance, general government services are provided to residents in both the incorporated and Unincorporated Areas in the following manner: health, youth and veterinary programs benefit residential development only, while the county's courthouse serves both residential and non-residential development.

Similarly, the sheriff's department provides services to both areas. For example, the sheriff's department provides police services to Unincorporated Areas but also operates the county jail and coroner's office which are utilized by both incorporated and Unincorporated areas of the county.

Finally, the library district provides services only within its own pre-established boundaries. The library impact Fee includes components for library facilities, land, and books and media collections.

As a result, all Development Impact Fees are to be assessed based on the demand for services.

4.32.030. Definitions.

When the following words or phrases are used in this ordinance, they shall have the meaning ascribed to them in this section.

a. "County" means the county of Imperial.

b. "Countywide" means both residential and non-residential developments within all areas throughout the county of Imperial.

c. "Current Service Level " ("CSL") means the current level of services being provided to residential and non-residential developments based on the demand for public Facilities and/or the current conditions in the community, in both the Countywide and Unincorporated Areas.

d. "Development Impact Fees" ("Fees") mean any and all fees set out in this ordinance which help mitigate the impacts that new development has upon the CSL being provided by the county of Imperial in accordance with Government Code section 66000 et seq.

e. "Director" means the director of planning and development services department of the county of Imperial.

f. "Facilities" means any long-term capital facilities, services and equipment used by public agencies in providing a CSL directly or through contract to the public in both the Countywide and Unincorporated Areas of the county.

g. "Improvement" means any modification, alteration, or addition that increases the original size of any structure by ten (10) percent or more.

h. "Multi-family dwelling" is any structure or portion thereof that contains three (3) or more dwelling units and, for the purpose of this ordinance, includes residential condominiums.

i. "Applicants for building permits" means any applicant for a building permit that has not previously filed for a permit and applicants who have expired permits under which no construction has commenced.

j. "New Development" means all construction for which a building permit or other permit to operate is required.

k. "Single-family dwelling" is any structure or portion thereof that contains living facilities, including provisions for sleeping, eating, cooking and sanitation as required by the Uniform Building Code, for not more than one (1) family unit.

l. "Unincorporated Areas" means any and all areas not incorporated within a city and located within the county of Imperial's sphere of influence.

m. Except as stated in this section, the definitions of words used in this ordinance shall be as defined in any relevant ordinances or codes (building), or otherwise defined in the Imperial county land use ordinance.

4.32.040. Findings.

The board of supervisors, having reviewed and considered the TischlerBise Impact Fee Study for Imperial County – August 17, 2006, finds and determines that:

a. The county of Imperial seeks to protect public health, safety and general welfare by ensuring that adequate Facilities and services are provided in both Countywide and Unincorporated Areas.

b. It is county policy, by and through its general plan and the provisions of this ordinance, to assure that necessary and adequate Facilities required by New Development projects are either available or will be made available as a condition of approval of such projects, and that the cost of providing such adequate Facilities are collected on an equitable basis from the beneficiaries thereof.

c. The Development Impact Fees ("Fees") are intended to finance development-related public Facilities which help mitigate the impacts of New Development in the county, thereby, preventing the deterioration of public Facilities that would result from additional development, if impact fee revenues were not available to fund such improvements.

d. In order for the county to construct, acquire or expand on needed Facilities, it is necessary to require that all New Development bear its fair share cost of providing the Facilities reasonably needed to serve that New Development.

e. As indicated in the TischlerBise Impact Fee Study, the Fees set forth herein will be used to recover the cost of development-related Facilities, but only to the extent that the need for Facilities is a consequence of New Development that is subject to the Fees, thereby ensuring that there is a reasonable relationship between the need for the Facilities and the type of New Development being assessed such Impact Fees.

f. Additionally, the county provides certain services on a Countywide basis, while others are provided only in the Unincorporated Areas of the county. However, demand for services varies in these two areas, due to the fact that there are significant demographic differences between incorporated cities and the Unincorporated Areas. In order to reflect the differences in service provision and demand base in the two areas, four sets of Fees are presented – one to be applied Countywide, a second limited to the Unincorporated Areas, a third that reflects a combination of Countywide and Unincorporated Areas, and a fourth set of fees that is for the library service district, which has its own boundaries.

g. Development Impact Fees are hereby created for the foregoing purpose and reasons.

4.32.050. Prior agreements and conditions of approval.

A. Any enacted enforceable agreement existing prior to the operative date of this ordinance between an applicant for development and the county or county's sheriff department, public works department, parks and recreation department, fire department, the library district, or appropriate department for general government, pertaining to the dedication of land or payment of Fees for Facilities and equipment to serve the property which is the subject of the application, or any portion thereof,

satisfies the requirements of this ordinance. Developer shall present such evidence to the planning and development services department prior to the issuance of any building permit.

B. If land, facilities or equipment was dedicated and accepted by the county to the sheriff, public works, parks and recreation, fire or the library district as a condition of approval of a discretionary permit prior to the operative date of this ordinance, such dedication or donation shall be considered as satisfying the requirements of this ordinance for such discretionary permit. Developer shall present such evidence to the planning and development services department prior to issuance of any building permit.

4.32.060. Imposition of Fees.

Fees shall be assessed and levied upon any owner of real property located in the Unincorporated and Countywide areas in connection with: adding one (1) or more dwelling units to such property, including the construction of a new dwelling unit or the installation of a manufactured home on the property; adding industrial (or agricultural related), commercial, or office units to such property; constructing an addition of chargeable space to an existing industrial (or agricultural related), commercial or office structure on the property; or converting a land use to a more intensive use on such property thereby creating a greater need for infrastructure facilities. Said Fees are to be in amounts determined necessary to fund the acquisition and development of Facilities required to serve the cumulative needs of those persons residing, working or studying in or otherwise using such units or property as outlined in the TischlerBise Impact Fee Study.

4.32.070. Amount of Fees.

The amount of the Fees assessed and levied pursuant to the provisions of this ordinance shall be as set forth in the tables below, except as reduced by a credit pursuant to sections 4.32.090 and 4.32.100 or exempted by section 4.32.110 and shall be applicable as to all projects of the types as specified in section 4.32.060 for which application is made for a development permit on or after the effective date of this ordinance.[1]

4.32.070 (A) Sheriff's Development Impact Fees:

A.1. Residential (per housing unit):

	Countywide	Unincorporated	Total[2]
Single-family	$619.00	$317.00	$936.00
Multi-family	$484.00	$243.00	$727.00
Mobile home (private lot or park)[3]	$415.00	$217.00	$632.00

A. 2. Non-residential (per 1,000 SF):

	Countywide	Unincorporated	Total
Comm[4]/Shop Ctr[5] 50,000 SF[6] or less	$407.00	$349.00	$756.00

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1 With regard to all sums and products please refer to TischlerBise's Impact Fee Study dated August 17, 2006 and Appendix 3: Rounding.

2 Due to rounding down, by the county, of both Countywide and Unincorporated Fees the adopted amounts under the total column may be less than those illustrated in the TischlerBise Impact Fee Study.

3 With regard to all applicable Fees, mobile home parks and R.V. parks will be assessed fees only at the time a building permit for installation is approved.

4 Comm herein shall be an abbreviation for Commercial.

Comm/Shop Ctr 50,001–100,000 SF	$356.00	$305.00	$661.00
Comm/Shop Ctr 100,001–200,000 SF	$308.00	$264.00	$572.00
Comm/Shop Ctr over 200,000 SF	$264.00	$227.00	$491.00
Office/Inst[7] 25,000 SF or less	$166.00	$142.00	$308.00
Office/Inst 25,001 – 50,000 SF	$141.00	$121.00	$262.00
Office/Inst 50,001 – 100,000 SF	$120.00	$103.00	$223.00
Medical-Dental Office	$326.00	$280.00	$606.00
Hospital	$158.00	$136.00	$294.00
Business Park	$115.00	$99.00	$214.00
Light Industrial	$63.00	$54.00	$117.00
Manufacturing	$34.00	$29.00	$63.00
Warehousing	$44.00	$38.00	$82.00
Elementary School	$131.00	$112.00	$243.00

A.3. Other Non-residential (per unit):

Lodging (per room)	$50.00	$43.00	$93.00
Day Care (per student)	$40.00	$34.00	$74.00
Nursing Home (per bed)	$21.00	$18.00	$39.00

4.32.070(B) General Government Development Impact Fees:

B.1. Residential (per housing unit):

	Countywide	Unincorporated	Total
Single-family	$1,349.00	$350.00	$1,699.00
Multi-family	$1,057.00	$267.00	$1,324.00
Mobile home (private lot or park)	$906.00	$239.00	$1,145.00

B.2. Non-residential (per 1,000 SF):

	Countywide	Unincorporated	Total
Comm/Shop Ctr 50,000 SF or less	$264.00	$44.00	$308.00
Comm/Shop Ctr 50,001–100,000 SF	$230.00	$38.00	$268.00
Comm/Shop Ctr 100,001–200,000 SF	$205.00	$34.00	$239.00
Comm/Shop Ctr over 200,000 SF	$184.00	$30.00	$215.00
Office/Inst 25,000 SF or less	$383.00	$64.00	$447.00
Office/Inst 25,001 – 50,000 SF	$361.00	$60.00	$421.00
Office/Inst 50,001 – 100,000 SF	$340.00	$56.00	$396.00
Medical-Dental Office	$374.00	$62.00	$436.00

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5 Ctr herein shall be an abbreviation for Center.

6 SF herein shall be an abbreviation for Square Foot.

7 Inst herein shall be an abbreviation for Institutional.

Hospital	$312.00	$52.00	$364.00
Business Park	$291.00	$48.00	$339.00
Light Industrial	$213.00	$35.00	$248.00
Manufacturing	$165.00	$27.00	$192.00
Warehousing	$118.00	$19.00	$137.00
Elementary School	$84.00	$14.00	$98.00

B.3. Other Non-residential (per unit):

Lodging (per room)	$40.00	$6.00	$46.00
Day Care (per student)	$14.00	$2.00	$16.00
Nursing Home (per bed)	$33.00	$5.00	$38.00

4.32.070(C) Fire Development Impact Fees

C.1. Residential (per housing unit):	**Unincorporated**
Single-family	$1,273.00
Multi-family	$977.00
Mobile Home (private lot or park)	$871.00

C. 2. Non-residential (per 1,000 SF):

Comm/Shop Ctr 50,000 SF or less	$501.00
Comm/Shop Ctr 50,001 – 100,000 SF	$438.00
Comm/Shop Ctr 100,001 – 200,000 SF	$389.00
Comm/Shop Ctr over 200,000 SF	$351.00
Office/Inst 25,000 SF or less	$728.00
Office/Inst 25,001 – 50,000 SF	$686.00
Office/Inst 50,001 – 100,000 SF	$647.00
Medical-Dental Office	$710.00
Hospital	$593.00
Business Park	$554.00
Light Industrial	$405.00
Manufacturing	$314.00
Warehousing	$224.00
Elementary School	$161.00

C.3. Other Non-residential (per unit):

Lodging (per room)	$77.00
Day Care (per student)	$28.00
Nursing Home (per bed)	$63.00

4.32.070(D) Parks and Recreation Development Impact Fees (Countywide)

D.1. Residential (per housing unit):	Total
Single-family	$452.00
Multi-family	$354.00
Mobile Home (private lot or park)	$303.00

4.32.070(E) Public Works Development Impact Fees (Unincorporated)

E.1. Residential (per housing unit):	Total
Single-family	$1,894.00
Multi-family	$1,453.00
Mobile Home (private lot or park)	$1,296.00

E. 2. Non-residential (per 1,000 SF):

Comm/Shop Ctr 50,000 SF or less	$1,857.00
Comm/Shop Ctr 50,001 – 100,000 SF	$1,625.00
Comm/Shop Ctr 100,001 – 200,000 SF	$1,407.00
Comm/Shop Ctr over 200,000 SF	$1,207.00
Office/Inst 25,000 SF or less	$757.00
Office/Inst 25,001 – 50,000 SF	$645.00
Office/Inst 50,001 – 100,000 SF	$550.00
Medical-Dental Office	$1,491.00
Hospital	$725.00
Business Park	$526.00
Light Industrial	$287.00
Manufacturing	$157.00
Warehousing	$204.00
Elementary School	$598.00

E.3. Other Non-residential (per unit):

Lodging (per room)	$232.00
Day Care (per student)	$184.00
Nursing Home (per bed)	$97.00

4.32.070 (F) Library Service District Development Impact Fees

F.1. Residential (per housing unit):	Total
Single-family	$387.00
Multi-family	$368.00
Mobile Home (private lot or park)	$279.00

4.32.080. Fee Adjustment.

A. Commencing on October 1, 2007, any and all Fees as established and imposed by this ordinance may be increased on October 1st of each subsequent year based upon the Engineering News Record Building Cost Index for Los Angeles Metropolitan Area (BCI) unless the fees are otherwise adjusted by the board of supervisors. The county executive officer shall compute the percentage increase, if any, between the BCI on July 1st of each year and the July 1st BCI for the previous year. The county executive officer shall then adjust by such percentage the Fees established and imposed by this ordinance. The Fees shall not be reduced. The adjusted amounts shall be rounded to the nearest dollar. These amounts shall constitute the Fees authorized pursuant to this ordinance. Should the BCI be revised or discontinued, the county executive officer shall use the revised index or a comparable index, as approved by the board of supervisors, for determining fluctuations in the cost of development. Nothing herein shall prevent the board of supervisors from electing to retain existing Fees or from electing to waive the inflation adjustment for any given fiscal year.

4.32.090. Reduction for Senior Citizen's Residential Units.

The Fees required pursuant to section 4.32.070(A) through 4.32.070(F) of this ordinance shall be reduced by 60 (sixty) percent of the applicable Fee.

4.32.100 Credits.

Fees required for any Development Project may be reduced by the following credits:

A. An individual Fee component shall be reduced by the amount paid for similar Facilities fee pursuant to the terms of a development agreement.

B. The county may grant to owners or developers of real property, a credit against the specific components of Fees that would otherwise be charged pursuant to this ordinance, for the dedication of land or the construction of facilities identified in the Public Facilities Needs List. The amount of the credit granted shall be determined by an estimate of the costs of constructing such Facilities or by an estimate of the fair market value of the land dedicated. The county shall review and determine the actual construction costs allowable or the actual value of the land dedicated. No credit shall be given against the Fees for the cost of improvements not defined herein as "Facilities." Any credit granted by the county shall be given in stated dollar amounts only. An applicant for development approval may apply for credit to reduce the amount of the Fees required to be paid at the time of development approval by the county. Any credit granted and the amount of the Fees to be paid shall be included as a condition of approval for development. If an applicant has received development approval from the county and has not previously applied for a credit to reduce the amount of the Fees required to be paid, an applicant may apply for such credit with the county executive officer prior to the issuance of a building permit and the county executive officer shall make a recommendation thereon to the board of supervisors. The board of supervisors shall determine the amount of any credit to be allowed. The applicant shall be given notice of the county executive officer's recommendation and the time when the board of supervisor's will consider the matter. The applicant may appear and present evidence with regard to the requested credit.

4.32.110 Exemptions from development impact fees.

The following types of construction shall be exempt from the provisions of this ordinance:

A. Where the structure is owned by the county of Imperial.

B. Where the structure is a building, or is within a building, which is being reconstructed following damage or destruction by fire or other casualty, or the voluntary demolition thereof, provided that the number of dwelling units or the amount of chargeable space in such reconstructed structure is not greater than the number of dwelling units or the amount of chargeable space in the structure prior to such damage, destruction or demolition.

C. Property owners who seek to connect or reconnect to utilities for a pre-existing structure, provided that the number of dwelling units or the amount of chargeable space in such pre-existing structure is not greater than the number of dwelling units or the amount of chargeable space in the structure prior to the connection or reconnection.

D. Residential Units in publicly subsidized projects constructed as housing for low-income households, as such households are defined pursuant to section 50079.5 of the Health and Safety Code. "Publicly subsidized projects," as the term is used herein, shall not include any project or project applicant receiving a tax credit provided by the State of California Franchise Tax Board.

E. Where there is construction of a Single-Family Dwelling unit upon property where a mobile home, installed pursuant to installation permit, was previously located prior to the effective date of this ordinance, applicant shall be required to pay the applicable Fees for any square footage added beyond what was previously permitted.

F. Applicants who have expired building permits, under which construction has commenced, are not required to pay permit fees specified in this ordinance provided that project is a duplicate of the original.

4.32.120 Payment of Fees.

A. Time of Payment: The Fees assessed and levied pursuant to the provisions of this ordinance shall be due and payable prior to or at time of issuance of a building permit.

B. Collection of Payment: The appropriate Fees shall be collected, as specified in section 4.32.070(A) through 4.32.070(F), by the planning and development services department for all Unincorporated Areas, and in the incorporated cities and library district areas, as assigned by the respective city pursuant to the master tax sharing agreement or other applicable agreement.

C. Administration Costs: All Fees collected by the county shall be assessed an additional thirty-five ($35) dollars administrative processing collection fee to be paid to the planning and development services department. Said administrative fee shall be used to offset the expense of collection, recording and accounting costs.

4.32.130. Appropriation and Deposit of Fees.

All revenues from the Fees assessed and levied pursuant to the provisions of this ordinance shall be deposited in separate funds or accounts by type corresponding to the Facilities for which the Fees were assessed and levied in accordance with section 66006 of the Government Code and all other applicable provisions of law. Thereafter, such revenues shall be appropriated and used only for the acquisition and/or development of those public Facilities necessitated by New Development.

4.32.140. Reporting:

A. Disposition of Fee revenue: Report by the auditor/controller. Within one hundred eighty (180) days after the last day of each fiscal year the auditor/controller of the

county of Imperial shall make available to the public a report regarding each separate account or fund established pursuant to this ordinance in accordance with Government Code section 66006(b)(1). The board of supervisors shall then review the report, in compliance with the requirements of Government Code section 66006(b)(2).

B. **Unappropriated revenues**: Action by the board of supervisors. For the first fiscal year following the first deposit into any such account or fund, and every five years thereafter, the board of supervisors shall make the findings required by Government Code section 66001(d) with respect to that portion of the account or fund remaining unexpended or shall refund the moneys in the account or fund as provided in Government Code section 66001(e).

4.32.150. Validity.

This ordinance and the various parts, sections and clauses thereof are hereby declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid, the remainder of this ordinance shall not be affected thereby. If any part, sentence, paragraph, section or clause of this ordinance, or its application to any person or entity, is adjudged unconstitutional or invalid, such unconstitutionality or invalidity shall effect only such part, sentence, paragraph, section or clause of this ordinance, or person or entity; and shall not affect or impair any of the remaining provisions, parts, sentences, paragraphs, sections or clauses of this ordinance, or its application to other persons or entities. The board of supervisors hereby declares that this ordinance would have been adopted had such unconstitutional or invalid part, sentence, paragraph, section or clause of this ordinance not been included herein; or had such person or entity been expressly exempted from the application of this ordinance.

4.32.160. Effective Date.

This Ordinance shall take effect and shall be in force sixty (60) days after the date of its adoption and prior to the expiration of fifteen days from the passage thereof shall be published at least once in the Holtville Tribune, a newspaper of general circulation, printed and published in the county of Imperial, State of California, together with the names of the members of the board of supervisors voting for and against the same.

PASSED, ADOPTED AND APPROVED by the board of supervisors of the county of Imperial this 21ST day of November, 2006.

Victor Carillo, Chairman
Imperial County Board of Supervisors

Sylvia Bermudez, Clerk of the Board
County of Imperial

APPENDIX B

Pavement Management Analysis Report

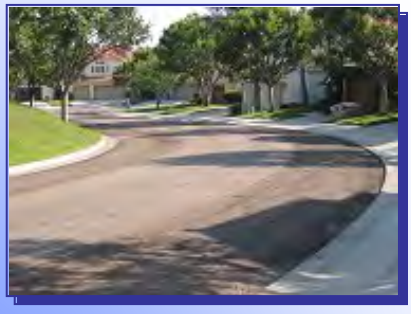
County of Imperial, CA

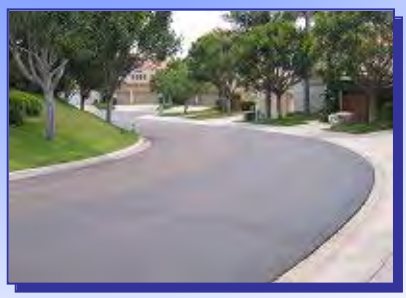
Pavement Management Analysis Report

February 2012

County of Imperial
Department of Public Works
155 S. 11th Street
El Centro, CA 92243

Attention: William (Bill) Brunet, Director of Public Works





IMS Infrastructure Management Services
1820 West Drake Drive, Suite 108, Tempe, AZ 85283
Phone: (480) 839-4347, Fax: (480) 839-4348
www.ims-rst.com

TABLE OF CONTENTS

List of Acronyms and Abbreviations

Abbreviation or Acronym	Definition
$M	Dollars in millions
ACP	Asphalt Concrete Pavement - asphalt streets
ART	Arterial roadway functional classification
ASTM	American Society of Testing Methods
Brk	Break
CAL	Coarse Aggregate Loss
CDV	Corrected Deduct Value
COL	Collector roadway functional classification
Crk	Crack
DeflCON	Deflection Condition - structural load analysis
Dvdd Slab	Divided Slab
DynaCON	Dynamic Condition - structural layer analysis
ft or FT	Foot
ft2 or FT2	Square foot
FunCL	Functional Classification
FWD	Falling weight deflectometer
GCI	Gravel Condition Index
GFP	Good - Fair - Poor
GIS	Geographic Information System
GISID	GIS segment identification number
H&V	Horizontal and Vertical
IRI	International Roughness Index
Jt	Joint
L&T	Longitudinal and Transverse
LAD	Load associated distress
LOC	Local roadway functional classification - same as RES
LOG	Lip of Gutter
m	metre
m2	sqaure metre
M	Moderate
MaxDV	Maximum Deduct Value
mi or Mi	Mile
MnART	Minor arterial roadway functional classification
MOD	Moderate
NLAD	Non-load associated distress
OCI	Overall condition index, also known as PCI
Olay	Overlay
PCC	Portland Cement Concrete - concrete streets
PCI	Pavement Condition Index - generic term for OCI
R&R	Remove and replace
Recon	Reconstruction
Rehab	Rehabilitation
RES	Local roadway functional classification - same as LOC
RI or RCI	Roughness Index
S	Strong
SDI	Surface Distress Index
SI	Structural Index
STA	Station or chainage
Surf Trtmt	Surface Treatment
TDV	Total Deduct Value
W	Weak

1.0 PROJECT DESCRIPTION

1.1 PRINCIPLES OF PAVEMENT MANAGEMENT

Nationwide, billions of dollars have been invested in roadway networks by municipal, state and federal governments. Locally, Imperial County has over 308 miles of arterial roadways (major roadways that run between communities), 650 of rural county roads and 368 miles of residential roadways, encompassing over 173M square feet of asphalt and concrete surfacing. At a replacement cost exceeding $500,000 per mile – not including the value of the land, the County has over $722 million invested in their paved roadway network.

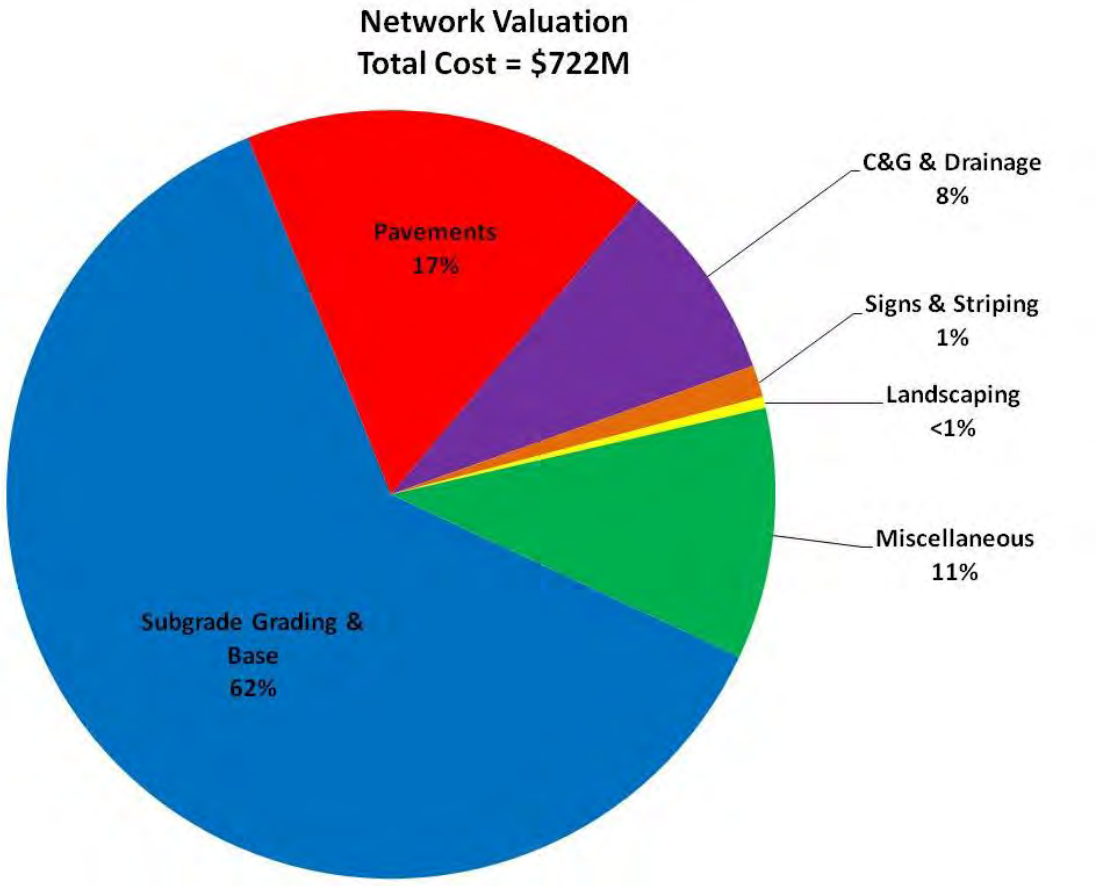


Figure 1 – Replacement Value of Imperial County Paved Roadway Network

Preservation of existing road and street systems has become a major activity for all levels of government. There is a shortage of funds to maintain street systems at all government levels. Funds that have been designated for pavement preservation must therefore be used as effectively as possible. One proven method to obtain maximum value of available funds is through the use of a pavement management system.

Pavement management is the process of planning, budgeting, funding, designing, constructing, monitoring, evaluating, maintaining, and rehabilitating the pavement network to provide maximum benefits from the available funds. A pavement management system is a set of tools or methods that assists decision makers in finding optimum strategies for providing and maintaining pavement in a serviceable condition over a given time period.

As shown in Figure 2, streets that are repaired when they are in a good condition will cost less over their lifetime than streets that are allowed to deteriorate to a poor condition. Without an adequate routine pavement maintenance program, streets require more frequent reconstruction, thereby costing millions of extra dollars. Over time, pavement quality drops until the pavement condition becomes unacceptable. For each street, the rate of deterioration, and hence shape of the curve, is dependent on many factors – foremost of which are the strength of the roadway structure and traffic loading. The key to a successful pavement management program is to develop a reasonably accurate performance model of the roadway, and then identify the optimal timing and rehabilitation strategy. The resultant benefit of this exercise is realized by the long term cost savings and increase in pavement quality over time. As illustrated in Figure 2, pavement typically deteriorates rapidly once it hits a specific threshold. A $1 investment after 40% lifespan is much more effective than deferring maintenance until heavier overlays or reconstruction is required just a few years later.

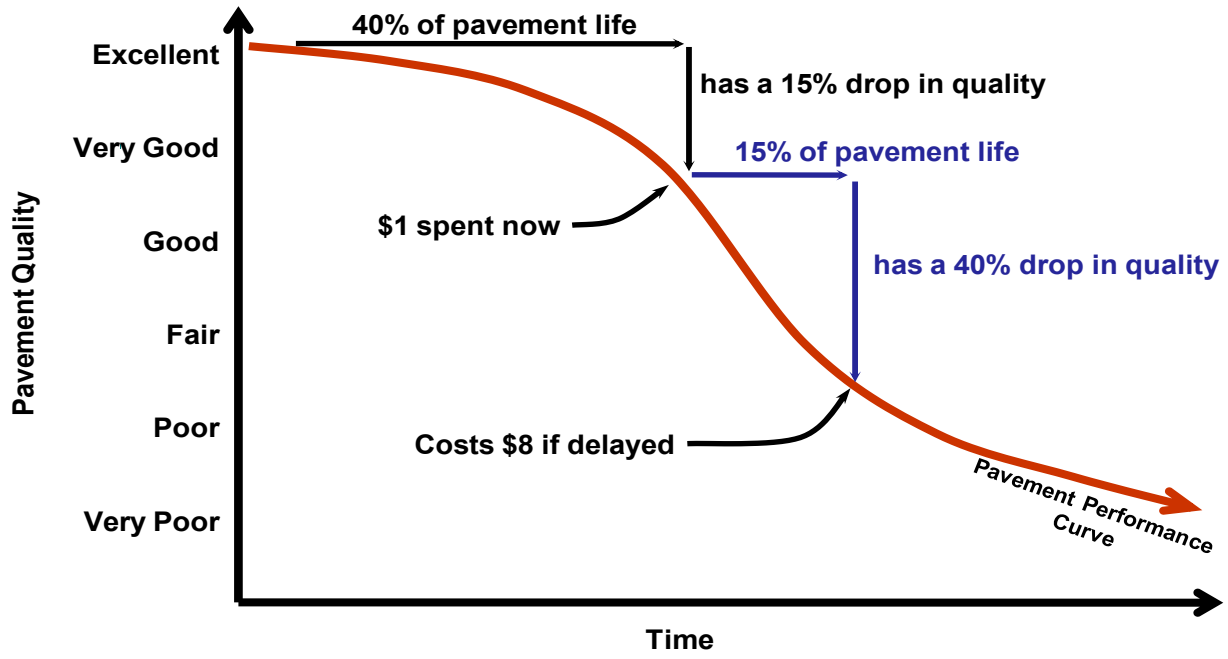


Figure 2 – Pavement Deterioration and Life Cycle Costs

Once implemented, an effective pavement information management system can assist agencies in developing long-term rehabilitation programs and budgets. The key is to develop policies and practices that delay the inevitable total reconstruction for as long as practical yet still remain within the target zone for cost effective rehabilitation.

That is, as each roadway approaches the steep part of its deterioration curve, apply a remedy that extends the pavement life - at a minimum cost, thereby avoiding costly heavy overlays and reconstruction. Thus, the goal of a pavement management system is to identify the optimal level of funding, timing, and renewal strategy agencies should adopt to keep their roadway network at a satisfactory level of service. Figure 3 illustrates the concept of extending pavement life through the application of timely rehabilitation activities.

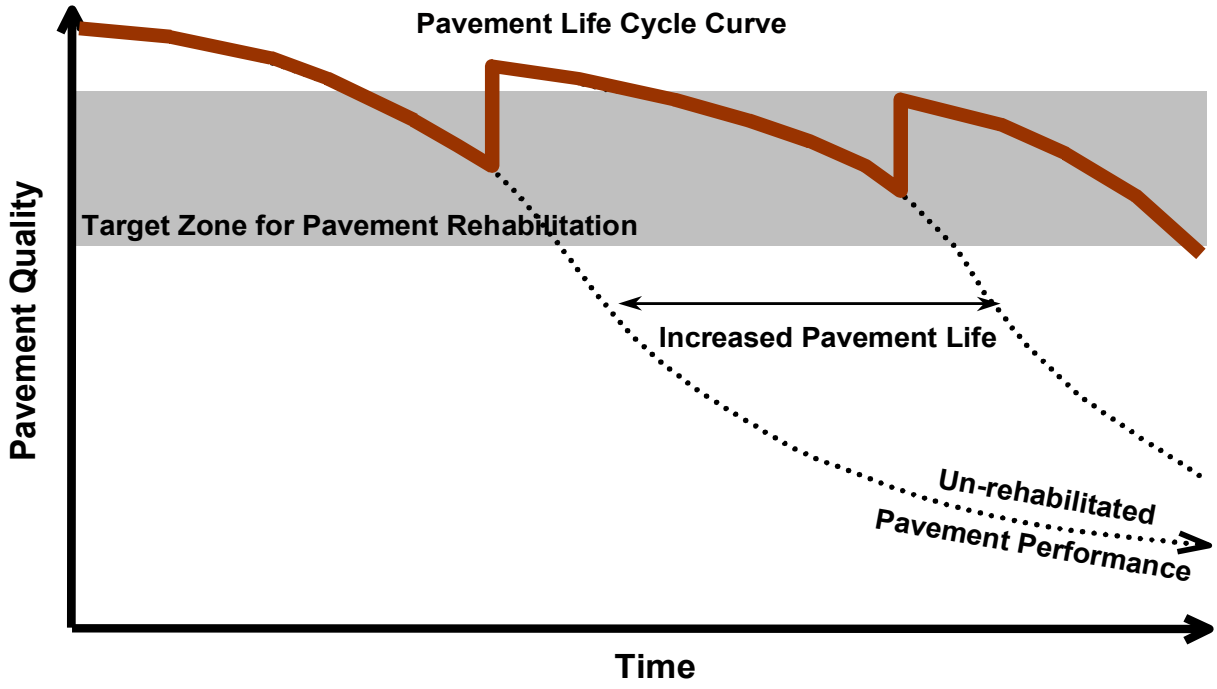


Figure 3 – Pavement Life Cycle Curve

Ideally, the lower limit of the target zone shown in Figure 3 would be a condition rating of 70 – that is to keep maintenance requirements on as many streets as possible to a thin overlay or less. The upper limit should be close to the upper range of the very good category – that is a pavement condition score of 85.

Other functions of a pavement management system include assessing effectiveness of maintenance activities and new technologies, and storing historical data and images.

1.2 THE PAVEMENT MANAGEMENT PROCESS

The actual pavement management process involves three unique, but important steps, and is presented graphically in Figure 4. Each activity builds on the previous, until the end result is a prioritized paving and rehabilitation program.

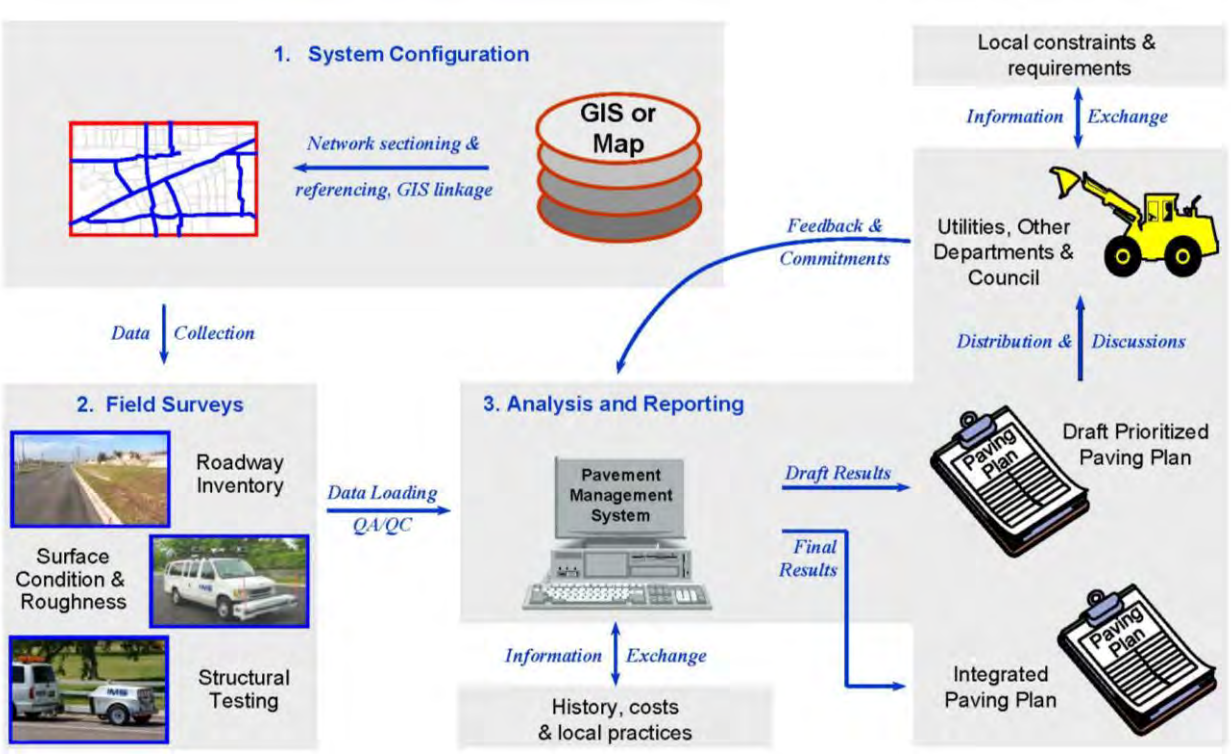


Figure 4 - The Pavement Management Process

Highlights of the pavement management process include:

1. **System Configuration** – this step involves identifying all roadways in the County's network, assigning them a unique identifier, listing their physical characteristics (length, width etc,) and demographic attributes (pavement type, traffic, functional classification), and linking the network to the County's GIS map.

2. **Field Surveys** – following a set of pre-defined assessment protocols matching the County's Lucity Pavement Management software (ASTM D6433-09), a specialized piece of survey equipment - referred to as a Laser Road Surface Tester (Laser RST, pictured on page 6), was used to collect observations on the condition of the pavement surface, as well as collect digital imagery and spatial coordinate information. The Laser RST surveyed each street from end to end in a single pass, with arterial roadways completed in two passes.

   Data collected by the Laser RST includes:

   - Rutting – measurement of wheel path rut depths by severity and length on asphalt roads. Rut depths are a concern for two reasons – if there is insufficient cross slope, they can hold water and thus cause loss of vehicle control. They also identify areas of loss of

structural base or asphalt strength. On asphalt streets, rutting is incorporated into the surface distress observations.

- Roughness Index – Roughness is measured following the industry standard "International Roughness Index" (IRI). It is an open-ended score that measures the number of bumps per mile and reports the value as millimeters/meter. The IRI value is converted to a 0 to 100 score and reported as the Roughness Index (RI) as follows:

  RI = (10.5 – 3.5 x ln(IRI)) x 10, where ln(IRI) is the natural logarithm of IRI.

  The Roughness Index is not only an indicator of the apparent smoothness of the roadway surface as perceived by the traveling public, but it is also a quantitative way to report the level of deterioration of the pavement surface. All roads start with a fairly low IRI value – less than 1.5 mm/m (equivalent to a Roughness Index of greater than 90) and thus may be considered smooth. As they age, the surface deteriorates and become rougher. This deterioration may be measured and reported as IRI and used as part of the overall condition score.

- Surface Distress Index – The Laser RST collects surface distress observations based on the extent and severity of distress encountered along the length of the roadway following ASTM D6433-09 protocols for asphalt and concrete pavements. The surface distress condition (cracking, potholes, raveling and the like) is considered by the traveling public to be the most important aspect in assessing the overall pavement condition.

  Not all distresses are weighted equally within the Surface Distresses Index. Certain load associated distresses (distresses caused by traffic loading) , such as rutting or alligator cracking on asphalt streets, or divided slab on concrete streets, have a much higher impact on the surface distress index than non-load associated ones such as raveling or patching. Even at low extents and moderate severity – less than 10% of the total area, load associated distresses can drop the Surface Distress Index considerably.

  ASTM D 6433-09 also has algorithms within it to correct for multiple or overlapping distresses within a segment.

3. **Analysis and Reporting** – following the field surveys, the condition data is assembled to create a single score representing the overall condition of the pavement. The Pavement Condition Index (PCI) is as follows:

   PCI = 33% Roughness Index + 67% Surface Distress Index.

Analysis was completed using Imperial County specific rehabilitation strategies, unit rates, priorities and pavement performance curves.

Laser Road Surface Tester (Laser RST)

1.3 UNDERSTANDING THE PAVEMENT CONDITION SCORE

The following illustration compares Pavement Condition Index (PCI) to commonly used descriptive terms. The divisions between the terms are not fixed, but are meant to reflect common perceptions of condition.

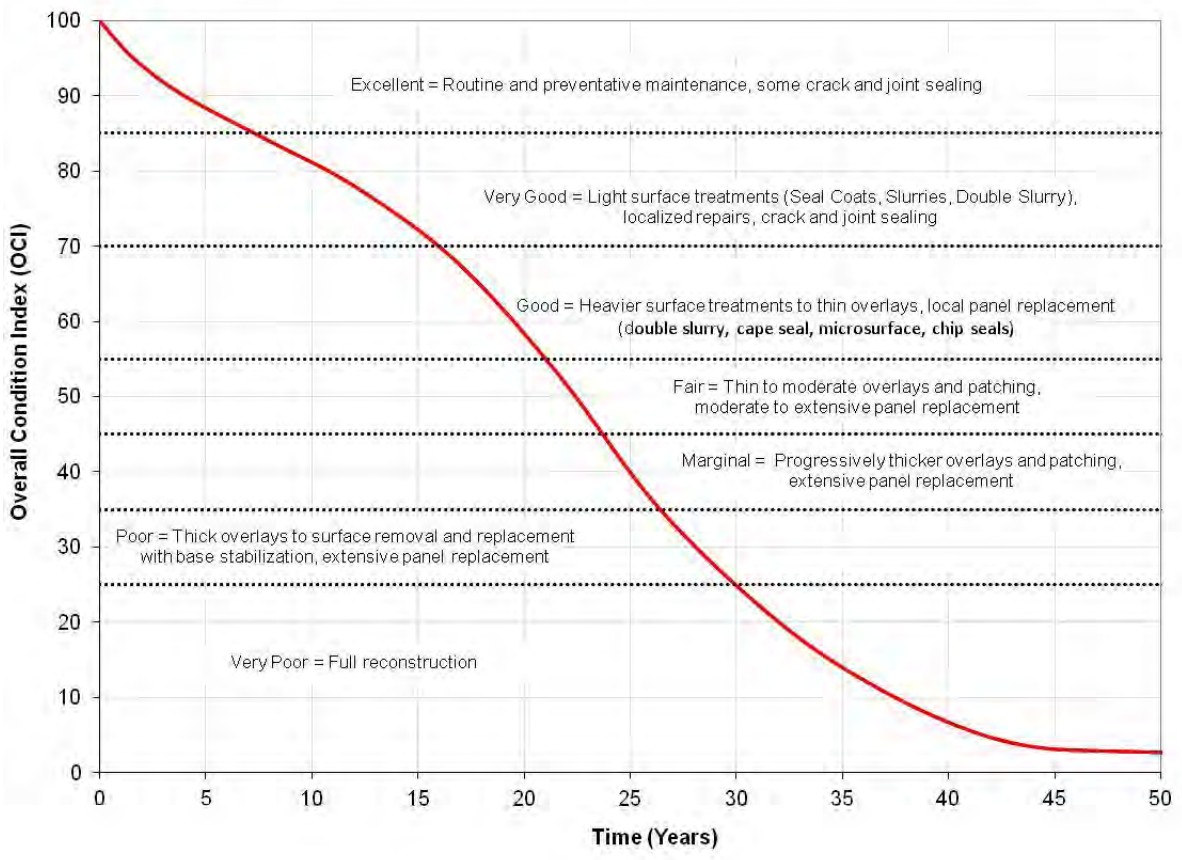


Figure 5 – Understanding the Pavement Condition Index Score

The general idea of what these condition levels mean with respect to remaining life and typical rehabilitation actions is included in the following table:

PCI Range	Description	Relative Remaining Life	Definition
85 – 100	Excellent	15 to 25 Years	Like new condition – little to no maintenance required when new; or routine maintenance such as crack and joint sealing.
70 – 85	Very Good	12 to 20 Years	Routine maintenance such as patching, crack sealing with surface treatments such as slurries or microsurfacing.
60 – 70	Good	10 to 15 Years	Heavier surface treatments and thin overlays. Localized panel replacements.
40 – 60	Fair to Marginal	7 to 12 Years	Progressively thicker overlays with localized repairs. Moderate to extensive panel replacements.
25 – 40	Poor	5 to 10 Years	Sections will require very thick overlays or surface replacement, base reconstruction and possible subgrade stabilization.
0 – 25	Very Poor	0 to 5 Years	High percentage of full reconstruction.

2.0 ROADWAY NETWORK CONDITION AND FINDINGS

2.1 ROADWAY NETWORK SIZE

The paved roadway network consists of three primary functional classes – in two distinctive environments, covering approximately 1,326 miles of pavement. The average overall pavement condition of the roadway network (asphalt and concrete) at the time of the survey was 53 and is currently about 52. The network has two pavement types: flexible (asphalt) and concrete, with asphalt being overwhelmingly predominant. For the purpose of reporting and analysis, the county was divided into two environments or regions:

Salton City – All roadways located north and west of Poe Rd along the Highway 86 corridor.

Imperial Valley – All roadways located east of Poe Rd (including Poe Rd), including the Ocotillo, Summerhaven and Bombay Beach areas

Imperial County Data Summary

	Imperial County				Imperial Valley				Salton City		
	Total	ART	COL	RES	IV Total	ART	COL	RES	SC Total	COL	RES
Segment Count	5602	680	1556	3366	2707	680	1381	646	2895	175	2720
Length (Ft)	7,000,929	1,623,978	3,433,833	1,943,118	5,441,789	1,623,978	3,312,067	505,745	1,559,139	121,766	1,437,373
Length (mi)	1,326	308	650	368	1,031	308	627	96	295	23	272
Area (yd2)	19,291,114	4,473,119	9,184,852	5,633,142	14,708,437	4,473,119	8,754,364	1,480,953	4,582,677	430,488	4,152,189

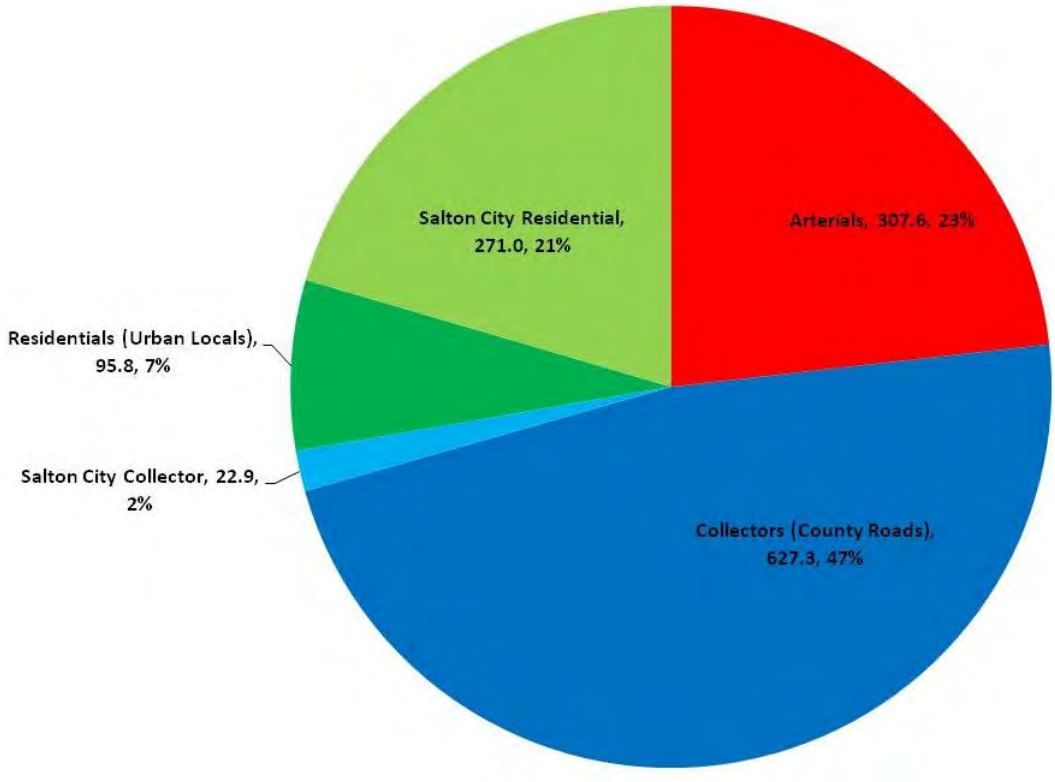


Figure 6 – Network Split by Functional Classification (miles, %)

2.2 NETWORK PRESENT CONDITION

Figure 7 shows the distribution of pavement condition for the roadway network in Imperial County on a 0 to 100 scale, 0 being worst and 100 being best condition. At the time of the survey, the network PCI was 53. While direct comparisons to other agencies are difficult, overall, Imperial County is about 10 points below average of agencies recently surveyed by IMS.

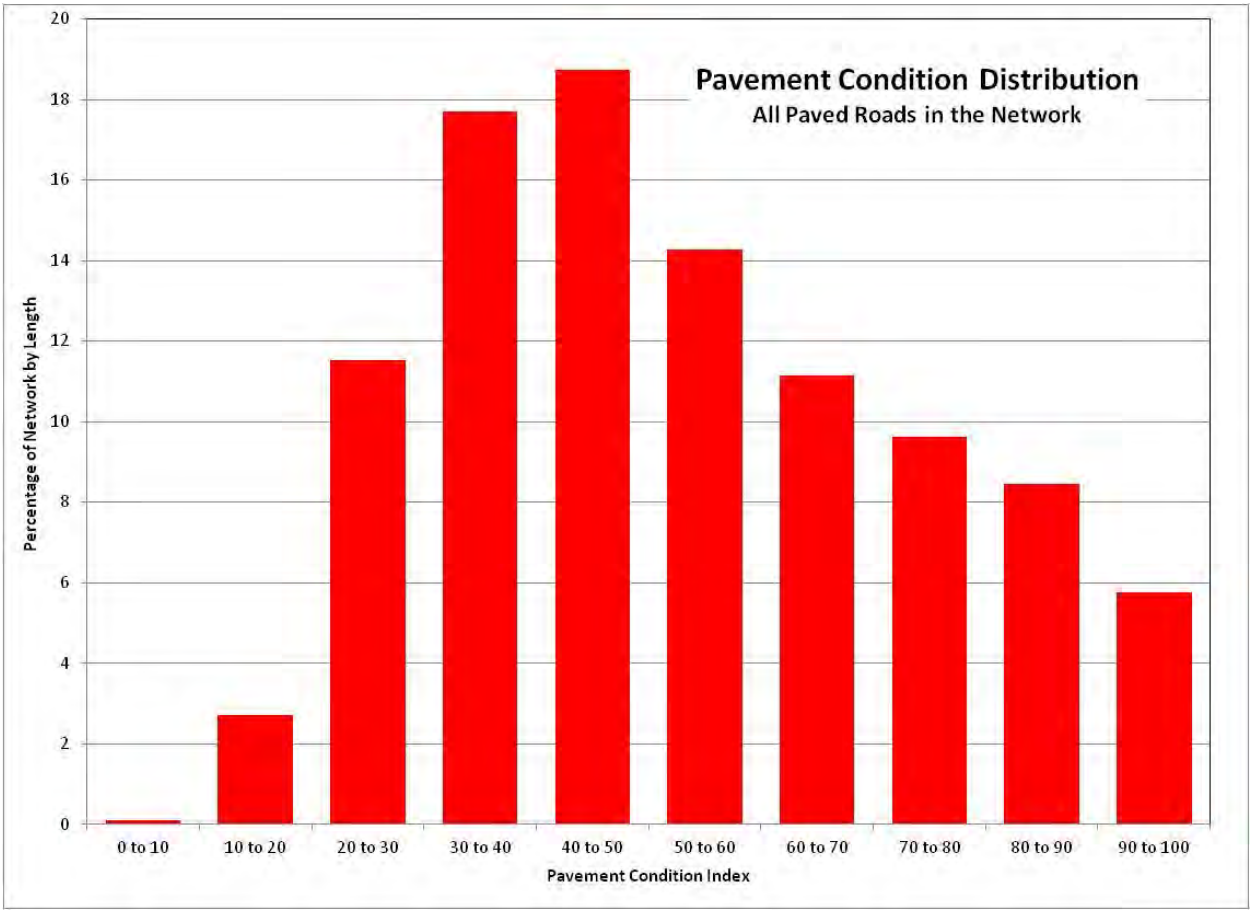


Figure 7 –Roadway Network Present Status

This is reflective of an aged network servicing a large geographic area with a low population base to support higher levels of pavement maintenance and rehabilitation. In large rural counties, it is common to have high volumes of rural roadways in fair to marginal condition as they do not sustain large traffic volumes. Simultaneously, the County has a significant amount of streets in the Salton City area that have not received upgrading or maintenance since their construction. Overall, given the low average condition of the network and the high number of roads approaching the end of the service life, the County is faced with a significant challenge to maintain and restore the roadway network.

The following graph (Figure 8) plots the same pavement condition information, but instead of using the actual Pavement Condition Index value, descriptive terms are used to classify the roadways. From the chart, just under 10% of the network can be considered in excellent condition with a PCI score greater than 85. These streets are in like new condition and require routine maintenance. Nationwide, the amount of roadways falling into the very good category is about 15%, so this value is slightly low.

Just over 14% of the network falls into the very good classification. These are roads that benefit the most from preventative maintenance techniques such as microsurfacing, slurry seals and localized repairs. If left untreated these roadways will drop in quality to become heavy surface treatment or overlay candidates. Eighteen percent (18%) of the streets are rated as good and are candidates for heavy surface treatment rehabilitation and thin overlays.

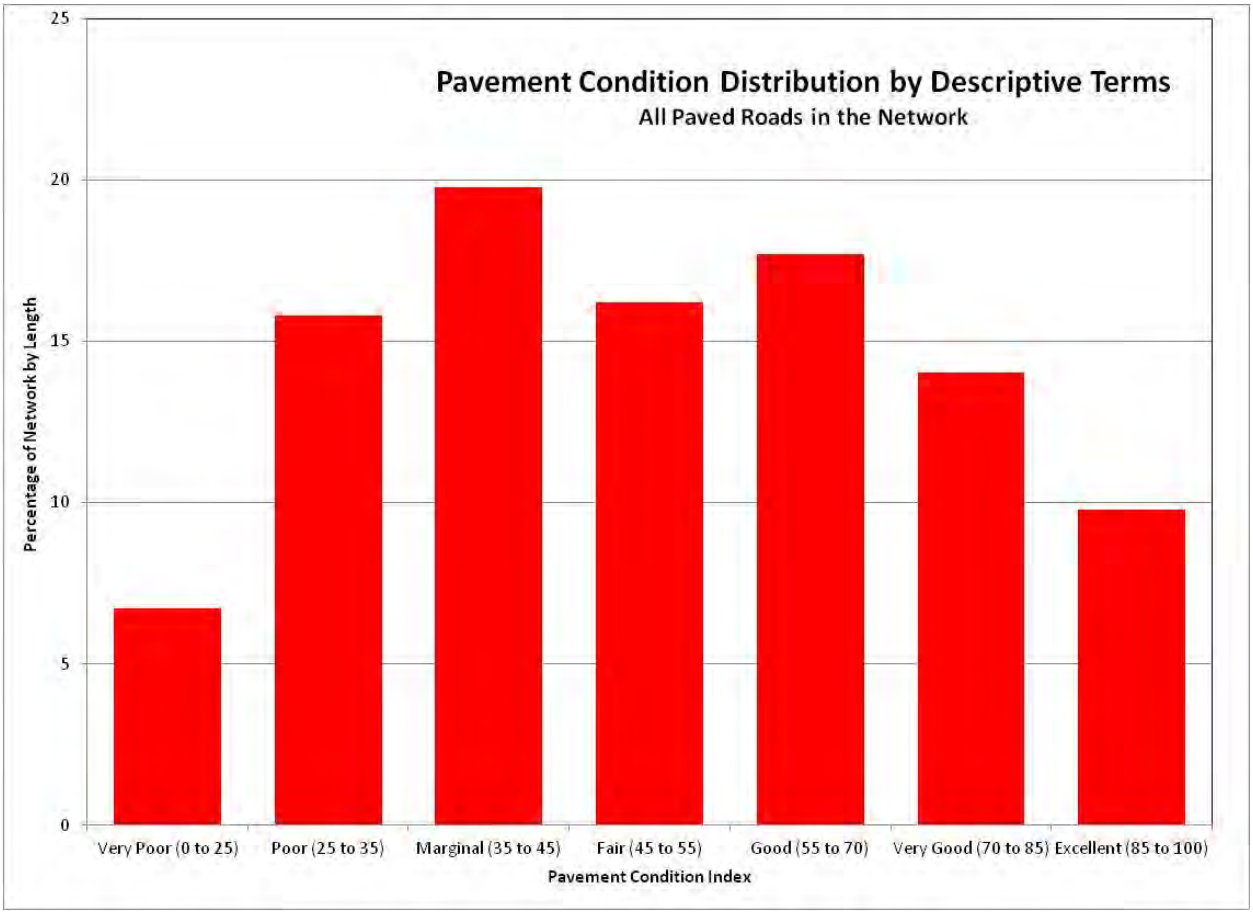


Figure 8 – Roadway Network Present Status Using Descriptive Terms

Thirty six percent (36%) of the network can be considered in fair or marginal condition, representing candidates for progressively thicker overlay rehabilitation. If left untreated, they will decline rapidly into reconstruction candidates. The remaining 23% percent of the network is rated as poor or very poor, meaning these roadways have failed or are past their optimal due point for overlay or surface based rehabilitation and may require progressively heavier or thicker forms of rehabilitation (such as surface reconstruction or deep patch and paving) or total reconstruction.

2.3 PAVEMENT CONDITION BY REGION

Figure 9 highlights the pavement condition distribution for the two analysis regions – Salton City and the Imperial Valley. From the plot it is apparent the Imperial Valley roadways (shown in red) have a wider range of condition scores and a higher average condition score of 55. The Salton City roads tend to a lower average PCI of 46, with fewer streets rated above very good.

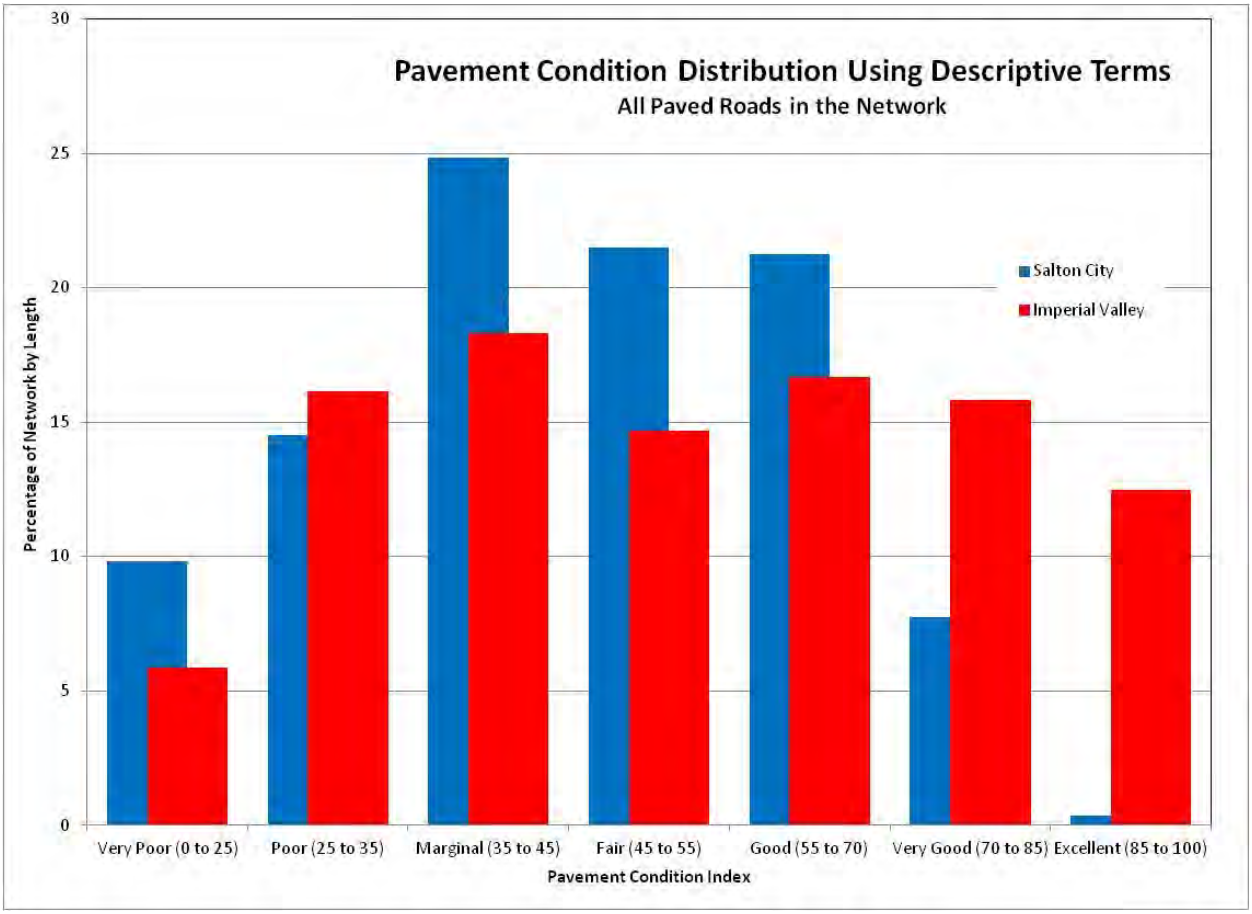


Figure 9 – PCI Distribution by Pavement Type Class

The following table presents the overall conditions scores by region and functional class at the time of the survey.

Imperial County Data Summary

	Imperial County				Imperial Valley				Salton City		
	Total	**ART**	**COL**	**RES**	**IV Total**	**ART**	**COL**	**RES**	**SC Total**	**COL**	**RES**
Length (mi)	1,326	308	650	368	1,031	308	627	96	295	23	272
Average PCI	**53**				**55**	**59**	**54**	**52**	**46**	**48**	**46**

The following functional class definitions were used for this analysis:

Arterial (ART) – major paved roadways typically linking population centers. Arterial roadways carry higher traffic volumes and are generally striped.

Collector (COL) – lower volume roads that connect residential or rural areas to the arterial roadway network. In rural areas these are often referred to as County roads and are not stripped.

Residential (RES) – urban local roads.

2.4 LOAD ASSOCIATED DISTRESS ANALYSIS

Closer examination of the surface defects as they relate to the overall pavement condition provide an insight into the failure mode of roadway segments with low PCI scores. Generally, load associated distresses affect the overall condition score more than non-load associated distresses – however this is not the case in Imperial County where non-load associated distresses contribute considerably to low pavement condition scores. Load associated distresses are those that are directly related to traffic loading and structural capacity (alligator cracking, distortion and rutting). Non-load associated distresses are those that result from materials or environmental issues including shrinkage (transverse) cracking, bleeding and raveling.

Figure 10 plots the relationship of the load and non-load associated distresses against pavement condition. As can be seen from the plot, at higher PCI scores, it is the non-load associated distresses (blue dots) that have a higher concentration of deducts over the load associated distresses (red dots). As the PCI score drops, both load and non-load load associated distresses affect the PCI score. Typically, at low PCI scores, it is the load associated distresses that affect the PCI the most – meaning the pavement surface and base have failed due to traffic loading. In Imperial County, transverse (shrinkage) cracking and pavement raveling contribute significantly to the low PCI scores.

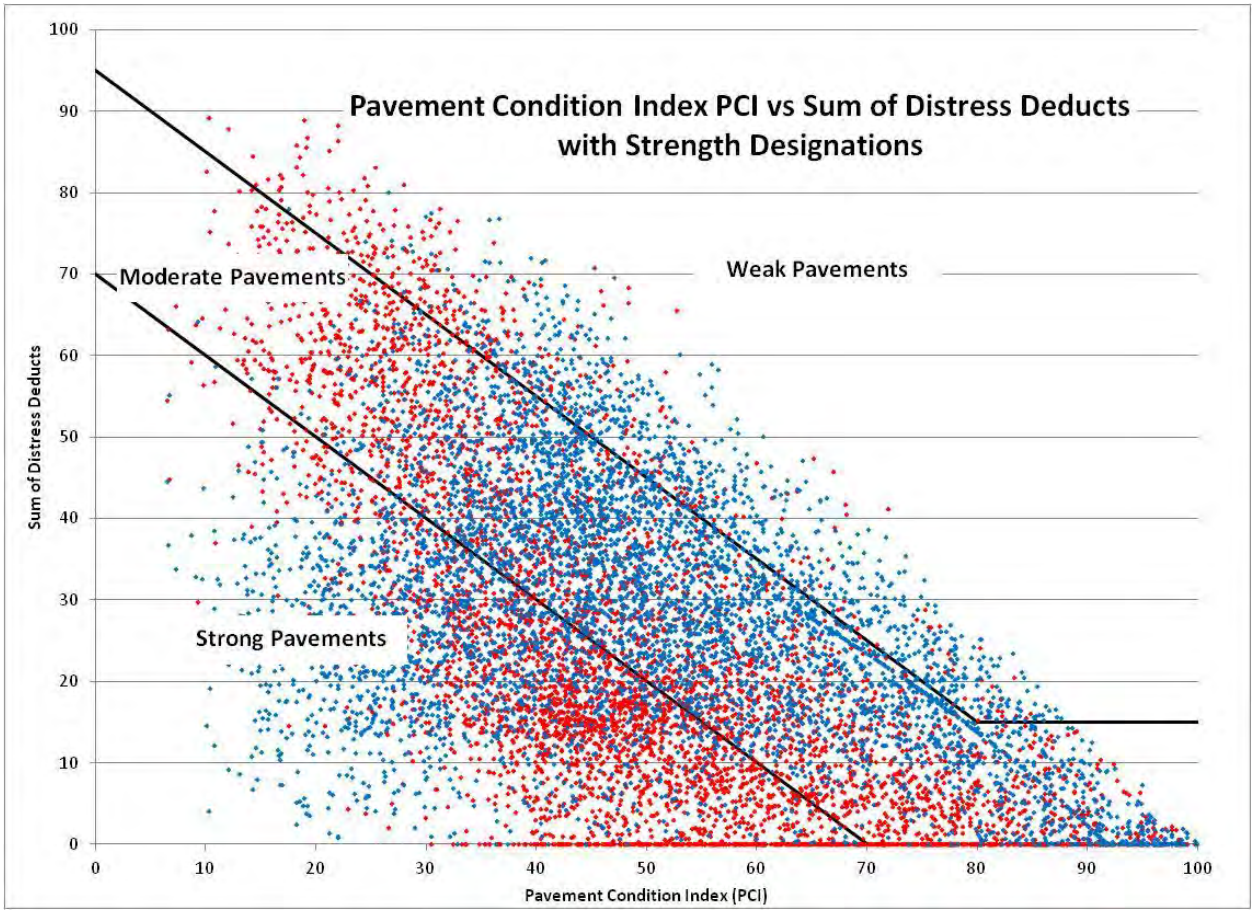


Figure 10 – Structural Adequacy of the Roadway Network

Segments falling below the lower diagonal line may be deemed strong as they have a lower ratio of load associated distresses to pavement condition. Segments above the upper diagonal line are labeled as weak as they have a higher ratio of load associated distresses to pavement condition. In between the two diagonal lines are the pavements exhibiting moderate strength.

In the simplest of terms, Imperial County's roads are failing due to two primary modes: 1.) Structural failure due to inadequate base materials and pavement thickness, and 2.) excessive weathering and cracking due to high exposure to sunlight and extreme temperatures.

The pavement strength label is used to determine which pavement performance curve a segment is to use, as well as a qualifier for rehabilitation selection.

2.5 RECONSTRUCTION BACKLOG

Backlog roadways are those that have dropped sufficiently in quality that surface rehabilitation efforts would no longer prove to be cost efficient and either partial or total reconstruction is required. Backlog is expressed as the percentage of roads requiring reconstruction as compared to the network totals.

Generally a backlog of 10% to 15% of the overall network is considered manageable from a funding point of view – a target value of less than 12% would be considered ideal. Backlogs approaching 20% and above tend to become unmanageable unless aggressively reduced through larger rehabilitation programs. For agencies with a high backlog (that is approaching 20%) it is important that this value not be allowed to increase. It is also crucial that this number be lessened as to keep road maintenance manageable in the County. It is far more costly to let the backlog amount increase anymore and then attempt to reduce it later.

The concept of Pavement Condition Index (PCI) score and backlog must be fully understood in order to develop an effective pavement management program. The PCI score indicates the overall pavement condition and represents the amount of equity in the system and is the value most commonly considered when gauging the overall quality of a roadway network. It may also be used to define a desired level of service – that is an agency may wish to develop a pavement management program such that in 5 years the overall network score meets a set minimum value. It is the backlog however, that defines the amount of work an agency is facing and is willing to accept in the future. Further, it is the combination of the two that presents the true picture of the condition of a roadway network, and conversely defines improvement goals.

With Imperial County's PCI at 53 at the time of the surveys and the reconstruction backlog at 7% and an additional 15% of the network rated as poor, the County's short term objectives needs to focus on not letting this backlog percentage increase to over 20% by focusing its current rehab program on the asphalt network to arrest any potential PCI slide. The key issue in Imperial County is not the current level of backlog (7%), but rather the extraordinarily high number of roads rated as poor or marginal. Over one-third of the paved roads are approaching the ends of their service life and the opportunity to rehabilitate them with overlays or surface based rehabilitation activities. In Imperial Valley 34% of the streets are rated as poor or marginal, while this value jumps to 39% in the Salton City area.

3.0 REHABILITATION PLAN AND BUDGET DEVELOPMENT

3.1 KEY ANALYSIS SET POINTS

Pavement management systems require user inputs in order to perform condition forecasting and prioritization. Key operating parameters, based on national empirical data and Imperial County specific conditions, used in the analysis are as follows:

- **Pavement Performance Curves**

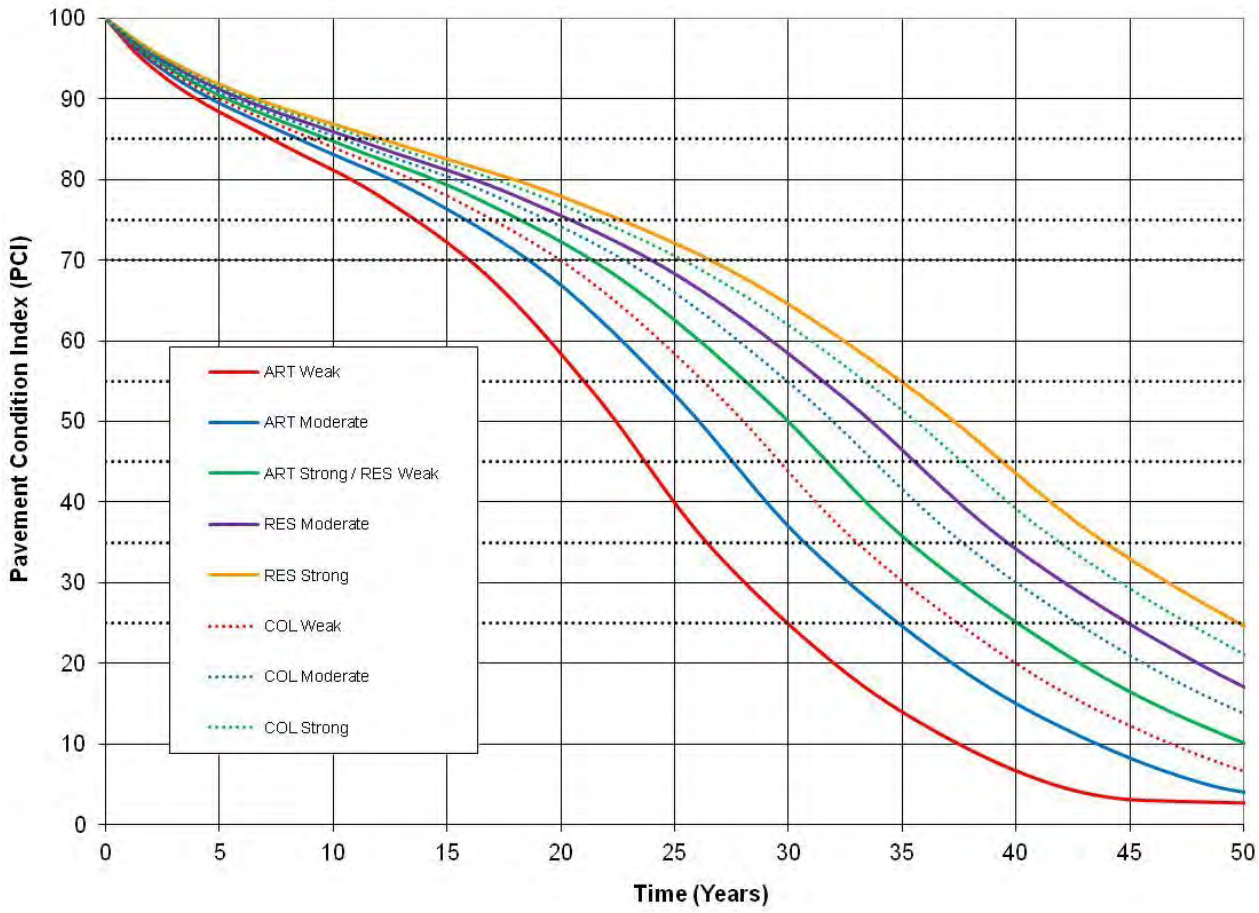


Figure 11 – ACP Performance Curves

The basic shape of the curves follows traditional sigmoidal performance models such as those contained in MicroPaver and other commonly used pavement management applications.

A similar set of curves were created for the single concrete street.

- **Rehabilitation Strategies and Unit Rates** – The rehab strategies, unit rates, PCI ranges and selection criteria used in the pavement analysis are on the following page. In summary the following rehabilitation guidelines were developed:

  Arterials — Rehabilitation consists of slurry seals, chip seals/surface treatments or overlays. If reconstruction is required they are returned to an asphalt standard.

  Collector/County — Rehabilitation consists of slurry seals, chip seals or overlays. If reconstruction is required they are returned to a bituminous surface treatment (BST) standard.

  BST is similar to a chip seal, but is placed on a crushed aggregate base. This is a common standard used for low volume rural roads where agricultural traffic is present. The benefit is lower construction cost with good dust control and reasonable service life. Much of the Alaska Highway is constructed to this standard.

  Residential — Rehabilitation consists of slurry seals, chip seals or overlays. If reconstruction is required they are returned to an asphalt standard.

  Salton City — At higher PCI values, slurries and chip seals are used to extend pavement life. Roads rated as poor will be overlaid. If reconstruction is required they are returned to a bituminous surface treatment (BST) standard.

  Pavement Rehab – is the assigned name to each rehabilitation strategy. The term "+ R&R" refers to remove and replace – that is structural patching. When this term is present, additional funds have been assigned to the strategy to allow for an increased amount of preparation work and patching. The "1" and "2" suffixes after the name are simply a placeholder to separate one rehabilitation from another within the software.

  PCI Range - defines the Pavement Condition Index (PCI) range applicable to the rehab selection. The PCI ranges generally match the Good-Fair-Poor descriptions, but are not required to do so. The Breakpoint PCI is the limit which a segment falling into the range between the Minimum PCI and Breakpoint PCI must be completed in its need year. If the segment is not completed that year, its score will drop below the minimum and require a thicker rehabilitation activity. Segments with a PCI score between the Minimum and Breakpoint PCI's are referred to as Critical.

  Constraint –defines the Load Associated Distress (LAD) range applicable to the rehabilitation selection. The PCI score defines when rehabilitation is required based on the segments rate of deterioration and the appropriate PCI Range, while the LAD constraint further defines the rehab selection by identifying whether additional activities such as patching or R&R are required.

  Rehab Order – defines the order in which rehabilitation activities are funded. The software first selects the critical segments in the rehab selection order until all available monies are spent. After the critical segments are selected, if funds are still available, the software then recycles through the priority list and selects the remaining segments in order. In practice, available funds are generally expended before all critical segments are selected and segments not selected are deferred.

Imperial County Rehabilitation Strategies and Unit Rates

Pavement Type	Rehab Number	Budget Group	FunCL	Pavement Rehab	Description	Attributes				PCI Range			Constraint	
						Rehab Order	Reset PCI Value	Minimum Life	Unit Rate ($/yd2)	Min PCI	Breakpoint PCI	Max PCI	Min Load Factor	Max Load Factor
Asphalt	105	1	Arterial	Art - Slurry Seal	Single Slurry Seal	9	90	5	2.25	75	77	85		
Asphalt	110	1	Arterial	Art - Surface Treatment	Double Slurry, Chip Seal or MicroSurface	8	92	5	3.25	65	67	75	0	15
Asphalt	111	1	Arterial	Art - Surface Treatment + R&R1	Double Slurry, Chip Seal or MicroSurface	7	92	5	3.75	65	67	75	15	100
Asphalt	112	1	Arterial	Art - Surface Treatment + R&R2	Double Slurry, Chip Seal or MicroSurface	6	92	5	3.75	55	57	65	0	15
Asphalt	120	2	Arterial	Art - Thin Olay	< 2" ACP Overlay	14	95	5	13.50	55	57	65	15	30
Asphalt	121	2	Arterial	Art - Thin Olay + R&R1	< 2" ACP Overlay	11	95	5	14.50	55	57	65	30	100
Asphalt	122	2	Arterial	Art - Thin Olay + R&R2	< 2" ACP Overlay	10	95	5	14.50	45	47	55	0	20
Asphalt	130	2	Arterial	Art - Moderate Olay	2" to 3 " ACP Overaly	15	95	5	16.50	45	47	55	20	40
Asphalt	131	2	Arterial	Art - Moderate Olay + R&R1	2" to 3 " ACP Overaly	13	95	5	17.50	45	47	55	40	100
Asphalt	132	2	Arterial	Art - Moderate Olay + R&R2	2" to 3 " ACP Overaly	12	95	5	17.50	35	37	45	0	30
Asphalt	140	2	Arterial	Art - Thick Olay	3" + ACP Overlay	4	96	5	19.50	35	37	45	30	50
Asphalt	141	2	Arterial	Art - Thick Olay + R&R1	3" + ACP Overlay	3	96	5	20.50	35	37	45	50	100
Asphalt	142	3	Arterial	Art - Thick Olay + R&R2	3" + ACP Overlay	2	96	5	20.50	25	28	35	0	40
Asphalt	150	3	Arterial	Art - Partial Recon (ACP)	Surface Removal, Compaction, >3" Overlay	1	96	5	35.00	25	28	35	40	100
Asphalt	155	4	Arterial	Art - Full Recon (ACP)	Full Base Reconstruction and >3" Overlay	5	100	5	50.00	0	15	25		
Asphalt	205	1	Collector	Col - Slurry Seal	Single Slurry Seal	12	90	5	2.00	75	77	85		
Asphalt	210	1	Collector	Col - Surface Treatment	Double Slurry, Chip Seal or MicroSurface	11	92	5	3.00	65	67	75	0	15
Asphalt	211	1	Collector	Col - Surface Treatment + R&R1	Double Slurry, Chip Seal or MicroSurface	10	92	5	3.50	65	67	75	15	100
Asphalt	212	1	Collector	Col - Surface Treatment + R&R2	Double Slurry, Chip Seal or MicroSurface	6	92	5	3.50	55	57	65	0	15
Asphalt	220	2	Collector	Col - Mill and Chip	Surface Mill and Chip Seal	9	94	5	4.75	55	57	65	15	30
Asphalt	221	2	Collector	Col - Mill and Chip + R&R1	Surface Mill and Chip Seal	8	94	5	5.75	55	57	65	30	100
Asphalt	222	2	Collector	Col - Mill and Chip + R&R2	Surface Mill and Chip Seal	7	94	5	5.75	45	47	55	0	20
Asphalt	230	2	Collector	Col - Thin Olay	< 2" ACP Overlay	15	95	5	12.50	45	47	55	20	40
Asphalt	231	2	Collector	Col - Thin Olay + R&R1	< 2" ACP Overlay	8	95	5	13.50	45	47	55	40	100
Asphalt	232	2	Collector	Col - Thin Olay + R&R2	< 2" ACP Overlay	7	95	5	13.50	35	37	45	0	30
Asphalt	240	2	Collector	Col - Moderate Olay	2" to 3 " ACP Overaly	4	95	5	15.50	35	37	45	30	50
Asphalt	241	2	Collector	Col - Moderate Olay + R&R1	2" to 3 " ACP Overaly	3	95	5	16.50	35	37	45	50	100
Asphalt	242	3	Collector	Col - Moderate Olay + R&R2	2" to 3 " ACP Overaly	2	95	5	16.50	25	28	35	0	40
Asphalt	250	3	Collector	Col - Partial Recon (BST)	Surface Removal, Compaction, 3" Overlay	1	98	5	20.50	25	28	35	40	100
Asphalt	255	4	Collector	Col - Full Recon (BST)	Full Base Reconstruction and 3" Overlay	5	98	5	30.00	0	15	25		
Asphalt	260	5	SC Collector	SC Col - SurfaceTreatment	Double Slurry, Chip Seal or MicroSurface	11	90	5	3.00	65	67	75		
Asphalt	265	5	SC Collector	SC Col - Mill and Chip	Surface Mill and Chip Seal	13	94	5	4.75	55	57	65		
Asphalt	270	5	SC Collector	SC Col - Mill and Chip + R&R	Surface Mill and Chip Seal	9	94	5	5.75	45	47	55		
Asphalt	275	5	SC Collector	SC Col - Mill and 2xChip + R&R	Surface Mill and Double Chip Seal	5	94	5	9.75	35	37	45		
Asphalt	280	5	SC Collector	SC Col - Deep Patch & Olay	Mill, Extensive Patch and 2.5" Overlay	7	96	5	15.50	25	27	35		
Asphalt	285	5	SC Collector	SC Col - Full Recon (BST)	Full Base Reconstruction and BST	15	98	5	20.50	0	15	25		
Asphalt	305	1	Residential	RES - Slurry Seal	Single Slurry Seal	9	90	5	1.75	75	77	85		
Asphalt	310	1	Residential	RES - Surface Treatment	Double Slurry, Cape Seal or MicroSurface	8	92	5	2.75	65	67	75	0	15
Asphalt	311	1	Residential	RES - Surface Treatment + R&R1	Double Slurry, Cape Seal or MicroSurface	7	92	5	3.25	65	67	75	15	100
Asphalt	312	1	Residential	RES - Surface Treatment + R&R2	Double Slurry, Cape Seal or MicroSurface	6	92	5	3.25	55	57	65	0	15
Asphalt	320	2	Residential	RES - Thin Olay	1.5" to 2" ACP Overlay	14	95	5	11.50	55	57	65	15	30
Asphalt	321	2	Residential	RES - Thin Olay + R&R1	1.5" to 2" ACP Overlay	11	95	5	12.50	55	57	65	30	100
Asphalt	322	2	Residential	RES - Thin Olay + R&R2	1.5" to 2" ACP Overlay	10	95	5	12.50	45	47	55	0	20
Asphalt	330	2	Residential	RES - Moderate Olay	2" ACP Overlay	15	95	5	14.50	45	47	55	20	40
Asphalt	331	2	Residential	RES - Moderate Olay + R&R1	2" ACP Overlay	13	95	5	15.50	45	47	55	40	100
Asphalt	332	2	Residential	RES - Moderate Olay + R&R2	2" ACP Overlay	12	95	5	15.50	35	37	45	0	30
Asphalt	340	2	Residential	Res - Deep Patch and Pave	Mill, Extensive Patch and 2.0" Overlay	4	96	5	17.50	35	37	45	30	50
Asphalt	341	2	Residential	Res - Deep Patch and Pave 1	Mill, Extensive Patch and 2.0" Overlay	3	96	5	17.50	35	37	45	50	100
Asphalt	342	3	Residential	Res - Deep Patch and Pave 2	Mill, Extensive Patch and 2.0" Overlay	2	96	5	17.50	25	28	35	0	40
Asphalt	350	3	Residential	RES - Partial Recon (ACP)	Surface Removal, Compaction, 2.5" Overlay	1	98	5	22.50	25	28	35	40	100
Asphalt	355	4	Residential	RES - Full Recon (ACP)	Full Base Reconstruction and 2.5" Overlay	5	100	5	35.00	0	15	25		
Asphalt	360	5	SC Residential	SC Res - SurfaceTreatment	Double Slurry, Chip Seal or MicroSurface	11	92	5	2.75	65	67	75		
Asphalt	365	5	SC Residential	SC Res - Mill and Chip	Surface Mill and Chip Seal	13	94	5	4.25	55	57	65		
Asphalt	370	5	SC Residential	SC Res - Mill and Chip + R&R	Surface Mill and Chip Seal	9	94	5	5.25	45	47	55		
Asphalt	375	5	SC Residential	SC Res - Mill and 2xChip + R&R	Surface Mill and Double Chip Seal	5	94	5	9.25	35	37	45		

Unit Rates – the rehabilitation costs are presented on a per square yard basis for each pavement type–functional class–rehabilitation activity combination. The rates were developed using typical national averages for similar activities and then were adjusted for Imperial County' location and unique conditions. The rates include an allowance to cover costs for traffic control and site preparation, striping and pavement markings, engineering and inspection, and miscellaneous costs and contingency. The rates do not include ADA compliance costs, landscaping, signals or signage upgrades, or peripheral concrete repairs and in-house costs.

Figures 12 and 13 illustrate the proposed rehab selection plan for roadway segments in the Imperial Valley and Salton City areas.

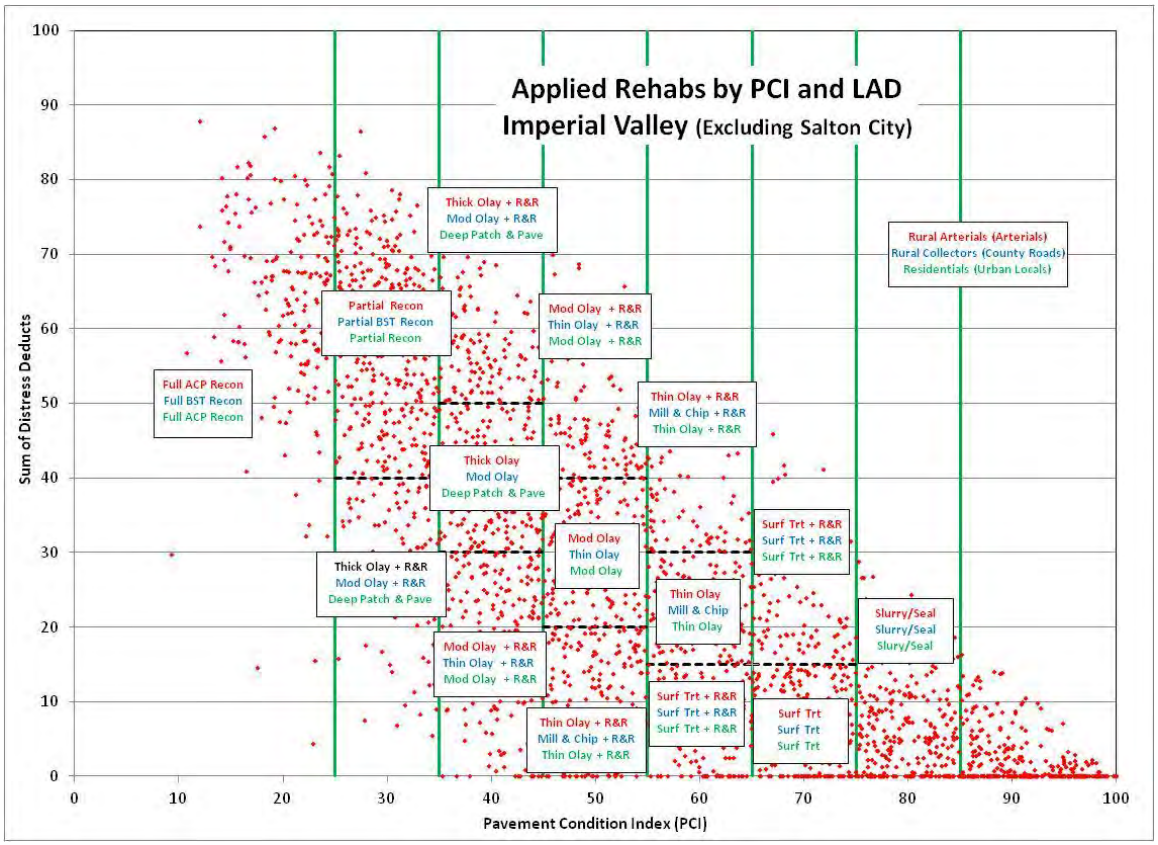


Figure 12 – Imperial Valley Rehabilitation Activities by Functional Class

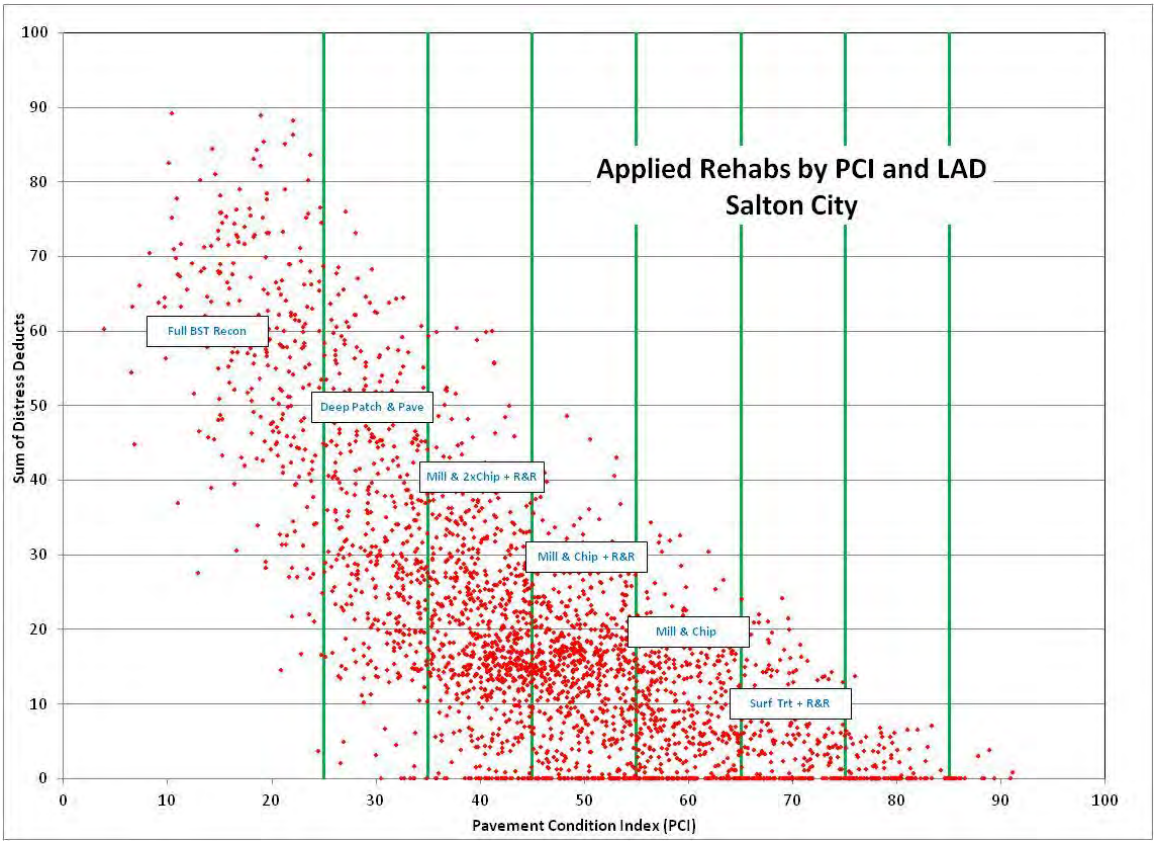


Figure 13 – Salton City Rehabilitation Activities – All Streets

- **Priority Ranking** – The Lucity pavement management program incorporates a user defined formula to determine the order in which streets are selected for rehabilitation. The priority formula is as follows:

  Priority = (100 – PCI) X PWF, where the PWF is the priority weighting factor as follows:

Region	Strength	Arterial	Collector	Residential
Imperial Valley	Weak	105	75	90
	Moderate	100	70	85
	Strong	95	65	80
Salton City	Weak	N/A	35	45
	Moderate	N/A	30	40
	Strong	N/A	25	35

The effect of the priority weighting factor is to place increased emphasis for selection on arterials, followed by residentials and then rural-collector roads in the Imperial Valley over their counterparts in the Salton City area. Simultaneously, segments rated as weak are selected over those rated as moderate or strong.

3.2 FIX ALL AND ANNUAL ESTIMATES

The Fix All estimate is the theoretical value to rehabilitate all streets in the network to identify the magnitude of the current condition deficiency. The estimate is developed to validate the Steady State budget analysis and provide direction where rehabilitation budgets are best expended. For Imperial County, the Fix All Estimate is approximately $224M, broken down as follows:

Description	Fix All Estimate ($)	Life Cycle (Yrs)	Annual Life Cycle Cost ($)
Slurry Seal	6,090,000	5	1,220,000
Surf Treatment	8,410,000	7	1,200,000
Mill and Chip	23,730,000	10	2,370,000
Thin Olay	26,720,000	20	1,340,000
Moderate Olay	39,040,000	20	1,950,000
Thick Olay	15,420,000	20	770,000
Deep Patch and Pave	16,320,000	25	650,000
Partial Recon (BST)	29,410,000	20	1,470,000
Partial Recon (ACP)	16,500,000	35	470,000
Full Recon (BST)	24,890,000	25	1,000,000
Full Recon (ACP)	16,860,000	50	340,000
Pulverize & ACP Olay	370,000	35	10,000
Total Network ($):	**223,760,000**		**12,790,000**

By dividing the Fix All Estimate totals developed above by typical life cycles for each rehab, an annual steady state budget may be developed. For Imperial County, the Steady State budget (that is, maintaining the current PCI) is estimated at $12.8M annually.

Other methods to estimate the annual budget for the network include 1.) dividing the total network value by its depreciation life, and 2.) identifying the network average PCI, assigning an appropriate rehabilitation and then estimating the size of the annual program based on the service life of the average rehabilitation. Both examples are highlighted in the following tables:

Asset Value Divided by Depreciation Life

Network Valuation ($M):	722,300,000
Ultimate Roadway Depreciation Life (yrs):	50
Annual Budget Based on Depricatied ($M/yr):	**14,400,000**

Average Life Cycle of Typical Rehabilitation

Region	Miles	Average PCI	Selected Rehab Based on PCI	Rehab Design Life (yrs)	Annual Program (mi/yrs)	Average Rehab Cost ($/mile)	Annual Cost ($)
Imperial Valley	1,031	55	Thin Overlay	20	51.5	185,000	9,530,000
Salton City	295	46	Mill & Chip	10	29.5	60,000	1,770,000

Annual Budget Based on Average Design Life ($/yr): 11,300,000

These three methods all based on the size and condition of the Imperial County network all point to an annual budget on the order of $11M to 14M.

3.3 NETWORK BUDGET ANALYSIS MODELS

A total of 5 budget runs ranging from $2.50M per year up to $12.50M per year plus the Do Nothing and Fix All (Unlimited) options were prepared for the Imperial County network in order to fine tune the analysis process and identify optimum expenditures. The budget analysis results are summarized below:

Fix All – The Fix All budget is similar to the Fix All Estimate discussed above in that it provides sufficient funding to rehabilitate each street in its need year with sufficient funds available. The idea is to identify the upper limit of spending over 5 years the County would require if they had unlimited funds. The budget analysis is for reference only and used to calibrate the analysis models. The Fix All budget increases the PCI to 92 tapering off to an 89 in five years and expends $223M.

Do Nothing – this option identifies the effect of spending no capital for 5 years. After 5 years, the Do Nothing option results in a PCI drop from a 52 to a 42.

$2.50M, $5.00M, $7.50M, $10.00M and $12.50M – identifies the resultant network PCI at various funding levels. For all funding levels the budgets were split between the various functional classes and rehab treatments. The reason splitting the budgets was to prevent the software from solely selecting thick overlays and partial reconstruction rehabilitations. If the budget was not partitioned, these two activities would consume the entire budget. The budget split was as follows:

Slurry seals and surface treatments	10%
Thin and moderate overlays (PCI > 35) and mill and chip:	20%
Thick and moderate overlays (PCI < 35), deep patch and pave, and partial reconstruction	40%
Full reconstruction	20%
Salton City – all rehab activities	10%

The software selects the rehabilitation candidates based on their priority and rehab selection order – starting with thick overlays and partial reconstructs to prevent these from becoming full reconstructs. At funding levels below the estimated steady state value, only critical segments are selected – and even then many are deferred due to lack of funding. Depending of the level of the funding shortfall, some segments are never selected and eventually become fall through segments due to their low priority.

As the funding level becomes closer to the steady state budget, the software is able to select most of critical segments within a five year period. When funding is at the steady state budget, the PCI remains fairly constant, and over time, the backlog is able to be reduced. Funding levels above the steady state, allow for increases in PCI and decrease in backlog at an accelerated rate.

The net effect of partitioning the budget is to check the deterioration of the higher rated roadways through the application of lighter treatments such as surface treatments and chip seals, while at the same time attempting to capture the majority of street before they become full reconstructs. Unfortunately, within the five year analysis horizon, multiple roadway segments will not be selected and be allowed to deteriorate in favor of segments with higher needs.

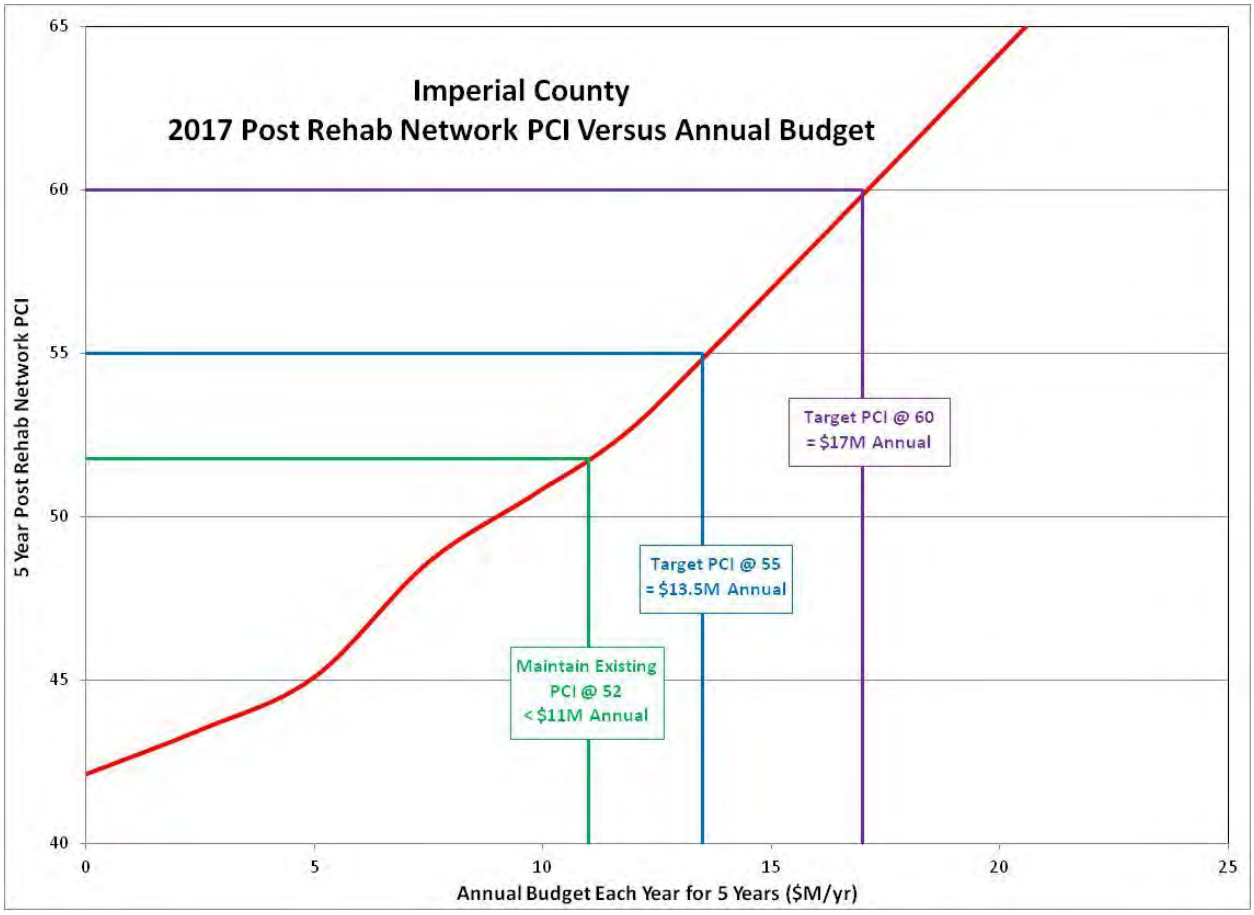


Figure 14 – Five Year Network PCI Analysis Results

The results of the analysis are summarized in Figure 14. The X axis highlights the annual budget, while the Y axis plots the 5 year Network Post Rehab PCI value. The diagonal red line is the analysis results.

The targets for the pavement analysis are to maintain the network PCI at its current level of 52, while attempting to maintain the backlog below 20%. As can be seen from Figure 14, a budget of just under $11.0M would maintain the current PCI. The $11.0M budget varies matches the Life cycle cost estimate of $11.0 to $14.0M.

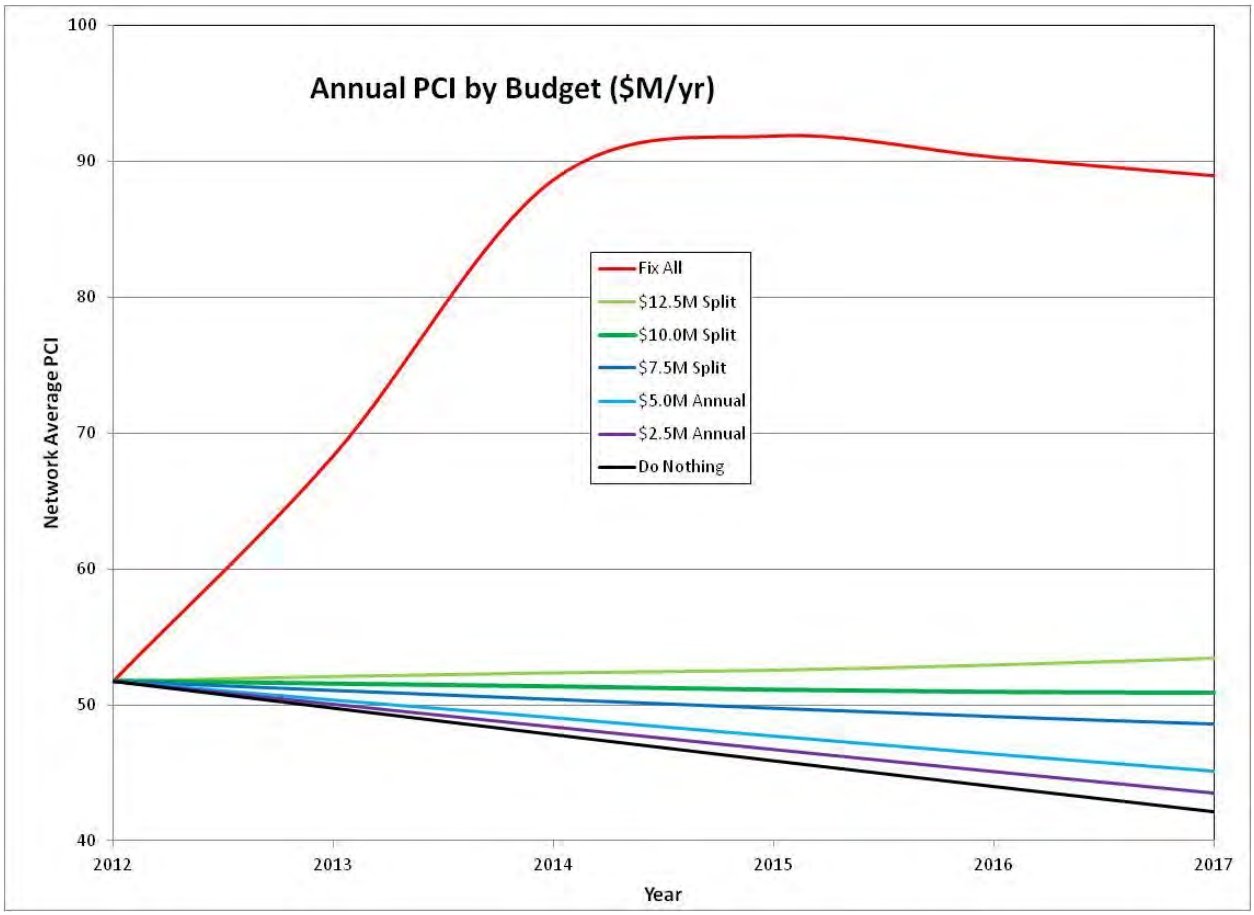


Figure 15 – Five Year Annual PCI

Figure 15 presents the same analysis results on an annual basis. The $10.0M budget is close to the actually steady state requirement of $11.0M and highlights that funding amounts below this level will drop the network PCI over time. Extending the analysis out to 10 years confirmed that the PCI will remain steady at 52 at $10M per year.

3.4 NETWORK RECOMMENDATIONS AND COMMENTS

The following recommendations are presented to Imperial County and must be read in conjunction with the attached reports.

1. The County should adopt a policy statement identifying the desired overall pavement condition rating and acceptable amount of backlog. We suggest a PCI target that maintains the current network profile on the order of 62, while maintaining the backlog below 20%.

   An annual budget of $10.0M is required to achieve both of these goals.

2. The full suite of proposed rehabilitation strategies and unit rates should be reviewed annually as these can have considerable effects on the final program. The adoption of the BST rehab strategy for collector/County roads represents a departure from the current practice of asphalt paving of these roads.

3. All costs are in constant 2011 dollars. No allowances have been made for inflation or fluctuations in rehabilitation costs. The County will have to monitor and factor in inflation for each budget year.

4. No allowance has been made for network growth or conversion of gravel roadways to pavement. As the County expands or increases the amount of paved roads, increased budgets will be required.

5. No allowance has been made for routine maintenance activities such as crack sealing, sweeping, striping or patching. These costs are assumed to be outside the pavement management costs.

6. No allowance has been made for compliance with the Americans with Disabilities Act, which is required on all roadway rehabilitation projects.

Appendix B

Street Inventory and Condition Summary by Projects (Supersegments by ID)

Imperial County
Paved Network Inventory and Condition Summary - SuperSegments (Projects), Sorted by ID

Superseg ID	Description	Length (ft)	Width (ft)	Area (yd2)	Pavement Type	Strength	Priority	FunCL	PCI	Load Factor	Non-Load Factor	Roughness Factor
1000	10TH - 1000	196	20	434	Asphalt	Moderate	5,695	Residential	33	46	24	43
1005	10TH - 1005	762	23	1,988	Asphalt	Moderate	3,486	Residential	59	21	11	43
1010	10TH - 1010	740	31	2,550	Asphalt	Weak	6,212	Residential	31	75	1	49
1015	11TH - 1015	762	22	1,698	Asphalt	Strong	5,195	Residential	35	28	34	33
1020	14TH - 1020	761	19	1,606	Asphalt	Moderate	5,489	Residential	35	48	13	33
1025	1ST - 1025	771	23	1,912	Asphalt	Moderate	3,406	Residential	60	25	10	51
1030	1ST - 1030	1,348	24	3,531	Asphalt	Moderate	4,210	Residential	50	25	24	53
1035	1ST - 1035	2,623	26	7,069	Asphalt	Weak	6,592	Residential	27	59	20	41
1040	1ST - 1040	1,943	23	5,035	Asphalt	Strong	5,019	Residential	37	21	46	49
1045	1ST - 1045	674	23	1,721	Asphalt	Strong	6,177	Residential	23	43	43	43
1050	1ST - 1050	627	20	1,393	Asphalt	Moderate	4,805	Residential	43	30	30	55
1055	1ST - 1055	379	43	1,812	Asphalt	Moderate	1,035	Arterial	90	2	0	75
1060	2ND - 1060	463	38	1,697	Asphalt	Strong	6,261	Residential	22	45	30	19
1065	2ND - 1065	669	24	1,818	Asphalt	Moderate	6,707	Residential	21	52	27	23
1070	2ND - 1070	484	23	1,302	Asphalt	Strong	5,003	Residential	37	28	30	31
1075	2ND - 1075	330	24	879	Asphalt	Moderate	7,058	Residential	17	64	23	29
1080	2ND - 1080	2,291	26	6,326	Asphalt	Strong	5,346	Residential	33	25	42	36
1085	2ND - 1085	241	26	696	Asphalt	Weak	5,153	Residential	43	58	8	63
1090	2ND - 1090	1,130	40	5,021	Asphalt	Moderate	2,260	Residential	73	8	12	61
1095	32 EVAN HEWES HWY - 1095	5,280	32	18,773	Asphalt	Moderate	510	Arterial	95	0	0	88
1100	32 EVAN HEWES HWY - 1100	1,352	32	4,807	Asphalt	Moderate	470	Arterial	95	0	0	89
1105	32 EVAN HEWES HWY - 1105	5,280	32	18,773	Asphalt	Moderate	420	Arterial	96	0	0	91
1110	32 EVAN HEWES HWY - 1110	2,210	32	7,856	Asphalt	Moderate	438	Arterial	96	0	0	90
1115	3RD - 1115	1,041	22	2,370	Asphalt	Strong	4,444	Residential	44	7	51	52
1120	3RD - 1120	1,001	20	2,175	Asphalt	Strong	5,592	Residential	30	39	34	40
1125	3RD - 1125	794	20	1,656	Asphalt	Strong	4,206	Residential	47	24	28	49
1130	3RD - 1130	330	25	917	Asphalt	Strong	4,941	Residential	38	30	28	34
1135	3RD - 1135	378	38	1,596	Asphalt	Moderate	4,344	Residential	49	30	13	36
1140	3RD - 1140	1,650	28	4,657	Asphalt	Strong	4,804	Residential	40	16	41	37
1145	3RD - 1145	641	29	2,064	Asphalt	Strong	3,291	Residential	59	7	27	47
1150	3RD - 1150	633	23	1,618	Asphalt	Moderate	4,040	Residential	52	17	22	38
1155	3RD - 1155	657	22	1,605	Asphalt	Moderate	1,905	Residential	78	5	11	66
1160	3RD - 1160	658	23	1,683	Asphalt	Moderate	5,073	Residential	40	37	25	49
1165	3RD - 1165	329	22	803	Asphalt	Strong	2,659	Residential	67	0	25	54
1170	3RD - 1170	887	20	1,971	Asphalt	Strong	5,402	Residential	32	19	50	38
1175	4TH - 1175	1,041	21	2,283	Asphalt	Strong	3,696	Residential	54	3	41	51
1180	4TH - 1180	1,980	27	5,462	Asphalt	Moderate	6,212	Residential	27	57	20	37
1185	4TH - 1185	642	34	2,167	Asphalt	Moderate	3,211	Residential	62	9	22	52
1190	4TH - 1190	1,955	43	6,416	Asphalt	Strong	3,978	Residential	50	9	42	55
1195	4TH - 1195	657	22	1,606	Asphalt	Strong	3,610	Residential	55	12	25	41
1200	4TH - 1200	556	21	1,297	Asphalt	Moderate	1,812	Residential	79	5	10	67
1205	4TH - 1205	309	24	839	Asphalt	Moderate	4,961	Residential	42	48	15	55
1210	5TH - 1210	1,320	19	2,603	Asphalt	Moderate	4,341	Residential	49	31	12	36

1215	5TH - 1215	660	16	1,173	Asphalt	Moderate	6,694	Residential	21	70	9	26
1220	5TH - 1220	642	18	1,248	Asphalt	Weak	5,133	Residential	43	48	9	46
1225	5TH - 1225	1,004	22	2,529	Asphalt	Moderate	4,344	Residential	49	28	19	45
1230	5TH - 1230	1,525	23	3,740	Asphalt	Moderate	5,264	Residential	38	32	27	34
1235	6TH - 1235	318	33	1,166	Asphalt	Moderate	4,107	Residential	52	23	16	36
1240	6TH - 1240	762	31	2,498	Asphalt	Moderate	4,408	Residential	48	41	8	46
1245	6TH - 1245	1,313	23	3,281	Asphalt	Moderate	4,515	Residential	47	28	21	42
1250	6TH - 1250	1,863	24	4,456	Asphalt	Moderate	5,163	Residential	39	43	18	44
1255	7TH - 1255	387	25	1,074	Asphalt	Moderate	6,409	Residential	25	53	24	29
1260	7TH - 1260	642	19	1,354	Asphalt	Weak	5,531	Collector	26	78	4	46
1265	7TH - 1265	375	23	958	Asphalt	Moderate	5,758	Residential	32	40	27	36
1270	7TH - 1270	332	20	737	Asphalt	Weak	4,693	Collector	37	68	5	64
1275	7TH - 1275	349	20	776	Asphalt	Weak	5,314	Collector	29	71	8	49
1280	7TH - 1280	1,325	20	3,016	Asphalt	Weak	4,937	Collector	34	67	17	75
1285	9TH - 1285	762	26	2,159	Asphalt	Strong	5,279	Residential	34	30	33	30
1290	9TH - 1290	197	24	525	Asphalt	Moderate	5,853	Residential	31	52	16	33
1295	A - 1295	1,969	27	5,541	Asphalt	Weak	6,982	Residential	22	74	7	30
1300	ABERDEEN - 1300	3,682	31	12,946	Asphalt	Strong	1,428	SC Residential	59	5	34	58
1305	ABERDEEN - 1305	2,493	32	8,480	Asphalt	Strong	1,618	SC Residential	54	10	32	47
1310	ABERDEEN - 1310	1,274	28	3,874	Asphalt	Moderate	1,218	SC Residential	70	0	28	68
1315	ABERDEEN - 1315	950	25	2,500	Asphalt	Strong	1,407	SC Residential	60	7	33	61
1320	ACAPULCO - 1320	310	21	722	Asphalt	Strong	2,394	SC Residential	32	24	41	28
1325	ACAPULCO - 1325	1,326	24	3,587	Asphalt	Strong	1,567	SC Residential	55	8	29	44
1330	ACAPULCO - 1330	954	24	2,364	Asphalt	Strong	2,404	SC Residential	31	22	42	24
1335	ACAPULCO - 1335	929	25	2,545	Asphalt	Strong	2,203	SC Residential	37	15	54	53
1340	ACAPULCO - 1340	953	25	2,407	Asphalt	Strong	2,529	SC Residential	28	32	43	36
1345	ACAPULCO - 1345	1,471	25	5,311	Asphalt	Strong	1,961	SC Residential	44	15	42	49
1350	ACAPULCO - 1350	1,619	25	4,496	Asphalt	Strong	2,199	SC Residential	37	10	61	56
1355	ACCESS - 1355	112	24	297	Asphalt	Moderate	641	Collector	91	0	0	75
1360	ADAMS - 1360	694	24	1,851	Asphalt	Strong	2,317	SC Residential	34	10	47	19
1365	ADERHOLT - 1365	2,178	18	4,355	Asphalt	Moderate	5,287	Collector	24	57	29	49
1370	AGATE - 1370	900	30	2,593	Asphalt	Strong	4,470	Residential	44	9	52	57
1375	AGATE - 1375	476	20	1,058	Asphalt	Strong	4,587	Residential	43	11	49	51
1380	AHORE HAWK - 1380	572	24	1,525	Asphalt	Moderate	1,173	SC Residential	71	7	20	68
1385	AHORE KING - 1385	308	22	752	Asphalt	Strong	1,998	SC Residential	43	17	38	41
1390	AIR CREST - 1390	763	24	2,064	Asphalt	Strong	1,433	SC Residential	59	10	22	43
1395	AIR LOOP - 1395	1,338	26	3,866	Asphalt	Strong	1,841	SC Residential	47	19	26	37
1400	AIR PARK CR - 1400	691	26	1,996	Asphalt	Moderate	1,035	SC Residential	74	7	12	62
1405	AIR PARK - 1405	627	25	1,741	Asphalt	Moderate	1,077	SC Residential	73	0	20	61
1410	AIR PARK - 1410	697	50	3,212	Asphalt	Strong	2,362	SC Residential	33	31	36	34
1415	AIR PARK - 1415	2,471	45	11,957	Asphalt	Moderate	3,452	SC Residential	14	57	40	38
1420	AIR PARK - 1420	395	44	1,929	Asphalt	Moderate	3,398	SC Residential	15	55	35	28
1425	AIR VISTA - 1425	1,077	25	2,991	Asphalt	Strong	2,181	SC Residential	38	21	36	31
1430	AIR - 1430	535	24	1,427	Asphalt	Strong	2,241	SC Residential	36	21	32	17
1435	AIRPORT - 1435	1,534	30	4,730	Asphalt	Strong	2,661	SC Residential	24	47	27	23
1440	AISLE OF PALMS - 1440	1,316	25	3,070	Asphalt	Weak	5,088	Residential	43	55	1	46
1445	AISLE OF PALMS - 1445	652	29	2,028	Asphalt	Moderate	3,587	Residential	58	19	20	54
1450	ALAMO - 1450	979	25	2,684	Asphalt	Strong	2,173	SC Residential	38	15	44	35
1455	ALAMO - 1455	3,792	26	10,955	Asphalt	Moderate	4,189	Collector	40	36	30	56
1460	ALAMO - 1460	5,280	24	14,080	Asphalt	Moderate	4,355	Collector	38	52	24	70
1465	ALAMO - 1465	1,881	24	5,015	Asphalt	Moderate	4,039	Collector	42	49	15	58

1470	ALAMO - 1470	5,261	24	14,030	Asphalt	Moderate	5,722	Arterial	43	34	30	61
1475	ALAMO - 1475	2,598	31	8,949	Asphalt	Weak	5,160	Collector	31	73	9	63
1480	ALAMO - 1480	1,358	25	3,695	Asphalt	Strong	4,152	Residential	48	10	38	43
1485	ALAMO - 1485	2,039	30	6,041	Asphalt	Strong	5,882	Residential	26	30	40	22
1490	ALBANY - 1490	893	26	2,545	Asphalt	Strong	2,146	SC Residential	39	23	31	26
1495	ALBRIGHT - 1495	5,428	24	14,474	Asphalt	Moderate	1,290	Collector	82	13	5	84
1500	ALBRIGHT - 1500	2,640	24	7,040	Asphalt	Moderate	3,555	Collector	49	28	22	51
1505	ALBRIGHT - 1505	3,883	24	10,356	Asphalt	Moderate	819	Collector	88	14	1	96
1510	ALBRIGHT - 1510	3,897	25	10,825	Asphalt	Moderate	860	Collector	88	14	0	93
1515	ALBRIGHT - 1515	1,927	22	4,711	Asphalt	Moderate	2,271	Collector	68	8	28	79
1520	ALBRIGHT - 1520	5,280	24	14,080	Asphalt	Moderate	2,373	Collector	66	5	33	79
1525	ALBRIGHT - 1525	5,280	24	14,080	Asphalt	Strong	2,025	Collector	69	0	40	89
1530	ALBRIGHT - 1530	5,280	24	14,080	Asphalt	Moderate	1,831	Collector	74	0	32	89
1535	ALBRIGHT - 1535	2,173	24	5,795	Asphalt	Moderate	1,642	Collector	77	0	26	84
1540	ALBRIGHT - 1540	5,280	24	14,080	Asphalt	Strong	3,950	Collector	39	19	55	69
1545	ALBRIGHT - 1545	5,300	24	14,134	Asphalt	Strong	4,032	Collector	38	23	53	71
1550	ALBRIGHT - 1550	2,708	27	8,123	Asphalt	Strong	4,095	Collector	37	19	57	66
1555	ALBRIGHT - 1555	5,279	24	14,077	Asphalt	Strong	4,277	Collector	34	27	52	64
1560	ALBRIGHT - 1560	5,248	24	13,995	Asphalt	Moderate	1,273	Collector	82	6	12	83
1565	ALOHA - 1565	966	24	2,576	Asphalt	Strong	2,249	SC Residential	36	12	61	56
1570	ALPINE - 1570	1,288	23	3,137	Asphalt	Strong	2,127	SC Residential	39	21	44	51
1575	ALPINE - 1575	546	22	1,334	Asphalt	Moderate	1,492	SC Residential	63	15	14	49
1580	ALPINE - 1580	3,830	27	12,351	Asphalt	Strong	2,098	SC Residential	40	18	48	56
1585	ALPINE - 1585	425	21	991	Asphalt	Moderate	1,525	SC Residential	62	8	24	52
1590	ALPINE - 1590	559	26	1,614	Asphalt	Strong	1,412	SC Residential	60	2	33	51
1595	ALPINE - 1595	427	21	997	Asphalt	Strong	1,321	SC Residential	62	0	32	54
1600	ALTADENA - 1600	2,339	36	8,362	Asphalt	Moderate	3,234	SC Residential	19	69	20	36
1605	ALTADENA - 1605	457	18	915	Asphalt	Strong	2,603	SC Residential	26	40	30	19
1610	AMERICAN CANAL - 1610	1,441	34	6,007	Asphalt	Strong	3,362	Collector	48	4	48	52
1615	ANDERHOLT - 1615	5,397	24	14,391	Asphalt	Weak	5,083	Collector	32	61	18	58
1620	ANDERHOLT - 1620	4,836	24	12,896	Asphalt	Moderate	3,923	Collector	44	49	18	69
1625	ANDERHOLT - 1625	6,325	25	16,978	Asphalt	Moderate	5,111	Collector	27	65	21	56
1630	ANDERHOLT - 1630	5,284	28	15,251	Asphalt	Moderate	1,638	Collector	77	0	25	82
1635	ANDERHOLT - 1635	2,654	24	7,078	Asphalt	Moderate	1,708	Collector	76	0	25	79
1640	ANDERHOLT - 1640	5,254	24	13,721	Asphalt	Moderate	1,224	Collector	83	3	19	93
1645	ANDERHOLT - 1645	2,502	32	8,896	Asphalt	Strong	3,261	Collector	50	4	55	72
1650	ANDERHOLT - 1650	2,784	24	7,425	Asphalt	Strong	3,973	Collector	39	6	68	67
1655	ANDERHOLT - 1655	5,280	24	14,080	Asphalt	Strong	2,414	Collector	63	5	37	75
1660	ANDERHOLT - 1660	3,476	23	9,055	Asphalt	Strong	4,112	Collector	37	8	64	59
1665	ANDRE - 1665	5,283	25	14,674	Asphalt	Moderate	905	Collector	87	9	4	90
1670	ANDRE - 1670	5,283	26	14,675	Asphalt	Moderate	264	Collector	96	2	0	95
1675	ANDRE - 1675	2,641	25	7,335	Asphalt	Moderate	507	Collector	93	1	2	88
1680	ANDRE - 1680	5,292	23	13,230	Asphalt	Weak	4,756	Collector	37	64	18	77
1685	ANDRE - 1685	1,369	26	3,953	Asphalt	Moderate	4,455	Collector	36	51	22	57
1690	ANDRE - 1690	1,281	22	3,131	Asphalt	Moderate	4,550	Collector	35	55	25	69
1695	ANDRE - 1695	5,255	25	14,597	Asphalt	Weak	4,982	Collector	34	63	23	77
1700	ANDRE - 1700	5,216	25	14,489	Asphalt	Moderate	3,634	Collector	48	35	28	75
1705	ANDRE - 1705	5,327	23	13,302	Asphalt	Moderate	2,514	Collector	64	19	25	85
1710	ANN - 1710	311	24	829	Asphalt	Strong	2,098	SC Residential	40	18	36	33
1715	ANNAPOLIS - 1715	3,857	25	11,079	Asphalt	Strong	2,610	SC Residential	25	25	62	52
1720	ANTHONY - 1720	299	40	1,328	Asphalt	Moderate	2,374	Residential	72	0	25	68

5320	DREW - 5320	5,291	24	14,108	Asphalt	Strong	4,956	Arterial	48	16	39	56
5325	DREW - 5325	5,280	24	14,080	Asphalt	Strong	5,662	Arterial	40	24	42	58
5330	DREW - 5330	5,094	21	12,545	Asphalt	Moderate	6,413	Arterial	36	33	38	55
5335	DREW - 5335	5,280	24	14,080	Asphalt	Strong	5,954	Arterial	37	29	39	52
5340	DREW - 5340	3,889	20	9,317	Asphalt	Moderate	6,771	Arterial	32	36	40	52
5345	DREW - 5345	4,297	24	11,458	Asphalt	Moderate	7,229	Arterial	28	46	38	55
5350	DREW - 5350	1,407	22	3,438	Asphalt	Moderate	947	Arterial	91	0	0	75
5355	DRIFTWOOD - 5355	1,222	34	4,616	Asphalt	Moderate	1,013	SC Residential	75	0	19	63
5360	DUNAWAY - 5360	3,709	24	9,535	Asphalt	Moderate	3,535	Collector	49	30	27	67
5365	DUNAWAY - 5365	5,432	24	14,486	Asphalt	Moderate	2,881	Collector	59	20	25	71
5370	AVE - 5370	1,969	26	5,325	Asphalt	Moderate	6,281	Residential	26	60	11	23
5375	ST - 5375	484	17	913	Asphalt	Strong	6,046	Residential	24	42	34	28
5380	ECUADOR - 5380	393	22	961	Asphalt	Moderate	2,829	SC Residential	29	52	26	47
5385	ECUADOR - 5385	2,226	25	5,868	Asphalt	Strong	1,556	SC Residential	56	4	33	43
5390	EDDIE - 5390	522	22	1,276	Asphalt	Moderate	1,334	SC Residential	67	7	18	54
5395	EDDINS - 5395	3,241	20	7,336	Asphalt	Moderate	2,855	Collector	59	19	30	79
5400	EDDINS - 5400	5,278	20	11,729	Asphalt	Moderate	3,238	Collector	54	20	41	87
5405	EDDINS - 5405	2,671	23	6,826	Asphalt	Moderate	3,592	Collector	49	20	46	82
5410	EDDINS - 5410	5,248	24	13,994	Asphalt	Moderate	5,684	Arterial	43	38	31	72
5415	EDDINS - 5415	5,397	24	14,392	Asphalt	Strong	8,217	Arterial	14	55	41	36
5420	EDDINS - 5420	5,287	21	12,479	Asphalt	Moderate	1,227	Arterial	88	1	5	79
5425	EDWARD - 5425	1,181	21	2,871	Asphalt	Moderate	1,178	SC Residential	71	9	13	58
5430	EDWARDS - 5430	5,282	24	14,086	Asphalt	Moderate	2,378	Collector	66	6	32	77
5435	EL CAMINO - 5435	312	23	799	Asphalt	Strong	2,472	SC Residential	29	38	26	19
5440	EL CENTRO - 5440	1,308	24	3,417	Asphalt	Strong	1,758	SC Residential	50	0	57	67
5445	EL CENTRO - 5445	2,037	37	8,374	Asphalt	Moderate	6,812	Residential	20	68	21	39
5450	EL CENTRO - 5450	1,359	25	3,472	Asphalt	Moderate	5,776	Residential	32	59	20	59
5455	EL DORADO - 5455	2,365	19	5,026	Asphalt	Strong	1,953	SC Residential	44	15	45	56
5460	EL DORADO - 5460	315	22	770	Asphalt	Moderate	3,613	SC Residential	10	75	19	20
5465	EL DORADO - 5465	1,444	24	3,714	Asphalt	Strong	2,167	SC Residential	38	21	38	35
5470	EL DORADO - 5470	339	29	1,093	Asphalt	Moderate	1,357	SC Residential	66	8	18	53
5475	EL DORADO - 5475	619	23	1,583	Asphalt	Strong	1,891	SC Residential	46	15	33	37
5480	EL MOLINO - 5480	1,176	19	2,482	Asphalt	Moderate	2,281	SC Residential	43	33	12	21
5485	EL RIO - 5485	559	25	1,554	Asphalt	Strong	1,632	SC Residential	53	2	34	35
5490	EL RIO - 5490	371	25	1,029	Asphalt	Strong	1,836	SC Residential	48	16	31	41
5495	EL RIO - 5495	721	24	1,884	Asphalt	Moderate	2,004	SC Residential	50	28	16	40
5500	EL RIO - 5500	394	24	1,049	Asphalt	Moderate	924	SC Residential	77	0	16	65
5505	EL RIO - 5505	1,010	22	2,469	Asphalt	Moderate	1,891	SC Residential	53	17	26	48
5510	ELAYNE - 5510	2,174	26	6,070	Asphalt	Strong	2,204	SC Residential	37	16	42	29
5515	ELDER - 5515	2,798	28	8,705	Asphalt	Weak	3,929	Collector	48	47	17	76
5520	ELM - 5520	574	21	1,340	Asphalt	Strong	1,730	SC Residential	51	15	24	34
5525	ELMWOOD - 5525	982	22	2,399	Asphalt	Moderate	1,163	SC Residential	71	0	23	61
5530	ELSINORE - 5530	1,340	24	3,533	Asphalt	Strong	1,453	SC Residential	58	11	28	56
5535	EMERALD - 5535	320	21	746	Asphalt	Strong	2,640	SC Residential	25	45	26	17
5540	EMERALD - 5540	625	24	1,631	Asphalt	Strong	2,075	SC Residential	41	23	35	42
5545	EMERALD - 5545	300	20	668	Asphalt	Strong	2,583	SC Residential	26	23	48	22
5550	EMORY - 5550	309	22	756	Asphalt	Strong	1,392	SC Residential	60	3	28	45
5555	ENGLISH - 5555	2,641	25	7,336	Asphalt	Moderate	2,930	Collector	58	22	25	73
5560	ENGLISH - 5560	5,311	23	13,280	Asphalt	Weak	4,941	Collector	34	63	22	77
5565	ENGLISH - 5565	5,299	23	13,542	Asphalt	Moderate	2,819	Collector	60	32	16	79
5570	ENGLISH - 5570	5,297	25	13,819	Asphalt	Moderate	1,621	Collector	77	10	16	85

6595	HARDY - 6595	2,628	21	6,132	Asphalt	Moderate	3,758	Collector	46	26	30	56
6600	HARLEQUIN - 6600	663	24	1,769	Asphalt	Strong	1,964	SC Residential	44	1	56	50
6605	HARPUR - 6605	812	26	2,345	Asphalt	Strong	2,246	SC Residential	36	24	29	18
6610	HARPUR - 6610	326	26	943	Asphalt	Moderate	1,514	SC Residential	62	10	20	48
6615	HARRIGAN - 6615	2,498	21	5,829	Asphalt	Moderate	4,625	Collector	34	44	33	59
6620	HARRIS - 6620	5,280	24	14,080	Asphalt	Strong	2,688	Collector	59	8	40	74
6625	HARRIS - 6625	5,335	24	14,226	Asphalt	Strong	3,295	Collector	49	11	43	59
6630	HARRIS - 6630	5,292	24	14,112	Asphalt	Moderate	176	Collector	97	1	1	99
6635	HARRIS - 6635	2,811	23	8,825	Asphalt	Moderate	1,080	Collector	85	0	12	80
6640	HARRIS - 6640	5,280	24	14,080	Asphalt	Moderate	760	Collector	89	5	1	82
6645	HARRIS - 6645	2,522	24	6,725	Asphalt	Moderate	481	Collector	93	0	0	82
6650	HARRIS - 6650	5,582	24	14,874	Asphalt	Strong	4,020	Collector	38	7	63	57
6655	HARRIS - 6655	5,280	24	14,080	Asphalt	Strong	4,221	Collector	35	6	65	52
6660	HARRIS - 6660	4,984	24	13,291	Asphalt	Strong	4,035	Collector	38	6	60	51
6665	HARRIS - 6665	2,643	23	6,755	Asphalt	Strong	3,176	Collector	51	1	49	56
6670	HARRIS - 6670	5,286	24	14,095	Asphalt	Strong	3,317	Collector	49	0	52	55
6675	HARRIS - 6675	2,617	23	6,688	Asphalt	Strong	4,729	Collector	27	17	68	55
6680	HARRIS - 6680	5,317	24	14,178	Asphalt	Strong	4,551	Collector	30	20	60	53
6685	HARRIS - 6685	5,292	24	14,112	Asphalt	Moderate	4,950	Collector	29	62	25	65
6690	HARRIS - 6690	5,378	24	14,342	Asphalt	Moderate	5,188	Collector	26	65	30	69
6695	HARRIS - 6695	2,640	24	7,040	Asphalt	Moderate	4,194	Collector	40	36	38	71
6700	HARRIS - 6700	5,280	24	14,080	Asphalt	Moderate	1,365	Collector	81	1	22	88
6705	HARRIS - 6705	2,543	24	6,782	Asphalt	Moderate	1,435	Collector	79	0	23	86
6710	HARRISON - 6710	2,853	25	7,924	Asphalt	Moderate	3,134	SC Residential	22	56	24	27
6715	HARRISON - 6715	299	27	897	Asphalt	Strong	2,360	SC Residential	33	35	24	19
6720	HARRISON - 6720	286	36	1,142	Asphalt	Moderate	1,827	SC Residential	54	18	17	37
6725	HARTSHORN - 6725	5,437	24	14,499	Asphalt	Strong	3,450	Collector	47	11	51	68
6730	HARTSHORN - 6730	2,622	25	7,283	Asphalt	Strong	4,293	Collector	34	33	41	54
6735	HARTSHORN - 6735	5,299	25	14,427	Asphalt	Moderate	2,122	Collector	70	15	21	84
6740	HARTSHORN - 6740	5,263	24	14,036	Asphalt	Moderate	1,473	Collector	79	6	18	87
6745	HARTSHORN - 6745	5,339	24	14,239	Asphalt	Moderate	958	Collector	86	1	15	92
6750	HARTSHORN - 6750	5,311	24	14,162	Asphalt	Moderate	4,646	Collector	34	58	21	63
6755	HARVARD - 6755	272	60	1,815	Asphalt	Moderate	1,939	SC Residential	52	32	6	33
6760	HARVARD - 6760	2,709	24	7,413	Asphalt	Weak	3,264	SC Residential	27	64	9	33
6765	HARVARD - 6765	1,763	27	5,248	Asphalt	Strong	2,703	SC Residential	23	35	44	28
6770	HASKELL - 6770	5,243	24	13,982	Asphalt	Moderate	5,294	Collector	24	52	36	51
6775	HASTAIN - 6775	5,300	24	14,134	Asphalt	Moderate	4,729	Collector	32	43	37	61
6780	HASTAIN - 6780	2,638	24	7,035	Asphalt	Moderate	2,766	Collector	60	18	29	79
6785	HASTAIN - 6785	6,107	24	16,286	Asphalt	Moderate	4,887	Collector	30	51	33	64
6790	HASTAIN - 6790	5,003	24	13,341	Asphalt	Moderate	4,589	Collector	34	42	37	64
6795	HASTAIN - 6795	5,387	24	14,366	Asphalt	Moderate	4,402	Collector	37	34	41	65
6800	HASTAIN - 6800	5,282	24	14,085	Asphalt	Strong	3,138	Collector	52	8	45	64
6805	HAUGHTELIN - 6805	5,303	24	14,142	Asphalt	Moderate	2,412	Collector	66	11	28	78
6810	HAVEN - 6810	4,634	37	18,165	Asphalt	Strong	2,801	SC Residential	20	46	39	32
6815	HAVEN - 6815	270	24	719	Asphalt	Strong	1,083	SC Residential	69	0	0	9
6820	HAVEN - 6820	1,565	36	6,190	Asphalt	Moderate	2,933	SC Residential	27	54	21	34
6825	HAVEN - 6825	670	30	2,232	Asphalt	Moderate	1,816	SC Residential	55	29	8	42
6830	HAVEN - 6830	779	26	2,321	Asphalt	Moderate	646	SC Residential	84	3	6	71
6835	HAVEN - 6835	167	24	445	Asphalt	Strong	1,083	SC Residential	69	0	0	9
6840	HAVEN - 6840	315	25	876	Asphalt	Strong	2,610	SC Residential	25	36	36	22
6845	HAVEN - 6845	618	25	1,750	Asphalt	Moderate	2,100	SC Residential	47	25	24	42

6850	HAVEN - 6850	3,857	23	9,856	Asphalt	Strong	4,638	Collector	29	39	48	63
6855	HAVEN - 6855	3,082	24	7,890	Asphalt	Moderate	3,450	Residential	59	14	28	65
6860	HAVENS - 6860	5,583	24	14,887	Asphalt	Moderate	3,374	Collector	52	28	28	71
6865	HAWK - 6865	1,049	42	4,925	Asphalt	Moderate	1,013	Residential	88	0	4	74
6870	HAWK - 6870	1,397	43	6,676	Asphalt	Moderate	5,715	Residential	33	54	12	35
6875	HAWK - 6875	1,347	43	6,505	Asphalt	Moderate	6,413	Residential	25	59	20	35
6880	HAYES - 6880	267	25	742	Asphalt	Strong	1,889	SC Residential	46	18	39	55
6885	HEBER - 6885	351	20	780	Asphalt	Moderate	6,790	Residential	20	62	21	28
6890	HEBER - 6890	1,144	25	3,177	Asphalt	Moderate	2,637	Residential	69	19	10	69
6895	HEBER - 6895	1,160	30	3,055	Asphalt	Moderate	6,299	Residential	26	64	14	35
6900	HEBER - 6900	1,826	55	10,702	Asphalt	Moderate	6,097	Residential	28	39	36	38
6905	HEBER - 6905	260	60	1,734	Asphalt	Strong	3,682	Residential	54	0	42	49
6910	HEBER - 6910	538	60	3,587	Asphalt	Moderate	1,732	Residential	80	0	13	67
6915	HEBER - 6915	5,344	24	14,251	Asphalt	Moderate	1,815	Collector	74	1	28	83
6920	HEBER - 6920	2,722	25	7,561	Asphalt	Moderate	3,849	Collector	45	33	34	73
6925	HEBER - 6925	5,429	24	14,882	Asphalt	Weak	5,720	Arterial	46	54	12	74
6930	HEBER - 6930	5,401	24	14,403	Asphalt	Weak	5,583	Arterial	47	55	13	84
6935	HEBER - 6935	5,258	24	14,020	Asphalt	Moderate	1,950	Arterial	81	20	1	86
6940	HEBER - 6940	2,640	24	7,040	Asphalt	Weak	5,239	Arterial	50	58	2	75
6945	HEBER - 6945	2,640	24	7,040	Asphalt	Moderate	1,318	Arterial	87	9	2	84
6950	HEBER - 6950	5,280	24	14,080	Asphalt	Moderate	2,908	Arterial	71	17	16	81
6955	HEBER - 6955	5,275	24	14,067	Asphalt	Moderate	3,077	Arterial	69	7	27	80
6960	HEBER - 6960	4,398	24	11,727	Asphalt	Moderate	1,292	Collector	82	1	17	81
6965	HEBER - 6965	2,996	23	7,574	Asphalt	Moderate	2,940	Collector	58	23	22	66
6970	HEBER - 6970	3,085	20	6,856	Asphalt	Moderate	4,656	Collector	33	52	19	48
6975	HEBER - 6975	2,488	20	5,529	Asphalt	Moderate	3,127	Collector	55	34	15	67
6980	HEFFERNAN - 6980	2,669	26	7,537	Asphalt	Moderate	2,583	Residential	70	15	8	57
6985	HEFFERNAN - 6985	393	25	1,091	Asphalt	Moderate	1,724	Residential	80	11	3	68
6990	HEFFERNAN - 6990	377	26	1,088	Asphalt	Moderate	1,319	Residential	84	8	1	72
6995	HEIL - 6995	377	30	1,258	Asphalt	Moderate	7,308	Residential	14	68	29	38
7000	HELEN - 7000	315	25	876	Asphalt	Moderate	1,903	SC Residential	52	23	14	34
7005	HELEN - 7005	316	26	912	Asphalt	Moderate	3,000	SC Residential	25	45	34	36
7010	HELENA - 7010	1,794	30	6,326	Asphalt	Strong	2,031	SC Residential	42	3	55	45
7015	HELENA - 7015	678	28	2,109	Asphalt	Strong	1,165	SC Residential	67	0	31	65
7020	HELLEN - 7020	623	27	1,800	Asphalt	Strong	2,088	SC Residential	40	11	45	36
7025	HEMET - 7025	929	24	2,477	Asphalt	Strong	1,969	SC Residential	44	13	51	63
7030	HENSHAW - 7030	372	26	1,075	Asphalt	Strong	1,866	SC Residential	47	22	32	51
7035	HENSHAW - 7035	1,121	24	2,989	Asphalt	Strong	1,083	SC Residential	69	0	0	9
7040	HENSHAW - 7040	360	25	999	Asphalt	Strong	1,219	SC Residential	65	0	29	55
7045	HERMOSA - 7045	885	24	2,359	Asphalt	Strong	1,845	SC Residential	47	14	40	53
7050	HERMOSA - 7050	171	24	455	Asphalt	Strong	1,781	SC Collector	29	11	66	42
7055	HETZEL - 7055	4,926	24	13,137	Asphalt	Moderate	3,513	Collector	50	23	31	62
7060	HIGHLINE - 7060	5,280	24	14,080	Asphalt	Moderate	5,148	Collector	26	67	24	63
7065	HIGHLINE - 7065	2,640	24	7,040	Asphalt	Moderate	5,358	Collector	23	67	27	61
7070	HIGHLINE - 7070	5,280	24	14,080	Asphalt	Strong	2,716	Collector	58	6	43	76
7075	HIGHLINE - 7075	5,297	23	13,822	Asphalt	Moderate	3,524	Collector	50	29	30	73
7080	HIGHLINE - 7080	5,202	25	14,164	Asphalt	Strong	2,753	Collector	58	5	40	66
7085	HIGHLINE - 7085	2,722	24	7,259	Asphalt	Strong	2,556	Collector	61	0	43	70
7090	HIGHLINE - 7090	4,127	24	11,007	Asphalt	Moderate	1,265	Collector	82	15	9	96
7095	HIGHLINE - 7095	5,175	25	14,374	Asphalt	Moderate	993	Collector	86	11	6	92
7100	HIGHLINE - 7100	5,304	25	14,439	Asphalt	Moderate	4,804	Collector	31	47	33	59

7105	HIGHLINE - 7105	5,262	25	14,321	Asphalt	Weak	1,822	Collector	76	18	9	84
7110	HIGHLINE - 7110	5,345	24	13,960	Asphalt	Moderate	4,279	Collector	39	48	30	77
7115	HILMA - 7115	590	35	1,980	Asphalt	Strong	2,008	SC Residential	43	3	45	25
7120	HILO - 7120	785	26	2,268	Asphalt	Strong	1,407	SC Residential	60	1	35	54
7125	HOBBS - 7125	5,164	24	13,770	Asphalt	Moderate	1,024	Collector	85	7	0	71
7130	HOLDRIDGE - 7130	3,250	25	9,149	Asphalt	Strong	5,073	Residential	37	24	42	44
7135	HOLT - 7135	1,504	25	4,178	Asphalt	Moderate	5,422	Residential	36	42	18	31
7140	HOLT - 7140	356	25	988	Asphalt	Moderate	6,208	Residential	27	63	13	35
7145	HOLT - 7145	4,581	23	11,856	Asphalt	Moderate	4,160	Arterial	58	17	27	67
7150	HOLT - 7150	5,283	23	13,501	Asphalt	Moderate	3,967	Arterial	60	9	33	68
7155	HOLT - 7155	5,290	24	13,813	Asphalt	Strong	2,030	Collector	69	0	33	75
7160	HOLT - 7160	5,290	20	11,755	Asphalt	Moderate	2,041	Collector	71	9	21	76
7165	HOLT - 7165	5,302	24	12,955	Asphalt	Moderate	1,403	Collector	80	6	14	81
7170	HOLT - 7170	4,041	23	10,488	Asphalt	Strong	2,508	Collector	61	12	31	73
7175	HOLT - 7175	5,264	23	12,571	Asphalt	Strong	3,039	Collector	53	8	48	76
7180	HOLT - 7180	5,354	22	13,087	Asphalt	Strong	3,902	Collector	40	16	53	63
7185	HOLT - 7185	5,284	23	13,215	Asphalt	Moderate	3,467	Collector	50	19	36	65
7190	HOLT - 7190	3,252	23	8,311	Asphalt	Moderate	2,267	Collector	68	13	27	86
7195	HOLTEN - 7195	2,469	20	5,487	Asphalt	Moderate	4,730	Collector	32	43	29	46
7200	HOLTEN - 7200	3,230	24	8,613	Asphalt	Moderate	1,322	Collector	81	6	6	69
7205	HOLTEN - 7205	2,713	23	6,933	Asphalt	Moderate	1,857	Collector	73	4	19	69
7210	HONDURAS - 7210	326	27	977	Asphalt	Strong	1,265	SC Residential	64	5	24	51
7215	HONDURAS - 7215	723	27	1,991	Asphalt	Strong	2,087	SC Residential	40	29	27	35
7220	HONEY LAKE - 7220	869	25	2,415	Asphalt	Moderate	1,214	SC Residential	70	7	16	57
7225	HONOLULU - 7225	1,351	24	3,604	Asphalt	Strong	1,833	SC Residential	48	10	45	56
7230	HONOLULU - 7230	310	24	826	Asphalt	Strong	1,083	SC Residential	69	0	0	9
7235	HONOLULU - 7235	310	25	861	Asphalt	Strong	2,420	SC Residential	31	5	71	46
7240	HONOLULU - 7240	1,064	25	2,921	Asphalt	Strong	1,509	SC Residential	57	0	38	50
7245	HONOLULU - 7245	1,100	27	3,300	Asphalt	Strong	2,020	SC Residential	42	1	61	54
7250	HOOVER - 7250	392	25	1,089	Asphalt	Strong	1,990	SC Residential	43	0	54	40
7255	HORNE - 7255	2,681	20	6,104	Asphalt	Weak	6,048	Residential	33	63	15	58
7260	HORNE - 7260	2,605	20	5,834	Asphalt	Moderate	1,754	Collector	75	11	10	69
7265	HOSKINS - 7265	4,369	24	11,650	Asphalt	Weak	5,487	Collector	27	71	16	58
7270	HOSKINS - 7270	5,296	24	14,123	Asphalt	Weak	1,847	Collector	75	33	1	95
7275	HOSKINS - 7275	2,642	23	7,540	Asphalt	Weak	1,713	Collector	77	23	4	87
7280	HOT MINERAL SPA - 7280	3,337	24	9,210	Asphalt	Weak	4,750	Collector	37	53	14	50
7285	HOT MINERAL SPA - 7285	5,362	24	14,298	Asphalt	Weak	5,203	Collector	31	65	14	54
7290	HOT MINERAL SPA - 7290	5,259	24	14,025	Asphalt	Moderate	5,121	Collector	27	57	23	43
7295	HOT MINERAL SPA - 7295	5,006	24	13,350	Asphalt	Moderate	3,532	Collector	50	32	18	53
7300	HOVLEY - 7300	5,265	24	13,747	Asphalt	Moderate	4,676	Collector	33	43	31	51
7305	HOVLEY - 7305	5,284	24	14,092	Asphalt	Weak	4,972	Collector	34	57	21	61
7310	HOVLEY - 7310	2,642	24	7,046	Asphalt	Moderate	3,097	Collector	56	24	26	70
7315	HOVLEY - 7315	5,273	33	16,695	Asphalt	Moderate	5,113	Collector	27	51	33	53
7320	HUENEME - 7320	317	24	844	Asphalt	Strong	2,096	SC Residential	40	18	34	27
7325	HUERTA - 7325	633	24	1,652	Asphalt	Moderate	1,163	SC Residential	71	7	14	57
7330	HUFF - 7330	5,280	24	14,080	Asphalt	Moderate	6,513	Arterial	35	41	39	69
7335	HUFF - 7335	2,640	24	7,040	Asphalt	Moderate	6,418	Arterial	36	40	37	67
7340	HUFF - 7340	6,288	24	16,769	Asphalt	Weak	4,541	Arterial	57	36	16	80
7345	HUFF - 7345	3,986	24	10,629	Asphalt	Weak	6,551	Arterial	38	54	23	73
7350	HUFF - 7350	5,306	24	13,853	Asphalt	Moderate	5,165	Arterial	48	36	25	72
7355	HUFF - 7355	3,144	24	8,384	Asphalt	Moderate	3,682	Collector	47	36	29	77

7360	HUFF - 7360	5,631	24	15,015	Asphalt	Strong	3,958	Collector	39	15	54	59
7365	HUNT - 7365	5,252	24	14,004	Asphalt	Moderate	3,872	Collector	45	21	39	59
7370	HUNT - 7370	6,373	24	16,994	Asphalt	Strong	2,875	Collector	56	1	52	78
7375	HUNT - 7375	2,673	26	7,722	Asphalt	Strong	2,786	Collector	57	0	50	76
7380	HUNT - 7380	5,277	24	14,073	Asphalt	Moderate	1,535	Collector	78	2	24	88
7385	HUNT - 7385	5,287	24	14,098	Asphalt	Moderate	2,318	Collector	67	3	36	82
7390	HUNT - 7390	5,286	22	12,922	Asphalt	Weak	4,975	Collector	34	61	17	63
7395	HUNT - 7395	3,793	21	8,850	Asphalt	Weak	5,283	Collector	30	71	17	70
7400	HUNTINGTON - 7400	1,976	25	5,454	Asphalt	Moderate	1,836	SC Residential	54	17	28	57
7405	HURON - 7405	1,013	26	2,926	Asphalt	Strong	1,661	SC Residential	53	6	39	51
7410	HWY 78 - 7410	4,307	24	11,485	Asphalt	Moderate	2,033	Arterial	80	10	11	83
7415	HWY 8 FONTAGE - 7415	5,281	24	14,082	Asphalt	Strong	4,159	Collector	36	9	62	53
7420	HWY 8 FONTAGE - 7420	1,319	24	3,516	Asphalt	Strong	4,724	Collector	27	26	56	48
7425	HWY 8 FONTAGE - 7425	2,640	24	7,041	Asphalt	Strong	4,198	Collector	35	30	35	39
7430	HWY 8 FONTAGE - 7430	3,723	24	9,927	Asphalt	Strong	4,308	Collector	34	24	43	39
7435	HWY ACCESS - 7435	531	24	1,417	Asphalt	Moderate	1,746	Collector	75	1	17	63
7440	HYDE - 7440	2,731	20	6,070	Asphalt	Moderate	4,833	Collector	31	42	33	47
7445	IDLEWILD - 7445	846	23	2,161	Asphalt	Moderate	876	SC Residential	78	4	11	66
7450	IMLER - 7450	5,280	24	14,080	Asphalt	Moderate	3,866	Collector	45	38	22	58
7455	IMLER - 7455	4,122	24	10,992	Asphalt	Moderate	2,470	Collector	65	11	25	71
7460	IMLER - 7460	4,846	24	12,923	Asphalt	Strong	2,547	Collector	61	14	28	71
7465	IMLER - 7465	5,280	24	14,080	Asphalt	Moderate	1,784	Collector	75	15	12	80
7470	IMLER - 7470	3,771	24	10,055	Asphalt	Moderate	1,391	Collector	80	11	6	75
7475	IMPERIAL - 7475	1,930	28	5,425	Asphalt	Moderate	1,864	SC Residential	53	33	19	66
7480	IMPERIAL - 7480	1,245	20	2,767	Asphalt	Moderate	3,819	Collector	45	25	37	63
7485	IMPERIAL - 7485	1,681	22	4,317	Asphalt	Strong	4,154	Residential	48	6	35	30
7490	IMPERIAL HWY - 7490	3,688	23	11,052	Asphalt	Moderate	992	Collector	86	4	2	72
7495	IMPERIAL HWY - 7495	718	34	2,712	Asphalt	Moderate	4,182	Collector	40	49	21	65
7500	IMPERIAL HWY - 7500	1,494	20	3,320	Asphalt	Moderate	3,399	Collector	51	28	27	67
7505	IMPERIAL HWY - 7505	1,683	20	3,740	Asphalt	Moderate	4,367	Collector	38	51	16	53
7510	IMPERIAL - 7510	784	20	1,741	Asphalt	Strong	3,439	Residential	57	4	36	54
7515	IMPERIAL - 7515	5,280	24	14,080	Asphalt	Moderate	5,416	Arterial	46	31	23	51
7520	IMPERIAL - 7520	2,640	24	7,040	Asphalt	Moderate	5,457	Arterial	45	28	29	55
7525	IMPERIAL - 7525	5,280	24	14,080	Asphalt	Moderate	2,352	Arterial	76	7	17	79
7530	IMPERIAL - 7530	5,816	24	15,509	Asphalt	Moderate	5,726	Arterial	43	33	32	64
7535	IMPERIAL - 7535	5,280	24	14,080	Asphalt	Strong	6,288	Arterial	34	39	42	68
7540	IMPERIAL - 7540	3,701	23	9,649	Asphalt	Moderate	8,124	Arterial	19	54	39	47
7545	IMPERIAL SPA RV MHP - 7545	1,141	29	3,676	Asphalt	Weak	3,357	Collector	55	38	4	54
7550	INDIAN - 7550	710	23	1,814	Asphalt	Moderate	1,534	SC Residential	62	12	18	47
7555	INDIAN OCEAN - 7555	2,280	23	5,827	Asphalt	Strong	2,065	SC Residential	41	18	47	57
7560	INDIAN OCEAN - 7560	1,210	24	3,227	Asphalt	Strong	1,922	SC Residential	45	15	40	50
7565	INDIAN OCEAN - 7565	2,283	21	5,215	Asphalt	Strong	2,265	SC Residential	35	17	55	52
7570	INDIAN OCEAN - 7570	976	24	2,601	Asphalt	Moderate	1,764	SC Residential	56	15	25	52
7575	INDIAN ROCK - 7575	5,276	24	12,897	Asphalt	Strong	3,454	Collector	47	32	24	56
7580	INDIAN ROCK - 7580	5,285	24	14,093	Asphalt	Strong	3,853	Collector	41	12	55	60
7585	INDIAN ROCK - 7585	3,246	25	8,951	Asphalt	Strong	3,729	Collector	43	4	62	63
7590	INDIAN ROCK - 7590	2,640	24	7,040	Asphalt	Moderate	4,625	Collector	34	40	37	59
7595	INDIAN ROCK - 7595	2,080	24	5,547	Asphalt	Moderate	2,494	Collector	64	12	26	72
7600	INDIAN ROCK - 7600	5,286	26	14,099	Asphalt	Strong	4,244	Collector	35	28	45	54
7605	INDIO - 7605	656	24	1,750	Asphalt	Moderate	1,681	SC Residential	58	14	25	54
7610	INDIO - 7610	1,305	22	3,190	Asphalt	Strong	2,100	SC Residential	40	15	56	65

8380	LACK - 8380	2,603	24	6,942	Asphalt	Moderate	1,144	Collector	84	8	9	87
8385	LACK - 8385	2,939	22	7,401	Asphalt	Weak	1,618	Collector	78	20	3	84
8390	LADI - 8390	809	33	2,872	Asphalt	Strong	2,196	SC Residential	37	16	56	59
8395	LAGUNA - 8395	834	23	2,131	Asphalt	Moderate	1,901	SC Residential	52	23	17	41
8400	LAGUNA - 8400	528	23	1,349	Asphalt	Strong	1,913	SC Residential	45	0	59	57
8405	LAGUNA - 8405	757	33	2,478	Asphalt	Strong	3,625	Residential	55	1	34	37
8410	LAGUNA - 8410	367	24	979	Asphalt	Moderate	5,917	Residential	30	39	29	31
8415	LAGUNA - 8415	219	24	585	Asphalt	Moderate	2,508	SC Residential	37	39	18	28
8420	LAKE VIEW - 8420	1,004	25	2,788	Asphalt	Moderate	3,198	SC Residential	20	52	26	19
8425	LANAI - 8425	1,021	24	2,723	Asphalt	Strong	1,947	SC Residential	44	24	29	41
8430	LANSING - 8430	2,422	24	6,711	Asphalt	Strong	1,782	SC Residential	49	9	40	48
8435	LARCHWOOD - 8435	981	23	2,506	Asphalt	Moderate	1,539	SC Residential	62	15	15	47
8440	LARK - 8440	290	24	774	Asphalt	Moderate	2,244	Residential	74	0	19	62
8445	LARK - 8445	167	24	444	Asphalt	Strong	6,208	Residential	22	15	58	15
8450	LARSEN - 8450	5,433	24	14,489	Asphalt	Moderate	1,710	Collector	76	0	24	76
8455	LARSEN - 8455	2,577	24	6,873	Asphalt	Moderate	2,493	Collector	64	13	22	66
8460	LARSEN - 8460	5,046	24	13,455	Asphalt	Moderate	4,450	Collector	36	52	25	67
8465	LARSEN - 8465	2,573	25	7,146	Asphalt	Moderate	2,950	Collector	58	25	20	68
8470	LARSEN - 8470	5,359	24	13,995	Asphalt	Weak	5,186	Collector	31	64	16	56
8475	LAURA - 8475	1,709	28	5,317	Asphalt	Strong	2,654	SC Residential	24	25	56	37
8480	LEE - 8480	1,958	24	5,173	Asphalt	Moderate	5,501	Residential	35	48	16	36
8485	LEE - 8485	2,427	24	6,471	Asphalt	Strong	4,527	Residential	43	21	38	52
8490	LEEWARD - 8490	3,039	27	9,016	Asphalt	Strong	2,074	SC Residential	41	19	42	48
8495	LEIGH - 8495	779	25	2,163	Asphalt	Moderate	1,257	SC Residential	69	22	2	56
8500	LESSER - 8500	275	23	847	Asphalt	Strong	1,898	SC Residential	46	19	36	50
8505	LESSER - 8505	2,356	25	6,408	Asphalt	Strong	2,009	SC Residential	43	19	40	51
8510	LESSER - 8510	2,476	24	6,603	Asphalt	Strong	2,231	SC Residential	36	20	48	47
8515	LETO - 8515	1,824	21	4,257	Asphalt	Strong	2,339	SC Residential	33	22	51	49
8520	LETO - 8520	1,833	32	5,534	Asphalt	Strong	1,654	SC Residential	53	15	29	50
8525	LETO - 8525	1,086	24	2,895	Asphalt	Strong	1,738	SC Residential	50	15	40	63
8530	LETTUCE - 8530	1,133	37	4,659	Asphalt	Moderate	4,464	Residential	47	31	20	47
8535	LIDO - 8535	320	23	818	Asphalt	Strong	1,477	SC Residential	58	3	32	45
8540	LIDO - 8540	1,479	18	3,509	Asphalt	Moderate	2,595	SC Residential	35	43	24	41
8545	LIDO - 8545	523	25	1,432	Asphalt	Strong	1,654	SC Residential	53	25	17	44
8550	LIMA - 8550	226	25	627	Asphalt	Strong	2,504	SC Residential	28	28	41	26
8555	LINCOLN - 8555	903	26	2,507	Asphalt	Strong	2,081	SC Residential	41	19	35	34
8560	LINDA - 8560	2,251	24	6,363	Asphalt	Strong	2,844	SC Residential	19	41	42	26
8565	LINDBERGH - 8565	2,173	23	6,190	Asphalt	Moderate	2,005	SC Residential	50	18	23	35
8570	LINDSEY - 8570	5,421	24	14,455	Asphalt	Moderate	1,737	Collector	75	16	7	74
8575	LINDSEY - 8575	5,160	24	13,760	Asphalt	Weak	3,304	Collector	56	45	8	77
8580	LISBON - 8580	881	24	2,350	Asphalt	Strong	1,681	SC Residential	52	5	44	57
8585	LITTLEFIELD - 8585	520	35	2,022	Asphalt	Strong	4,468	Residential	44	24	24	33
8590	LITTLEFIELD - 8590	460	35	1,788	Asphalt	Moderate	6,913	Residential	19	70	14	25
8595	LODI - 8595	577	24	1,537	Asphalt	Moderate	1,186	SC Residential	70	0	22	58
8600	LOMA - 8600	543	22	1,328	Asphalt	Strong	1,414	SC Residential	60	0	34	50
8605	LOMA - 8605	382	23	975	Asphalt	Moderate	1,180	SC Residential	70	3	20	58
8610	LONG BRANCH - 8610	910	24	2,426	Asphalt	Strong	1,849	SC Residential	47	8	46	54
8615	LONG - 8615	344	35	1,338	Asphalt	Moderate	2,208	Residential	74	16	4	62
8620	LONG - 8620	258	35	1,005	Asphalt	Moderate	3,186	Residential	63	29	0	48
8625	LOOP - 8625	5,027	28	13,349	Asphalt	Strong	2,267	SC Residential	35	26	34	29
8630	LOS ALAMOS - 8630	544	35	2,116	Asphalt	Moderate	717	Residential	92	0	0	77

8635	LOTUS - 8635	2,530	30	8,569	Asphalt	Strong	5,409	Residential	32	30	44	48
8640	LOVELAND - 8640	5,280	24	14,080	Asphalt	Moderate	832	Collector	88	7	1	82
8645	LOVELAND - 8645	5,280	24	14,080	Asphalt	Moderate	550	Collector	92	0	2	83
8650	LOVELAND - 8650	3,957	24	10,551	Asphalt	Moderate	804	Collector	89	1	5	80
8655	LOVELAND - 8655	5,280	24	14,080	Asphalt	Weak	3,532	Collector	53	42	20	87
8660	LOVELAND - 8660	1,999	24	5,332	Asphalt	Moderate	3,375	Collector	52	42	22	87
8665	LOVELAND - 8665	5,274	24	14,063	Asphalt	Moderate	2,193	Collector	69	20	15	80
8670	LUNAR - 8670	843	24	2,283	Asphalt	Strong	1,708	SC Residential	51	8	35	43
8675	LUXOR - 8675	1,225	21	2,902	Asphalt	Moderate	3,930	Residential	54	19	19	41
8680	LUXOR - 8680	1,220	24	3,073	Asphalt	Moderate	3,099	Residential	64	7	24	57
8685	LYERLY - 8685	2,695	22	6,587	Asphalt	Weak	5,273	Collector	30	68	21	71
8690	LYERLY - 8690	2,622	24	6,992	Asphalt	Moderate	613	Collector	91	1	3	83
8695	LYERLY - 8695	2,635	24	7,026	Asphalt	Weak	5,435	Collector	28	68	23	68
8700	LYERLY - 8700	2,659	23	6,796	Asphalt	Weak	6,898	Residential	23	72	16	50
8705	LYNWOOD - 8705	2,242	25	6,049	Asphalt	Strong	2,090	SC Residential	40	11	53	51
8710	LYNWOOD - 8710	931	29	3,020	Asphalt	Moderate	1,414	SC Residential	65	8	22	56
8715	LYNWOOD - 8715	1,552	24	4,039	Asphalt	Strong	2,039	SC Residential	42	22	36	43
8720	LYNWOOD - 8720	310	24	826	Asphalt	Moderate	1,177	SC Residential	71	0	22	58
8725	LYONS - 8725	4,740	24	12,639	Asphalt	Moderate	3,767	Collector	46	24	36	63
8730	LYONS - 8730	5,280	24	14,080	Asphalt	Moderate	4,707	Collector	33	36	36	45
8735	LYONS - 8735	2,647	24	7,058	Asphalt	Strong	4,824	Collector	26	36	47	46
8740	LYONS - 8740	5,308	24	14,155	Asphalt	Moderate	2,748	Collector	61	20	25	76
8745	LYONS - 8745	2,506	22	6,125	Asphalt	Moderate	2,382	Collector	66	5	34	79
8750	MADISON - 8750	898	24	2,395	Asphalt	Strong	2,305	SC Residential	34	15	47	28
8755	MAGGIO - 8755	1,129	77	9,656	Asphalt	Moderate	1,516	Residential	82	6	4	69
8760	MAIN - 8760	546	25	1,515	Asphalt	Strong	4,520	Residential	43	19	32	35
8765	MAIN - 8765	653	24	1,741	Asphalt	Moderate	4,699	Residential	45	25	37	61
8770	MAIN - 8770	679	25	1,886	Asphalt	Strong	4,330	Residential	46	14	35	38
8775	MAIN - 8775	663	23	1,693	Asphalt	Moderate	4,212	Residential	50	23	32	66
8780	MAIN - 8780	679	25	1,885	Asphalt	Strong	4,461	Residential	44	21	27	33
8785	MAIN - 8785	668	24	1,780	Asphalt	Strong	4,417	Residential	45	24	39	63
8790	MAIN - 8790	675	25	1,874	Asphalt	Strong	5,203	Residential	35	17	41	23
8795	MAIN - 8795	1,513	25	4,127	Asphalt	Strong	5,882	Residential	26	27	44	25
8800	MALAT - 8800	1,306	25	3,627	Asphalt	Moderate	1,389	SC Residential	65	8	23	62
8805	MALAT - 8805	1,611	23	4,117	Asphalt	Strong	1,762	SC Residential	50	14	36	53
8810	MALIBU - 8810	1,094	24	2,885	Asphalt	Moderate	1,984	SC Residential	50	22	26	50
8815	MALIBU - 8815	1,097	24	2,757	Asphalt	Moderate	1,764	SC Residential	56	19	27	62
8820	MALIBU - 8820	316	24	843	Asphalt	Strong	2,511	SC Residential	28	31	39	27
8825	MALIBU - 8825	401	25	1,113	Asphalt	Strong	2,097	SC Residential	40	5	47	27
8830	MALLARD - 8830	466	27	1,397	Asphalt	Strong	5,287	Residential	34	14	52	37
8835	MALLARD - 8835	1,038	35	4,036	Asphalt	Moderate	1,623	Residential	81	11	2	69
8840	MANGOLIA - 8840	655	23	1,673	Asphalt	Moderate	1,148	Residential	86	2	4	73
8845	MANHATTAN - 8845	640	25	1,778	Asphalt	Strong	2,590	SC Residential	26	37	35	24
8850	MANHATTAN - 8850	1,120	23	2,862	Asphalt	Moderate	1,982	SC Residential	50	26	15	36
8855	MANSFIELD - 8855	3,953	22	9,809	Asphalt	Moderate	2,291	Residential	73	2	22	71
8860	MANSFIELD - 8860	2,314	18	4,627	Asphalt	Moderate	5,122	Residential	40	50	6	34
8865	MAPLE - 8865	592	24	1,579	Asphalt	Moderate	2,332	SC Residential	42	30	22	32
8870	MAPLE - 8870	674	36	2,694	Asphalt	Moderate	1,212	Residential	86	0	7	72
8875	MAPLE - 8875	1,230	45	6,151	Asphalt	Moderate	4,328	Residential	49	37	5	34
8880	MAPLE - 8880	1,124	35	4,373	Asphalt	Moderate	1,995	Residential	77	8	8	64
8885	MAPLE - 8885	446	35	1,733	Asphalt	Weak	6,344	Residential	30	59	5	19

9405	MILLER - 9405	5,284	24	14,091	Asphalt	Moderate	5,253	Collector	25	62	26	53
9410	MILLER - 9410	2,514	25	6,983	Asphalt	Moderate	4,643	Collector	34	52	26	61
9415	MILLER - 9415	5,119	21	12,208	Asphalt	Moderate	3,947	Collector	44	30	34	65
9420	MILLER - 9420	5,752	24	15,339	Asphalt	Moderate	2,931	Collector	58	14	32	70
9425	MILLER - 9425	2,772	23	7,084	Asphalt	Moderate	2,313	Collector	67	12	24	76
9430	MILLER - 9430	2,697	22	6,592	Asphalt	Moderate	3,401	Arterial	66	17	22	79
9435	MILTON - 9435	185	26	533	Asphalt	Moderate	896	SC Residential	78	0	16	66
9440	MIRROR LAKE - 9440	771	23	1,971	Asphalt	Moderate	1,278	SC Residential	68	2	23	58
9445	MISSION - 9445	660	24	1,722	Asphalt	Strong	2,480	SC Residential	29	26	55	53
9450	MISSION - 9450	2,317	23	5,810	Asphalt	Strong	2,339	SC Residential	33	15	54	40
9455	MISSION - 9455	599	23	1,532	Asphalt	Strong	1,655	SC Residential	53	0	45	51
9460	MISSION - 9460	398	23	1,018	Asphalt	Moderate	1,649	SC Residential	59	19	14	45
9465	MOLOKAI - 9465	1,008	23	2,577	Asphalt	Strong	1,745	SC Residential	50	17	40	68
9470	MONICA - 9470	1,236	23	3,094	Asphalt	Strong	2,340	SC Residential	33	28	39	36
9475	MONOKAI - 9475	874	27	2,659	Asphalt	Strong	2,383	SC Residential	32	32	36	35
9480	MONROE - 9480	932	23	2,382	Asphalt	Strong	1,353	SC Residential	61	0	30	47
9485	MONROE - 9485	583	23	1,491	Asphalt	Strong	2,126	SC Residential	39	12	38	22
9490	MONROE - 9490	594	22	1,451	Asphalt	Strong	2,605	SC Residential	26	29	40	18
9495	MONTE - 9495	637	24	1,698	Asphalt	Weak	3,779	Collector	50	46	20	86
9500	MONTE - 9500	2,623	23	6,702	Asphalt	Moderate	258	Collector	96	0	0	92
9505	MONTEGO - 9505	662	22	1,618	Asphalt	Moderate	2,725	SC Residential	32	49	20	36
9510	MONTEGO - 9510	298	23	762	Asphalt	Moderate	844	SC Residential	79	5	9	67
9515	MONTEREY - 9515	2,453	23	6,268	Asphalt	Strong	2,187	SC Residential	38	26	40	48
9520	MONTEREY - 9520	1,198	24	3,196	Asphalt	Strong	1,600	SC Residential	54	7	31	40
9525	MONTEREY - 9525	1,335	23	3,413	Asphalt	Strong	1,763	SC Residential	50	12	36	48
9530	MONTEREY - 9530	2,148	33	6,505	Asphalt	Moderate	1,847	SC Residential	54	21	23	53
9535	MONTEREY - 9535	220	40	976	Asphalt	Moderate	968	SC Residential	76	0	17	64
9540	MONTEREY - 9540	220	25	610	Asphalt	Strong	1,572	SC Residential	55	0	35	39
9545	MONTEREY - 9545	313	23	800	Asphalt	Strong	2,195	SC Residential	37	11	49	35
9550	MONTGOMERY - 9550	1,051	24	2,801	Asphalt	Strong	1,653	SC Residential	53	2	45	56
9555	MONTGOMERY - 9555	281	24	748	Asphalt	Moderate	1,168	SC Residential	71	0	24	62
9560	MONTGOMERY - 9560	5,311	24	14,162	Asphalt	Moderate	5,412	Collector	23	71	15	44
9565	MONTGOMERY - 9565	2,614	24	6,970	Asphalt	Moderate	5,103	Collector	27	61	22	50
9570	MONTGOMERY - 9570	2,640	24	7,040	Asphalt	Moderate	3,573	Collector	49	38	22	70
9575	MONTGOMERY - 9575	5,255	24	13,438	Asphalt	Moderate	932	Collector	87	0	12	87
9580	MOON - 9580	622	24	1,660	Asphalt	Moderate	1,190	SC Residential	70	0	23	58
9585	MORRO - 9585	3,892	23	10,002	Asphalt	Strong	1,777	SC Residential	49	16	34	52
9590	MOUNT SIGNAL - 9590	1,605	24	4,280	Asphalt	Strong	3,864	Residential	52	4	37	41
9595	MOUNTAIN SPRING - 9595	1,820	24	4,854	Asphalt	Moderate	5,632	Collector	20	68	28	54
9600	MOUNTAIN VIEW - 9600	647	33	2,662	Asphalt	Moderate	2,145	SC Residential	46	29	21	42
9605	MOUNTAIN VIEW - 9605	2,503	35	9,733	Asphalt	Strong	2,239	SC Residential	36	31	40	53
9610	MOUNTAIN VIEW - 9610	1,175	23	3,002	Asphalt	Moderate	3,170	SC Residential	21	58	29	39
9615	MOUNTAIN VIEW - 9615	292	24	778	Asphalt	Strong	1,730	SC Collector	31	21	46	30
9620	MULLET - 9620	2,271	24	5,512	Asphalt	Strong	1,456	SC Residential	58	11	29	57
9625	MURPHY - 9625	617	22	1,507	Asphalt	Moderate	2,404	Residential	72	0	21	59
9630	MURPHY - 9630	1,949	21	4,551	Asphalt	Strong	5,516	Residential	31	16	62	52
9635	MURPHY - 9635	2,444	22	5,973	Asphalt	Strong	4,392	Residential	45	20	40	59
9640	MURRAY - 9640	584	35	2,272	Asphalt	Strong	3,055	Residential	62	0	36	60
9645	CHEROKEE - 9645	1,711	23	5,001	Asphalt	Strong	2,485	SC Residential	29	37	45	54
9650	NANCE - 9650	1,307	25	3,629	Asphalt	Weak	2,975	Residential	67	30	0	64
9655	NANCE - 9655	1,314	25	3,650	Asphalt	Moderate	800	Residential	91	0	1	75

9660	NANCE - 9660	5,222	28	14,873	Asphalt	Strong	4,147	Residential	48	15	43	65
9665	NAPLES - 9665	873	22	2,133	Asphalt	Moderate	1,589	SC Residential	60	21	15	57
9670	NASSIF - 9670	1,612	70	12,535	Asphalt	Moderate	1,114	Residential	87	4	2	73
9675	NECKEL - 9675	4,962	24	12,728	Asphalt	Moderate	4,766	Residential	44	43	26	74
9680	NEIGHBORS - 9680	3,358	24	9,035	Asphalt	Weak	5,480	Collector	27	70	15	54
9685	NEIGHBORS - 9685	3,989	24	10,637	Asphalt	Weak	5,404	Collector	28	72	13	59
9690	NEIGHBORS BLVD (OLD ALIGNMENT) - 9690	1,148	24	3,061	Asphalt	Moderate	5,908	Collector	16	56	37	35
9695	NEIGHBORS BLVD (OLD ALIGNMENT) - 9695	394	24	1,050	Asphalt	Strong	3,367	Collector	48	5	41	40
9700	NEILL - 9700	976	22	2,386	Asphalt	Strong	4,502	Residential	44	23	31	43
9705	NEPTUNE - 9705	1,112	23	2,841	Asphalt	Strong	1,973	SC Residential	44	9	45	43
9710	NEW BEDFORD - 9710	2,732	24	7,465	Asphalt	Moderate	1,796	SC Residential	55	16	19	39
9715	NEW HAVEN - 9715	466	24	1,244	Asphalt	Moderate	1,524	SC Residential	62	17	13	47
9720	NEW RIVER - 9720	1,255	23	3,583	Asphalt	Strong	4,477	Residential	44	25	25	34
9725	NEWPORT - 9725	1,358	22	3,350	Asphalt	Strong	2,302	SC Residential	34	23	51	53
9730	NIDO - 9730	1,258	23	3,215	Asphalt	Moderate	1,993	SC Residential	50	16	30	45
9735	NIDO - 9735	308	23	787	Asphalt	Moderate	1,006	SC Residential	75	0	18	63
9740	NIEVE - 9740	384	22	939	Asphalt	Moderate	1,405	SC Residential	65	11	16	51
9745	NIIHAU - 9745	753	22	1,841	Asphalt	Strong	1,429	SC Residential	59	0	40	60
9750	NIKI - 9750	379	36	1,514	Asphalt	Moderate	5,969	Residential	30	58	4	17
9755	NILAND - 9755	5,579	24	16,441	Asphalt	Weak	4,431	Collector	41	34	31	57
9760	NILAND - 9760	376	25	1,045	Asphalt	Strong	4,430	Residential	45	12	43	48
9765	NILE - 9765	1,143	24	3,017	Asphalt	Moderate	2,146	SC Collector	28	59	21	50
9770	NILE - 9770	290	24	773	Asphalt	Strong	2,176	SC Residential	38	12	50	40
9775	NILE - 9775	2,254	24	6,816	Asphalt	Strong	1,876	SC Residential	46	21	34	52
9780	NILE - 9780	4,994	23	12,979	Asphalt	Moderate	2,053	SC Collector	32	43	37	58
9785	NILE - 9785	1,078	24	2,873	Asphalt	Moderate	1,924	SC Collector	36	41	30	54
9790	NILE - 9790	2,651	24	7,034	Asphalt	Moderate	2,083	SC Collector	31	52	29	56
9795	NIMURA - 9795	988	20	2,194	Asphalt	Strong	2,878	Residential	64	0	29	52
9800	NINA LEE - 9800	996	47	5,201	Asphalt	Moderate	855	Residential	90	0	1	75
9805	NINALEE - 9805	2,024	39	9,166	Asphalt	Moderate	2,282	Residential	73	1	24	72
9810	NOFFSINGER - 9810	1,570	22	3,720	Asphalt	Moderate	3,724	Collector	47	31	23	51
9815	NOPAL - 9815	561	24	1,496	Asphalt	Moderate	2,044	SC Residential	49	21	29	49
9820	NORFOLK - 9820	908	25	2,523	Asphalt	Strong	1,302	SC Residential	63	0	29	49
9825	NORRISH - 9825	5,313	24	14,167	Asphalt	Weak	5,356	Collector	29	62	26	66
9830	NORRISH - 9830	5,280	24	14,080	Asphalt	Moderate	1,850	Collector	74	15	13	79
9835	NORRISH - 9835	2,652	24	7,071	Asphalt	Moderate	1,985	Collector	72	21	7	75
9840	NORRISH - 9840	5,295	24	13,825	Asphalt	Moderate	2,818	Collector	60	26	28	89
9845	NORRISH - 9845	2,668	24	7,115	Asphalt	Moderate	2,160	Collector	69	2	39	91
9850	NORRISH - 9850	5,295	24	14,120	Asphalt	Moderate	351	Collector	95	0	3	94
9855	NORRISH - 9855	5,280	24	14,080	Asphalt	Moderate	216	Collector	97	0	1	95
9860	NORRISH - 9860	5,280	24	14,080	Asphalt	Moderate	285	Collector	96	1	0	93
9865	NORRISH - 9865	4,807	24	12,818	Asphalt	Moderate	204	Collector	97	1	1	97
9870	NORRISH RD (COUNTY RD 25) - 9870	546	20	1,213	Asphalt	Moderate	2,283	Collector	67	4	21	55
9875	MARINA - 9875	1,148	34	4,477	Asphalt	Moderate	1,848	SC Collector	38	41	25	51
9880	MARINA - 9880	4,436	34	15,982	Asphalt	Moderate	2,458	SC Collector	18	61	29	37
9885	MARINA - 9885	4,753	33	16,647	Asphalt	Moderate	651	SC Collector	78	1	16	71
9890	MARINA - 9890	3,549	30	11,813	Asphalt	Moderate	535	SC Collector	82	0	20	87
9895	MARINA - 9895	4,491	30	14,972	Asphalt	Moderate	966	SC Collector	68	8	31	85
9900	MARINA - 9900	1,664	30	5,547	Asphalt	Moderate	1,328	SC Collector	56	26	25	74
9905	ST - 9905	3,947	21	9,209	Asphalt	Moderate	2,891	Residential	66	30	10	81
9910	NOYO - 9910	523	22	1,279	Asphalt	Moderate	993	SC Residential	75	0	18	63

10935	RAMP FROM HARTHORN TO HOLT - 10935	1,443	25	4,009	Asphalt	Moderate	3,642	Collector	48	25	33	65
10940	RAMP WALKER TO GENTRY - 10940	298	25	828	Asphalt	Moderate	3,675	Collector	48	33	22	56
10945	RAMP WINTERHAVEN TO US 80 - 10945	128	28	399	Asphalt	Moderate	4,059	Collector	42	37	7	18
10950	RANCHERO - 10950	614	22	1,502	Asphalt	Moderate	1,133	SC Residential	72	13	8	59
10955	RANCHERO - 10955	799	19	1,687	Asphalt	Strong	2,136	SC Residential	39	19	32	23
10960	RANCHERO - 10960	461	26	1,333	Asphalt	Strong	1,774	SC Residential	49	12	39	52
10965	RED SEA - 10965	2,263	24	6,033	Asphalt	Strong	2,293	SC Residential	34	18	54	51
10970	RED SEA - 10970	1,282	26	3,702	Asphalt	Strong	2,011	SC Residential	43	12	54	63
10975	RED SEA - 10975	1,953	24	5,105	Asphalt	Strong	2,362	SC Residential	33	31	41	47
10980	RED SEA - 10980	488	23	1,248	Asphalt	Moderate	1,424	SC Residential	64	14	15	54
10985	REDONDO - 10985	2,062	29	6,041	Asphalt	Moderate	1,737	SC Residential	57	14	23	46
10990	REDONDO - 10990	645	25	1,790	Asphalt	Strong	2,087	SC Residential	40	26	36	49
10995	REDWOOD - 10995	909	23	2,345	Asphalt	Strong	1,737	SC Residential	50	11	38	52
11000	REVIERA - 11000	277	61	1,876	Asphalt	Moderate	3,515	SC Residential	12	59	32	22
11005	RILEY - 11005	2,636	22	6,442	Asphalt	Moderate	1,076	Residential	87	0	7	77
11010	RILEY - 11010	2,651	21	6,185	Asphalt	Weak	6,554	Residential	27	81	7	61
11015	RIO VISTA - 11015	2,033	33	7,226	Asphalt	Strong	5,197	Residential	35	29	36	39
11020	RIO VISTA - 11020	2,041	33	5,898	Asphalt	Strong	6,372	Residential	20	36	49	33
11025	RIVIERA - 11025	3,148	47	15,952	Asphalt	Strong	3,121	SC Residential	11	54	40	23
11030	RIVIERA - 11030	2,777	49	15,234	Asphalt	Moderate	3,337	SC Residential	17	54	32	24
11035	RIVIERA - 11035	1,758	58	10,066	Asphalt	Strong	2,051	SC Residential	41	25	26	28
11040	RIVIERA - 11040	2,199	54	10,979	Asphalt	Strong	2,698	SC Residential	23	39	43	34
11045	RIVIERA - 11045	617	38	2,604	Asphalt	Strong	2,035	SC Residential	42	15	52	62
11050	RIVIERA - 11050	1,516	41	6,546	Asphalt	Moderate	3,447	SC Residential	14	68	24	28
11055	RIVIERA - 11055	2,749	51	15,115	Asphalt	Moderate	2,471	SC Residential	38	31	24	28
11060	RIVIERA - 11060	1,260	46	6,254	Asphalt	Moderate	1,787	SC Residential	55	20	22	53
11065	RIVIERA - 11065	1,515	50	8,476	Asphalt	Moderate	2,558	SC Residential	36	40	23	39
11070	RIVIERA - 11070	385	25	1,069	Asphalt	Strong	1,526	SC Residential	56	0	37	46
11075	ROAD 2MO1A - 11075	5,280	24	14,080	Asphalt	Moderate	4,553	Arterial	54	23	26	66
11080	ROAD 2MO1A - 11080	5,280	24	14,080	Asphalt	Moderate	5,988	Arterial	40	46	26	69
11085	ROAD 2MO1A - 11085	3,453	24	9,209	Asphalt	Moderate	5,787	Arterial	42	48	21	69
11090	ROAD - 11090	2,770	21	6,464	Asphalt	Moderate	2,907	Collector	58	12	31	65
11095	ROBIN - 11095	819	38	3,457	Asphalt	Moderate	4,919	Residential	42	43	6	27
11100	ROCKING HORSE - 11100	831	35	3,230	Asphalt	Moderate	3,044	Residential	64	14	14	50
11105	ROCKWOOD - 11105	2,572	18	5,311	Asphalt	Moderate	6,528	Residential	23	58	27	42
11110	RODEO - 11110	1,035	27	3,176	Asphalt	Strong	2,746	SC Residential	22	43	42	37
11115	RODEO - 11115	3,596	23	9,427	Asphalt	Strong	1,803	SC Residential	48	20	35	59
11120	RONA - 11120	123	24	327	Asphalt	Strong	2,358	SC Residential	33	0	64	28
11125	ROOD - 11125	2,226	45	12,192	Asphalt	Moderate	1,546	Residential	82	3	8	70
11130	ROOD - 11130	1,472	71	10,798	Asphalt	Moderate	2,731	Residential	68	23	7	67
11135	ROOD - 11135	479	48	2,553	Asphalt	Moderate	1,375	Residential	84	2	7	71
11140	ROOSEVELT - 11140	1,668	29	4,986	Asphalt	Strong	2,246	SC Residential	36	23	38	31
11145	ROSELLE - 11145	949	23	2,425	Asphalt	Strong	1,354	SC Residential	61	1	39	66
11150	ROSITAS - 11150	910	23	2,325	Asphalt	Strong	1,809	SC Residential	48	18	36	57
11155	ROSS - 11155	5,902	24	15,739	Asphalt	Moderate	2,679	Arterial	73	6	22	78
11160	ROSS - 11160	5,319	24	14,183	Asphalt	Moderate	1,768	Arterial	82	0	19	88
11165	ROSS - 11165	2,611	30	8,704	Asphalt	Moderate	2,657	Arterial	73	1	28	79
11170	ROSS - 11170	5,283	25	14,381	Asphalt	Moderate	5,182	Arterial	48	24	41	81
11175	ROSS - 11175	2,649	24	7,064	Asphalt	Moderate	5,174	Arterial	48	30	33	76
11180	ROSS - 11180	5,261	24	14,028	Asphalt	Moderate	847	Arterial	92	1	8	95
11185	ROSS - 11185	2,633	31	9,068	Asphalt	Moderate	522	Arterial	95	1	3	95

11445	SALTON - 11445	337	22	824	Asphalt	Moderate	1,220	SC Residential	69	0	23	57
11450	SALTON - 11450	704	47	3,675	Asphalt	Moderate	3,088	SC Residential	23	55	21	22
11455	SALTON - 11455	1,376	42	6,424	Asphalt	Moderate	2,456	SC Residential	39	30	27	34
11460	SALTON - 11460	837	47	4,372	Asphalt	Moderate	2,905	SC Residential	27	56	19	35
11465	SALTON - 11465	995	51	5,980	Asphalt	Moderate	2,304	SC Residential	42	37	18	41
11470	SALTON - 11470	2,250	34	8,253	Asphalt	Moderate	1,505	SC Residential	62	12	20	53
11475	SALTON - 11475	304	24	811	Asphalt	Strong	1,083	SC Residential	69	0	0	9
11480	SALTON - 11480	5,377	32	18,763	Asphalt	Moderate	1,150	SC Residential	71	5	23	70
11485	SALTON - 11485	2,291	37	9,711	Asphalt	Moderate	2,426	SC Residential	39	28	34	45
11490	SALTON - 11490	203	60	1,353	Asphalt	Strong	1,124	SC Residential	68	0	24	55
11495	SALTON SEA - 11495	1,067	23	2,847	Asphalt	Strong	1,712	SC Residential	51	14	38	60
11500	SAN DIEGO - 11500	1,636	25	4,599	Asphalt	Strong	2,011	SC Residential	43	22	38	51
11505	SAN DIEGO - 11505	1,852	28	5,417	Asphalt	Strong	1,399	SC Residential	60	4	29	49
11510	SAN DIEGO - 11510	1,108	25	3,113	Asphalt	Strong	2,077	SC Residential	41	5	54	43
11515	SAN DIEGO - 11515	1,605	25	4,458	Asphalt	Strong	5,026	Residential	37	6	52	30
11520	SAN GABRIEL - 11520	995	30	3,282	Asphalt	Moderate	1,922	SC Residential	52	17	26	45
11525	SAN MARINO - 11525	306	30	1,020	Asphalt	Strong	2,188	SC Residential	37	28	27	26
11530	SAN MARINO - 11530	2,963	25	8,379	Asphalt	Moderate	2,513	SC Residential	37	37	23	35
11535	SAN MARINO - 11535	310	29	997	Asphalt	Moderate	900	SC Residential	78	4	12	66
11540	SAN MARINO - 11540	310	26	894	Asphalt	Moderate	1,392	SC Residential	65	8	18	52
11545	SAN MARINO - 11545	314	23	803	Asphalt	Moderate	1,941	SC Residential	51	21	29	60
11550	SAN PASCUAL SCHOOL - 11550	5,275	24	14,067	Asphalt	Moderate	2,962	Arterial	70	9	22	76
11555	SAN PASCUAL SCHOOL - 11555	2,650	23	6,771	Asphalt	Moderate	3,147	Arterial	69	14	17	72
11560	SAND - 11560	316	22	771	Asphalt	Moderate	3,157	SC Residential	21	50	32	30
11565	SAND BAR - 11565	318	25	882	Asphalt	Strong	1,911	SC Residential	45	12	35	33
11570	SAND CREST - 11570	938	29	2,643	Asphalt	Strong	1,495	SC Residential	57	7	32	53
11575	SAND CREST - 11575	1,926	24	5,083	Asphalt	Moderate	2,949	SC Residential	26	44	39	48
11580	SAND CREST - 11580	617	24	1,628	Asphalt	Strong	2,237	SC Residential	36	16	51	46
11585	SAND CREST - 11585	309	24	807	Asphalt	Moderate	2,968	SC Residential	26	42	42	48
11590	SAND CREST - 11590	1,555	23	4,371	Asphalt	Moderate	2,521	SC Residential	37	34	32	47
11595	SAND CREST - 11595	1,089	46	3,862	Asphalt	Moderate	3,337	SC Residential	17	67	21	28
11600	SAND DUNE - 11600	316	27	949	Asphalt	Strong	1,645	SC Residential	53	8	30	36
11605	SAND ERE - 11605	1,896	25	5,216	Asphalt	Strong	2,181	SC Residential	38	23	46	55
11610	SAND ERE - 11610	2,873	25	7,981	Asphalt	Strong	1,464	SC Residential	58	5	30	48
11615	SAND FLOWER - 11615	3,357	22	8,545	Asphalt	Moderate	2,543	SC Residential	36	25	41	44
11620	SAND FLOWER - 11620	1,138	23	2,908	Asphalt	Moderate	2,029	SC Residential	49	21	26	45
11625	SAND FLOWER - 11625	309	23	791	Asphalt	Strong	1,953	SC Residential	44	12	34	29
11630	SAND GLASS - 11630	1,460	27	4,379	Asphalt	Strong	1,816	SC Residential	48	18	31	45
11635	SAND HILL - 11635	1,801	24	5,334	Asphalt	Strong	1,713	SC Residential	51	5	37	40
11640	SAND JEWEL - 11640	2,390	25	6,474	Asphalt	Strong	2,314	SC Residential	34	30	35	35
11645	SAND JEWEL - 11645	712	25	1,979	Asphalt	Moderate	2,541	SC Residential	36	34	31	44
11650	SAND KNOLL - 11650	1,984	24	5,290	Asphalt	Strong	2,042	SC Residential	42	18	35	36
11655	SAND LAND - 11655	316	25	878	Asphalt	Moderate	1,103	SC Residential	72	3	17	60
11660	SAND MAN - 11660	2,286	23	5,841	Asphalt	Moderate	2,851	SC Residential	29	40	37	43
11665	SAND MAN - 11665	1,462	23	3,735	Asphalt	Strong	1,770	SC Residential	49	4	45	49
11670	SAND MAN - 11670	309	23	790	Asphalt	Strong	2,691	SC Residential	23	40	40	30
11675	SAND OASIS - 11675	312	23	796	Asphalt	Strong	1,664	SC Residential	52	9	28	34
11680	SAND OASIS - 11680	626	25	1,705	Asphalt	Strong	2,207	SC Residential	37	21	40	37
11685	SAND QUILL - 11685	2,975	23	7,711	Asphalt	Strong	2,201	SC Residential	37	24	41	45
11690	SAND RANCH - 11690	1,219	26	3,358	Asphalt	Strong	1,742	SC Residential	50	7	41	50
11695	SANDALWOOD - 11695	187	24	497	Asphalt	Strong	1,083	SC Residential	69	0	0	9

APPENDIX C

Seeley Area Drainage Master Plan

SEELEY AREA
DRAINAGE MASTER PLAN

Job Number 16101
June 2010

RICK
ENGINEERING COMPANY

SEELEY AREA

DRAINAGE MASTER PLAN

JUNE 2010

Prepared For:

Imperial County
Planning & Development Services
801 Main Street
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Dennis C. Bowling, M.S.
R.C.E. #32838
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Job Number 16101
DCB:JM:vs:reports/.005

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APPENDICES

1.0 INTRODUCTION

This document summarizes the findings of the Drainage Master Plan (DMP) prepared for the Community of Seeley, California, located within Imperial County. The California Housing and Community Development Department (HCD) through its Community Development Block Grant (CDBG) funded the development of this DMP.

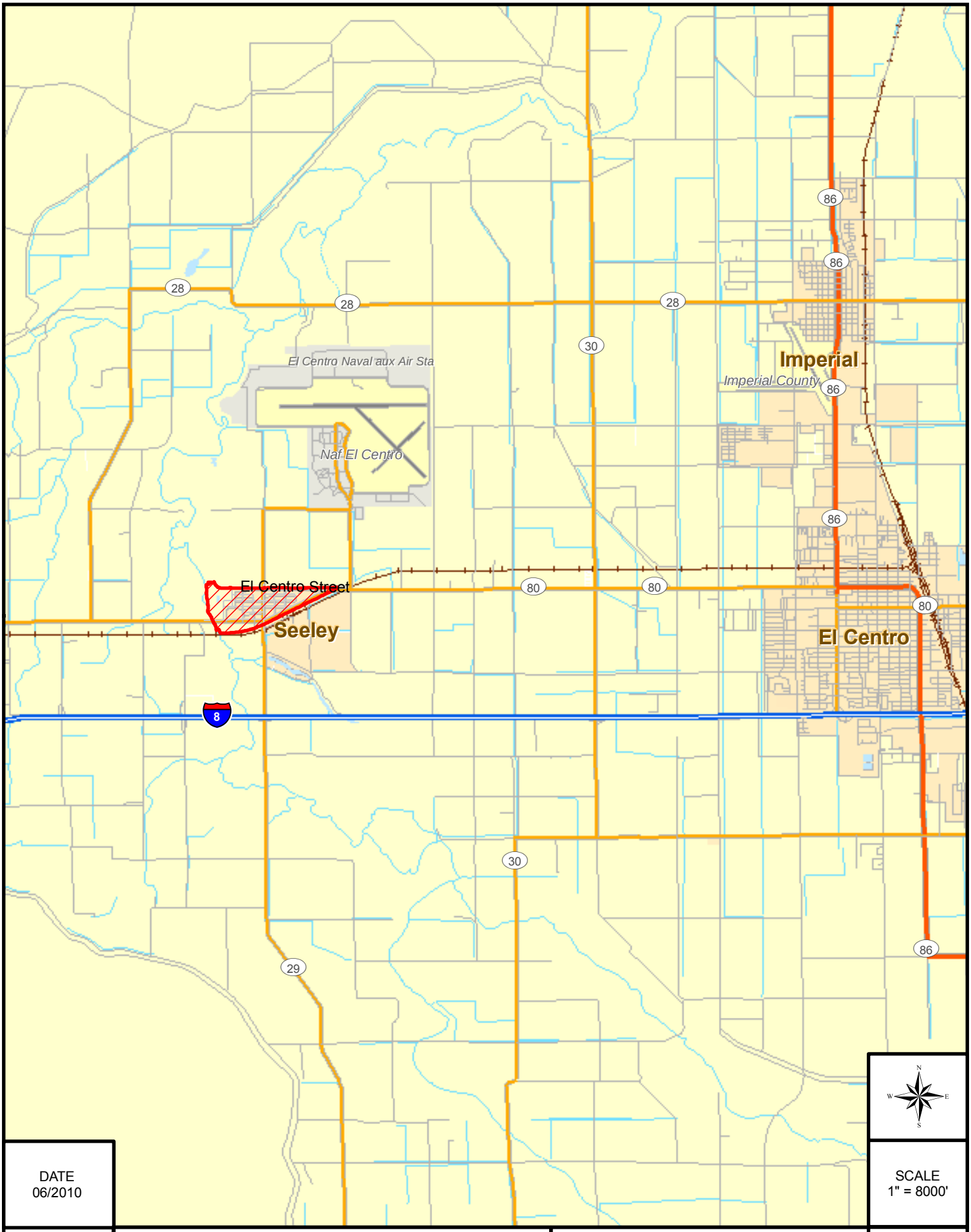
1.1 Purpose of DMP

The purpose of this DMP is to identify current drainage and flooding characteristics within the Community of Seeley, and determine recommended drainage improvements to reduce flood hazards and improve public safety. Drainage improvements recommended in this report will be based on the criteria outlined in the current Imperial County design standards.

The following information is provided within this DMP:

- Existing Condition topographic information for the Seeley Community, as of March 2009.
- Existing Condition 25-year and 100-year peak flow rates and drainage patterns
- Ultimate anticipated 25-year and 100-year peak flow rates and drainage patterns
- Recommended drainage improvements including storm drains, inlets, retention areas, and outlet locations.
- Opinion of probable construction costs for each recommended phase of the drainage improvements
- Prioritization of recommended drainage improvements for implementation

The results of the DMP calculations were used to develop a Capital Improvement Program Report that outlines the recommended drainage improvements for implementation, and is attached with this DMP as Appendix D.



DATE
06/2010

SCALE
1" = 8000'

Seeley Area Drainage Master Plan
Vicinity Map

RICK ENGINEERING COMPANY
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San Diego, CA 92110-2596
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EXHIBIT
1.2

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1.3 Computer Programs

The following computer programs were used for preparation of the Seeley Area DMP:

- AutoCAD 2002
- US Army Corps of Engineers, Hydrologic Engineering Center - Hydrologic Modeling System, HEC-HMS v. 3.3.
- ArcGIS, version 9
- Microsoft Excel

1.4 Limitations

The Seeley Area DMP is a comprehensive plan for future drainage needs within the Seeley Community. This report has been prepared for master planning purposes only, as a guide for engineers, planners, developers, and County staff. Detailed engineering calculations and investigations should be prepared for the implementation of any of the facilities outlined in this study.

2.0 PROJECT APPROACH

The Seeley Area DMP covers approximately 0.556 square miles (356 Acres) of the developed area within Seeley, California, known as the Seeley Townsite. The limits of the DMP are shown on the Vicinity map in Section 1.0. Seeley is located approximately 8 miles west of El Centro and 1.5 miles North of Interstate-8, within Imperial County California. Seeley is bordered on the west by the New River.

2.1 Previous Drainage Plan

A previous drainage master plan titled "Seeley Streets Overlay and Drainage Plan" was prepared circa 1975, for the Seeley Area (Reference 9). The previous plan recommended the use of drainage swales along major roadways as the method for conveying storm runoff to the New River. The improvements recommended in the previous study were constructed and as-built in 1979. However, this design approach did not take into consideration public safety factors related to the proximity to the local schools, etc. In addition, the terrain within the Community of Seeley is very flat, and therefore, a significant amount of ponding occurs within the streets and low-lying areas during and after rainfall events.

2.2 HEC-HMS Program

The hydrologic modeling was prepared using US Army Corps of Engineers, Hydrologic Engineering Center - Hydrologic Modeling System, HEC-HMS v. 3.3. HEC-HMS is public domain software designed for modeling the precipitation-runoff processes that occur in watershed systems. It is designed to be applicable in a wide range of geographic areas including for use in small urban or natural watershed runoff situations. Hydrographs produced by HEC-HMS can be used directly or in conjunction with other software for studies of urban drainage, future urbanization impact, reservoir design, flood damage reduction, floodplain regulation, drainage master planning.

2.3 GIS Data Processing

GIS tools were utilized to calculate spatial factors related to the development of the hydrologic modeling for the Seeley Area. Information including land use, hydrologic soil data, and terrain information were compared with existing drainage patterns and drainage areas to calculate factors such as runoff length, slope, time of concentration, drainage area, curve number, and percent impervious. Detailed discussion of the hydrologic parameters used in the preparation of this DMP is included in Section 3.0 of this report.

3.0 SUMMARY OF BASE INFORMATION

The following provides a summary of the base information used in the preparation of the Seeley Area DMP. Rick Engineering Company is not responsible for any future changes to the topographic information, land use information, drainage facilities, or any other base information used in the preparation of this DMP that may occur after the preparation of this report.

3.1 TOPOGRAPHY & ORTHO IMAGERY

The following summarizes the source information of the base topography generated for the preparation of the DMP:

Date of Survey:	March 24, 2009
Contour Interval:	1-Foot
Horizontal Datum:	NAD 83, CCS Zone 6, 2007.0 EPOCH
Vertical Datum:	NAVD 88

Date of Photography:	March 24, 2009
Approximate Photo Scale:	1"= 300'
Pizel Size:	0.25 feet

It should be noted that the elevations in the Seeley Community are below Sea Level. Therefore, 1,000 vertical feet were added to the elevations in Seeley. The adjusted elevations range from 899 feet to 967.5 feet.

3.1.1 DRAINAGE BASIN BOUNDARIES

Hydrologic modeling for the Seeley area was prepared utilizing the base topography obtained for this project. The limits of the overall drainage study, and corresponding drainage basin boundaries were confined to the surveyed topographic area and were determined based on the high points surrounding the Seeley area. The terrain within the Seeley Townsite identified that no significant drainage areas outside of the townsite

limits flow into the community of Seeley due to the existing topography and the existence of Imperial Irrigation District canals along the northern limit of the community that prevent run-on from adjacent areas. The watershed tributary to the New River was not analyzed in this study.

3.2 PRECIPITATION DATA

2-year and 100-year precipitation values were obtained from the Imperial Irrigation District (IID) DRAFT Hydrology Manual (Reference 7), Figures B-1 through B-4. Table 3.2.1 summarizes the precipitation information obtained from the IID manual.

3.2.1 TABLE OF PRECIPITATION INFORMATION

Duration	Precipitation (Inches)	
	2-Year	100-Year
1-hour	0.38	1.35
24-Hour	0.96	2.80

3.2.2 INTENSITY-DURATION CALCULATIONS

The rainfall intensity at differing durations storms is required for modeling the 25-year and 100-year storm events reflected in this DMP. Therefore, the following formula was utilized to convert the above noted precipitation values into intensities at varying storm durations.

For storm durations less than 1-hour:

$$\mathbf{Yp = Y_2 + [\ (Y_{100} - Y_2) * Kp\ ] / 263}$$

where:

Kp = Constant associated w/ Return Period P

5-yr = 65 10-yr = 108
25-yr = 164 50-yr = 215

Y2 = Intensity associated with the 2-year return period

Y100 = Intensity associated with the 100-year return period

Yp = Intensity at Return Period P

The Kp value for the 25-year storm event was obtained from Appendix II and Figure D-4 in the DRAFT IID Hydrology Manual.

For storm durations between 1-hour and 24-hours logarithmic interpolation was utilized to determine intermediate values from the precipitation depths shown in Table 3.2.1. Additional guidance on the development of rainfall depths and intensities for varying storm events can be found in Section D of the Imperial Irrigation District DRAFT Hydrology Manual (Reference 7).

3.2.3 TABLE OF CALCULATED INTENSITY AND PRECIPITATION INFORMATION

	Intensity (Inches/Hour)			Precipitation (Inches)		
Duration	2-Year	25-Year	100-Year	2-Year	25-Year	100-Year
5-min	1.50	3.90	5.35	0.13	0.33	0.45
15-min	0.91	2.36	3.24	0.23	0.59	0.81
60-min	0.38	0.98	1.35	**0.38**	0.98	**1.35**
120-min	0.23	0.58	0.79	0.47	1.16	1.58
180-min	0.17	0.43	0.58	0.52	1.28	1.74
360-min	0.11	0.25	0.34	0.64	1.49	2.04
720-min	0.07	0.15	0.20	0.78	1.74	2.39
1440-min	0.04	0.09	0.12	**0.96**	2.11	**2.80**

The methodology used to calculate the intensities shown in Table 3.2.3 are described in section 3.2.2 of this report. Precipitation values for other than the 2-year and 100-year, 1-hour and 24-hour duration storms were calculated based on multiplying intensity (inches/hour) times duration (hours), to determine the precipitation in inches.

3.3 LAND USE

Hydrologic modeling for the Seeley area was prepared based on two land use scenarios, the current condition as of the authoring of this report and the ultimate planned development within the study area.

3.3.1 EXISTING CONDITION (ZONING)

Existing Condition Land Use data was provided by Imperial County, as shown on the land use zoning "Map 9A" dated May 11, 2006. The land use zoning was compared with the aerial imagery obtained March 2009, and currently vacant parcels of significant size were manually designated as "open space" for the existing condition land use. Exhibit 3.4.1 shows the Existing Land Use zoning designation used for the hydrologic modeling. Table 4.1.2 summarizes the curve number assigned to each land use category

3.3.2 ULTIMATE CONDITION (GENERAL PLAN)

Ultimate Condition (General Plan) Land Use data was provided by Imperial County, as shown on the exhibit titled "Seeley Urban Area Map" dated September 13, 2004. The general plan land use data was compared with the current condition land use zoning to identify areas of future development or redevelopment. The impacts of the future development were incorporated into the design of the recommended drainage improvements. Exhibit 3.4.2 shows the General Plan Land Use designation used for the hydrologic modeling. Table 4.1.2 summarizes the curve number assigned to each land use category

3.3.3 ASSESSOR'S PARCEL DATA

Assessor's parcel data for the Seeley Area was obtained from the Imperial County GIS division on October 8, 2009. The Assessor's parcel data was utilized to identify approximate existing road right of way, locations of publicly owned parcels, and limits of land use/zoning designations. The assessors parcel boundaries are shown for reference on the exhibits within this report.

3.4 HYDROLOGIC SOIL TYPE

The Seeley Area DMP was prepared taking into consideration the hydrologic soil type in the determination of the loss rates and curve numbers within the watershed. SSURGO 2008 Soil data was obtained from the Natural Resources Conservation Service (NRCS) Soil Data Mart (Reference 4), which includes a classification of soil types ranging from type A to type D. The soil types within the limits of the study area are primarily type C soils with some type D along the New River corridor.

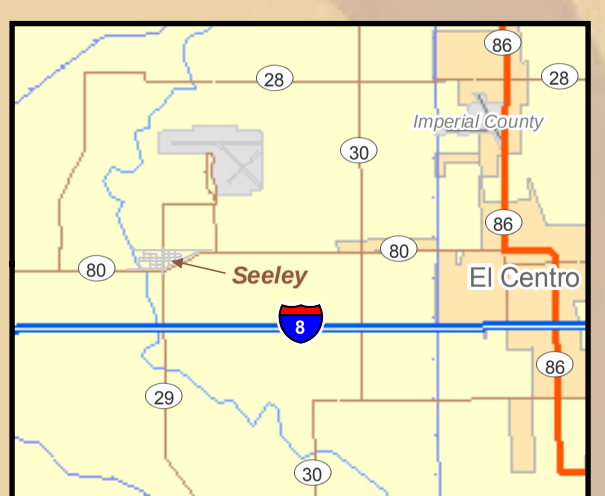
The following summarizes the hydrologic characteristics of the differing soil groups:

Type A: Low Runoff Potential. Soils having high infiltration rates even when thoroughly wetted and consisting chiefly of deep , well-drained sands or gravels. These soils have a high rate of water transmission.

Type B: Soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, moderately well to well-drained sandy-loam soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.

Type C: Soils having slow infiltration rates when thoroughly wetted and consisting chiefly of silty-loam soils with a layer that impedes downward movement of water, or soils with moderately-fine to fine texture. These soils have a slow rate of water transmission.

Type D: High Runoff Potential. Soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very slow rate of water transmission.



Legend

Existing Land Use	SSURGO Soil Type
Openspace	A
Low Density Residential	B
Medium Density Residential	C
Medium-High Density Residential	D
High Density Residential - Mobile Homes	
Government/Special	
School	
General Commercial	
Light Industrial	
Medium Industrial	
Road	

DATE
06/2010

SCALE
1" = 600'

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Seeley Area Drainage Master Plan
Existing Land Use Zoning and Hydrologic Soil Data

IMPERIAL COUNTY CALIFORNIA

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EXHIBIT
3.4.1

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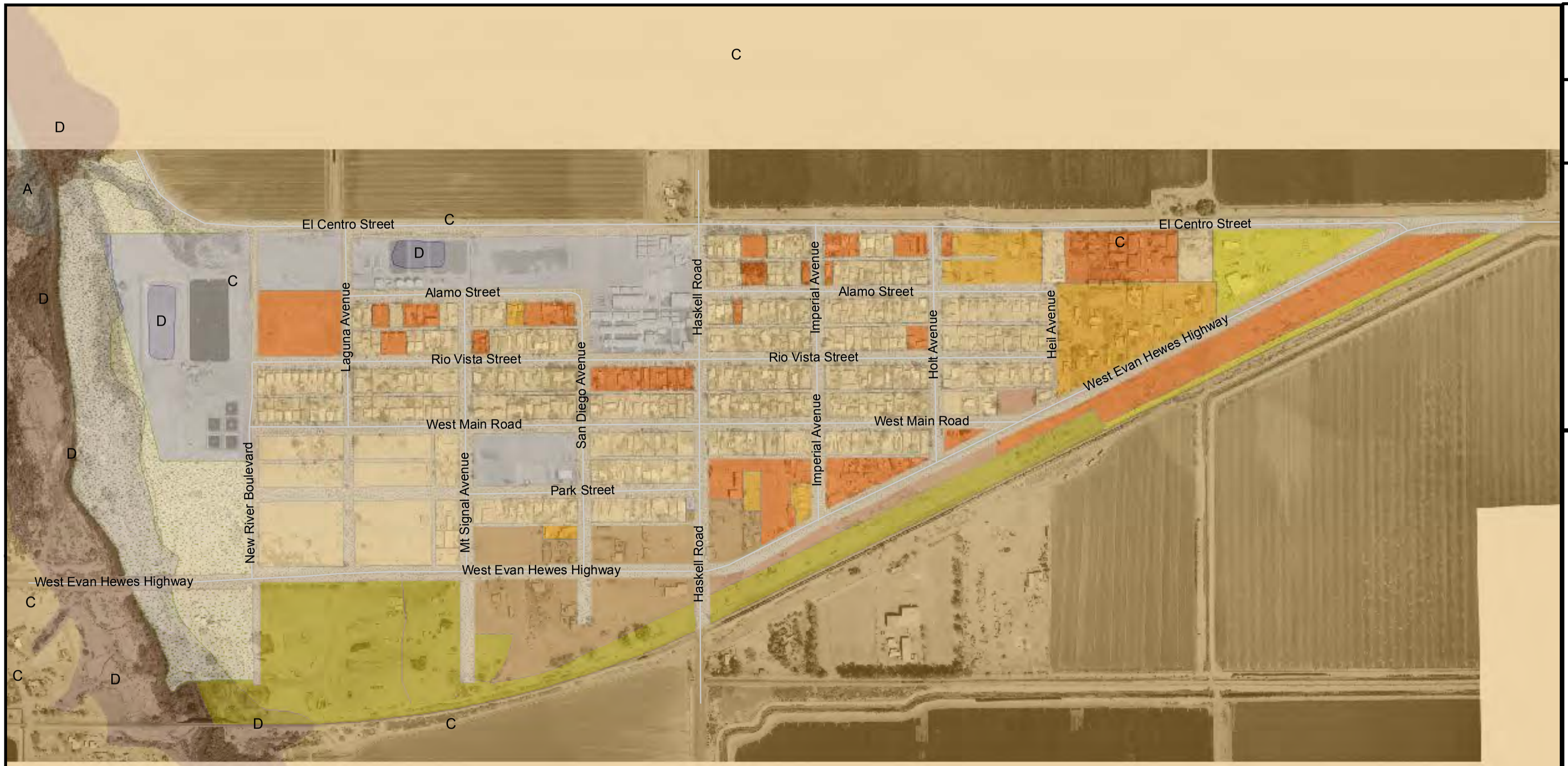

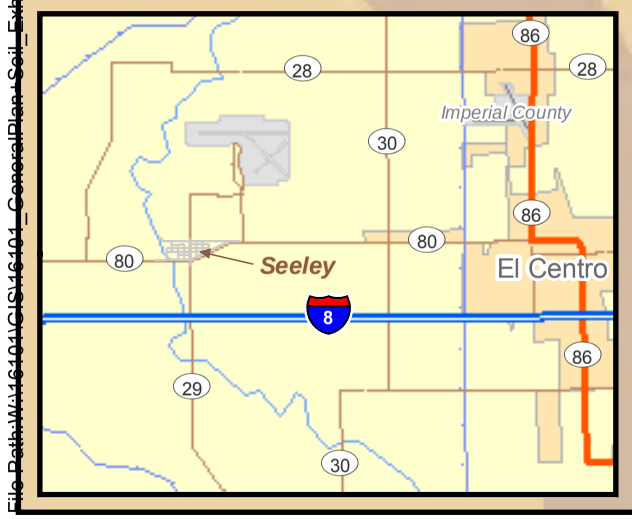

Legend

General Plan Land Use	SSURGO Soil Type
OpenSpace	A
Recreation / Open Space	B
Low-Density Residential	C
Government / Special Public	D
Medium Density Residential	
High Density Residential	
Neighborhood Commercial	
General Commercial	
Light Industrial	
Medium Industrial	
Roadway	

DATE
06/2010

SCALE
1" = 600'

RICK ENGINEERING COMPANY
5620 Friars Road
San Diego, CA 92110-2596
www.rickengineering.com

Seeley Area Drainage Master Plan
General Plan Land Use Zoning and Hydrologic Soil Data

IMPERIAL COUNTY CALIFORNIA

N
W
E
S

EXHIBIT
3.4.2

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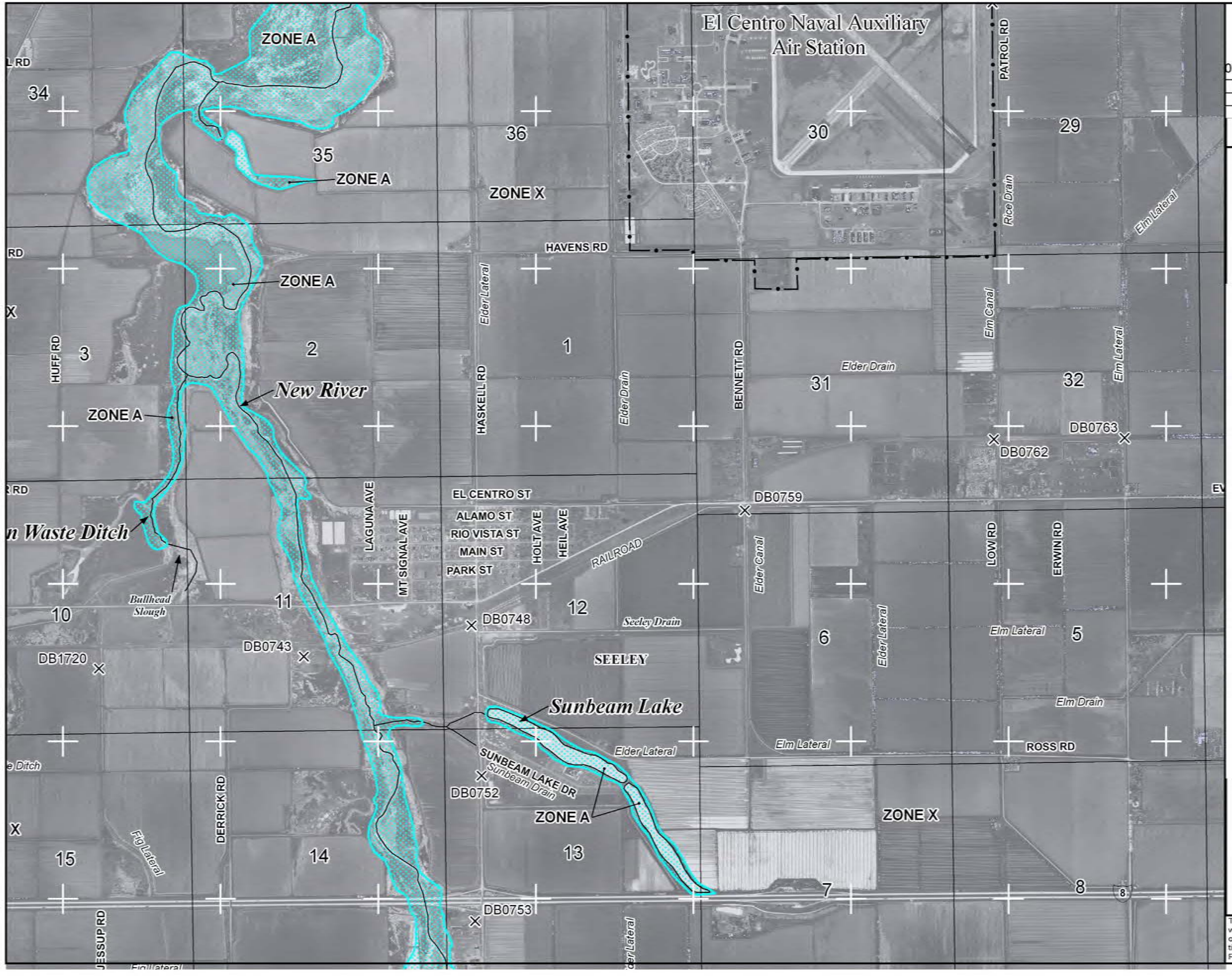
3.5 EXISTING DRAINAGE FACILITIES

A minimal number of engineered drainage structures currently exist within the Community of Seeley. Some recently constructed developments have included design and construction of on-site retention basins in accordance with Imperial County Criteria. In addition, there are a few isolated locations where drain inlets and storm drains have been constructed, however these systems function as retention facilities by storing runoff from the tributary areas as they have no identified discharge locations. The existing condition hydrologic analysis within this DMP considers the impact of the known retention facilities in developing the peak discharges for the study area. Currently there are no constructed or engineered drainage outlets into the New River. Runoff discharges to the New River via overland flow.

3.6 NATIONAL FLOOD INSURANCE PROGRAM

Imperial County is a participant in the National Flood Insurance Program (NFIP), which provides flood insurance and oversees floodplain management regulations to reduce the potential for flood damages. The Federal Emergency Management Agency (FEMA) manages the NFIP.

The FEMA Special Flood Hazard Area (SFHA) for Seeley is identified on Flood Insurance Rate Map (FIRM) panel No 06025C1700C, effective September 26, 2008, attached as Exhibit 3.6.1. The FIRM identifies portions of the New River as a Zone A floodplain, indicating areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. The FIRM also identifies the remaining areas of the FIRM as Zone X (unshaded), indicating areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood. Any future construction activities within the limits of the SFHA are required to comply with the requirements of FEMA and the NFIP.



MAP SCALE 1" = 2000'

00 0 2000 4000

FEET

METE

NFIP

PANEL 1700C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

IMPERIAL COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 1700 OF 2300

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
IMPERIAL COUNTY, UNINCORPORATED AREAS	060065	1700	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject

MAP NUMBER
06025C1700C

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

Exhibit 3.6.1

4.0 HYDROLOGIC METHODOLOGY

Hydrologic Modeling for the Community of Seeley study area was prepared following the criteria outlined in the Imperial Irrigation District (IID) DRAFT Hydrology Manual (Reference 7). Rational method precipitation and intensity information was utilized to reflect peak runoff consistent with rational method calculations, however NRCS (SCS) modeling parameters were utilized to reflect the volume of runoff generated by the watershed and to incorporate the impacts of storage and attenuation on peak flows.

4.1 NRCS (SCS) METHODOLOGY

The Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service (SCS) developed an approach to calculate runoff from a tributary watershed as a function of the drainage area, precipitation, initial abstraction, soil storage potential, and runoff curve number.

4.1.1 CURVE NUMBER

Curve Number for each watershed was calculated as a function of the land use within each area and the hydrologic soil type. Runoff Curve Numbers are an indication of runoff potential for a given area. The higher the Curve Number for a given watershed, the higher the runoff potential. Runoff Curve Numbers were determined based on from Figure C-2 of DRAFT IID Hydrology Manual and Table 2-2a in TR-55 (Reference 8). A detailed description of the runoff curve number values assigned to each land use designation is included in Table 4.1.2.

4.1.2 TABLE OF CALCULATED CURVE NUMBERS BASED ON LAND USE

Existing Condition Land Use Designation	Category	General Plan Land Use	Description	Estimated % Impervious *	Curve Number (AMC II)**	
					Type C Soil	Type D Soil
Openspace – Annual Grasses	OS	Open Space	Poor cover	0%	86	89
Low Density Residential (LDR)	R1	Low-Density Residential	1 DU/Parcel (max density 5 du/acre)	50%	90	92
Medium Density Residential (MDR)	R2	Medium Density Residential	1 – 2 DU/Parcel – duplexes (max density 10 du/acre)	70%	94	95
Medium-High Density Residential	R3	- -	2+ Du/Parcel (max density 29 du/acre)	75%	95	96
High Density Residential and Mobile Homes	R4	High Density Residential	Mobile home parks	85%	96	97
Light Commercial	C1	Neighborhood Commercial	In residential areas	85%	96	97
General Commercial	C2	General Commercial	Along highways, shopping centers	90%	97	98
Government/Special	GS-S	Government/Special	School	70%	94	95
	GS	Government/Special	Other G/S lands	80%-95%	96-98	97-98
Light Industrial	M1	Light Industrial	Storage & manufacturing	90%	97	98
Medium Industrial	M2	Medium Industrial	- -	95%	98	98
Roadway/Paved	ROAD	Roadway	Roadway Paved	98%	98	98

** Estimated % Impervious obtained from Figure C-3 of DRAFT IID Manual*

*** Curve Number obtained from Figure C-2 of DRAFT IID Manual and Table 2-2a in TR-55 (Reference 8)*

4.1.3 TIME OF CONCENTRATION

To generate a hydrograph for small watersheds, less than one square mile, Lag times utilized in SCS methodology are frequently calculated as a function of Time of Concentration (Tc). Time of Concentration (Tc) for each watershed was calculated based on the Time of Concentration Nomograph for the Rational method, using the following formula:

$$\mathbf{Tc = K (L^3/H)^{0.2}}$$

Where:

Tc = Time of Concentration (minutes)

K = is a function of % impervious for the basin

L = is the length of the longest flowpath within the basin

H = the elevation change (ΔE) along the longest flowpath.

The K value for each percent impervious was obtained from Appendix II and Figure D-1 in the DRAFT IID Hydrology Manual, and is summarized below.

% Impervious	K
90	0.304
80	0.324
75	0.336
65	0.360
60	0.374
50	0.389
40	0.412
30	0.438
20	0.469
15	0.483
10	0.487
0 (Poor Cover)	0.525
0 (Fair Cover)	0.706
0 (Good Cover)	0.935

4.1.4 LAG

Lag was then computed from the following formula:

Lag = 0.8 Tc / 60

Where:

Lag = is the basin Lag time (hours)

Tc = Time of Concentration (minutes)

The Time of Concentration and Lag calculations were performed in accordance with the Imperial Irrigation District DRAFT Hydrology Manual.

4.2 HEC-HMS PARAMETERS

BASIN MODEL:

Loss Methodology:	SCS Curve Number, with AMC II
Transform:	Standard SCS Unit Hydrograph (Lag)
Channel Routing:	Muskingum-Cunge

METEOROLOGICAL MODEL:

Intensity Position:	2/3 of hydrograph (67%) – equating to approximately hour 16 of a 24-hour storm.
Storms Modeled:	25-year, 24-hr – Precipitation = 2.11 inches 100-year, 24-hr – Precipitation = 2.80 inches "Frequency Storm"

5.0 EXISTING CONDITION HYDROLOGIC MODELING

The existing basin routing for the previously constructed "Seeley Streets Overlay and Drainage Plan" (Reference 9) was compared to the current terrain and watershed delineations. In general, the existing terrain and basin routing corresponded with the previous drainage plan. However, based on the topographic information, the existing routing was slightly different in the following areas:

- Laguna Avenue, between Alamo St. and Rio Vista St.
- Signal Avenue, between Park St. and Main St.
- Haskell Road, between Park St. and Rio Vista St., and between Alamo St. and El Centro St.
- Imperial Avenue between Rio Vista St. and Alamo St
- Evan Hewes Highway between Mt. Signal Avenue and San Diego Avenue, and between Haskell Road and Holt Avenue.

The results of the Existing Condition Hydrologic Modeling, including flowrates and flow paths, are shown on the Existing Condition Hydrologic Exhibit included as Appendix B of this Report and summarize 25-year and 100-year peak flow rates within the townsite.

5.1 EXISTING RETENTION AREAS

The locations of existing retention areas were determined through the use of the existing topography, and survey points of existing structures. The volumes of the above ground retention facilities were calculated from the existing topography, while the volumes of the underground facilities were calculated based on the surveyed pipe size and length between the survey points. The routing in the model was set up so that the runoff tributary to these areas would not contribute to the downstream routing, until the retention volume was full, at which time the flowrate of the runoff exiting the retention area would equal the flow rate of runoff entering the retention area. The existing retention areas have been identified on the Existing Condition Hydrologic Exhibit in Appendix B.

5.2 SURFACE STORAGE

Based on the existing topography within the Seeley townsite area, it was evident that there are localized sump areas where surface storage will occur. In the areas where more significant storage occurs, typically streets and low-lying areas, the volumes were calculated based on the existing topography. The impact of surface storage was incorporated into the hydrologic modeling by allowing these areas to pond and store runoff before contributing the tributary runoff to the downstream routing. The existing surface storage areas have been identified on the Existing Condition Hydrologic Exhibit in Appendix B.

6.0 ULTIMATE CONDITION HYDROLOGIC MODELING

Ultimate Condition hydrologic modeling was prepared to reflect the ultimate planned land uses within the watersheds, as identified in the Imperial County General plan for the Seeley area, including:

- Future roadway improvements reflecting construction of curb and gutter throughout the community,
- Development of currently vacant land, consistent with the general plan land uses in the study area,
- Construction of private retention facilities assumed to be constructed in conjunction with new multiple lot residential developments and on all new commercial and industrial developments areas
- Construction of drainage infrastructure to convey the 25-year storm discharges.

The results of the Ultimate Condition Hydrologic Modeling are shown on the Ultimate Condition Hydrologic Exhibit included as Appendix C of this Report and summarize 25-year and 100-year peak flow rates within the townsite. This exhibit also includes the locations and sizes of the recommended drainage improvements and anticipated retention areas within the study.

6.1 ROADWAY IMPROVEMENTS

Currently minimal curb-and-gutter exists within the study area, and flow is conveyed in roadway swales along the edges of the pavement sections. The ultimate condition hydrologic modeling reflects the construction of curb-and-gutter throughout the Community of Seeley.

The majority of the roadways within the Seeley study area are classified as a "Local Road", with only a few major roadways classified as "Major Collector" and "Prime Arterial." Major Collector roadways include Rio Vista Street, and Haskell Road. Drainage Improvements were recommended in locations where the roadway capacity would likely be exceeded in a 25-year storm event.

Hydrologic routing for the ultimate condition hydrologic modeling reflects roadway geometries based on the roadway classifications identified in the Imperial County Engineering Design Guidelines Manual (Reference 3), which are summarized in Table 6.1.1.

6.1.1 TABLE SHOWING PLANNED ROAD CLASSIFICATIONS

Road Classification	Width* (feet)	Curb Height (Inches)
Local Road	40	6
Major Collector	64	6
Prime Arterial	106	6

*Width (ft) represents width of paved road (curb to curb), and does not include right of way.

6.2 RETENTION CRITERIA FOR FUTURE DEVELOPMENTS

Imperial County currently has retention criteria in place for new development projects as cited in Section III-A of the Imperial County Engineering Design Guidelines Manual. For the purposes of this drainage master plan, retention was assumed to be implemented for all new multiple lot residential developments, commercial developments, and industrial developments. However, retention was not assumed on individual residential lots that may currently be vacant but are zoned for use as single-family residential.

Future retention systems are not included in the construction cost estimates, as they are anticipated to remain private systems and not constructed or maintained by Imperial County, but were included in the Ultimate Condition Hydrologic Modeling. Drainage areas where future retention has been accounted for are identified on the Ultimate Condition Hydrologic Exhibit included in Appendix C.

6.3 DRAINAGE INFRASTRUCTURE

Recommended drainage improvements have been identified within the Community of Seeley, with the goal of providing 25-year flood protection for portions of the community where the flow cannot be contained within the road right-of-way, or in areas of public safety concern.

6.3.1 STORM DRAIN DESIGN CRITERIA

The following Criteria were considered when determining the location and sizes of the recommended drainage improvements:

- Minimum Pipe Slopes shall be 0.001 (0.1%) per Imperial County Standards
- Slopes of recommended pipes designed at 0.0015 (0.15%)
- Cleanout Spacing:
  - 300 feet maximum spacing pipes < 48-inches in diameter
  - 500 feet maximum spacing for pipes ≥ 48-inches in diameter
- 30-inches minimum cover depth is required
- Manning's Roughness Coefficient, n = 0.013

6.3.2 STORM DRAIN SIZING

The following table relates the pipe sizes specified for the recommended storm drain facilities along with their respective capacities at their proposed slope of 0.15%.

Pipe Diameter (inches)	Slope (%)	Capacity (cfs)*
24	0.15	7.9
36	0.15	23.2
48	0.15	50.1
60	0.15	90.8
72	0.15	147.6
84	0.15	222.6
96	0.15	317.8

*Capacity based on Manning's Equation with friction slope adjusted to 90% of pipe slope, to reflect assumed hydraulic losses of 10%.

6.3.3 INLET SIZING

The following criteria were considered when determining the minimum number of inlets recommended for each phase of drainage improvements:

- Curb Inlets at a sump condition should be designed for two (2) cfs per lineal foot of opening when headwater may rise to top of curb.
- Curb inlets on a continuous grade should be designed based on the following equation:

$$Q = 0.7L(A+Y)^{3/2}$$

Where:

Y= depth of flow in approach gutter in feet

A = depth of depression of flow line at inlet in feet

L = length of clear opening in feet (maximum 30 feet)

Q = flow in CFS

Detailed Inlet Sizing calculations were not performed for the recommended facilities; however, a minimum number of inlets were assumed associated with the construction of each storm drain segment to intercept the 25-year storm flows. Detailed calculations will be required during final design of any drainage improvements to identify the need for additional storm drain inlets within the drainage system to maintain required flow depth and dry lane requirements within the roadways.

7.0 RECOMMENDED DRAINAGE IMPROVEMENTS

The following summarizes the recommended drainage improvements identified within the Seeley Area Drainage Master Plan study area. Recommended drainage improvements were sized to convey the 25-Year Storm Event. Appendix D of this document serves as a detailed summary of each improvement, including cost estimates and an exhibit showing the limits of the improvement. The location, limits, and costs associated with each phase of the recommended drainage improvement are based on preliminary drainage master plan information. Detailed investigations into potential utility conflicts, right-of-way needs, constructability, and or environmental impacts should be investigated prior to the construction of each project, and may impact the design and/or cost of each project.

7.1 PRIORITIZATION OF IMPROVEMENTS

This DMP anticipates construction of the recommends drainage improvements will occur as a phased approach to improving drainage within the Seeley area. The recommended drainage improvements have been identified as 7 specific phases of construction, or drainage improvement projects. The phase limits are based on providing flood protection benefits with each phase, as well as identifying logical locations for the limits of improvement. The following items were considered when prioritizing the recommended drainage improvements:

- Public Safety,
- Need for downstream improvements prior to implementation,
- Tributary drainage area,
- Property that would be protected by the drainage improvement, and whether it is currently developed or undeveloped.

7.2 CONSTRUCTION COST ESTIMATES

Preliminary opinions of the probable construction costs were prepared for each identified improvement project. The facility quantities and costs presented are preliminary and should only be used for planning purposes. A summary of the assumptions associated with the development of the probable construction costs are included in the Capital Improvement Program Report attached as Appendix D of this DMP.

7.3 TABLE OF RECOMMENDED DRAINAGE IMPROVEMENTS

Project ID	Location	Maximum Q_{25}	Maximum Q_{100}	Pipe Sizes	Total Length	Number of Inlets	Number of Cleanouts	Estimated Cost
SD-01	Rio Vista Street, Haskell Road, San Diego Avenue	220 cfs	319 cfs	36”-84”	4,512 ft	12	15	$7,828,700
SD-02	Rio Vista Street, Imperial Avenue	116 cfs	146 cfs	24”-72”	1,853 ft	8	9	$2,096,700
SD-03	San Diego Avenue, Park Street	54 cfs	77 cfs	36”-48”	1,547 ft	9	6	$1,110,700
SD-04	Rio Vista Street, Holt Avenue, West Main Road, Evan Hewes Highway	72 cfs	106 cfs	36”-60”	1,769 ft	5	8	$1,619,900
SD-05	Holt Avenue, El Centro Street	46 cfs	70 cfs	36”-48”	2,228 ft	8	9	$1,619,500
SD-06	Laguna Avenue	19 cfs	29 cfs	36”	804 ft	4	4	$555,700
SD-07	Evan Hewes Highway	39 cfs	55 cfs	36”-48”	3,477 ft	5	11	$3,210,400

The Projects in this table are listed in the recommended order of priority.
Detailed Descriptions of the Project limits, location, and cost estimates are included in the CIP Report as Appendix D of this report..

8.0 SUMMARY

This report presents a summary of the existing condition and ultimate condition 25-year and 100-year peak discharges within the Community of Seeley, in Imperial County, California. This report also identifies recommended drainage improvements with the goal of providing 25-year storm drain infrastructure within the study area, and alleviating current flooding concerns within the community. Hydrologic calculations were prepared using HEC-HMS, and runoff calculations were performed based on the criteria outlined in the Imperial Irrigation District DRAFT Hydrology Manual.

The recommended drainage improvements identified in this report were prioritized in an order of recommended construction from SD-01 (the first recommended phase) to SD-07 (the final recommended phase). The drainage improvements were prioritized based on the necessity to construct downstream facilities first, and on the public safety issue of reducing flooding first in the areas historically subject to the most flooding and that convey the most water, such as Rio Vista Street.

The results of this Drainage Master Plan report were used to prepare a Capital Improvement Program report, which is attached as Appendix D, summarizing each recommended drainage improvement project, the associated construction cost, and the recommended order of construction.

This report has been prepared for master planning purposes only, as a guide for engineers, planners, developers, and County staff. The recommendations outlined in this report are preliminary and the recommended locations, facility sizes, alignments, and costs should be re-evaluated during final design of each improvement phase.

9.0 REFERENCES

1. *Hydrologic Modeling System HEC-HMS User Manual (CPD-74A)*, prepared by The U.S. Army Corps of Engineers, Hydrologic Engineering Center, Version 3.3, September 2008.

2. *Flood Insurance Study for Imperial County, California, and Incorporated Areas*, prepared by the Federal Emergency Management Agency (FEMA), September 26, 2008.

3. *Engineering Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage and Grading Plans Within Imperial County*, County of Imperial Department of Public Works, September 15, 2008.

4. *Soil Survey Geographic (SSURGO) database for Imperial County, California, Imperial Valley Area (CA683)*, prepared by the U.S. Department of Agriculture, Natural Resources Conservation Service, January 2008, URL:<http://SoilDataMart.nrcs.usda.gov/>

5. *Imperial County Land Use Zoning, Townsite of Seeley, Map 9A*, prepared by Imperial County Planning Department, revised May 11, 2006.

6. *Imperial County General Plan, Seeley Urban Area Map, Figure 1*, prepared by Imperial County Planning Department, revised September 13, 2004.

7. *Imperial Irrigation District, DRAFT Preliminary Drainage Master Plan, Hydrology Manual*, prepared by Black & Veatch, November 1994.

8. *TR-55: Urban Hydrology for Small Watersheds*, prepared by the U.S. Department of Agriculture, Soil Conservation Service, June 1986.

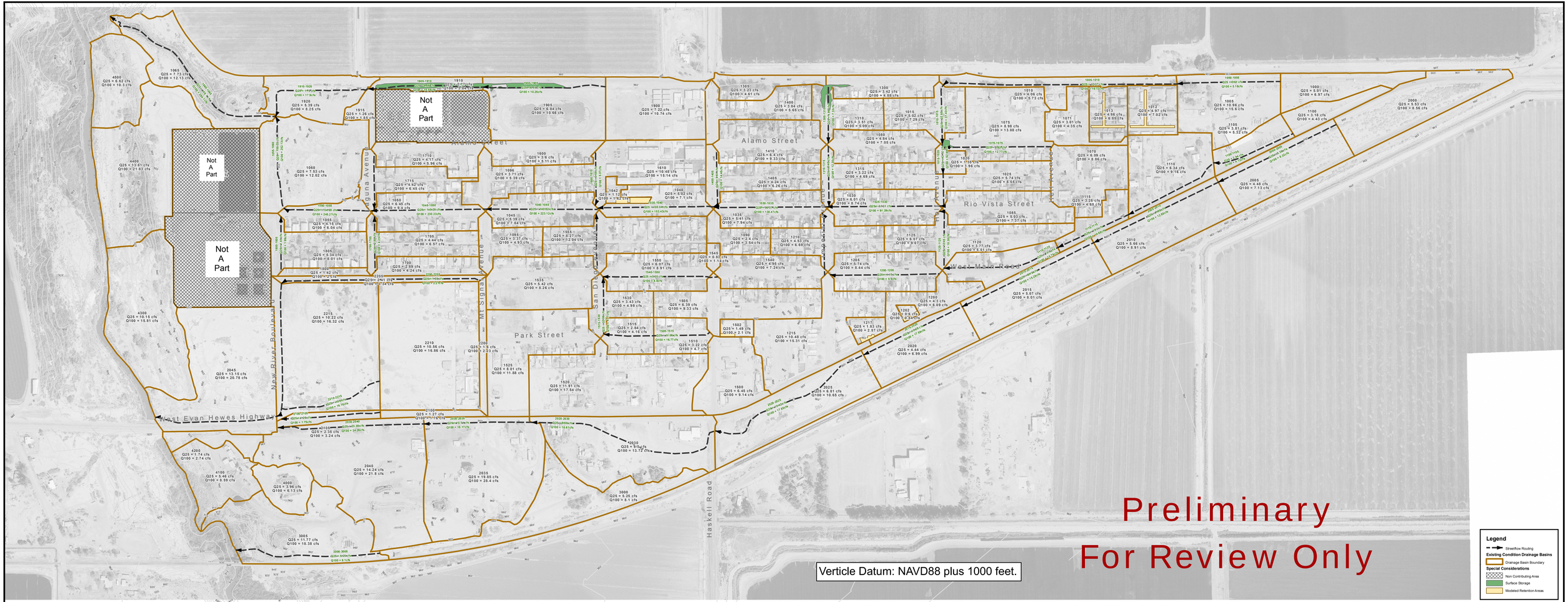
9. *Seeley Streets Overlay and Drainage Plan (M-572)*, prepared by the Imperial County Department of Public Works, As-Built May 9, 1979.

APPENDIX A

CD CONTAINING DIGITAL HEC-RAS, GIS, AND CAD FILES.

APPENDIX B

EXISTING CONDITION HYDROLOGIC EXHIBIT



RICK ENGINEERING COMPANY
5620 Friars Road
San Diego, CA 92110
619.291.0707
www.rickengineering.com

IMPERIAL COUNTY CALIFORNIA

Existing Condition Hydrologic Exhibit

W:\16101\Hydro\Seeley_Basins_Map.mxd
Exhibit Date: March 2010
REC JN: 16101

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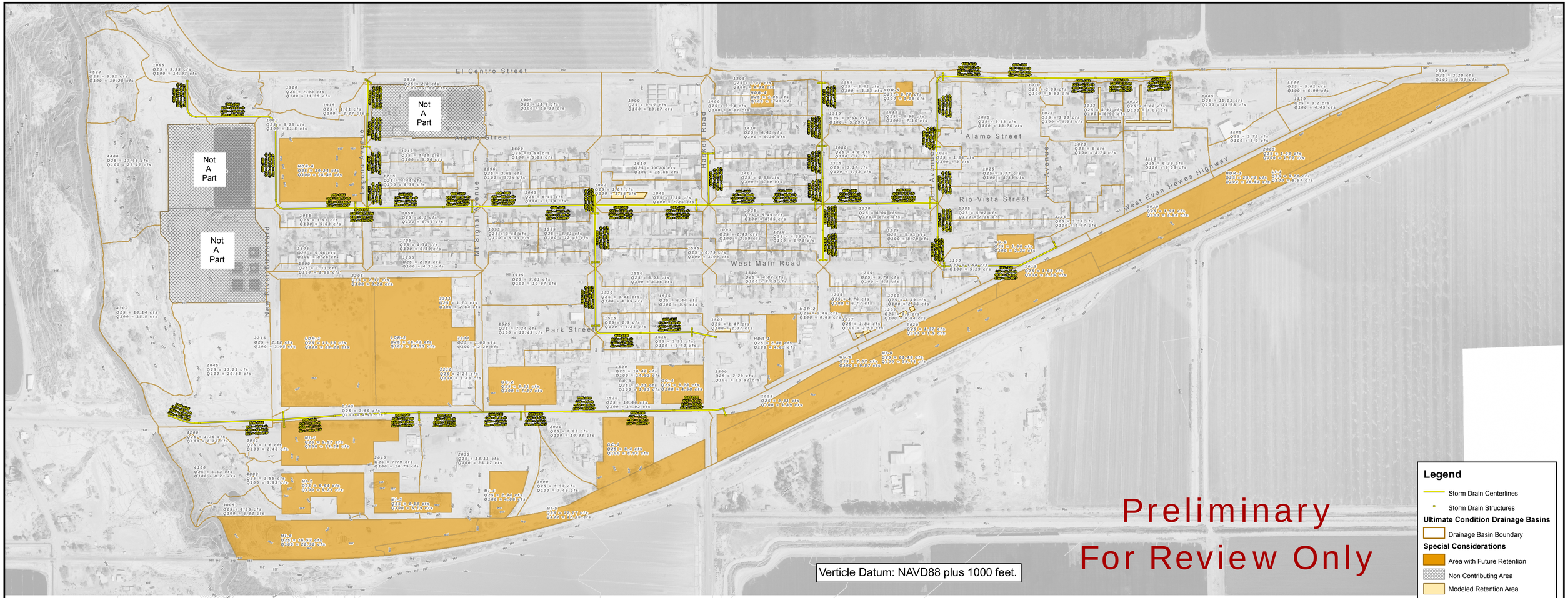
NORTH

APPENDIX C

ULTIMATE CONDITION HYDROLOGIC EXHIBIT



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San Diego, CA 92110
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www.rickengineering.com

Ultimate Condition Hydrologic Exhibit

W:\16101\Hydro\Seeley_Basins_Map_ultimate.mxd
Exhibit Date: March 2010
REC JN: 16101

200 100 0 200 400 Feet

NORTH

APPENDIX E

TOPOGRAPHIC MAP


SEELEY
GRAPHIC SCALE: 1"=150'
0
100
200
300
N
COMPILED BY PHOTOGRAMMETRIC METHODS
JOB NUMBER: 16101
DATE OF SURVEY: 03/24/2009
DATE OF PHOTOGRAPHY: 03/24/2009 TYPE: B/W
CONTOUR INTERVAL: 1 FT. APPROX. PHOTO SCALE: 1"=300'
BASIS OF COORDS: NGS MON. "F 612"
BASIS OF ELEV: NGS BM "M 59"
HORIZONTAL DATUM: NAD83, CCS ZONE 6, 2007.0 EPOCH
VERTICAL DATUM: NAVD88 PLUS 1000 FEET
EXCEPT CONTROL VALUES
MAP BOUNDARY
RETAINING WALL
MASONRY WALL
FENCE GENERAL
ASPHALT EDGE
CONCRETE EDGE
HORIZ/VERT CONTR
GRIDTICK
STREET LIGHT
TRAFFIC SIGNAL
RAIL ROAD SWITCH
POWER POLE
N 1,868,000
N 1,867,500

APPENDIX D

SCWD Approved Budget and Financial Statement

Seeley County Water District

PRELIMNARY BUDGET FISCAL YEAR

July 2016 - June 2017

Board President: Patrick Harris Board Members: Jason Grima, Victor Ibarra, Keith Baird, Beatriz Scroggins.	2016-2017 Budget	2016-2017 Actuals to 5/26/17	2017-2018 Ad-Hoc Committee Recommendation Preliminary Budget
Income			
Billable Expense Income		77.26	
Charges for services	$275.00	1,014.34	$275.00
Dumper Income		61,817.34	
General Fund Income			
Dividend Income	$400.00	412.80	$413.00
Secured Property Tax Income	$1,800.00	1,149.35	$1,150.00
Unsecured Property Tax Income	$255.00	(4.77)	
Total General Fund Income	**$2,455.00**	1,557.38	
Homeowners General Op 35%		10.69	$14.00
Interest income	$1,200.00	1,087.06	$1,185.00
Sales		6,797.39	$7,190.00
Sewer - Off-Site Revenue *(Capital Improvement)*	$250,000.00	140,200.15	$158,000.00
Sewer Charges Base - Commercial	$25,000.00	28,926.56	$77,500.00
Sewer Charges Base - Residential	$265,000.00	235,536.03	$288,000.00
Sewer Charges Usage - Commercial	$18,000.00	20,913.90	
Unapplied Cash Payment Income		2,404.19	$2,400.00
Water Charges - Base - Commercial	$43,000.00	40,724.13	$110,500.00
Water Charges Base - Residential	$180,000.00	160,784.09	$196,000.00
Water Charges Commercial Metered Usage	$20,000.00	19,020.06	$18,500.00
Water Charges Residential Metered Usage	$110,000.00	102,132.89	$92,000.00
Water/Sewer Fees	$14,000.00	1,806.04	$2,000.00
Total Income	**$928,930.00**	**824,809.50**	**$953,289.00**
Expenses			
Admin-Other		38.48	
Advertising	$1,000.00	3,406.34	$3,000.00
Alert Services Expense	$50.00	22.50	$37.00
Bank Charges/Late Fees/Over limit Fees	$1,500.00	766.57	$880.00
Business Insurance		15,040.58	$15,000.00
Capital Improvements		15,650.19	$45,000.00
Auto	$4,800.00		
Liability/Fraud Insurance (Property)	$25,000.00		
Total Business Insurance	**$29,800.00**		

Board President: Patrick Harris
Board Members: Jason Grima, Victor Ibarra, Keith Baird, Beatriz Scroggins.

	2016-2017 Budget	2016-2017 Actuals to 5/26/17	2017-2018 Ad-Hoc Committee Recommendation Preliminary Budget
Computer Expense	$200.00		
Contract Labor	$30,000.00	44,572.80	$40,000.00
Director Fees	$11,000.00	6,100.00	$11,000.00
Drug Testing	$200.00		$200.00
Dues and subscriptions	$3,000.00	6,606.45	$7,000.00
Employee Insurance			
Medical Insurance	$45,000.00	8,629.30	$12,000.00
Dental/Vision/Life/AD&D	$4,000.00	1,627.00	$2,000.00
Workers Compensation Insurance	$15,500.00	13,407.17	$17,000.00
Total Employee Insurance	**$64,500.00**	**23,663.47**	
Employee Relations	$600.00	276.08	$535.00
Fees - Permits/Certifications/Fines	$20,000.00	13,010.90	$15,000.00
Fuel	$4,350.00	4,693.01	$5,000.00
General Fund Expenses		1,062.94	
Street Lights	$6,150.00	3,619.18	$4,200.00
Total General Fund Expenses	**$6,150.00**	**4,682.12**	
Interest Expense	$200.00	27.23	$8,000.00
Internet			
Lab Testing	$65,000.00	39,457.00	$42,000.00
Legal and Professional Fees			
Bookkeeping Services	$15,000.00	14,151.00	$21,600.00
CPA	$7,000.00	7,000.00	$7,000.00
Legal Fees	$20,000.00	17,575.01	$7,000.00
Total Legal and Professional Fees	**$42,000.00**	**38,725.01**	
Payroll Expenses			
Taxes	$17,000.00	22,177.15	$38,000.00
Wages	$240,000.00	170,628.23	$268,000.00
Total Payroll Expenses	**$257,000.00**	**192,805.38**	
Miscellaneous Expense		500.00	
Office Expenses		5,034.54	$5,000.00
Company Contributions		-	
Health Insurance		-	
Total Company Contributions	**$0.00**		
Permit Fees - Burn/Air Pollution	$600.00	182.50	$200.00
Postage and Freight	$5,000.00	3,134.77	$3,500.00
Professional & special services	$55,000.00	72,880.70	$68,500.00
Repair & Maintenance		229.79	$300.00
Auto	$3,000.00	1,301.76	$3,000.00
Sewer-maintenance	$27,490.00	7,892.21	$13,000.00
Water Maintenance	$27,490.00	16,066.34	$20,000.00
Total Repair & Maintenance	**$57,980.00**	**25,490.10**	

Board President: Patrick Harris Board Members: Jason Grima, Victor Ibarra, Keith Baird, Beatriz Scroggins.	2016-2017 Budget	2016-2017 Actuals to 5/26/17	2017-2018 Ad-Hoc Committee Recommendation Preliminary Budget
Security System Expense			$500.00
Source-Purchased Water	$8,000.00	1,160.00	$2,000.00
Supplies		175.88	
Office Supplies	$10,000.00	5,801.41	$6,000.00
Wastewater Treatment Supplies	$20,000.00	10,140.95	$12,000.00
Water Treatment Supplies	$17,000.00	31,326.00	$34,000.00
Total Supplies	**$47,000.00**	**47,444.24**	
Telephone Expense	$8,000.00	5,399.93	$6,600.00
Transport & Travel	$1,500.00	302.69	$1,000.00
Uncategorized expenses		6.30	
Tuition	$900.00	742.29	$900.00
Uniforms	$4,000.00	5,165.12	$6,000.00
Utilities		13,403.88	
Utilities - Sewer	$45,600.00	29,767.59	$37,000.00
Utilities - Water	$34,000.00	30,270.56	$38,000.00
Total Utilities	**$79,600.00**	**73,442.43**	
Total Expenses	**$547,130.00**	**650,429.72**	**$826,952.00**
Net Operating Income	**$381,800.00**	**174,379.78**	**$126,337.00**
OTHER INCOME			
Other Income - Sewer		102.00	
		68.00	
		0.81	
		768.92	
		218.01	
		4.31	
Total Other Income		**1,162.05**	
OTHER EXPENSES			
Reconciliation Discrepancies		0.01	
Total Other Expenses		**0.01**	
NET OTHER INCOME		1,162.06	
NET INCOME		**175,541.84**	
USDA Loan #4 Wastewater			*Pay Off In June '17 $36763.79*
USDA Loan #8 Water	**$10,400.00**	*$165,134.88*	
Smith Loan (property) *Proposed Admin/Community Center Building site*	**$14,400.00**		*Pay Off In June '17 $1293.00*
Capital Improvement	**$100,000.00**		

P&L Fiscal Report

Regular Meeting: June 12, 2017 preliminary budget presented to board for review

5/24/17: Ad-Hoc Committee: President Mr. Harris, Board Member Mr. Ibarra

George J. Woo
Certified Public Accountant

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Seeley County Water District
Seeley, California

I have audited the accompanying financial statements of the Seeley County Water District (the "District") as of June 30, 2016 and the related notes to the financial statements, which collectively compromise the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted the audit in accordance with auditing standards generally accepted in the United States of America and the State Controller's minimum audit requirements for California Special District. Those standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly I express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

1085 State Street • El Centro, California 92243 • (760) 337-5555 • Fax 337-8796
E-mail address gjwcpa@sbcglobal.net

Opinion

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Seeley County Water District as of June 30, 2016, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America as well as accounting systems prescribed by the State Controller's Office and state regulations governing special districts.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 7 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. I have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to my inquiries, the basic financial statements, and other knowledge I obtained during my audit of the basic financial statements. I do not express an opinion or provide any assurance on the information because the limited procedures do not provide me with sufficient evidence to express an opinion or provide any assurance.

Other Information

My audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the financial statements as a whole. The supplementary schedules on pages 22 through 24 are presented for purposes of additional analysis and is not a required part of the financial statements. The information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In my opinion, the information is fairly stated, in all material respects, in relation to the financial statements taken as a whole.

February 15, 2017

SEELEY COUNTY WATER DISTRICT
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2016

The following section of the annual financial report of the Seeley County Water District (the District) includes an overview and analysis of the District's financial position and activities for the years ended June 30, 2016 and 2015. This discussion and analysis, as well as the basic financial statements which it accompanies, is the responsibility of the management of the District.

Introduction to the Basic Financial Statements

This annual report consists of a series of financial statements, prepared in accordance with generally accepted accounting principles; such report has been designed to improve the usefulness of the report to the primary users of these basic financial statements.

The District presents its basic financial statements using the economic resources measurement to focus and accrual basis of accounting. As a Business-Type Activity, the District's basic financial statements include a Statement of Net Assets; a Statement of Revenues, Expenses, and Changes in Net Assets; and a Statement of Cash Flows. Notes to the basic financial statements and this section support these statements. All sections must be considered together to obtain a complete understanding of the financial position and results of operations of the District.

Statements of Net Assets – The Statements of Net Assets include all assets and liabilities of the District, with the difference between the two reported as net assets. Assets and liabilities are reported at their book value, on an accrual basis, as of June 30, 2016, and 2015. These statements also identify major categories of restrictions on the District's net assets.

Statements of Revenues, Expenses, and Changes in Net Assets – The Statements of Revenues, Expenses, and Changes in Net Assets present the revenues earned and expenses incurred by the District during the years ended June 30, 2016, and 2015, on the accrual basis of accounting.

Statement of Cash Flows – The Statements of Cash Flows present the changes in the District's cash and investments for the years ended June 30, 2016 and 2015. Such statements are summarized by operating, capital, and noncapital financing and investing activities. The statements of cash flows have been prepared using the direct method of reporting cash flows and, therefore, present gross, rather than net amounts, for each respective year's activities.

Condensed Financial Position Information:

The following condensed financial information provided an overview of the District's financial position for the fiscal years ended June 30, 2016 and June 30, 2015.

	2016	2015
Assets:		
Utility plant, net	$ 8,382,344	$ 8,615,405
Other assets	556,224	657,449
Total assets	$ 8,938,568	$ 9,272,854
Liabilities:		
Long-term liabilities	$ 216,014	$ 218,258
Other liabilities	47,881	229,685
Total liabilities	263,895	447,943
Net position:		
Net Investment in Capital Assets	$ 8,166,330	$ 8,380,166
Restricted	3,400	3,400
Unrestricted	504,943	441,345
Total net position	$ 8,674,673	$ 8,824,911

(a) *Net Position*

Net position, the difference between assets and liabilities, decreased $ 150,238 during the fiscal year ended June 30, 2016 and increased $ 208,344 for the fiscal year ended June 30, 2015.

(b) *Utility Plant*

Net utility plant, which is comprised of property, plant and equipment increased $ 39,248, the amount of equipment and capital outlay for the year, and decreased $ 272,310, the current year depreciation expense. The net decrease in net utility plant was $ 233,062.

(c) *Other Assets*

Other assets consists of cash, investments, and accounts receivable.

(d) *Long-Term Liabilities*

Long-term debt decreased $ 19,225 due to scheduled repayment of notes payable and loan payable.

(e) *Other Liabilities*

Other liabilities consists of accounts payable, payroll taxes payable, accrued interests payable, and customer deposits.

SEELEY COUNTY WATER DISTRICT
MANAGEMENT'S DISCUSSION ANALYSIS
June 30, 2016

Summary of Operations and Changes in Net Position

The District's net position during the fiscal year ended June 30, 2016 decreased $ 150,238 and increased $ 208,344 during the fiscal year ended June 30, 2015. The tables below summarize the District's fiscal year 2016 and 2015 activity:

	2016	2015
Operating revenues:		
Charges for services	$ 844,366	$ 833,799
Operating expenses:		
Operation and maintenance	720,350	865,163
Depreciation	272,130	249,827
Total operating expenses	992,480	1,114,990
Operating income (loss)	(148,114)	(281,191)
Non-operating revenues (expenses):		
Grant Income	-0-	490,623
Other Income	-0-	3,695
Interest income	3,449	1,192
Property taxes	2,397	2,240
Interest expense	(7,970)	(8,215)
Total non-operating revenues (expenses)	(2,124)	489,535
Increase (decrease) in net position	(150,238)	208,344
Total net position, beginning of year	8,824,911	8,616,567
Total net position, end of year	$8,674,673	$ 8,824,911

(a) Operating Revenues

In fiscal year 2016 operating revenues decreased 13%.

(b) Operating Expenses

Operating expenses consists of salaries, administrative expenses and operations and maintenance costs. During the year, operating expenses (including depreciation) decreased $ 122,510. There was an increase in wages paid during the current fiscal year.

(c) Non-operating Revenues and Expenses

Non-operating revenues and expenses consist of interest income, property taxes, and interest expense.

Utility Plant and Debt Administration

(a) Utility Plant: Net utility plant is comprised of the water treatment plant, the wastewater treatment plant, land and buildings. Equipment consists of vehicles, tools and equipment, office furniture, and computer equipment.

(b) Long-Term Debt: See Note 4 of notes to financial statements for more detailed information regarding the District's long-term debt.

Request for information

This financial report is designed to provide a general overview of the Seeley County Water District's finances for all those with an interest in districts finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Office Manager, Seeley County Water District, 1898 W. Main St., Seeley, California 92273.

SEELEY COUNTY WATER DISTRICT
STATEMENT OF NET POSITION
As of June 30, 2016

ASSETS

Current Assets:		
Cash	$	426,906
Accounts receivable		110,184
Stock - Principal Financial Group		15,734
Total current assets		552,824
Cash restricted for debt service,USDA		3,400
Capital Assets		
Capital Assets, Not being depreciated		1,075,469
Capital assets, Net of Depreciation		7,306,875
Total		8,382,344
Total Assets	$	8,938,568

LIABILITIES AND NET POSITION

Current Liabilities:		
Accounts payable	$	24,483
Customer deposits		23,398
Current portion of long-term debt		17,481
Total current liabilities		65,362
Long-term debt:		
Loan payable		12,869
Note payable- USDA		37,478
Note payable- USDA		165,667
Less: current portion		(17,481)
Total long-term debt		198,533
Total Liabilities		263,895
Net position:		
Net Investment in Capital Assets		8,166,330
Restricted for debt service, USDA		3,400
Unrestricted		504,943
Total Net Position	$	8,674,673

The accompanying notes are an integral part of these financial statements.

SEELEY COUNTY WATER DISTRICT
STATEMENT OF REVENUES AND EXPENSES
For The Year Ended June 30, 2016

Operating Revenues:		
Charges for services	$	844,366
Operating Expenses:		
Advertising		1,754
Alert Services		48
Bank Charges		690
Business Insurance		20,455
Capital Improvements		2,151
Contract Labor		36,270
Customer relations		1,200
Deposit Refund		278
Depreciation		272,310
Director Fees		12,775
Drug Testing		170
Dues & Subscriptions		3,185
Employee Insurance		26,400
Employee Relations		173
Fees & Permits		7,814
Fuel		3,600
Lab Testing		54,211
Legal & Professional Fees		57,546
Miscellaneous		100
Payroll Taxes		18,759
Permit fees		542
Postage & Freight		3,681
Professional Services		75,480
Repairs & Maintenance		47,002
Salaries & Wages		204,311
Source - Purchased Water		10,456
Street Lights - Utilities		4,859
Supplies		52,763
Telephone Expense		5,926
Transportation & Travel		1,088
Tuition		155
Uniforms		4,770
Utilities		61,558
Total operating expenses		992,480
Operating income (loss)		(148,114)
Non-operating revenues (expenses):		
Property taxes		2,397
Interest income		3,449
Interest expense		(7,970)
Total non-operating revenues (expenses)		(2,124)
Increase (decrease) in net position	$	(150,238)

The accompanying notes are an integral part of these statements.

SEELEY COUNTY WATER DISTRICT
STATEMENT OF CHANGES IN NET POSITION
For The Year Ended June 30, 2016

Balance, beginning of year	$ 8,824,911
Change in net assets	(150,238)
Balance, end of year	$ 8,674,673

The accompanying notes are an integral part of these financial statements.

SEELEY COUNTY WATER DISTRICT
Statement of Cash Flows
For The Fiscal Year Ended June 30, 2016

Cash flows from operating activities:	
Cash received from customers and users	812,063
Cash paid to employees for services	(204,310)
Cash paid to suppliers of goods and services	(681,800)
Net cash provided (used) by operating activities	(74,047)
Cash flows from non capital financing activities:	
Cash received from property taxes	2,397
Net cash provided (used) by non-capital financing activities	2,397
Cash flows from capital and related financing activities:	
Acquisition of capital assets	(39,249)
Principal paid on debt	(19,225)
Interest paid on debt	(7,970)
Net cash provided (used) by capital and related financing activities	(66,444)
Cash flows from investing activities:	
Interest Income	3,449
Net increase (decrease) in cash and cash equivalents	(134,645)
Cash at beginning of year	564,951
Cash at end of year	$ 430,306
Reconciliation of operating income to Net cash from operating activities	
Operating income (loss)	$ (148,114)
Adjustments to reconcile net loss to net cash used in operating activities:	
Depreciation	272,310
Increase in accounts receivable	(33,420)
Increase/(decrease) in accounts payable	(165,940)
Increase/(decrease) in customer deposits	1,117
Total adjustments	74,067
Net cash used in operating activities	$ (74,047)

The accompanying notes are an integral part of these financial statements.

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization – The Seeley County Water District (the "District") was formed on July 28, 1960 under the State of California Water Code.

The District is governed by a Board of Directors consisting of five members who are elected or appointed for four year terms. The District is responsible for providing water and sewer services within its geographic boundaries.

The financial statements consist only of the funds of the District. The District has no oversight responsibility for any other governmental entity since no other entities are considered to be controlled or dependent on the District.

1. Measurement Focus, Basis of Accounting and Financial Statements Presentation:

"Measurement focus" is a term used to describe which transactions are recorded within the various financial statements. "Basis of accounting" refers to when transaction are recorded regardless of the measurement focus applied. The accompanying financial statements are reported using the "economic resources measurement focus," and the "accrual basis of accounting." Accordingly, all assets and liabilities (whether current or noncurrent) are included on the Statements of Net Position. The Statements of Revenues, Expenses, and Changes in Net Position present increases (revenues) and decreases (expenses) in total net position. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Operating revenues, such as water and wastewater service charges, result form exchange transactions associated with the principal activity of the District. Exchange transactions are those in which each party receives and gives up essentially equal values. Nonoperating revenues, such as grant funding and investment income, result from non-exchange transactions, in which, the District gives (receives) value without directly receiving (giving) value in exchange.

The District reports its activities as an enterprise fund, which is used to account for operations that are financed and operated in a manner similar to a private business enterprise, where the intent of the District is that the costs of providing water services to its customers on a continuing basis be financed or recovered

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

primarily through user charges (water and wastewater service charges), capital grants and similar funding.

The basic financial statements of the Seeley County Water District have been prepared in conformity with accounting principles generally accepted in the United States of America. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for governmental accounting financial reporting purposes.

Net Position of the District is classified into three components: (1) net investment in capital assets, (2) restricted net position, and (3) unrestricted net position. These classifications are defined as follows:

Net Investment in Capital Assets
This component of Net Position consists of capital assets, net of accumulated depreciation and reduced by the outstanding balances of notes or borrowing that are attributable to the acquisition of the asset, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets.

Restricted Net Position
This component of Net Position consists of Net Position with constrained use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.

Unrestricted Net Position
This component of Net Position consists of Net Position that does not meet the definition of "net investment in capital assets" or "restricted Net Position".

When both restricted and unrestricted resources are available for use, it is the District's practice to use restricted resources first, then unrestricted resources as they are needed.

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Outflows / Inflows of Resources

In addition to assets, the Statements of Net Position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of Net Position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The District does not have any type of these items as of June 30, 2016.

In addition to liabilities, the Statements of Net Position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and will not be recognized as an inflow of resources (revenue) until that time. The District does not have any type of these items as of June 30, 2016.

Accounts Receivable:

The District has made no provision for uncollectible receivables as all accounts are considered to be collectible as of June 30, 2016.

Restricted Assets:

Certain assets of the District are restricted in use by debt covenant and, accordingly are shown as restricted assets on the accompanying Statements of Net Position. The District used restricted resources, prior to using unrestricted resources, to pay expenditures meeting the criteria imposed on the use of restricted resources by a third party.

Capital Assets:

Capital assets acquired and /or constructed are capitalized at historical cost. District policy has set the capitalization threshold for reporting capital assets at $ 500 if they have an expected useful life of more than one year. Donated assets are recorded at estimated fair market value at the date of donation. Upon retirement or other disposition of capital assets, the cost and related accumulated depreciation are removed from the respective balances and any gains or losses are recognized. Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets as follows:

Buildings	30 years
Tools and Equipment	5 to 7 years

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Property Taxes:
Property tax in California is levied in accordance with Article XIIIA of the State Constitution at one percent of county-wide assessed valuations. This one percent is allocated pursuant to state law to the appropriate units of local government. The District's property tax calendar for the fiscal year ended June 30, 2016, was as follows:

Lien date	January 1
Levy date	July 1
Due date:	
First installment	November 1
Second installment	February 1
Delinquent date:	
First installment	December 10
Second installment	April 10

Budgetary Policies:
The District adopts an annual budget for planning, control, and evaluation purposes. Budgetary control and evaluation are affected by comparisons of actual revenues and expenses with planned revenues and expenses for the period.

Budget – The District prepares and adopts a budget each year.

Cash and Cash Equivalents:
For the purposes of the statement of cash flows, cash and cash equivalents have been defined as demand deposits.

Income Taxes:
The District is a political subdivision of the State of California and, as such, is exempt from federal and state income taxes.

Use of Estimates:
In preparing financial statements in conformity with U.S. generally accepted accounting principles, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates. These estimated include useful lives of property, plant and equipment for depreciation purposes.

NOTE 2: PROPERTY PLANT AND EQUIPMENT

The following are the components of property, plant and equipment:

	Balance as of July 1, 2015	Additions (Retirements)	Reclassification	Balance as of June 30, 2016
WATER FUND:				
Non-depreciable Assets:				
Land	$ 125,347	$ -0-	$ -0-	$ 125,347
Depreciable Assets:				
Equipment	$ 169,699	$ 32,977	$ -0-	$ 202,676
Improvements	49,677	-0-	-0-	49,677
Office Equipment	9,260	-0-	-0-	9,260
Water Plant	2,947,885	-0-	-0-	2,947,885
Vehicles	70,144	-0-	-0-	70,144
Water System improvements	3,707,748	-0-	0-	3,707,748
Other	4,519	-0-	-0-	4,519
Total Water Fund	$ 6,959,932	$ 32,977	$ -0-	$ 6,992,909
Less accumulated depreciation	(1,830,504)	(186,419)	-0-	(2,016,923)
Total Depreciable Assets, Net	5,129,428	(153,442)	-0-	4,975,986
Total Capital Assets, Net	$ 5,254,475	$ (153,442)	$ -0-	$ 5,101,333
WASTEWATER FUND:				
Non-depreciable Assets:				
Construction in progress	$ 1,631,543	$ -0-	$ (681,421)	$ 950,122
Depreciable Assets:				
Structures and Improvements	8,643	-0-	-0-	8,643
Other	25,221	-0-	-0-	25,221
Office Equipment	8,092	-0-	-0-	8,092
Sewer Plant	1,449,336	-0-	-0-	1,449,336
Equipment	158,423	6,272	-0-	164,695
Vehicles	36,678	-0-	-0-	36,678
Lift Station	1,239,289	-0-	-0-	1,239,289
Pond Liner Project	-0-	-0-	681,421	681,421
Total Sewer Fund	$ 2,925,682	$ 6,272	$ 681,421	$ 3,613,375
Less accumulated depreciation	(1,196,595)	(85,891)	-0-	(1,282,486)
Total Depreciable Assets, Net	1,729,087	(79,619)	681,421	2,330,889
Total Capital Assets, Net	$ 3,360,630	$ (79,619)	$ -0-	$ 3,281,011
GENERAL FUND:				
Other	48,077	-0-	-0-	48,077
Less accumulated depreciation	(48,077)	-0-	-0-	(48,077)
Total Depreciable Assets, Net	-0-	-0-	-0-	-0-
Total Depreciable Assets	9,933,691	39,249	681,421	10,654,361
Less accumulated depreciation	(3,075,176)	(272,310)	-0-	(3,347,486)
Total Depreciable Assets, Net	6,858,515	(233,061)	-0-	7,306,875
Total Capital Assets, Net	$ 8,615,405	$ (233,061)	$ -0-	$ 8,382,344

NOTE 3: CASH

The District's cash deposits as of June 30, 2016 were either entirely insured by appropriate federal depository insurance or collateralized with collateral held by the pledging financial institution's trust department or agent in the District's name in accordance with provisions of the California Government Code. The carrying amount, and bank balance of the District's deposits at June 30, 2016 is as follows:

	Carrying Amount	Bank Balance
Insured	$ 429,806	$ 447,626
Collateralized	-0-	-0-
Total cash deposits	$ 429,806	$ 447,626

Investments are categorized by the level of custodial risk assumed by the District. The risk categories are defined as follows:

Category 1: includes investments that are insured or registered or for which the securities are held by the District or its agent in the District's name. As of June 30, 2016 the balance of funds in this category was $ 429,806.

Category 2: includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the District's name.

Category 3: includes uninsured or unregistered investments for which the securities are held by the counterparty, or by its trust department or agent, but not in the District's name.

A summary of cash balances as of June 30, 2016 is as follows:

Cash in bank	$ 429,806
Petty Cash	500
Total Cash	$ 430,306
Cash	$ 426,906
Restricted cash	3,400
Total Cash	$ 430,306

NOTE 4: NOTES PAYABLE

	Current Portion	Long-Term Portion	Total
Loan payable to the United States Department of Agriculture, secured by the district's levy and collection of assessments or use charges as may be necessary to operate and maintain the plant and meet the payments, payable in annual payments of $ 2,354 including interest at adjusted rate of 4.375% per annum on the unpaid balance. The original amount of the loan was $ 44,100. The loan matures on May 6, 2044.	$ 714	$ 36,764	$ 37,478

Principal payments due on loan payable for fiscal years ending June 30 are as follows:

Year ending June 30,	Principal Amount	Interest Amount	Total Debt Service
2017	$ 714	$ 1,640	$ 2,354
2018	746	1,608	2,354
2019	778	1,576	2,354
2020	812	1,542	2,354
2021	849	1,505	2,354
2022-2026	4,829	6,941	11,770
2027-2031	5,982	5,788	11,770
2032-2036	7,410	4,360	11,770
2037-2041	9,179	2,591	11,770
2042-2044	6,179	533	6,712
Total	$ 37,478	$ 28,084	$ 65,562

NOTE 4: NOTES PAYABLE (continued)

	Current Portion	Long-Term Portion	Total
Loan payable to the United States Department of Agriculture, secured by the district's levy and collection of assessments or use charges as may be necessary to operate and maintain the plant and meet the payments, payable in annual payments of $ 8,040 including interest of 2.5% per annum on the unpaid balance. The original amount of the loan was $ 200,000. The loan matures on June 16, 2046.	$ 3,898	$ 161,769	$ 165,667

Principal payments due on loan payable for fiscal years ending June 30 are as follows:

Year ending June 30,	Principal Amount	Interest Amount	Total Debt Service
2017	$ 3,898	$ 4,142	$ 8,040
2018	3,996	4,044	8,040
2019	4,096	3,944	8,040
2020	4,198	3,842	8,040
2021	4,303	3,737	8,040
2022-2026	23,183	17,017	40,200
2027-2031	26,230	13,970	40,200
2032-2036	29,677	10,523	40,200
2037-2041	33,577	6,623	40,200
2042-2046	32,509	2,212	34,721
Total	$ 165,667	$ 70,054	$ 235,721

NOTE 4: NOTES PAYABLE (continued)

	Current Portion	Long-Term Portion	Total
Note payable to the Smith Family Living Trust, secured by note Payable in monthly payments of $ 1,200 including interest at adjusted rate of 6.5% per annum on the unpaid balance. The original amount of the loan was $ 113,000. The loan matures on July 16, 2017.	$ 12,869	$ -0-	$ 12,869

Principal payments due on notes payable for fiscal years ending June 30 are as follows:

Year ending June 30,	Principal Amount	Interest Amount	Total Debt Service
2017	$ 12,869	$ 424	$ 13,293
Total	$ 12,869	$ 424	$ 13,293

NOTE 4: NOTES PAYABLE (continued)

The combined aggregate maturity of all long-term debt obligations is detailed as of June 30, 2016 by fiscal year of maturity as follows:

	Combined		
Year ending June 30,	Principal Amount	Interest Amount	Total Debt Service
2017	$ 17,481	$ 6,206	$ 23,687
2018	4,742	5,652	10,394
2019	4,874	5,520	10,394
2020	5,010	5,384	10,394
2021	5,152	5,242	10,394
2022-2026	28,012	23,958	51,970
2027-2031	32,212	19,758	51,970
2032-2036	37,087	14,883	51,970
2037-2041	42,756	9,214	51,970
2042-2046	38,688	2,745	41,433
Total	$ 216,014	$ 98,562	$ 314,576

A summary of the District's Long-Term debt is as follows:

	Balance June 30, 2015	Additions	Retirements	Balance June 30, 2016
Loan Payable - USDA	$ 38,163	$ -0-	$ (685)	$ 37,478
Loan Payable - USDA	169,008	-0-	(3,341)	165,667
Note Payable - Smith Family	28,068	-0-	(15,199)	12,869
	$ 235,239	$ -0-	$ (19,225)	$ 216,014

NOTE 5. COMPENSATED ABSENCES

Upon completion of twelve calendar months of continuous service, all salaried employees who work on a full time basis are granted vacation time of ten days per year. The District records and includes vacation expense in the period it is paid rather than when it is accumulated. As of June 30, 2016, the amount of vacation expense which has been accumulated but not used is not material and no liability for accrued vacation expense has been recorded.

SUPPLEMENTARY INFORMATION

SEELEY COUNTY WATER DISTRICT
STATEMENT OF NET POSITION -WATER FUND AND WASTEWATER FUND
As of June 30, 2016

ASSETS

	Water Fund	Wastewater Fund
Current Assets:		
Cash in bank	$ (24,146)	$ 490,793
Accounts receivable	44,074	66,110
Stock Investment	7,867	7,867
Total current assets	27,795	564,770
Cash in bank, restricted for debt service	400	3,000
Capital assets, not being depreciated	125,437	950,122
Capital Assets, Net of Accumulated Depreciation	4,975,896	2,330,889
Total Capital Assets	5,101,333	3,281,011
Total Assets	$ 5,129,528	$ 3,848,781
LIABILITIES AND NET POSITION		
Current Liabilities:		
Accounts payable	$ 9,793	$ 14,690
Customer deposits	23,398	-0-
Current portion of long-term debt	16,767	714
Total current liabilities	49,958	15,404
Long-term debt:		
Loans payable, net of current portion	161,769	36,764
Total long-term debt	161,769	36,764
Total Liabilities	211,727	52,168
Net position:		
Net Investment in Capital Assets	4,922,797	3,243,532
Restricted	400	3,000
Unrestricted	(5,396)	550,081
Total Net Position	$ 4,917,801	$ 3,796,613

The accompanying independent auditor's report regarding this supplementary schedule.

SEELEY COUNTY WATER DISTRICT
STATEMENT OF REVENUES AND EXPENDITURES BY FUND
For The Year Ended June 30, 2016

	General Fund	Water Fund	Wastewater Fund	Combined
Operating Revenues:				
Charges for services	$ -0-	$ 359,779	$ 484,587	$ 844,366
Operating Expenses:				
Advertising	-0-	702	1,052	1,754
Alert Services	-0-	19	29	48
Bank Charges	-0-	277	413	690
Business Insurance	-0-	8,182	12,273	20,455
Capital Improvements	-0-	-0-	2,151	2,151
Contract Labor	-0-	27,088	9,182	36,270
Customer relations	-0-	600	600	1,200
Deposit Refund	-0-	111	167	278
Depreciation	-0-	186,419	85,891	272,310
Director Fees	-0-	5,110	7,665	12,775
Drug Testing	-0-	68	102	170
Dues & Subscriptions	-0-	2,215	970	3,185
Employee Insurance	-0-	10,755	15,645	26,400
Employee Relations	-0-	69	104	173
Fees & Permits	-0-	4,716	3,098	7,814
Fuel	-0-	1,440	2,160	3,600
Lab Testing	-0-	13,764	40,447	54,211
Legal & Professional Fees	-0-	23,189	34,357	57,546
Miscellaneous	-0-	40	60	100
Payroll Taxes	-0-	10,638	8,121	18,759
Permit fees	-0-	181	361	542
Postage & Freight	-0-	1,626	2,055	3,681
Professional Services	-0-	58,595	16,885	75,480
Repairs & Maintenance	-0-	22,115	24,887	47,002
Salaries & Wages	-0-	78,598	125,713	204,311
Source - Purchased Water	-0-	9,232	1,224	10,456
Street Lights - Utilities	4,859	-0-	-0-	4,859
Supplies	-0-	36,041	16,722	52,763
Telephone Expense	-0-	2,225	3,701	5,926
Transportation & Travel	-0-	435	653	1,088
Tuition	-0-	62	93	155
Uniforms	-0-	1,908	2,862	4,770
Utilities	-0-	23,749	37,809	61,558
Total operating expenses	4,859	530,169	457,452	992,480
Operating income (loss)	(4,859)	(170,390)	27,135	(148,114)
Non-operating revenues (expenses):				
Property taxes	2,397	-0-	-0-	2,397
Interest revenue	-0-	1,441	2,008	3,449
Interest expense	-0-	(6,300)	(1,670)	(7,970)
Total non-operating revenues (expenses)	2,397	(4,859)	338	(2,124)
Change in net position - Increase (decrease)	$ (2,462)	$ (175,249)	$ 27,473	$ (150,238)

The accompanying independent auditor's report regarding this supplementary schedule.

SEELEY COUNTY WATER DISTRICT
STATEMENT OF CASH FLOWS - BY FUND
For The Year Ended June 30, 2016

	General Fund	Water Fund	Wastewater Fund	Combined
Cash flows from operating activities:				
Cash received from customers and users	$ -0-	$ 347,592	$ 464,600	$ 812,192
Cash paid to employees for services	-	(81,724)	(122,586)	(204,310)
Cash paid to suppliers of goods and services	(4,988)	(414,844)	(262,097)	(681,929)
Net cash provided (used) by operating activities	(4,988)	(148,976)	79,917	(74,047)
Cash flows from non capital financing activities:				
Cash received from property taxes	2,397	-0-	-0-	2,397
Net cash provided (used) by non-capital financing activities	2,397	-0-	-0-	2,397
Cash flows from capital and related financing activities:				
Acquisition of capital assets	-0-	(32,977)	(6,272)	(39,249)
Principal paid on debt	-0-	(18,540)	(685)	(19,225)
Interest paid on debt	-0-	(6,300)	(1,670)	(7,970)
Net cash provided (used) by capital and related financing activities	-0-	(57,817)	(8,627)	(66,444)
Cash flows from investing activities:				
Interest Income	-0-	1,441	2,008	3,449
Net increase (decrease) in cash and cash equivalents	(2,591)	(205,352)	73,298	(134,645)
Cash at beginning of year	(37,150)	181,606	420,495	564,951
Cash at end of year	$ (39,741)	$ (23,746)	$ 493,793	$ 430,306

The accompanying independent auditor's report regarding this supplementary schedule.