SERVICE AREA PLAN

UPDATE

Adopted: September 2015

Prepared By:

The Holt Group

CITY OF IMPERIAL

SERVICE AREA PLAN

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420 Imperial Avenue
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Submitted to:

IMPERIAL COUNTY
LOCAL AGENCY FORMATION COMMISSION
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Adopted: September 2015

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INTRODUCTION & BACKGROUND

I. INTRODUCTION

A. History of Municipal Service Reviews

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 did 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 (LAFCO's) 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 LAFCO's 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).

B. 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 space and prime agricultural lands, and efficiently extending government services. The City of Imperial Service Area Plan will 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.

C. Requirements of a Service Area Plan

The requirements of the contents of an up to date service area plan are determined by the State's Government Code. Per Government Code Section 56430, LAFCO shall prepare a written statement of its determinations with respect to each of the following plan requirements:

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.*

D. Role of the Imperial County Local Agency Formation Commission

The Imperial County Local Agency Formation Commission (IC LAFCO) is charged with the review and approval of the City of Imperial 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 consistent with the following:

a) In conducting a service review, the Commission shall comprehensively review all of the agencies that provide the identified service or services within the designated geographic area.

b) The Commission shall conduct a service review before, or in conjunction with, but no later than, the time it is considering an action to establish a sphere of influence in accordance with Section 56425 or Section 56426.5 or to update a sphere of influence pursuant to Section 56425.

E. Current Status of the City of Imperial Service Area Plan

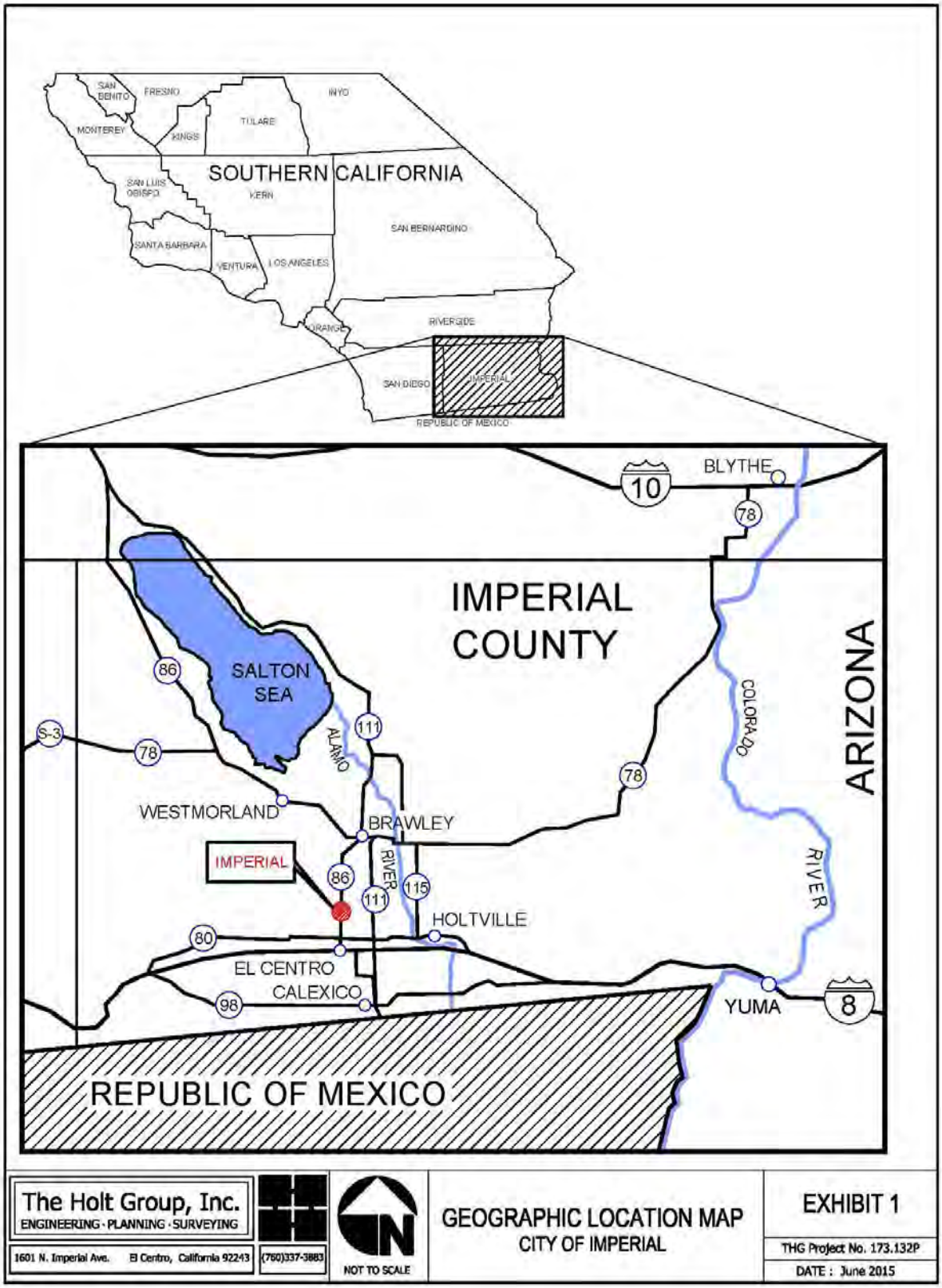
The last City of Imperial Service Area Plan (SAP) was prepared in 2007 by Howes, Weiler & Associates and was adopted by LAFCO on June 26, 2008. Since its adoption, there have been some modest changes in growth projections and facility improvements. The 2007 data had made some aggressive growth projections, and thus service demand was projected to be higher. This demand has since been modestly adjusted as presented herein. There are some modest changes to growth patterns within the proposed service areas. This new updated Service Area Plan provides a more current analysis of existing public facilities and services of the City of Imperial and indicates how the demand created by future developments within the City's service area would be met for each service and facility.

II. BACKGROUND

A. Geographic Location

The City of Imperial is a predominantly agricultural community situated 13 miles north of the U.S./Mexico border and is located in Imperial County. The City encompasses approximately 5.85 square miles and is adjacent to the northern boundary of the City of El Centro. State Route 86 serves the entire Imperial County, traverses the City of Imperial at a north/south orientation, and functions as the Town's main arterial. The City is home to many important operations including the Imperial County Airport, the Imperial Irrigation District Headquarters, and the El Centro Sector Headquarters of the U.S. Border Patrol, all of which contribute to employment opportunities and demand for housing thus impacting growth and service demand. **Exhibit 1-City of Imperial Geographic Location**, illustrates the regional location of the City of Imperial in relation to the rest of Imperial County.

Exhibit 1- City of Imperial Geographic Location



A. City Limits and Existing Sphere of Influence

The legal City limits is uniquely shaped and may be generally described as bound by Treshill Road to the south (excluding a small area just south of the Aten Road & Clark Road intersection), extending west to Austin Road and northerly up to Ralph Road closer along Highway 86 in an irregular pattern, and easterly in the same diversified manner. The adopted Sphere of Influence follows a similar pattern, prioritizing growth areas to the east (refer to **Exhibit 2 – City Limits and Sphere of Influence Boundaries**).

The entire 2014 Sphere of Influence consisted of approximately 7,507 acres of land, 3,855 of which are within the City limits. There are some minor boundary changes proposed under this 2015 Service Area Plan Update as can be depicted in the same **Exhibit 2-City Limits and Sphere of Influence Boundaries**. The changes are described first as the inclusion of a sparsely developed area west of the City limits between Austin Road and the City's western legal boundary line. This area encompasses approximately 811 acres of low density residential, and is further discussed in the City's Planned Annexation areas at a 20 year horizon. The second change involves the inclusion of two vacant sites totaling 210 acres one of which is northeast of the City and a second along Dogwood Road both of which will allow for continuity in future annexations, within a twenty (20) year horizon. The final change involves the elimination of a 145 acre area located at the southeast intersection of Aten Road and Dogwood Road, (previously known as Castle Arch). The resulting final Sphere of Influence boundary map is noted as **Exhibit 2A 2015 Sphere of Influence & City Limits**. The final 2015 Sphere of Influence boundaries would encompass a total of 8,383 acres. The City of Imperial's ultimate goal and service area boundary is proposed to extend easterly to Highway 111 as depicted in **Exhibit 2B Planned 2020 Sphere of Influence.** This Service Area Plan will take into consideration facility demands into the expanded areas up to Highway 111 as planned expansion.

B. Population and Demographics

The City of Imperial has the highest growth rate in the County (54.3 % since 2006 per the California Department of Finance). Based on population data available from the US Census Bureau and the State Department of Finance, the City of Imperial has experienced an aggressive population growth over the last couple of decades when taking into account growth trends since 1990. The City of Imperial was incorporated in July 12, 1904, had a population of 4,413 by 1990 and by 2014, had an estimated population of 16,708. From 1990 to 2010, the City had the highest growth in Imperial County, growing at an average annual growth rate of 12.94 percent compared to Imperial County as a whole which experienced an average growth rate of 2.99 percent for the same time period.

Exhibit 2 – City Limits and Sphere of Influence Boundaries

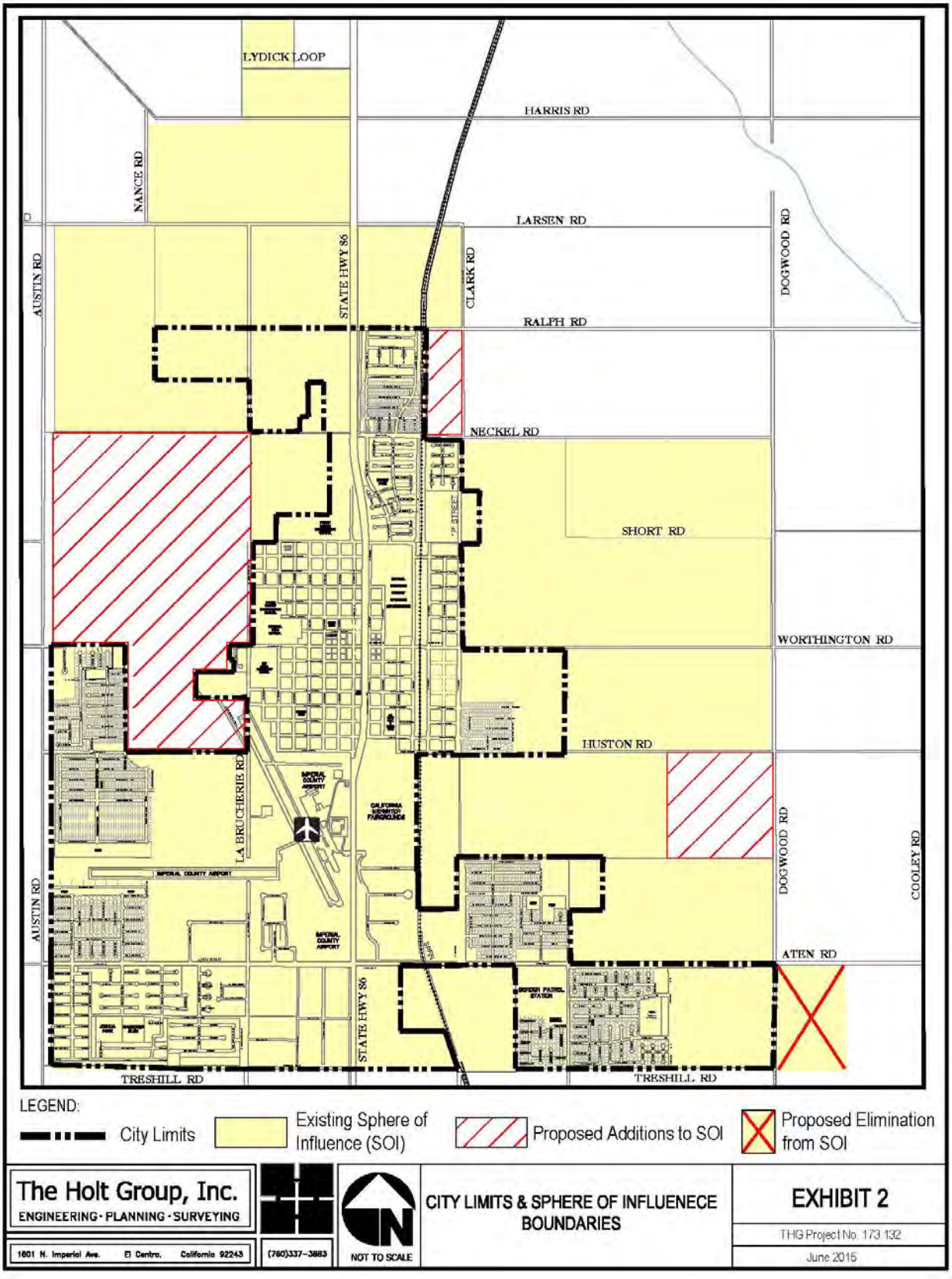


Exhibit 2A– 2015 Sphere of Influence Boundary & City Limits

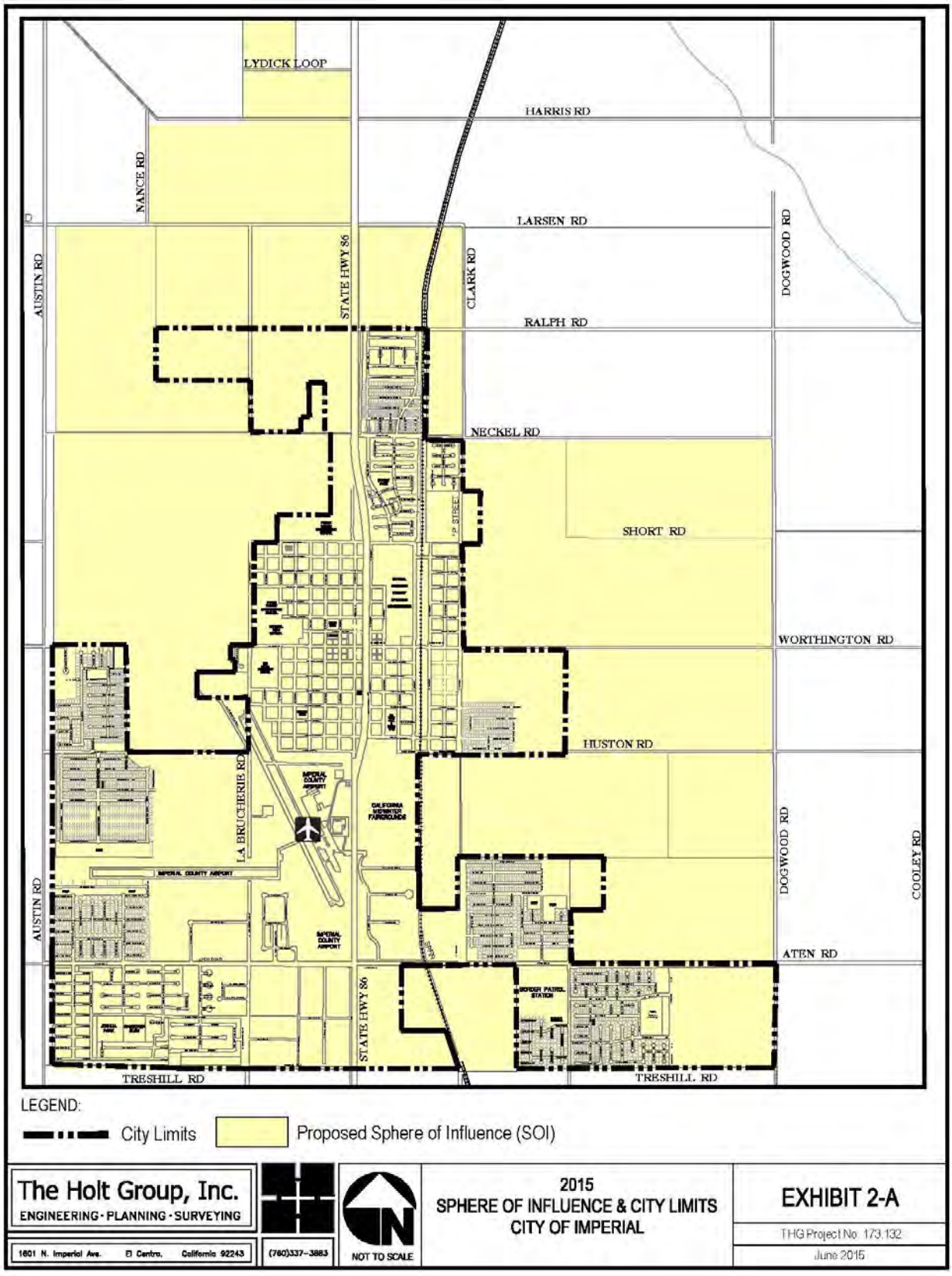
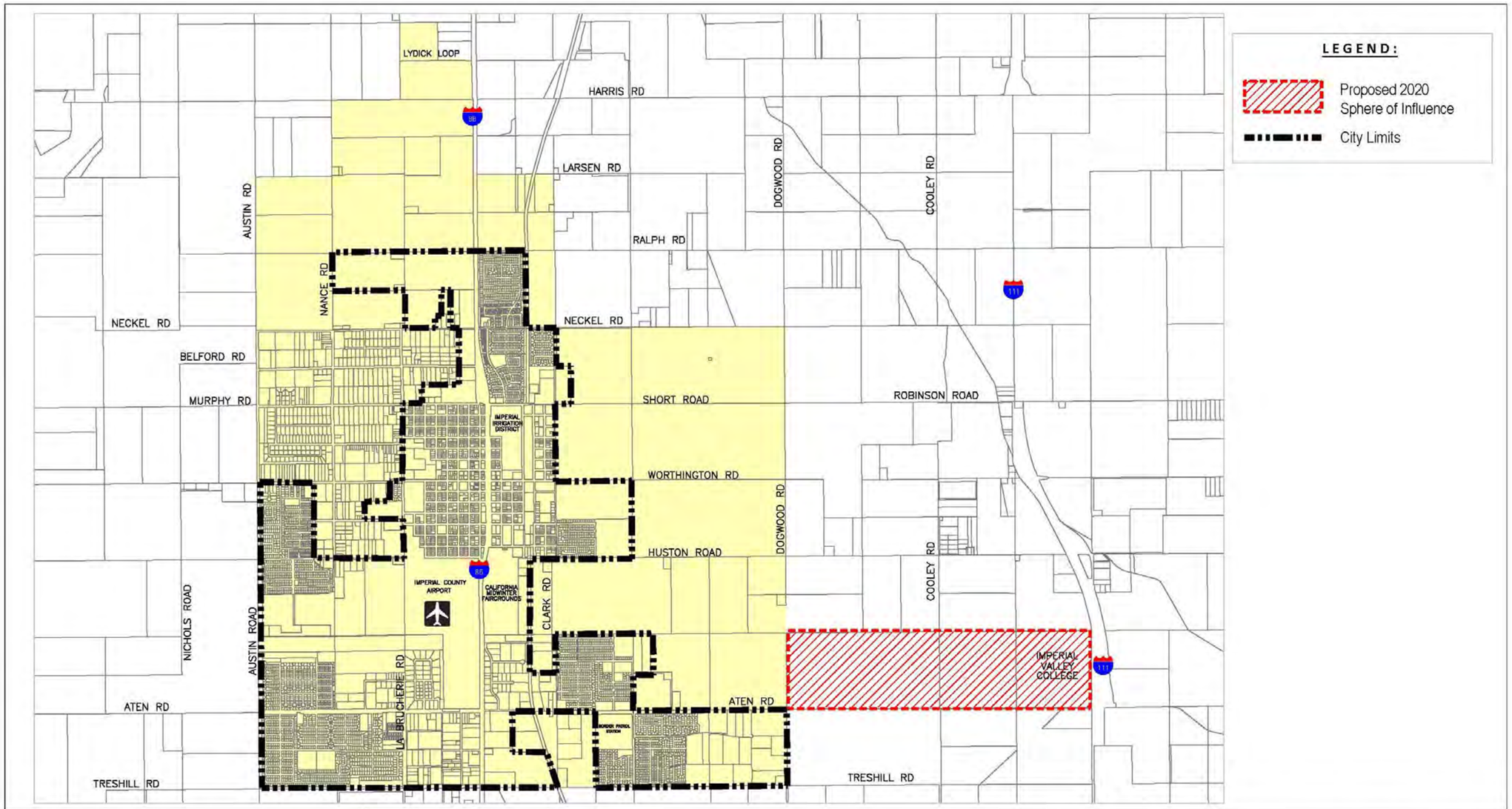


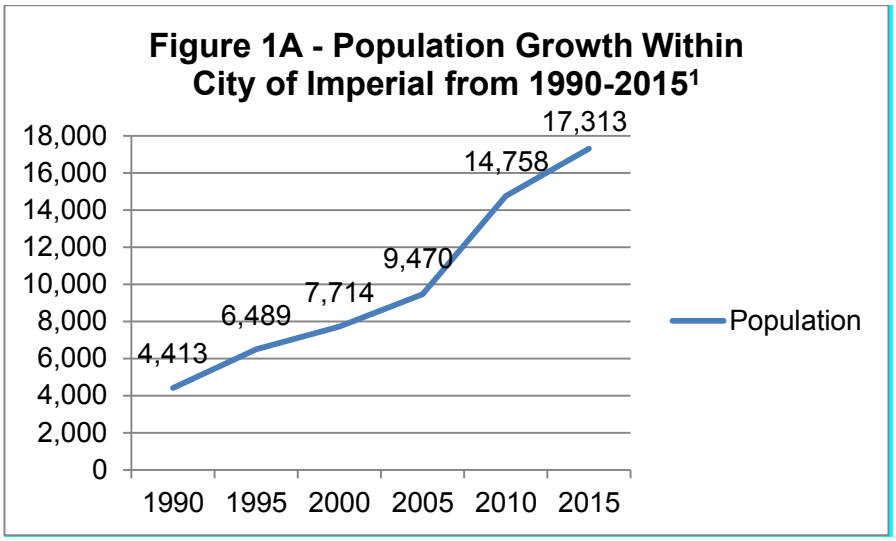
Exhibit 2 B– 2020 Planned Sphere of Influence



The Holt Group, Inc. ENGINEERING PLANNING SURVEYING			EXHIBIT 2-B
1601 NORTH IMPERIAL AVENUE EL CENTRO, CALIFORNIA 92243	760-337-3883	NOT TO SCALE	PROJECT No. THG 173.132 June 2015

PLANNED 2020 SPHERE OF INFLUENCE
CITY OF IMPERIAL

Figure 1-A Depicts historic Population growth within the incorporated city limits in five year increments and as of January 2015.



Source: U.S. Census Bureau for 2010 statistics (actual building permits 2010 through 2015)
[1]Imperial Building Permit records were used to estimate 2010-2015 population growth at 3.35 pphh

A consistent and robust housing market has been a major contributor to the aggressive population growth in Imperial. Another significant factor contributing to the population growth may be attributed to population demographics. Over 74 percent of the Imperial population is Latino, according to US Census figures. Culturally, Latinos tend to share households with extended family members. The City's average household size of 3.35 persons per household is significantly larger than the State's average household size at 2.90 persons per household (US Census, 2010). These statistics are important in determining what the service needs of the population are.

There is a vibrant population outlook associated with new development planned within the City's Sphere of Influence. Imperial's service area, and thus potential growth areas, are comprised of relatively large tracts of vacant, low-priced farmland that has captured the market interest of residential developers. Imperial is also near the Imperial Valley Community College, which serves the entire region, and which along with its centralized location in the County, make Imperial an attractive location for residential, commercial, and industrial development. These factors and planned annexations highlight the importance of planning services and facilities to adequately serve the projected population. It is projected that by 2035 the City's population will be 26,923 (Source: Southern California Association of Governments 2012-2035 Regional Transportation Plan) and up to 62,541 when considering planned annexations. Population trends and projections are further discussed under Growth and Phasing Projections.

B. City of Imperial Operations, Public Facilities and Services

The administrative offices of the City of Imperial are located at 420 South Imperial Avenue, and serve a constituency of approximately 4,859 persons (Imperial County Elections Office, January 2012). The governing structure consists of a five-member City Council elected by the public. A City Manager reports directly to the City Council and is charged with overseeing the City's operation and employees. The City also has a legal counsel that reports to the Council and the City Manager.

The City currently operates with 87 employees and had a 2014/2015 fiscal year General Fund budget of approximately $8,551,547 and Enterprise Funds for Water ($4,439,500) and Wastewater ($3,415,567), for a total budget of $14,620.252 (Source: City of Imperial Adopted Municipal Budget FY 2014-2015). The City of Imperial provides a full range of public services including administration, storm-water and drainage, fire protection, police protection, public library services, parks and recreation, transportation/circulation facilities, sanitary sewer and domestic water. Wastewater collection and treatment services and potable water treatment and distribution services by far demand the highest capital investment within the City's service area.

Having a comprehensive and reliable Service Area Plan is of utmost important for orderly growth and development. The City's Mission Statement is "To promote and provide for the safety, health and welfare of our citizens and business community, it is the Mission of the City of Imperial through its elected officials, appointed officials, employees and volunteers to:

- *Provide customer service in a professional, cost-effective and innovative manner, consistent with the values of integrity, teamwork, stewardship, competence, politeness and respect.*
- *Provide land use planning direction that preserves City heritage and quality of life while promoting community improvement and economic development.*
- *Commit appropriate revenues to fund innovative, high quality, cost-efficient City programs and services while maintaining adequate reserves for unforeseen event or opportunities.*
- *Regularly evaluate City programs and services and revise them when appropriate.*
- *Seek the involvement of citizens in City government and planning, and foster civic leadership.*

III. ORGANIZATION AND STRUCTURE OF SERVICE AREA PLAN

This Service Area Plan discusses the services currently provided by the City of Imperial, 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. The intent of the Service Area Plan is to demonstrate the City's ability to provide adequate services within the sphere of influence boundaries in the event of new development with the City Limit or new annexations into the Sphere of Influence. 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 document complies with the requirements of Section 56653(b) regarding the preparation of a plan for providing services (Service Area Plan) and provides the information necessary for LAFCO to conduct a municipal services review in compliance with Section 56430. This Service Area Plan document is further organized into the following six sections that satisfy the Guidelines adopted by the Imperial County LAFCO:

INTRODUCTION AND BACKGROUND: Provides a brief description of the City of Imperial as well as the general characteristics of the community and Service Area Plan requirements, including overall content of the Service Area Plan.

EXECUTIVE SUMMARY: Provides a brief summary of the services assessment and conditions identified in the plan and highlight critical information regarding existing facilities, demand, mitigation, their costs, and anticipated methods of financing.

LAND USES IN ANNEXATION AREAS & GROWTH PROJECTIONS: Provides a discussion on existing and planned land uses in the City's Sphere of Influence and describes potential impacts associated with population growth and projected service demand.

BUILDOUT/PHASING PROJECTIONS: Provides a discussion on build-out phasing projections within the 20-year planning period. The intent of this section is to provide an additional planning tool that may allow the City to anticipate future public facility needs and to budget monies for any identified improvements.

PUBLIC FACILITIES AND SERVICES: Provides a thorough description of current and planned facilities and services, and its current and projected adequacy. The following facilities and services are included in the review:

I. Administrative Facilities

II. Stormwater & Drainage Facilities

III. Fire Protection Facilities

IV. Police Protection Facilities

V. Library Facilities

VI. Parks and Recreation Facilities

VII. Circulation & Transportation Facilities

VIII. Sanitary Sewer Facilities

IX. Domestic Water Facilities.

FINANCING PLAN: Identifies and discusses existing and potential sources of revenue and financing mechanisms for public facilities and services available to the City. In addition, this section would identify cost saving opportunities in shared facilities.

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.

I. POPULATION PROJECTIONS

This Service Area Plan uses population projections based on the recent and anticipated annexations, as provided in the Growth Projections section of this document. The City of Imperial's January 2015 population was 17,313 and estimated to increase to just under 49,000 by 2025 and is expected to grow to just over 62,500 by the year 2035 when taking into account approved and planned development and not just a historic growth rate. The following table, City of Imperial Population Projections, projects the future population of the City of Imperial through Year 2035 in five year increments under both scenarios.

Table E-1 City of Imperial Population Projections

Year	Population Projections At 2.23% Growth Rate[1]	Population Projections For Planned Development[2]
2020	19,766	**29,476**
2025	22,072	**48,692**
2030	24,648	**53,533**
2035	26,923	**62,541**

[1]Growth rate based on SCAG 2012-2035 Regional Transportation Plan
[2]Calculated by determining realistic number of dwelling units from planned development in annexation areas and multiplying by 3.35 person per household.

II. FINDINGS

The service review findings are based on information obtained from existing reports such as Preliminary Engineering Reports (PER's), Master Plans, Infrastructure Studies, Specific Plans, Adopted Budgets, Capital Improvement Plan and discussions with City Staff. The following facilities and services were reviewed: Administrative Facilities, Storm-water & Drainage, Fire Protection, Police Protection, Library Facilities, Parks & Recreation Facilities, Circulation & Transportation Facilities, Sanitary Sewer Facilities and Domestic Water Facilities. Findings for each facility/service are summaries in the proceeding tables. Each table identifies the respective facilities

performance standard which is the desired level of service that the respective public facility must provide and subsequently describes the corresponding facilities assessment to meet current and future demands.

A. Administrative Facilities

Administrative facilities include buildings that house administrative staff and that provide general administrative services to Imperial residents and the business community. Examples of administrative services include utility billing and collection, services to the City Council, planning and development services and other similar administrative functions of the City.

Administrative Facilities	
Performance Standard	842 SF of Building Space/1,000 Population
Existing Facilities	City Clerk 306 SF City Hall 2,523 SF City Manager 866 SF Legislative 1,000 SF Community Center 2,568 SF Parks & Recreation 288 SF Senior Center 2,337 SF **9,888 SF**
Existing Demand	2015: 14,577 SF
Future Demand	2020: 24,818 SF 2025: 40,998 SF 2035: 52,659 SF
Adequacy	2015 14,577 SF Deficient -4,689 SF
Mitigation	By 2035 42,771 SF shall be added.
Funding Sources	Current: Property tax, sales tax, license & permit fees, fines & penalties, service charges, and Development Impact Fees Future: Continue existing sources and explore general obligation bonds or City-wide Community Facilities District
Annual Budget	$2,321,318 FY 14/15
Cost Per Capita (2015)	$134.08

B. Storm-Water & Drainage Facilities

Storm-water and drainage facilities include facilities that carry off excess water and more specifically for the purpose of conveying storm water during storm events. These include curb and gutter along streets, catch basins within improved developments, retention basins, and canal drains. Drainage facilities on occasion may include pump stations. These facilities are largely City owned facilities that convey storm water runoff into the main water drainage system managed by the Imperial Irrigation District (IID).

Drainage & Stormwater Facilities	
Performance Standard	City of Imperial Design Guidelines, NPDES Requirements, IID Discharge Requirements, and any FEMA Requirements. Performance shall convey up to a 100-year storm incident.
Existing Facilities	Five primary drainage zones within the City consisting of ditches, pipes, retention basins and surface flow.
Existing Demand	TBD-As new development occurs
Future Demand	To be determined based on the rate and type of new development assessed at the time of plan review.
Adequacy	There are some areas within the incorporated City Limits that experience flooding conditions during storm events, but all areas are able to discharge within 72 hours. There are some areas planned for future annexation that are sparsely developed as residential low density that experience flooding during large storm events due to native material shoulders and lack curb and gutter.
Mitigation	Developer responsibility to improve in accordance with performance standards and implement best management practices prior to permit issuance.
Funding Sources	Current: Property tax, sales tax, license and permit fees, charges for services and other miscellaneous sources. Future: Continue existing sources and implement Community Facility Districts or Community Service Districts
Annual Budget	$34,505 FY 14/15
Cost Per Capita (2015)	$1.99

C. Fire Protection Facilities

Fire Protection facilities include the fire station, and other support equipment including firefighting equipment such as fire engines, water tenders, and other firefighting units. Fire facilities also include the staffing level needed to man and operate the aforementioned equipment and deliver emergency and fire-protection services. The City of Imperial contracts with the County of Imperial for fire protection and emergency services in accordance with the Agreement for Fire Protection Services dated June 18, 2014.

Fire Protection Facilities	
Performance Standard	Five (5) Minute Response for Medical Emergencies Seven (7) Minute Response for Structural Fires
Existing Facilities & Personnel	One (1) 500 Gallon Engine (City Owned) One (1) 500 Gallon/105 FT Ladder Truck (City Owned) One (1) 1,000 Gallon Engine (County Owned) One (1) 1,800 Gallon Water Tender (County Owned) One (1) 2,500 Gallon Water Tender (County Owned) One (1) 1,500 Gallon Aircraft Crash Rescue Truck (County) One (1) Medium Rescue Squad (County Owned) One (1) Hazardous Devise (Bomb) Unit (County Owned)
Existing Demand	2015 – 17 Firefighters
Future Demand	2020 – 29 Firefighters 2025 – 48 Firefighters 2035 – 62 Firefighters
Adequacy	2015: Adequate Response Time Meets City Needs
Mitigation	All new development shall be assessed and new personnel shall be added to address increased demand.
Funding Sources	Current: Property tax, sales tax, and Development Impact Fees. Future: Continue existing sources and explore a Fire Suppression Assessment District and/or Special Tax.
Annual Budget	$894,000 FY 14/15 (14/15 Contract for Services $869,699)
Cost Per Capita (2015)	$51.63

D. Police Protection & Law Enforcement Facilities

Police facilities include the police station, and other support facilities and equipment including patrol vehicles which are owned by the City of Imperial. Police facilities further includes the staffing level needed to provide law enforcement and protection services. The City has at least a minimum of two police officers on duty per twelve hour (12) shift. Dispatching services are contracted through the City of El Centro Police Department.

Police Protection & Law Enforcement Facilities	
Performance Standard	Three (3) Minute Emergency Response Time 1.6 Officers/1,000 Population (2 Officers/vehicle) .25 Non-paid Volunteer/1,000 Population 237 SF Building/Personnel
Existing Facilities & Personnel	3,788 SF Building For Police Station Two and a half (2 ½) Records Clerk/Support Staff One (1) Police Service Technician Seventeen (17) Sworn Officers Ten (10) Patrol Vehicles/ Six (6) Support Vehicles One (1) Motorcycle 1 Volunteer
Existing Demand	2015: 27 Officers/14 Vehicles/6,399 SF Building
Future Demand	2020: 47 Police Officers/24 Vehicles/11,139 SF Facility 2025: 77 Police Officers/43 Vehicles/18,249 SF Facility 2035: 100 Police Officers/50 Vehicles/23,700 SF Facility
Adequacy	2015: Deficient -2,611 SF -10 Officers -4 Vehicles -3 Volunteers
Mitigation	Continue to monitor the response time and identify a funding mechanism for a new police station and possible dispatching services. Continue to obtain grants for crime prevention services.
Funding Sources	Current: Property tax, sales tax, and Development Impact Fees as well as grant funds. Future: Continue existing sources.
Annual Budget	$2,380,204 FY 14/15
Cost Per Capita (2015)	$137.48

E. Library Facilities

Library facilities include the library space at the Imperial Public Library Building located at 200 W. 9th Street, 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.

Library Facilities	
Performance Standard	217 SF of Building Space/1,000 Population
Existing Facilities	4,920 SF (7,674 SF After Current Expansion)
Existing Demand	3,757 SF
Future Demand	2020: 6,396 SF 2025: 10,566 SF 2035: 13,571 SF
Adequacy	2015 3,757 SF Sufficient 2025 10,566 SF Deficient
Mitigation	Maintain Efforts to obtain funding in order to continue adequate service level.
Funding Sources	Current: Property tax, sales tax, and Development Impact Fees. Future: Continue existing sources and explore a Community Facilities District, Special Assessment District, California Library Campaign Fund, Sate Public Library Fund, and CDBG funds and user fees.
Annual Budget	$210,751 FY 14/15
Cost Per Capita (2015)	$12.17 per capita

F. Park and Recreation Facilities

Parks and recreation facilities include open space areas, both improved and unimproved for the purpose of recreational use. Facility amenities within the parks may include swings, slides, and shade structures for the use of the public. Open Space areas owned by the City of Imperial are also included under this discussion.

Recreational & Park Facilities			
Performance Standard	3 Acres of Parkland/1,000 Population		
Existing Facilities	62.87 acres		
Existing Demand	51.94 Acres		
Future Demand	2020: 88.43 Acres 2025: 146.08 Acres 2035: 187.62 Acres		
Adequacy	2015	51.94 Acres	Sufficient/10 Acre Surplus
	2025	146.08 Acres	Sufficient W Regional Park
Mitigation	Continue to allow developers to dedicate parkland or pay the applicable Development Impact Fees. Also continue to pursue State and Federal Grant resources.		
Funding Sources	Current: Property tax, sales tax, Development Impact Fees and user fees. Future: Continue existing sources and explore a Community Facilities District, Special Assessment District, CDBG funds, and other State and Federal funds.		
Annual Budget	$617,592 FY 14/15		
Cost Per Capita (2015)	$35.67		

G. Circulation and Transportation Facilities

Transportation facilities consist primarily of roadways and traffic lights, including Local and State owned roadways. Transportation facilities may also include pedestrian facilities such as sidewalks, bus stops and other transit facilities. The City of Imperial maintains over 71.2 miles (Source: 2013 ICTC records) of roadways and strives to maintain a level of service above a "C" Service level which at minimum operates with average delays occurring but having stable operation. This means that the volume to capacity ratio of the roadways is 0.70 to 0.79 and the stop delays range between 15.1 seconds to 25.0 seconds.

Circulation and Transportation Facilities			
Performance Standard	Level of Service "C" or Better		
Existing Facilities	3.5 Lineal Miles of Highway 8± Lineal Miles of Major Arterials 7± Lineal Miles of Secondary Arterials 3± Lineal Miles of Industrial Collectors 50+ Lineal Miles of Residential Collectors		
Existing Demand	71+ Lineal Miles of Roadway Infrastructure Management		
Future Demand		**New Construction Within City Limits**	**New Construction In Annexation Areas**
	2020	$31,540,000	$35,250,000
	2025	Unfinished 2020	$24,340,000
	2035	Unfinished 2025	$ 4,580,000
Adequacy	Existing streets are operating at a volume to capacity ratio of .80 or better		
Mitigation	Continue to require fair share responsibility to developers and require a traffic study where new development will generate over 5,000 vehicle trips per day.		
Funding Sources	Current sources - General Fund, Motor Vehicle In-Lieu Tax, State Gas Tax, LTA Measure D, CalTrans Grants, Development Impact Fee and developer fair share contributions. Future sources - Continue existing sources and explore the use of citywide Community Facilities District, Special Benefit Assessment District, Certificate of Participation, and Grants: SAFETEA, STP and/or CDBG.		
Annual Budget	$306,817 FY 14/15		
Cost Per Capita (2015)	$17.72		

H. Sanitary Sewer Facilities

Wastewater treatment and sewer facilities include the City of Imperial Wastewater Pollution Control Plant (Wastewater Treatment Plant) and the sewer collection system that collects and conveys the wastewater to the wastewater treatment plant. Sanitary Sewer Facilities also includes various sewer lift stations that are owned by the City of Imperial.

Sanitary Sewer Facilities	
Performance Standard	Meet or Exceed Peak Demand and NPDES Requirements
Existing Facilities	2.4 MGD Wastewater Treatment Plant 6 Miles of Force-Main Pipelines 16 Lift Stations 63 Miles of gravity main lines (6" to 24" diameter)
Existing Demand	1.731 MGD (calculated on 335 gallons per EDU) 1.4 to 1.6 MGD (actual demand)
Future Demand	2020: 7 MGD 2025: 10.5 MGD 2035: 12 MGD
Adequacy (Treatment)	2015 1.731 MGD Sufficient 2025 10.5 MGD Requires Expansion
Adequacy (Collection)	Adequate
Mitigation	The Imperial Wastewater Master Plan shall be followed for all new development and annexed areas in a development agreement that further specifies that improvements shall be completed per Local, State and Federal Requirements. Advance WWTP at Mesquite Lakes.
Funding Sources	Current Funding - The primary sources of revenue are the sewer service charges and sewer capacity fees. Future Funding - Continue to use existing sources and consider special assessment districts, community facilities districts, local bond issuance, developer contributions, development impact fees, and subsidizing loans and grant programs.
Annual Budget	$3,415,567 FY 14/15
Cost Per Capita (2015)	$197.28

I. Domestic Water Facilities

Water treatment and distribution facilities include the City of Imperial's Water Treatment Plant and the distribution pipelines that convey potable water to residences and business within the service areas. Water facilities also includes water transmission lines and pump systems necessary for conveyance of water.

Water Facilities	
Performance Standard	Water Treatment: Shall Meet Maximum Daily Flow Water Storage: Maximum Average Day Demand + 2,500 GPM Fireflow (4 hour period) Flow Velocity: 3 feet/second for peak demand and 15 feet/second for max day demand Water Pressure: 32 psi for peak day conditions and 20-35 psi for max day conditions Fire Flow Minimums: 1,200 GPM for residential 2,000 GPM for commercial 2,500 GPM for industrial
Existing Facilities	7 MGD Water Treatment Plant 6 MG Storage (three tanks 2 MG each) 8 Pump Stations (at four independent locations) 63 Miles of Water Pipelines (2"-16" in diameter)
Existing Demand	2.596 MGD (calculated on 502.5 gallons per EDU) 1.9 MGD (actual demand)
Future Demand	2020: 10.5 MGD 2025: 15.8 MGD 2035: 17.9 MGD
Adequacy	2015 1.9 MGD Sufficient 2025 15.8 MGD Expansion Required
Mitigation	The City's Water Master Plan shall be followed for all new development and into annexed areas with a development agreement for facilities that further specify improvements shall be completed per Local State and Federal Requirements.
Funding Sources	Current Funding - The primary sources of revenue for water treatment and distribution facilities are the water service charges, water capacity fees and water turn on fees. Future Funding - Continue to use existing sources as well as consider special assessment districts, community facilities districts, local bond issuance, developer contributions, development impact fees, and subsidizing loans and grants.
Annual Budget	$4,439,500 FY 14/15
Cost Per Capita (2015)	$256.42

LAND USES IN ANNEXATION AREAS & GROWTH PROJECTIONS

It is the intent of the City of Imperial to plan for growth via the orderly development of areas within the City's Sphere of Influence. 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 land uses, the availability of land, the planned land uses, and the anticipated population growth which are all critical factors on how the City will service the community.

I. LAND USES AND ANNEXATION AREAS

A. Land Uses

A land use survey was conducted for all areas within the City Limits and within the City's Sphere of Influence in 2014 during the City's Housing Element Update for the assessment of potential residential land use development opportunities. This document incorporates those land use findings and an inventory of additional non-residential land use designations available for development. The current City of Imperial General Plan land use designations were used to determine the available acreage, the future development potential for all vacant and underutilized land, and ultimately growth projections. Please Refer to **Exhibit 3 - General Plan Land Use Map**, which depicts the City's adopted land use designations.

Findings determined that within the established City of Imperial Sphere of Influence, there is ample opportunity for land development. Approximately 4,488 acres are vacant and undeveloped in potential annexation areas in addition to the 979+ acres of undeveloped land or land under development that currently exists within the City Limits of which 640+ can support residential land uses. It is important to note that a number of developable areas are classified as Specific Plan Areas.

Specific Plan Areas allow for a more comprehensive approach to land use planning. The purpose of the specific plan is the systematic implementation of the general plan for all, or part, of the covered area by the general plan and pre-determines zoning prior to annexation. At least two Specific Plans have been recently prepared and approved by the City of Imperial for service consideration. **Table G-2 Developable Land by Land Use** distributes this acreage to specific land use designations as adopted under the General Plan and further accounts for these Service Area Plan areas and the remaining acreage for development.

Exhibit 3 - General Plan Land Use Map

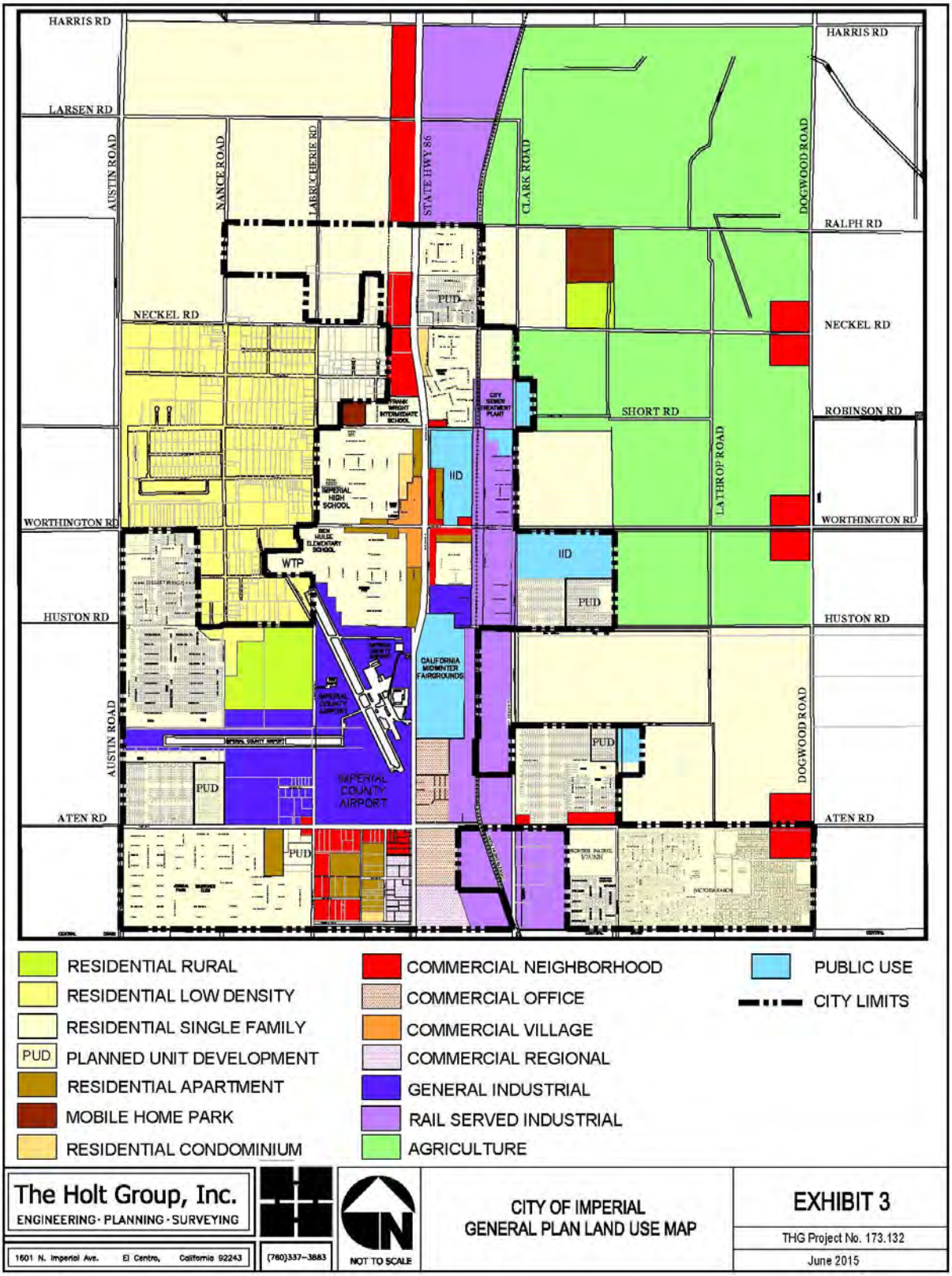


Table G-2 Developable Land by Land Use

Land Use Designation	Acres Within City Limits	Acres Outside City Limits/SOI	Total Acres in Service Area
Residential Rural	129	0	129
Residential Low Density	0	811	811
Residential Single Family	263	2,050	2,313
Residential Condominium	0	0	0
Residential Apartment	8	0	8
Mobile Home Park	6	0	6
Planned Unit Development/PUD	50	0	50
Specific Plan Area	185	0	185
Agricultural	0	1,132	1,132
Village Commercial	4+	0	4
Commercial Neighborhood	84+	140	224+
General Industrial	100+	0	100+
Rail Served Industrial	150+	355	505+
TOTALS	**979+**	**4,488**	**5,467**

Source: City of Imperial General Plan Land Use Map used for Land Use Designations and Google Earth used for Acreage calculations.

B. Land Use Restrictions

Land Use restrictions are a significant factor affecting population growth and service demand. The City's residential land use designations provide for a wide range of development opportunities including single-family dwellings, mobile homes, manufactured housing, condominiums, multi-family units. These opportunities are offered at various densities, and include mixed use development (commercial/residential) for areas in the downtown Village Commercial Zone. The following table identifies the densities per acre which are allowed for each land use designation:

Table G-3 -Land Use Designation Build Out Density

LAND USE DESIGNATION	GENERAL PLAN DWELLING UNITS PER ACRE RANGE	VACANT BUILD OUT DENSITY PER ACRE
Residential Rural	0.5 – 1.0	1
Residential Low Density	1.0 – 2.0	2
Residential Single Family	2.0 – 6.0	6
Residential Condominium	5.0 – 30.0	20
Residential Apartment	20.0 – 30.0	20
Mobile Home Park	7.0	7
Agriculture	.4	.4

Source: City of Imperial Zoning Ordinance, 2014

C. Annexation History & Developable Land in Incorporated Areas

The City experienced significant annexations during the housing boom of the 2000's. The City's most recent annexation dates back to 2007 at which time 188 acres designated for residential land uses were annexed into the City associated with the Morningstar development. Other recent annexation history includes the following:

- **2007 Morningstar Annexation**- Consisted of approximately 598 detached single family units and was approximately zero (0) percent built out as January 2015.
- **2005 Mayfield Annexation-** Consists of 168 lots approved of which forty (40) percent were built out as of January 2015.

These annexations contribute to the available developable land and/or land under development within the incorporated City Limits. Other areas within the incorporated City Limits under development include Monterrey Park (Residential Single Family) and Victoria Ranch (Residential Single Family/Specific Plan Overlay). There are also over eight (8) acres of Residential Apartment and over 125 acres of Residential Rural available throughout the incorporated city limits for in-fill development.

Table G-2 previously identified the total acreage by land use which includes all these discussed areas. It is assumed that all these developable areas within the incorporated City Limits will be built out within the next fifteen years and has a projected population of 9,025 when multiplying 2,694 anticipated units by the average household size of 3.35 persons per household (pphh).

Table G-4 City Limit Developable Units

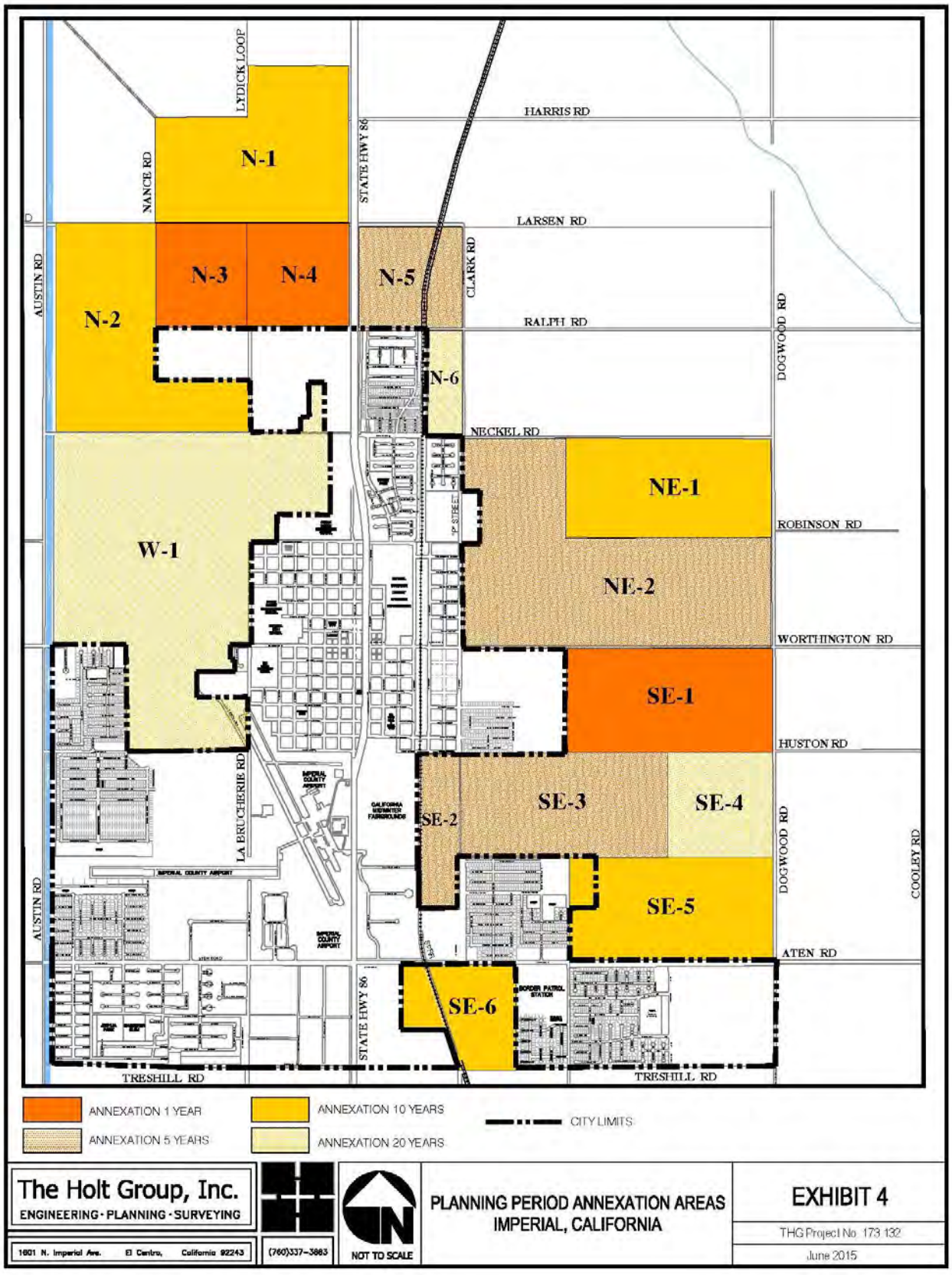
Land Use	Acres	Maximum Density	Maximum Units	Realistic Units[1]
Residential Rural	129	1	129	**103**
Residential Single Family	263	6	1,578	**1,262**
Residential Apartment	8	20	160	**128**
Mobile Home Park	6	7	42	**33**
Village Commercial	4	12.5	50	**40**
PUD	50	6	300	**240**
Specific Plan	185	6	1,110	**888**
			TOTALS	**2,694**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

D. New Annexation Areas

Outside of the current City limits there are a total of eleven 11 areas assumed for potential annexation and development within the next twenty (20) years. These areas are further noted in **Exhibit 4-Planning Period Annexation Areas** which illustrates the location of these annexation areas.

Exhibit 4-Planning Period Annexation Areas



The proposed annexation areas are further summarized under **Table G-5 City of Imperial Annexation Areas.** A more detailed summary in terms of the area's approximate boundary lines, the land use designations and the existing land uses follows.

Table G-5 City of Imperial Annexation Areas

Annexation Area	General Location	General Land Uses Proposed	Anticipated Timing of Annexation
N-1 (Barioni Lakes North)	North	Residential/Commercial	10 Years
N-2 (Barioni Lakes West)	North	Residential	10 Years
N-3 (Regional Park)	North	Regional Park	1 Year
N-4 (Barioni Lakes Estates Phase I)	North	Residential/Commercial	1 Year
N-5 (HBC)	North	Industrial/Agriculture	5 Years
N-6 (West Neckel Development)	North	Residential	20 Years
NE-1 (McFarland Ranch)	Northeast	Agriculture/Commercial	10 Years
NE-2 (Sanchez Ranch)	Northeast	Residential/Commercial/Ag	5 Years
W-1 (Western Developments)	West	Residential	20 Years
SE-1 (Encanto Estates)	Southeast	Agriculture/Commercial	1 Year
SE-2 (East Annexation)	Southeast	Industrial	5 Years
SE-3 (Crown Commercial/Andalusa)	Southeast	Residential	5 Years
SE-4 (Andalusa East)	Southeast	Residential	20 Years
SE-5 (NE Corner of Cross Rd & Aten Rd)	Southeast	Residential/Commercial	10 Years
SE-6 (South of Aten/East of RR Tracks)	Southeast	Industrial	10 Years

Within 1 Year

Annexation Area N-3, (144 Acres) - This area is anticipated to be annexed into the City within one year and the existing land use is agricultural farming. This area is reserved for the Regional Park and Equestrian Center. Although the General Plan land use designation in this area consists of Residential Single Family, there is no anticipated population impact as this area is planned for the regional park. The boundaries for this annexation area consist generally of the following:

- North boundary line – Larsen Road
- South boundary line – Ralph Road
- East boundary line – La Brucherie Road
- West boundary line – Nance Road

Annexation Area N-4, (186 Acres) - This area is anticipated to be annexed into the City within one year of Service Area Plan adoption. This area is known as Barioni Lakes Phase I and the boundaries for this annexation area consist generally of the following:

- North boundary line – Larsen Road
- South boundary line – Ralph Road
- East boundary line – Highway 86
- West boundary line – La Brucherie Road

The current land use is a single family home and agricultural farming. The General Plan land use designation in this area consists of Residential Single Family and Commercial Neighborhood. The acreage is distributed in the following table with an estimated population projection of 2,348 based on 701 realistic units x 3.35 pphh.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Residential Single Family	146	6	701	2,348
Commercial Neighborhood	40	0	0	0
Total Projected Population:			**701**	**2,348**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area SE-1, (320 Acres)– This area is commonly referred to as Encanto Estates. The existing land use is agricultural farming. This area is proposed for annexation into the City within one (1) year and the boundaries of this annexation area consist generally of the following:

- North boundary line –Worthington Road
- South boundary line – Huston Road
- East boundary line – Dogwood Road
- West boundary line – "P" Street/Clark Road

The General Plan land use designation in this area is Agriculture and Commercial Neighborhood. The acreage is distributed between agriculture and commercial neighborhood as noted in the proceeding table with an estimated population projection of 332 based on 99 Realistic Units x 3.35 pphh:

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Agriculture	310	0.4	99	332
Commercial Neighborhood	10	0	0	0
Total Projected Population:			**99**	**332**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Within 5 Years

Annexation Area N-5, (163 Acres) – This area is often referred to as the HBC area and is proposed for annexation into the City within five (5) years. The existing land use is industrial, three single family homes and agricultural farming and the boundaries of this annexation area consist generally of the following:

- North boundary line –Larsen Road
- South boundary line – Ralph Road
- East boundary line – Clark Road
- West boundary line – State Highway 86

The General Plan land use designation in this area is Rail Industrial and Agriculture and a minimal population impact is anticipated. The acreage is distributed as follows with an estimated population projection of 53 based on 16 realistic units x 3.35 pphh = 53 persons:

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Rail Served Industrial	111	0	0	0
Agriculture	52	0.4	16	53
Total Projected Population:			**16**	**53**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Areas NE-2, (620 Acres) – This area is commonly known as the Sanchez Ranch Area. This area is proposed for annexation into the City within five (5) years. The existing land use is agricultural farming and the boundaries of this annexation area consist generally of the following:

- North boundary line –Neckel Road
- South boundary line – Worthington Road
- East boundary line – Dogwood Road
- West boundary line – Clark Road

The General Plan land use designation in this area is Residential Single Family, Agriculture and Commercial Neighborhood. The acreage is distributed as follows with an estimated population projection of 2,904 based on 867 units x 3.35 pphh.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Residential Single Family	150	6	720	2,412
Agriculture	460	0.4	147	492
Commercial Neighborhood	10	0	0	0
Total Projected Population:			**867**	**2,904**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area SE-2, (84 Acres) - This area is just east of the Mid-Winter Fairgrounds and Felix Trucking and is anticipated to be annexed into the City within a 5-year period. The existing land uses consist of two single family homes, agricultural farming and liquid storage tanks. The General Plan land use designation in this area consists of Rail Served Industrial with no direct population impact anticipated. The boundaries for this annexation area consist of the following:

- North boundary line - 1st Street
- South boundary line - Southern property line of APN 044-200-081
- East boundary line - Clark Road
- West boundary line – Union Pacific Railroad Tracks

Annexation Area SE-3, (310 Acres) - This area has also been referred to as the Crown Commercial Andalusia Area and is proposed for annexation into the City within five (5) years. The existing land uses consist of one single family detached home, agricultural farming and vacant land. The General Plan land use designation in this area is Residential Single Family and has a population projection of 4,985 based on 1,488 realistic units at 80% of the maximum density multiplied by 3.35 persons per household. The boundaries for this annexation area consist of the following:

- North boundary line - Huston Road
- South boundary line – Southern property line of APN 044-200-095 & 019
- East boundary line - Eastern property lines of 044-200-019
- West boundary line - Clark Road

Within 10 Years

Annexation Area N-1, (370 Acres) - This area is anticipated to be annexed into the City within a 10-year period and will be referred to as Barioni Lakes North. The existing land use is three single family homes and agricultural farming and the boundaries for this annexation area consist generally of the following:

- North boundary line – Harris Road and Lydick Loop
- South boundary line – Larsen Road
- East boundary line – Highway 86
- West boundary line – Nance Road

The General Plan land use designation in this area consists of Residential Single Family and Neighborhood Commercial. The acreage is distributed as follows with an estimated population projection of 4,985 based on 1,488 realistic units x 3.35 pphh.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Residential Single Family	310	6	1,488	4,985
Commercial Neighborhood	60	0	0	0
Total Projected Population:			**1,488**	**4,985**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area N-2, (390 Acres) - This area is anticipated to be annexed into the City within a 10-year period and will be referred to as Barioni Lakes West. The General Plan land use designation in this area consists of Residential Single Family and has a population potential of 6,271 based on a maximum density of 6 units per acre built at a realistic 80% ratio. A total of 1,872 realistic unit development was multiplied by the average 3.35 persons per household for an anticipated 6,271 population growth. Current land uses consist of six single family homes and agricultural farming and the boundaries for this annexation area consist generally of the following:

- North boundary line – Larsen Road
- South boundary line – Neckel Road
- East boundary line – Nance Road and La Brucherie Road
- West boundary line – Austin Road

Annexation Area NE-1, (320 Acres)– This area is commonly referred to as McFarland Ranch. This area is proposed for annexation into the City within ten (10) years. The existing land use is and agricultural farming and the boundaries of this annexation area consist generally of the following:

- North boundary line –Neckel Road
- South boundary line – Short Road
- East boundary line – Dogwood Road
- West boundary line – Sanchez Ranch Annexation Area

The General Plan land use designation in this area is Agriculture and Commercial Neighborhood. The acreage is distributed in the following table with an estimated population projection of 332 based on 99 realistic units multiplied by 3.35 persons per household.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Agriculture	310	0.4	99	332
Commercial Neighborhood	10			
Total Projected Population:			**99**	**332**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area SE-5, (320 Acres) - This area is proposed for annexation into the City within 10 years. The existing land uses consist of five single family detached homes, mobile homes, a small industrial building, agricultural farming and vacant land and the boundaries for this annexation area consist of the following:

- North boundary line - Northern property line of 044-200-025, 091 & 096
- South boundary line – Aten Road
- East boundary line - Dogwood Road
- West boundary line - Cross Road

The General Plan land use designations in this area are Residential Single Family and Neighborhood Commercial. The acreage is distributed as follows with an estimated population projection of 4,985 based on 1,860 realistic units multiplied at 3.35 per household.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Residential Single Family	310	6	1,860	4,985
Commercial Neighborhood	10	0	0	0
Total Projected Population:			**1,860**	**4,985**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area SE-6, (160 Acres) - This area is anticipated to be annexed into the City within a 10-year period. The General Plan land use designation in this area consists of Rail Served Industrial with no anticipated population impact. The existing land uses consist of a pipeline company, shooting range, a fertilizer company, the S.P. Rail Road, and warehouse storage and the boundaries for this annexation area consist of the following:

- North boundary line - Aten Road
- South boundary line - Central Drain
- East boundary line - Eastern property line of APN 044-220-46
- West boundary line - Western property line of APN 044-220-26, & 48

Within 20 Years

Annexation Area N-6, (50 Acres) - This area is anticipated to be annexed into the City within a 20-year period. The General Plan land use designation in this area consists of Residential Single Family and has a population projection of 804 based on a maximum density of six units per acre and applied an 80% realistic build-out. The existing land uses consist of farm ground and the boundaries for this annexation area consist of the following:

- North boundary line – Ralph Road
- South boundary line – Neckel Road
- West boundary line – City Limits/Union Pacific Railroad Tracks
- East boundary line – Clark Road

Annexation Area W-1, (891 Acres) - This area is anticipated to be annexed into the City within a 20-year period. The existing land uses consists of single family detached homes and mobile homes and the boundaries for this annexation area consist of the following:

- North boundary line - Neckel Road
- South boundary line – Brewer Road
- East boundary line –West Boundary of APN 063-047-017 & 063-054-011
- West boundary line - Austin Road

The General Plan land use designation in this area largely consists of Residential Low Density but does include some Residential Single Family. The acreage is distributed as follows with an estimated population projection of 5,631 based on 1,681 realistic units multiplied by an average of 3.35 person per household.

Land Use	Acreage	Density Maximum	Realistic Units[1]	Population
Low Density Residential	811	2	1,297	4,345
Residential Single Family	80	6	384	1,286
Total Projected Population:			**1,681**	**5,631**

[1]Realistic Units was derived by calculating 80% of the maximum dwelling units.

Annexation Area SE-4, (160 Acres) - This area is anticipated to be annexed into the City within a 20-year period. The General Plan land use designation in this area consists of Residential Single Family and has a population projection of 2,573 based on a maximum density of six units per acre and applied an 80% realistic build-out. The anticipated realistic units would be 768 multiplied by 3.35 persons per household for an estimated population of 2,573 persons. The existing land uses consist of the old Lulu Belle site and farm ground and the boundaries for this annexation area consist of the following:

- North boundary line - Huston Road
- South boundary line – Northern property line of 044-200-025
- East boundary line – Dogwood Road
- West boundary line - Western property line of 044-200-020

E. Phasing of Development

The Phasing of annexation areas provides a pattern and estimate for where and when development within the areas of annexation will be phased into the City of Imperial. This projection provides City leadership with a phased estimated growth that can be strategically planned for. For the purpose of this assessment it was determined to combine growth areas per five year increments.

Although phasing is difficult to predict with precision, projecting is beneficial for the planning of public facilities to ensure that the level of service standards are continually met. It becomes more difficult to predict phasing beyond the ten year mark, thus in summary most of the residential growth was projected within the ten year plan or at twenty years. The phasing, acreage, and realistic residential units of all planned development is further summarized under **Table G-6** by annexation area and phasing term**.**

Table G-6 Annexation Areas as Phased Residential Units

Area	Development/ General Land Use	Acres	Phasing	Realistic Units [1]
N-3	Regional Park & Equestrian Center/ Recreational Park	144	1 year	0
N-4	Barioni Lakes Phase I/ Residential & Commercial	186	1 year	701
SE-1	Encanto Estates/ Agriculture & Commercial	320	1 year	99
N-5	HBC/ Agriculture & Industrial	163	5 years	16
NE-2	Sanchez Ranch/ Ag, Residential, & Commercial	620	5 years	867
SE-2	East Annexation/ Industrial	84	5 years	0
SE-3	Crown Commercial/ Residential	310	5 years	1,488
	Subtotal	**1,827**	**5 Years**	**3,171**
N-1	Barioni Lakes North/ Residential & Commercial	370	10 years	1,488
N-2	Barioni Lakes West/ Residential	390	10 years	1,872
NE-1	McFarland Ranch/ Agriculture & Commercial	320	10 years	99
SE-5	NE Corner of Cross & Aten/ Residential & Commercial	320	10 years	1,488
SE-6	South of Aten/East of RR Tracks/ Industrial	160	10 years	0
	Subtotal	**1,560**	**10 Years**	**4,947**
W-1	Western Development/ Residential	891	20 years	1,681
N-6	West Neckel Development/ Residential	50	20 years	240
SE-4	Andalusiaa East/ Residential	160	20 years	768
	Subtotal	**1,101**	**20 Years**	**2,689**
	GRAND TOTAL	**4,488**		**10,807**

[1]Methodology: The acreage in each development was multiplied by the maximum density allowed for the corresponding land use and by 80% to discount roadways, parks and retention basins and get realistic units.

II. GROWTH PROJECTIONS

Annexation, thus growth, is influenced by land use restrictions, existing conditions, and availability of service at developable locations. The location of the development is typically market and public improvement cost driven. The City of Imperial has undertaken several initiatives to encourage development including the adoption of one of the lowest development impact fees in the County. In July 2004, the City also passed a Planned-Unit Development Ordinance to further encourage infill development. The City also attracts development into the community by providing a high level of customer service and an efficient project review process. The proceeding sections provide an overview of the City's land use restrictions and growth projections for development areas.

A. Maximum Land Use Densities

As previously noted, the growth projections in the proceeding sections have assumed the maximum densities allowed. Additionally an 80% realistic maximum development ratio has been applied for population projections. This discounted density is a conservative calculation in order to discount for land areas that will not have residential use because those areas more than likely that will be used for public improvements such as roadways, parks, retention basins, and other similar facilities that impact the developable land ratio.

B. Residential Growth Projections

The residential growth projections provide the anticipated future residential development based on the most current land use designations and their allowable densities as previously discussed. The land use designations for the Sphere of Influence are based on the current City of Imperial General Plan, as shown by **Exhibit 3 - General Plan Land Use Map** on page 24, as well as the development proposed for the annexation areas. An average household size of 3.35 persons per household was used to calculate population projections from any given total number of dwelling units. Base information was obtained from assessor parcel maps, the City of Imperial General Plan, an on-site land use survey, the California Department of Finance and building permit information through December 2014 as referenced below.

1. Existing Dwelling Units in SOI

All the existing dwelling units within the sphere of influence were determined by 2010 Census base numbers and subsequent building permits through December 2014 for the incorporated City limits. The existing dwelling units included single family detached dwellings, mobile homes and multi-family residential units. It was determined that there were 5,168 existing dwelling units within the City limits as of December 2014. The corresponding population is 17,313 persons. It was also determined in the

2007 Service Area Plan that there were a total of 58 existing dwelling units in the annexation areas within the Sphere of Influence, excluding the W-1 Western Development not previously accounted for as an annexation area. Based on the 2007 City of Imperial Service Area Plan, and no new residential development within the unincorporated areas, and the estimated existing population of 1,222 in the now planned for W-1 Western Development Annexation Area (365 units x 3.35 pphh), a total of 5,591 existing dwelling units are estimated within the entire Sphere of Influence area as of December 2014, as summarized in the table below, for an estimated population of 18,729.

Table G-7 Existing Dwelling Units

Residential Land Uses	Existing Units Inside City Limits	Existing Units in Annexation Areas	Existing Dwelling Units in SOI
Residential Low Density	0	365	365
Residential Single Family	4,529	58	4,587
Residential Multi-Family	542	0	542
Residential Condominium	63	0	63
Mobile Home Park	34	0	34
Totals	**5,168**	**423**	**5,591**

Source: City of Imperial General Plan Land Use Map was used for Land Use designation, City of Imperial 2007 Service Area Plan was used for Existing Units up to 2007, and Residential Building Permits from 2007-2015 were used to determine all additional existing units.

2. Future Dwelling Units in SOI

Future dwelling units were calculated by adding the number of vacant and underutilized acres for sites both within the incorporated City Limits and in Annexation Areas, grouped into land use, and multiplying that summation by the allowed density per acre (Vacant Build Out Density) and applying the 80% realistic maximum build-out as a conservative ratio. The formula used to obtain this figure is as follows:

(Developable Acres[1] x Vacant Build Out Density) x 80% =
Realistic Future Dwelling Units

[1]Developable Acres is Vacant & Underutilized Acres

Based on the density allowances and the annexation assumptions in this report, and as depicted in **Table G-8 Future Dwelling Units**, the incorporated areas could accommodate approximately 2,694 additional residential units and the annexation areas could accommodate approximately 10,807 including existing development within unincorporated area. The total additional future dwelling unit count for all areas within the City limits and the annexation areas is estimated to be 13,501 additional units as noted in the table below for an estimated population growth of 45,228 by year 2035.

Table G-8 Future Dwelling Units

Residential Land Uses	Phasing	Future Units Inside City Limits	Future Units Annexation Areas[1]	Realistic Future Units
Residential Single Family	5 Years	420	2,909	3,329
Agriculture	5 Years	0	262	262
Village Commercial	5 Years	40	0	40
Subtotal	**5 Years**	**460**	**3,171**	**3,631**
Residential Single Family	10 Years	421	4,848	5,269
Agriculture	10 Years	0	99	99
Residential Apartment	10 Years	128	0	128
Planned Use Development	10 Years	240	0	240
Subtotal	**10 Years**	**789**	**4,947**	**5,736**
Residential Single Family	15 Years	421	0	421
Mobile Home Park	15 Years	33	0	33
Residential Rural	15 Years	103	0	103
Specific Plan	15 Years	888	0	888
Subtotal	**15 Years**	**1,445**	**0**	**1,445**
Residential Low Density	20 Years	0	1,297	1,297
Residential Single Family	20 Years	0	1,392	1,397
Subtotal	**20 Years**	**0**	**2,689**	**2,689**
Grand Total		**2,694**	**10,807**	**13,501**

[1]Realistic Units in Annexation areas includes the 423 existing units in the annexation areas, as noted in Table G-7

3. Build Out Dwelling Units in SOI

Combining the existing dwelling units (5,591) and projected future dwelling units (13,501), and discounting the existing units in the annexation area (423) from projected future dwelling units, results in a total build out dwelling unit projection of 18,669 dwelling units for the entire Sphere of Influence by 2035, as summarized in **Table G-9 - Build-Out Dwelling Units**. The build out population for vacant parcels within the incorporated City limits is 9,025. The build-out population for vacant parcels within the annexation areas is 36,203. The build out units for the City of Imperial once all areas within the sphere of influence have been annexed and developed is estimated to total 13,501, (the combination of existing units, build out of incorporated areas, and build out of annexation areas provides a grand total of 18,669 units or 62,541 persons based on 3.35 persons per household). **Table G-10 Build-Out Population Projections** summarizes the build-out dwelling units and corresponding populations in five year increments.

Table G-9 Build-Out Dwelling Units

Residential Land Uses	Existing Dwelling Units Entire SOI	Realistic SOI Future Dwelling Units	Build-Out Dwelling Units Entire SOI
Residential Low Density	365	932	1,297
Residential Single Family	4,587	10,353	14,940
Residential Multi-Family	542	0	542
Residential Condominium	63	0	63
Agriculture	0	361	361
Mobile Home Park	34	33	67
Village Commercial	0	40	40
Residential Rural	0	103	103
Residential Apartment	0	128	128
Planned Use Development	0	240	240
Specific Plan	0	888	888
Totals	**5,591**	**13,078**	**18,669**

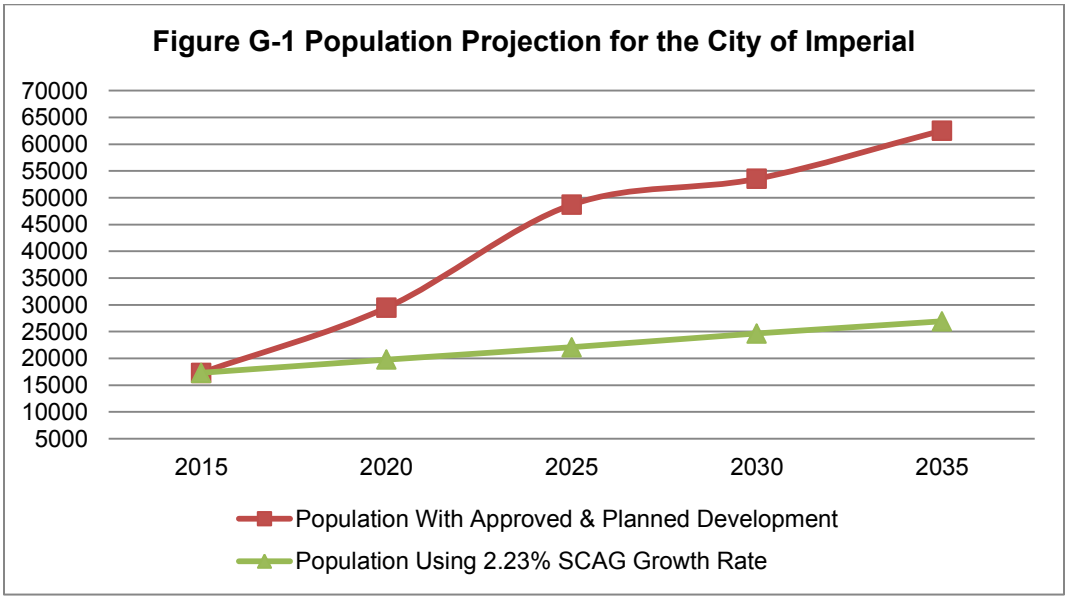
The 423 Existing Dwelling Units in the Annexation Areas, as noted in Table G-7 – Existing Dwelling Units, are included in the Existing Dwelling Units Entire SOI and discounted from Realistic SOI Future Dwelling Units to prevent double counting.

Table G-10 Build-Out Population Projections

Base Year & Beyond	Realistic Dwelling Units	Cumulative Dwelling Units	Cumulative Population
Jan 2015	5,168	5,168	17,313
2014 – **2020**	3,631	8,799	29,476
2021 – **2025**	5,736	14,535	48,692
2026 – **2030**	1,445	15,980	53,533
2031 - **2035**	2,689	18,669	62,541
Totals	**18,669**		**62,541**

The City's service demand further compares growth between the application of a traditional growth rate on base population number to anticipated growth associated with specific annexation areas. The population projections that follow are based on historic population growth rates in comparison to growth tied to anticipated projects. For the Imperial population projections, a growth rate of 2.23 percent has been determined as adequate. This growth rate is a modest rate to apply to the projected population growth for the Imperial community for the entire twenty (20) year planning period analyzed under this Service Area Plan. Planned development as noted in the prior discussions may significantly alter these population growth projections. Projections are therefore discussed as probable scenarios affecting service demand assuming maximum growth scenario thus planned development.

Figure G-1 – Population Projections for the City of Imperial depicts a gradual population growth of 2.23 percent that would reasonably place the Imperial population at 26,923 at the 20 year mark and compares it to population growth with approved and planned development. If there are changes in the real estate market and the regional development demand increases, the City will likely be directly impacted by new growth and expansion outside of the current City boundary within the Sphere of Influence and more in line with the aforementioned approved and planned development projections and reach 62,541 at the end of the twenty year plan period.



"Population with Approved & Planned Development" calculated by determining realistic number of dwelling units from planned development and multiplying by 3.35 person per household. "Population Using 2.23% SCAG Growth Rate" based on SCAG 2012-2035 Regional Transportation Plan

C. Non-Residential Development

Non-residential projects also impact most community facilities and services. Non-residential projects include government operations, industrial, business/office use, and commercial land uses. Non-residential development is first calculated in square footage and commonly converted into Equivalent Dwelling Units for the purpose of assessing demand on facilities such as wastewater and water. The methodology for obtaining existing and future non-residential square footage is similar to that of the residential projections in that a coverage factor is assigned.

a). Existing Non-Residential Square Footage in City Limits

The nonresidential square footage within the City limits was estimated to be 4,132,793 square feet in 2007. Since then, and over a five year period, a total of 47,158 square feet of commercial and industrial space has been constructed within the incorporated City Limits, per City of Imperial building permit records. This number represents .01% of the total non-residential square footage at the beginning of that time period. The existing non-residential square footage within the City Limits is currently estimated at **4,179,951** square feet.

b). Existing Non-Residential Square Footage in Annexation Areas

The nonresidential square footage within the annexation areas was estimated to be 397,449 square feet in 2007. Since then, an estimated total of 50,427 square feet of commercial and industrial space has been constructed within the Annexation areas (Imperial County Building Permit Records), thus the existing nonresidential square footage within the annexation areas is currently estimated at **447,876** square feet.

1. Future Non-Residential Growth Projections

The vacant coverage factor for commercial and industrial uses for future development is 30%. The reason for the reduction from 40% for existing development to future development is that a coverage factor of 30% accounts for reductions of buildable land area for street and utility land dedications, as well as parking and landscaping requirements that essentially decrease the amount of square footage that can be developed.

a). Future Non-Residential Square Footage in City Limits

The future nonresidential square footage within the City limits was estimated to be 10,181,031 square feet under the 2007 Service Area Plan. Considering no changes in zoning to affect this estimate, and deducting the 47,158 square feet of commercial space constructed since then, it is estimated that **10,133,873** of future non-residential square footage should be planned for

b). Future Non-Residential Square Footage in Annexation Areas

The future nonresidential square footage within the annexation areas was estimated to be 10,651,712 square feet under the 2007 Service Area Plan. At the direction of the City, an increase adjustment was made in 2015 to increase the amount of non-residential development along major arterial intersections. These changes resulted in a square footage base number of 11,344,826 square feet. Since the Castle Arch Annexation was removed, which accounted for 84,942 square feet of planned commercial and an additional 50,427 square feet of commercial and industrial space have further been constructed within the unincorporated sphere of influence (as per Imperial County Building permits), a total of 135,369 square feet were deducted from the 11,344,826 to give an

estimated total of **11,209,457** of future non-residential square footage within the annexation areas to be planned for.

2. Build-out Non-Residential Projections

Combining the existing nonresidential inventory with the future nonresidential projections, the total nonresidential build out projections were determined. The total build-out non-residential square footage within the sphere of influence including all existing square footage is estimated to be 25,971,157 square feet as denoted in the following tables.

Table G-11 Build-Out Non-Residential Square Feet In SOI

City Limits Land Use	Existing Development Within City	Future Development Within City	Build-Out Development City Limits
Village Commercial	172,225	40,066	212,291
Neighborhood Commercial	417,276	951,463	1,368,739
Commercial Regional	328,329	525,623	853,952
Commercial Office	1,078,720	1,559,012	2,637,732
General Industrial	660,369	5,495,219	6,155,588
Rail Served Industrial	1,159,978	1,925,544	3,085,522
Subtotal	**4,179,951**	**10,133,873**	**14,313,824**

Annexations Land Use	Existing In Annexation Areas	Future In Annexation Areas	Buildout In Annexation Areas
Neighborhood Commercial	11,260	1,881,900	1,893,160
Commercial Regional	33,242	2,885,676	2,918,918
General Industrial	0	0	0
Rail Served Industrial	403,374	6,441,881	6,845,255
Subtotal	**447,876**	**11,209,457**	**11,657,333**

TOTAL SF in SOI	**4,627,827**	**21,343,330**	**25,971,157**

Data Based on 2007 Base Numbers and Building Permits by Zone. All calculations done in square feet.

3. Equivalent Dwelling Unit Phasing of Non-Residential Development

Non-residential uses need to be converted to "equivalent dwelling units" for the purpose of preparing a comprehensive analysis. This assessment is applying 1.5 EDU's for every 1,000 square feet of non-residential space. This number is an unscientific average and the City of Imperial, adopted Resolution 90-16, should be referred to for a more precise assignment of equivalent dwelling units for non-residential land uses (for the purpose of assessing impacts to wastewater and water facilities). A very conservative assumption is further being made that the non-residential development within the City Limits will develop at an average of 1% of planned commercial space for every five year period. The following Table **G-12** projects the timing of non-residential development in five year increments and the corresponding conversion into equivalent dwelling units (1.5

EDU's per every 1,000 SF of nonresidential space) for the same time periods.

Table G-12 City and Annexation Non-Residential Development As Phased Equivalent Dwelling Units (EDU's)[1]

Area	Development/ General Land Use	Square Feet	Phasing	EDU's[1]
N-3	Regional Park & Equestrian Center/ Recreational Park	1,881,900	1 year	2,822
N-4	Barioni Lakes Phase I/ Residential & Commercial	522,600	1 year	784
City	Incorporated Areas All Non Residential	41,799	5 years	62
N-5	HBC/ Agriculture & Industrial	2,620,918	5 years	3,931
NE-2	Sanchez Ranch/ Ag, Residential, & Commercial	130,680	5 years	196
SE-1	Encanto Estates/ Agriculture & Commercial	1,186,836	1 year	1,780
SE-2	East Annexation/ Industrial	1,730,083	5 years	2,595
SE-3	Crown Commercial/ Residential	0	5 years	0
	Subtotal	**8,114,846**	**5 Years**	**12,170**
City	Incorporated Areas All Non Residential	41,381	10 years	62
N-1	Barioni Lakes North/ Residential & Commercial	784,200	10 years	1,176
N-2	Barioni Lakes West/ Residential	0	10 years	0
NE-1	McFarland Ranch/ Agriculture & Commercial	130,680	10 years	196
SE-5	NE Corner of Cross & Aten/ Residential & Commercial	130,680	10 years	196
SE-6	South of Aten/East of RR Tracks/ Industrial	2,090,880	10 years	3,136
	Subtotal	**3,177,821**	**10 Years**	**4,766**
City	Incorporated Areas All Non Residential	40,967	15 years	61
	Subtotal	**40,967**	**15 Years**	**61**
City	Incorporated Areas All Non Residential	40,558	20 years	60
W-1	Western Development/ Residential	0	20 years	0
N-6	West Neckel Development/ Residential	0	20 years	0
SE-4	Andalusiaa East/ Residential	0	20 years	0
	Subtotal	**40,558**	**20 Years**	**60**
City[2]	Incorporated Areas All Non Residential	9,969,168	25+ Years	0
	GRAND TOTAL	**21,343,360**		**17,057**

[1]Calculated at 1.5 EDU's per every 1,000 SF
[2]Due to the conservative assumption of a 1% development within City Limits, there is a remainder of 9,969,168 SF of possible future development that is not included in EDU calculations.

D. Growth Projection Summary

Table G-13 – EDU Projections for City of Imperial separates the population projections in five year intervals, after considering phased development into the projected population growth beyond the 2.23 percent growth rate for planned residential development, and planned residential development as total dwelling units, while **Table G-14** summarizes the population growth as dwelling units with the non-residential equivalent dwelling units.

Table G-13
Population Projections for City of Imperial/SOI

Year	Population at 2.23 % Growth Rate	Population With Approved Development	Total Dwelling Units
2015	17,313	17,313	5,168
2020	19,766	29,476	8,799
2025	22,072	48,692	14,535
2030	24,648	53,533	15,980
2035	26,923	62,541	18,669

Table G-14
EDU's for City of Imperial/SOI

Year	Total Planned Cumulative Development Dwelling Units	Planned Cumulative Non-Residential Equivalent Dwelling Units	Total Equivalent Dwelling Units
2015	5,168	0	5,168
2020	8,799	12,170	20,969
2025	14,535	16,936	31,471
2030	15,980	16,997	32,977
2035	18,669	17,057	35,726

PUBLIC FACILITIES AND SERVICES

This plan will address how public facilities and services will be provided to the City of Imperial and the Annexation Areas over the course of the 20-year planning period. An analysis of the following facilities and services are provided in this document:

- Administrative Facilities - City of Imperial
- Drainage Facilities - City of Imperial/Imperial Irrigation District
- Fire Protection Facilities - County of Imperial (via contract)
- Police Protection - City of Imperial
- Library Facilities - City of Imperial
- Park and Recreational Facilities - City of Imperial
- Circulation Facilities - City of Imperial
- Sanitary Sewer Facilities - City of Imperial
- Domestic Water Facilities - City of Imperial

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
- 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.

***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.

Each section 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.

I. ADMINISTRATION

City of Imperial administrative facilities include City Hall and office buildings that house administrative staff and provide general administrative services to Imperial residents and the business community. Examples of administrative services include utility billing and collection, clerk services, planning and development services and other administrative functions of the City.

A. Performance Standard

The performance standard for administrative services was determined during the preparation of the Service Area Plan approved by LAFCO on January 25, 2001. It was based on the existing administrative facilities square footage and the existing population at the time of the preparation of the Service Area Plan. It was determined at that time that the building area available was efficient and appropriate. Therefore, the performance standard was set at 842 square feet per 1,000 in population.

B. Facility Planning and Adequacy Analysis

This analysis provides an inventory of the existing City Administrative Facilities owned by the City of Imperial, the existing and future demand for facilities as well as a projected phasing schedule. The purpose of this analysis is to determine if the existing facilities are adequate for the existing and future demand, and if not adequate, to identify approximately when additional facilities will be needed in order to meet future demand identified within the 20 year time frame.

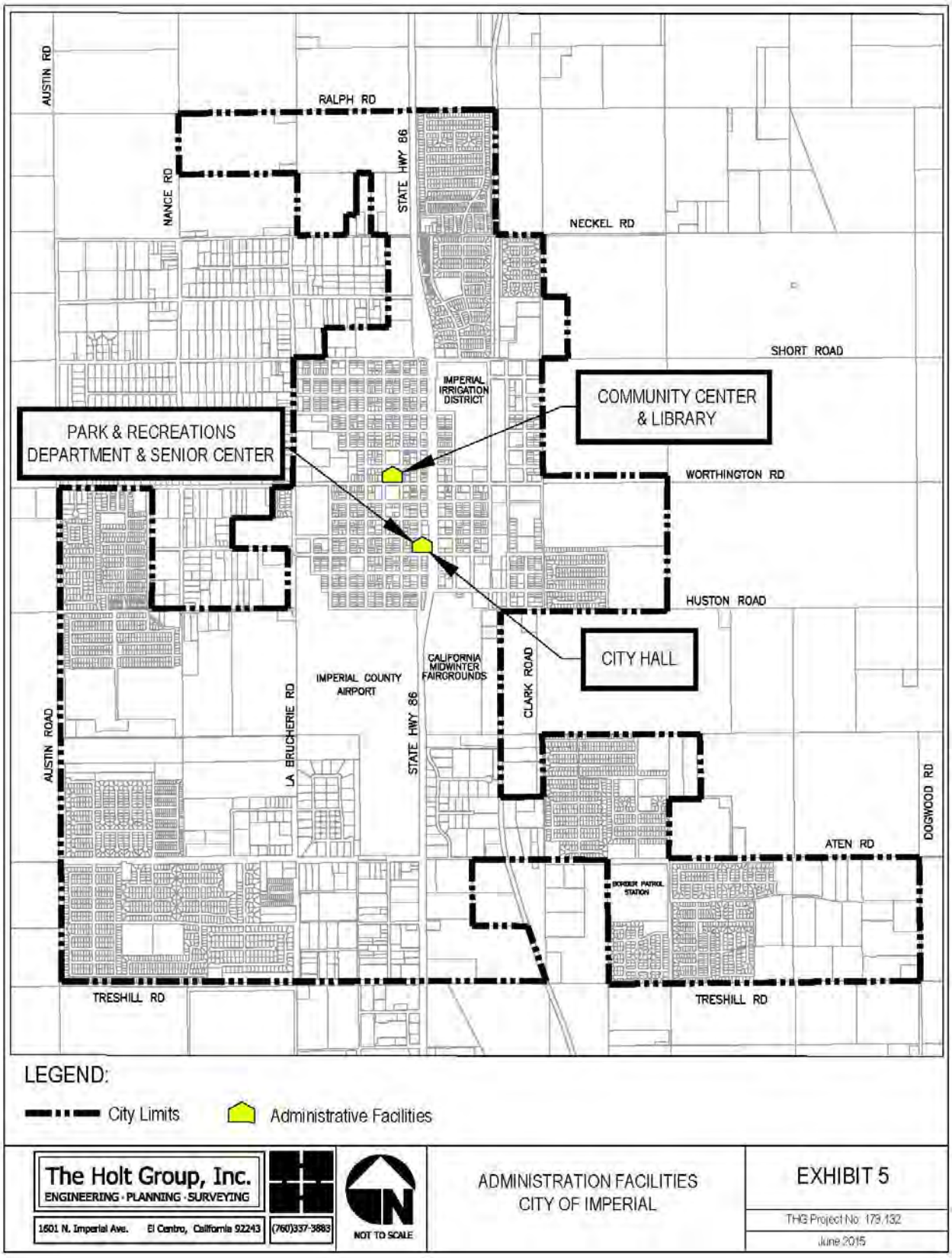
1. Inventory of Existing Facilities

The City of Imperial City Hall is located at 420 South Imperial Avenue. The existing administrative facilities consist of a total of 9,888 square feet and centrally located as noted in **Exhibit 5-Administration Facilities Map.** This square footage is broken down into the following categories:

Table-A-1 Administration Facilities

City Clerk	306 SF
City Hall	2,523 SF
City Manager	866 SF
Legislative	1,000 SF
Community Center	2,568 SF
Parks & Recreation	288 SF
Senior Center	2,337 SF
Total	**9,888 SF**

Exhibit 5- Administration Facilities



2. Adequacy of Existing Facilities

The City has $200,000 budgeted for City Hall Improvements over the next three years. Funds, however, are to improve existing facilities and not for expansion beyond the currently available 9,888 SF. Using the performance formula provided below, the existing demand for administrative facilities is 14,577 square feet.

Existing Population x Performance Standard = Current Demand
17, 313 Population x 842 Sq. Ft / 1,000 population = 14,577 Sq. Ft.

Existing Facilities – Current Demand = Adequacy
9,888 Sq. Ft. – 14,577 Sq. Ft. = -4,689 Sq. Ft.

Based on the performance standard formula, there is a deficiency of 4,689 square feet of administrative building square footage. As the population increases, there will be an inherent need for additional City administrative facilities.

3. Future Demand for Facilities

For the purpose of calculating future demand, and as previously noted, planned development is used to project population. Using the existing performance standard formula, the City of Imperial will need 52,659 square feet of administrative space by the year 2035 if all development is constructed as planned. When using solely the historical growth rate, the demand for administrative facilities could be reduced to 22,669 square feet for 2035.

4. Opportunities for Shared Facilities

The City of Imperial provides for all of its City administrative needs using full-time, part-time and contract workers. Assistance from other jurisdictions for administrative services is not provided nor will be provided, but cross-utilization of services within the jurisdiction is facilitated. There are many staff members who provide their expertise in public facilities and services that are outside of the administrative services arena such as in circulation, water and wastewater. For example, the City Manager, Community Development Director and several other employees of the City will complete tasks that are not a part of the administrative services, but are directly related to the specific needs of various public services that the City provides. These tasks are funded through the individual budgets of the various departments for which the tasks are being completed. This method of cross-utilization is an efficient use of existing resources especially for

small jurisdictions such as the City of Imperial.

5. Phasing

The following **Table A-2 Administration Facilities Demand** represents the demand for administrative facilities square footage for the next 20 years in five year increments. The population noted is using planned development for projections.

Table A-2 Administrative Facilities Demand

Year	Population	Demand	Adequacy
2020	29,476	24,818 SF	Deficient
2025	48,692	40,998 SF	Deficient
2030	53,533	45,074 SF	Deficient
2035	62,541	52,659 SF	Deficient

C. Mitigation

On a yearly basis, the City of Imperial should review the facilities provided against the demand for facilities based on the performance standard. Additional facilities should be planned for and provided on an as needed basis. The City should implement the following mitigation measures for administrative facilities:

A-1 On a yearly basis, the City of Imperial shall review the facilities provided against the demand for facilities based on the performance standard.

A-2 By the year 2025 (10 year time period), a minimum of 35,186 additional square feet of administrative facilities shall be provided to meet demand through 2030.

D. Financing

Information regarding Project costs was determined by using the most current adopted budget (See Appendix A). The current revenue source for administrative facilities includes property tax and sales taxes, licenses and permits, fine and penalties, charges for services, Development Impact Fees and other miscellaneous sources.

1. Funding Sources and Per Capita Cost

The 2014-2015 City of Imperial Budget identifies approximately $4,107,978 for the continued operation of administrative facilities.

There are approximately $1,786,660 in functional revenues (charges for services, licenses) used to help pay for the administrative services. These functional revenues must be subtracted from the expenditures in order to determine the true costs to the general public. Therefore, the cost to the general public through taxation for administrative services is $2,321,318.

$2,321,318 / 17,313 population = $134.08 per capita

Using the City's current population, and a constant per capita cost of $134.08, the future costs are noted in the following table in five year increments. These estimations assume a constant cost per capita in the year 2014 dollars and the provided population projections.

Table A-3 Projected Administrative Costs

Year	Projected/Planned Population	Administrative Costs
2020	29,476	$3,952,126.69
2025	48,692	$6,528,597.94
2030	53,533	$7,177,676.69
2035	62,541	$8,385,497.28

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources for the maintenance and operation of City administrative facilities. However, due to the future growth anticipated, other funding sources for capital improvements will be needed. Other funding sources that may be available for capital improvements include general obligation bonds or a City wide community facilities district. Further descriptions of the financing mechanisms are provided in the Financing section of this Service Area Plan.

II. DRAINAGE AND STORMWATER

The primary purpose of maintaining, planning, designing and constructing drainage facilities is to control flooding. Drainage facilities in the entire Imperial Valley are within the jurisdiction of the Imperial Irrigation District (IID). In conjunction with an irrigation network that includes more than 1,600 miles of canals, IID operates and maintains an agricultural drainage system consisting of more than 1,400 miles of surface drains. The City of Imperial discharges into IID drains which ultimately drain into the Alamo River, a tributary to the Salton Sea. It should be noted, however, that the primary drainage system managed by IID is not designed to convey all stormwater runoff from urbanized areas. Therefore, new development must provide for on-site retention of stormwater to mitigate against stormwater impacts.

A. Performance Standard

Adequacy of drainage facilities is based on conformance with the City of Imperial design guidelines for storm water runoff and management. Conformance with the City's NPDES requirements, the requirements of the Federal Emergency Management Agency and the requirements established by the Imperial Irrigation District for storm water runoff are also applicable.

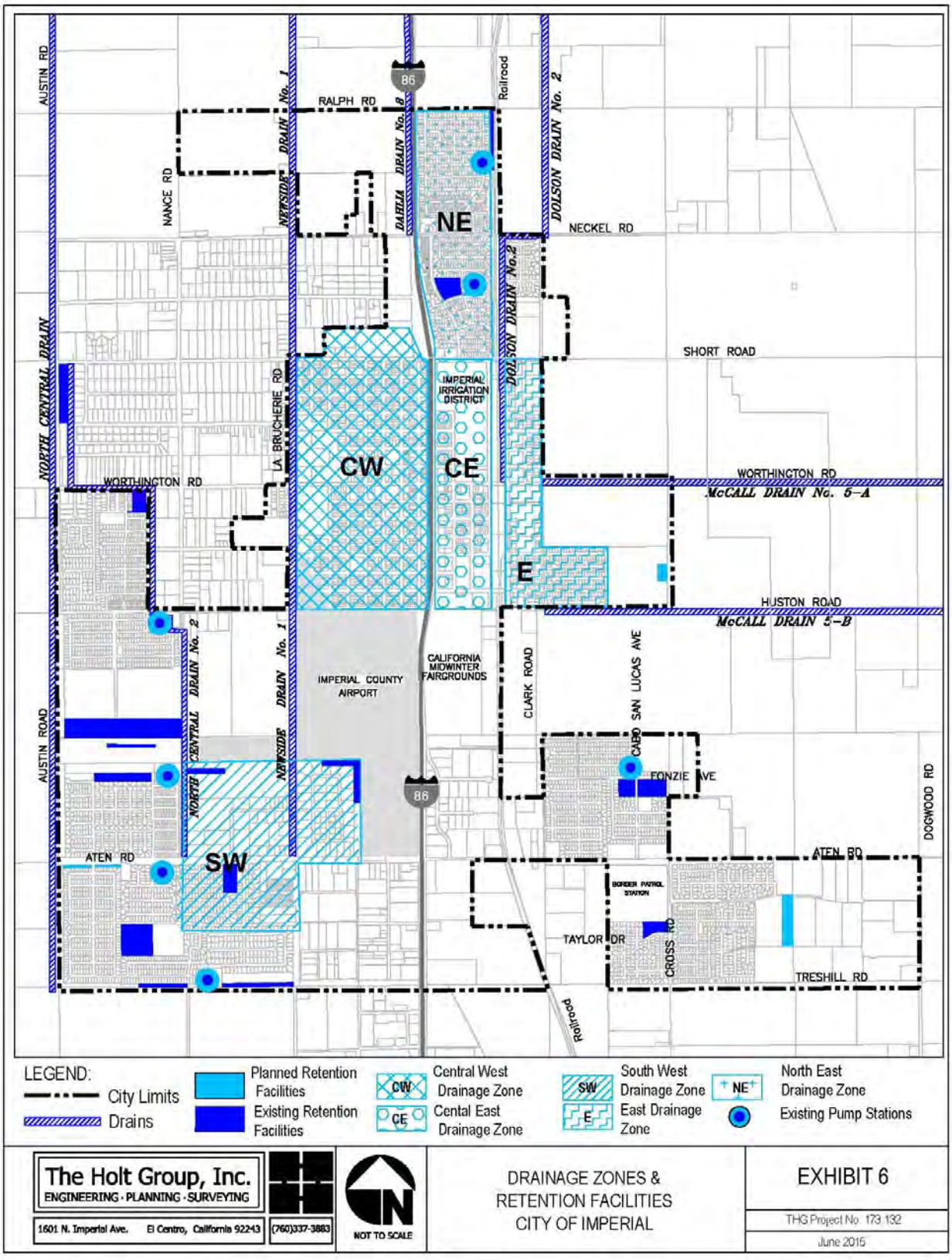
B. Facility Planning and Adequacy Analysis

The City of Imperial's stormwater drainage facilities include many ditches, pipes and detention basins which function to divert storm runoff and standing water away from residences and business within the City. These facilities convey storm water runoff into the main water drainage system managed by the Imperial Irrigation District (IID). However, the IID has communicated interest in abandoning all facilities within the City limits for the City to take over the system. Additionally, as future development occurs and drainage facilities are no longer used for agricultural drainage, the IID will abandon those facilities to the City, so that the IID only manages drains used for agricultural.

1. Inventory of Existing Facilities

A majority of the storm water collected within the City of Imperial uses surface drainage ditches to convey storm water to the IID drains. The primary drainage facilities receiving the City of Imperial's storm water, and managed by the Imperial Irrigation District, include the North Central Drain, North Central Drain No. 2, Newside Drain No. 1, Dahlia Drain No. 8, Dolson Drain No. 2 and the McCall Drain No. 5A and 5B. There are five primary drainage zones that tie into these drains as depicted in **Exhibit 6-Drainage Zones and Retention Facilities**.

Exhibit 6-Drainage Zones and Retention Facilities



The five primary drainage zones within the City can be geographically described as southwestern portion (SW), central west portion (CW), central east portion (CE), eastern portion (E), and northeast portion (NE). The zones are described in more detail below.

SW Drainage Zone: The southwestern portion of the City near the Sandalwood and Wildflower subdivisions and the industrial area at Aten and La Brucherie use a series of retention basins to restrict the flow of storm water before entering the underground storm water conveyance pipes. There is a small lift station adjacent to Aten Road, which assists with the conveyance of storm water for the Sandalwood and Wildflower subdivisions into the storm water conveyance system. The system then transports the storm water to the North Central Drain No. 2 which ultimately flows to the main North Central Drain.

CW Drainage Zone: The central portion of the City, north of the airport and west of Highway 86, conveys storm water through surface drainage ditches to a primary surface drainage ditch located adjacent to Highway 86. This drainage ditch flows north adjacent to Highway 86 to the IID Dahlia No. 8 drain.

CE Drainage Zone: The central area east of Highway 86 and west of the railroad tracks also uses surface drainage ditches to convey storm water to a primary drainage ditch adjacent to M Street. The M Street drainage ditch flows north to Fifteenth Street. At Fifteenth Street, the M Street ditch storm water enters the IID Dolson No. 2 Drain.

E Drainage Zone: From First Street to Barioni Boulevard east of the railroad tracks, surface drainage ditches convey storm water to an IID drainage pipe at the southeast corner of the intersection of Barioni and P Street. North of Barioni Boulevard, surface drainage ditches convey stormwater west to the primary drainage ditch at Barioni Boulevard and N Street. The N Street drainage ditch flows north to Fifteenth Street. At this point the surface water flows into an 18" pipe which conveys the stormwater west under the railroad tracks and into the IID Dolson No. 2 Drain.

NE Drainage Zone: There are two subdivisions in the northern portion of the City east of Highway 86. Each subdivision contains their respective retention basins and underground stormwater conveyance systems. Water flows out of the retention basins and into the IID Dolson No. 8 and No. 2 Drains.

2. Adequacy of Existing Facilities

The existing primary drainage system managed by IID is not designed to convey all storm water runoff from urbanization. Therefore, recent and new development must provide for on-site retention of storm water to mitigate against storm water impacts. These retention facilities are designed to control storm water flows into the IID drains. Conveyance out of the retention basins is restricted by the use of 12" pipes.

The City of Imperial Public Works Department provides the maintenance of the City storm water drainage system. The public works crews monitor the flow within the drainage ditches, make minor repairs and clean the ditches on an as needed basis. Additionally, street sweeping occurs throughout the City, which is a preventative method that assists in keeping the drainage ways clean of some debris and sediment. According to the City of Imperial Public Works Director, Jackie Loper, the current system provides adequate conveyance of storm water for events up to a 100-year storm. There were only two instances in the mid - 1970's when the drainage system did not adequately convey storm water in localized low-lying areas.

3. Future Demand for Facilities

As future development occurs, storm water drainage systems must be installed into the project area to ensure adequate collection and conveyance of runoff. The type and extent of the development proposed will affect the demand of facilities. A significant increase in the amount of impervious surfaces will result in a greater amount of surface runoff. The exact size and location of future facilities will be determined at the time development is proposed and processed through the City of Imperial. All future development must continue to comply with IID policies regarding temporary retention of storm water to reduce the impacts to the IID drains.

Storm water runoff as well as other contributing factors has degraded both the New and Alamo Rivers. The recently updated Water Quality Control Plan for the Colorado River Basin Region prepared by the California Regional Water Quality Control Board contains strict requirements for the water quality conveyed into these rivers. Future facilities must be designed to adhere to the latest pollution control devices and NPDES requirements.

4. Opportunities for Shared Facilities

The City of Imperial maintains all storm drain facilities within the incorporated City limits using full-time and part-time staff. Assistance

from other jurisdictions for drainage services is not provided or necessary beyond the maintenance provided by IID for IID Drains. The City of Imperial and IID maintain different aspects of the total drainage system. As previously noted, the primary drainage system is managed by IID but it is not intended to convey storm water generated by urban runoff. However, some urban storm water does flow into the IID drainage system. At this time, the management of these facilities is effective and is not expected to change in the near future.

5. Phasing

The construction of future storm water drainage facilities is based on the rate of new development within the City of Imperial. Additional storm water drainage facilities will be needed in the proposed annexation areas in order to convey storm water into the IID drainage system. The future storm water management systems for the annexation areas will be designed during the Tentative Map and Final Map stage of development.

C. Mitigation

The City of Imperial should continually monitor the existing storm drain facilities to ensure the facilities are operating at an adequate level. Specifically, the City should implement the following mitigation measures for drainage facilities:

D-1 All future development in the City of Imperial shall be required to construct storm drain facilities in accordance with the design standards of the Engineering Department and the IID necessary to convey storm water into existing drains managed by IID.

D-2 All future development shall retain storm water on-site or within existing retention basins to restrict storm water flow for a minimum period of 72 hours before discharging into IID facilities.

D-3 All future development shall ensure compliance with all local, state and federal rules and regulations related to the discharge of storm water.

D-4 All development shall provide improvements constructed pursuant to best management practices as referenced in the *California Storm Water Best Management Practices Handbook*.

D. Financing

Future storm water drainage facilities will be installed at the developer's expense at the time of project construction. Maintenance of existing and future public drainage facilities will be financed by the City of Imperial General Fund.

1. Funding Sources and Per Capita Costs

The current revenue sources for storm water drainage facilities include property and sales taxes, licenses and permits, charges for services and other miscellaneous sources. The City of Imperial's annual budget does not segregate out the maintenance and operation costs for storm drain facilities. Thus, the maintenance and operation costs of the storm water drainage system could not be accurately determined. However, based on information provided by the City Public Works Department, it is estimated that approximately $34,505 per year is spent on maintenance and operation costs. The amount fluctuates depending on the amount of rain that is received on any given year.

Since the City of Imperial's annual budget does not segregate out the maintenance and operation cost for storm drain facilities, the average per capita cost for the continued maintenance and operation of the storm water drainage system was determined by the City's current population and estimated $34,505 per year amount for maintenance and operation. The per capita cost for drainage facilities is assumed to be $1.99.

$34,505 / 17,313 population = $1.99 per capita

A cost estimate for future continued maintenance and operation of the storm water drainage facilities is provided in **Table D-1-Drainage Facilities Costs**. These estimations assume a constant cost per capita in the year 2014 - 2015 dollars and the provided population projections.

Table D-1-Projected Drainage Facilities Costs

Year	Projected/Planned Population	Drainage Facility Costs
2020	29,476	$58,657.24
2025	48,692	$96,897.08
2030	53,533	$106,530.67
2035	62,541	$124,456.59

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources for the maintenance and operation of City storm water drainage facilities which include property and sales taxes, licenses and permits, charges for services and other miscellaneous sources. However, due to the future growth anticipated, other funding sources for capital improvements will be needed.

The City collects development impact fees; however, there is currently no impact fee for drainage facilities. Other funding sources that could be made available are a City wide community facilities district, special assessment districts or a community services district. Further descriptions of these and other financing mechanisms are provided in the Financing section of this Service Area Plan.

III. FIRE PROTECTION

Fire protection services are provided to the City of Imperial by the Imperial County Fire Department (ICFD). The City of Imperial contracts with the County of Imperial for fire protection and emergency services in accordance with the *Agreement for Fire Protection Services Between County of Imperial and City of Imperial* (July June 18, 2014). The current agreement is effective until June 30, 2017 (See Appendix B). The ICFD maintains and operates five (5) fire stations throughout the County of Imperial. Imperial is serviced by Imperial County Station #1-4. The County Station #1-4, servicing the City of Imperial, is located at the Imperial County Airport grounds.

A. Performance Standard

The Imperial County Fire Department informally monitors the demand on fire protection facilities and services. The fire department has consistently provided response times of 3 to 5 minutes for medical emergencies and 4 to 7 minutes for structural fires. Therefore, the performance standard necessary to maintain the current level of service shall not exceed a response time of 5 minutes for medical emergencies and 7 minutes for structural fires. Additionally, the *Agreement for Fire Protection Services* states that fire protection service will be provided to the City of Imperial on a twenty-four (24) hour, seven (7) day a-week basis. Additionally, the NFPA Standard for Firefighters is set at one firefighter per 1,000 residents.

B. Facility Planning and Adequacy Analysis

The areas currently served by the ICFD include both the areas within the City limits and the annexation areas. The County fire department will continue to provide service to these areas.

1. Inventory of Existing Facilities

The City of Imperial is served by the one fire station located at 2514 La Brucherie Road. The fire station has 14,500 square feet of building area. There are currently 3 firefighters (one of which must be a paramedic) on duty each shift. In addition, there is one (1) reserve firefighter on call at night. In accordance with the Agreement for Fire Protection Services, three (3) full-time Captains, three (3) full-time Fire Fighters II, and three (3) reserve firefighters are assigned to the City 24 hours per day. The same agreement further commits the following fire protection equipment and facilities for availability to Imperial:

- One (1) 500 gallon Engine (City Owned)
- One (1) 500 gallon Engine/105 ladder truck (City Owned)

- One (1) 1,000 gallon Engine (County)
- One (1) 1,800 gallon Water Tender (County)
- One (1) 2,500 gallon Water Tender (County)
- One (1) 1,500 gallon Aircraft Crash/Rescue Truck (County)
- One (1) Medium Rescue Squad (County)
- One (1) Hazardous Device (Bomb) Unit (County)

As shown on EXHIBIT B of the Agreement for Fire Protection Services, the City of Imperial also owns some of the equipment at the fire station. Minor preventative maintenance of the equipment and management of the personnel are performed by the County. Major repairs to equipment are the responsibility of the City of Imperial.

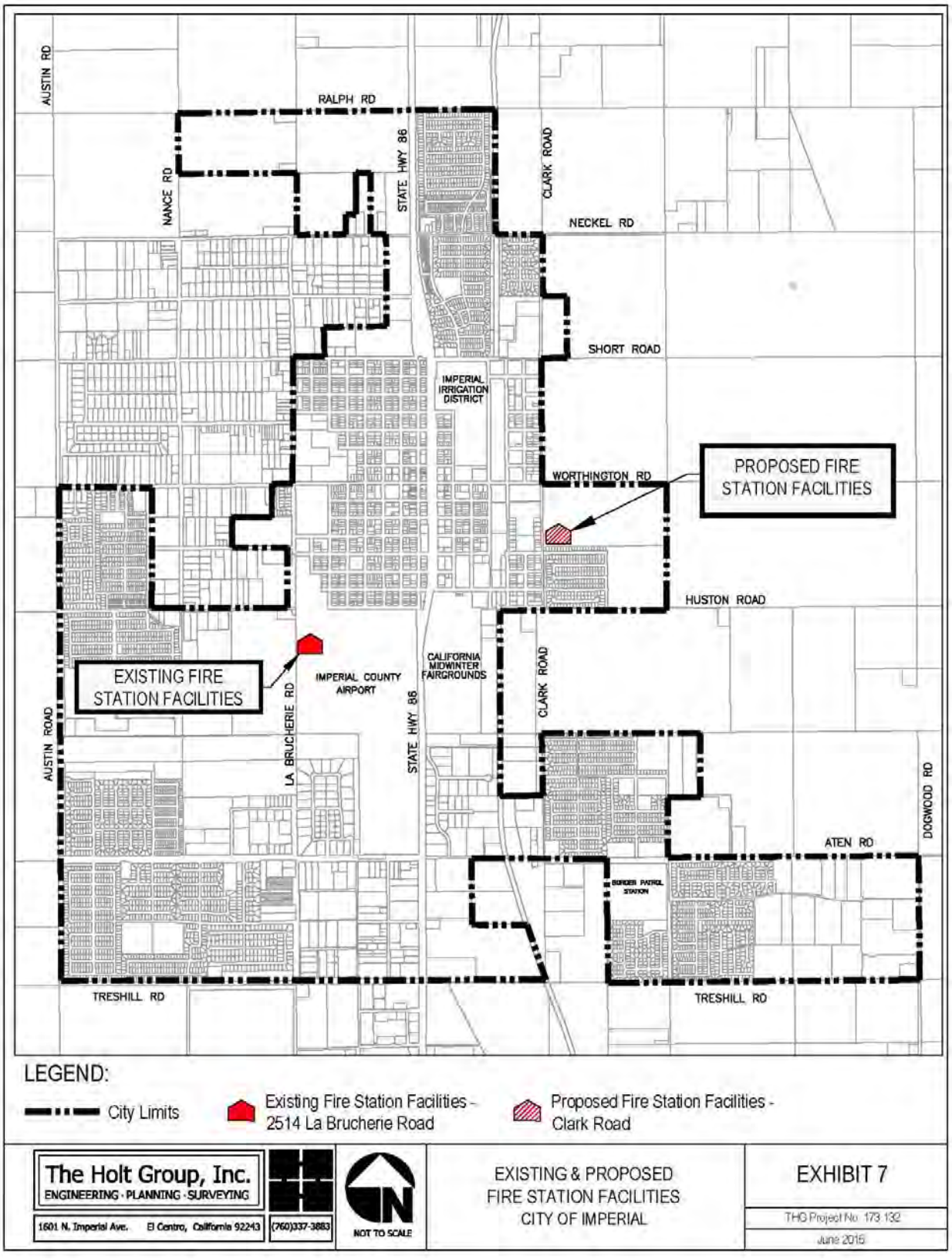
2. Adequacy of Existing Facilities

The fire department currently provides average response times of 7 minutes for the Northeast area (Neckel Road), 3 minutes for the Southwest area (Aten/Austin), 5 minutes for the Northwest area (14th/D Street), and 5 minutes for the Southeast area (Clark/Aten). However, as development continues to occur, there may be occasional delays due to traffic. A shared facility for police protection and fire protection is planned at the northeast corner of Clark Road and Worthington Road to further minimize response times east of the railroad tracks. An alternative site has also been designated on Aten Road between P Street and Dogwood Road. Please refer to **Exhibit 7- Existing and Proposed Fire Station Facilities** for a depiction of the regional location of the existing fire station and proposed location of future facilities.

3. Future Demand for Facilities

The City is estimated to reach a population of 62,541 by the year 2035. Based on the demand projections provided in this service area plan, it is apparent that another fire station is needed. A master plan for fire protection facilities has not been prepared by the fire department and future needs for additional firefighting equipment and another fire station have yet to be fully determined. However, there are preliminary indications that a shared fire/police substation is desired. This public safety facility is anticipated to be approximately 15,000 square feet and to include training facilities to be shared by the fire and police departments. It is assumed that the fire department will utilize approximately 10,000 square feet of the facility. Based on the current development trend toward the east, the new public safety facility may be located at the northeast corner of Clark Road and Worthington Road as denoted in **Exhibit 7**.

Exhibit 7- Existing and Proposed Fire Station Facilities



4. Opportunities for Shared Facilities

The County of Imperial, through the office of the County Fire Chief, provides to the City of Imperial fire protection and emergency medical services. The fire station located in the City of Imperial is owned by the county as well as most of the firefighting equipment. However, the City owns a 1,250 gallon pumper and various firef ighting equipment. All facilities are used jointly in order to provide an adequate level of service for both the county and City area.

There is also the *Imperial Valley Fire Service and Rescue Mutual Aid Plan* in place to ensure that emergency needs will be met. The intent of the mutual aid plan is to meet the anticipated needs of local agencies within their zones, to access resources of adjacent a*gencies within the area of the County, and to access the resources of other* jurisdictions within Region VI or beyond, if necessary, to meet the needs of emergency incidents.

5. Phasing

As the City's population increases, additional fire department staff can be hired when necessary in order to meet the demand created by future development. The following **Table F-1 Projected Fire Service Demand** represents the demand for fire protection services for the next 20 years in 5 year increments.

Table F-1 Projected Fire Service Demand

Year	Projected/Planned Population	Fire Service Demand[1]
2020	29,476	19,500 SF Facility 29 Firefighters/3 Paramedics
2025	48,692	19,500 SF Facility 48 Firefighters/3 Paramedics
2030	53,533	19,500 SF Facility 53 Firefighters/3 Paramedics
2035	62,541	19,500 SF Facility 62 Firefighters/3 Paramedics

[1]Square footage demands based on need to meet required response times, as derived from City of Imperial 2007 Service Area Plan.

C. Mitigation

The City of Imperial and the County fire department should continually monitor the existing fire department facilities and response times to ensure that adequate fire protection is provided. In accordance with the agreement for fire protection services, the county provides the City with monthly reports concerning all incidents occurring during the month and the maintenance/condition of all City owned equipment. Additionally, the County Fire Chief and the Imperial City Manager

are required to meet on a quarterly basis to discuss fire related issues. Mitigation recommended is as follows:

F-1 Fire protection facilities and personnel should be incrementally added as demand increases.

F-2 An additional fire station should be proactively planned for.

F-3 All major developments proposed within the City of Imperial shall be forwarded to the fire department for review and comments.

F-4 Adequate fire flows shall be provided for all development projects.

F-5 A Master Plan for Fire Protection Facilities to address development east of the railroad tracks should be prepared prior to the expiration of the current fire protection services contract (June 30, 2017).

D. Financing

The City of Imperial contracts with Imperial County for fire protection and emergency medical services. The City of Imperial currently has no plans to change the fire protection services as provided by the Imperial County Fire Department. A yearly fee amount is paid to the County for these services. According to the *Agreement for Fire Protection Services Between County of Imperial and City of Imperial,* the fiscal year 2014-2015 fee was estimated at $896,699. The current revenue sources for fire protection services include property and sales taxes from the City's general fund. A new agreement will be needed by June 30, 2017.

1. Per Capita Costs

For the fiscal year 2014-2015, the City of Imperial has budgeted $894,000 for fire protection services. Using the City's estimated 2015 population of 17,313, fire protection service per capita cost for the 2014-2015 fiscal year is $51.63 per resident. This data was calculated by dividing the annual budget of the fire department by the existing population.

$894,000 / 17,313 residents = $51.63 per capita

The *Agreement for Fire Protection Services* identifies estimated costs of $869,699 for the 2014-2015 fiscal year through the 2015-2016 fiscal year. A cost estimate for future fire protection services is provided in the table below using the budgeted amount and per capita cost of $51.63 per resident.

Table F-2 Projected Fire Service Costs

Year	Projected/Planned Population	Fire Service Cost
2020	29,476	$1,521,845.88
2025	48,692	$2,513,967.96
2030	53,533	$2,763,908.79
2035	62,541	$3,228,991.83

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources of property and sales tax, including development impact fees, and continue the contracting of fire protection services through the Imperial County Fire Department. Other funding sources that may be available in the future include a Fire Suppression Assessment, formation of a Citywide Community Facilities District, or grant funding. Further descriptions of these and other financing mechanisms are provided in the Financing section.

IV. POLICE PROTECTION

Police services are provided to the Imperial community by the Imperial Police Department. The police station is located at 424 S. Imperial Avenue in Imperial which is the main headquarters. The Imperial Police Department provides services to the entire City of Imperial. The City of Imperial Police Department also assists the County Sheriff's Office if the County does not have an officer in the vicinity. The Imperial Police Department will also provide backup for the County Sheriff if necessary. Services in the City of Imperial include patrol, criminal investigations, civil services, and crime prevention.

A. Performance Standard

The performance standard for police protection and law enforcement facilities was determined upon approval of the 2001 service area plan. The performance standard is 1.6 officers per 1,000 population, 2 officers per 1 patrol vehicle, 0.25 Non-paid volunteers per 1,000 population, and 237 square feet of building area per full-time personnel.

B. Facility Planning and Adequacy Analysis

The Imperial Police Station is a 3,788 SF Facility and houses the Police staff and support staff including a Records Clerk and a Clerk Typist and a ½ time office assistant. Patrol officers are out on the field during their shifts. The City of Imperial Police Department has a minimum of two police officers on duty per shift. Each shift is 12 hours in length. Dispatching services are contracted through the City of El Centro Police Department.

1. Inventory of Existing Facilities

Existing facilities include police department personnel. The City of Imperial is served by seventeen (17) sworn officers: one (1) Police Chief, one (1) Captain, three (3) Sergeants, one (1) Corporal, one (1) Detective, eight (8) Patrol Officers and officer assignments for one (1) Motor Officer, one (1) Canine Officer, one (1) School Resource Officer. There is an additional Officer assigned to Street Interdiction Team. Two reserves and one volunteer are also a part of the department but not counted as a part of total personnel. According to an inventory provided by the Imperial Police Department, the department has the following existing policing and law enforcement personnel and facilities:

<u>Facilities</u>

- 3,788 square feet of building
- Ten (10) Patrol Vehicles
- Six (6) Support Vehicles
- One (1) Motorcycle

2. Adequacy of Existing Facilities

The existing police department facilities do not adequately serve the community. The current facility lacks a community room, an emergency operating center, restrooms for public usage, interview rooms, female locker room and restroom facility, adequate evidence rooms with proper ventilation, and adequate space for report writing. Additionally, there are only two holding cells. Sergeants currently share one office with no room for growth, and there is no secured parking for the Police Units and Officers' private vehicles. Based on the performance standards, the existing demand for law enforcement facilities is as follows:

Staff Level

Existing Population x Performance Standard = Current Officer Demand

17,313 Population x 1.6 Officers / 1,000 population = 27 Sworn Officers.

Existing Population x Performance Standard = Current Volunteer Demand

17,313 Population x 0.25 Volunteers / 1,000 population = 4 Volunteers

Facility

Full-Time Personnel x Performance Standard = Current Demand

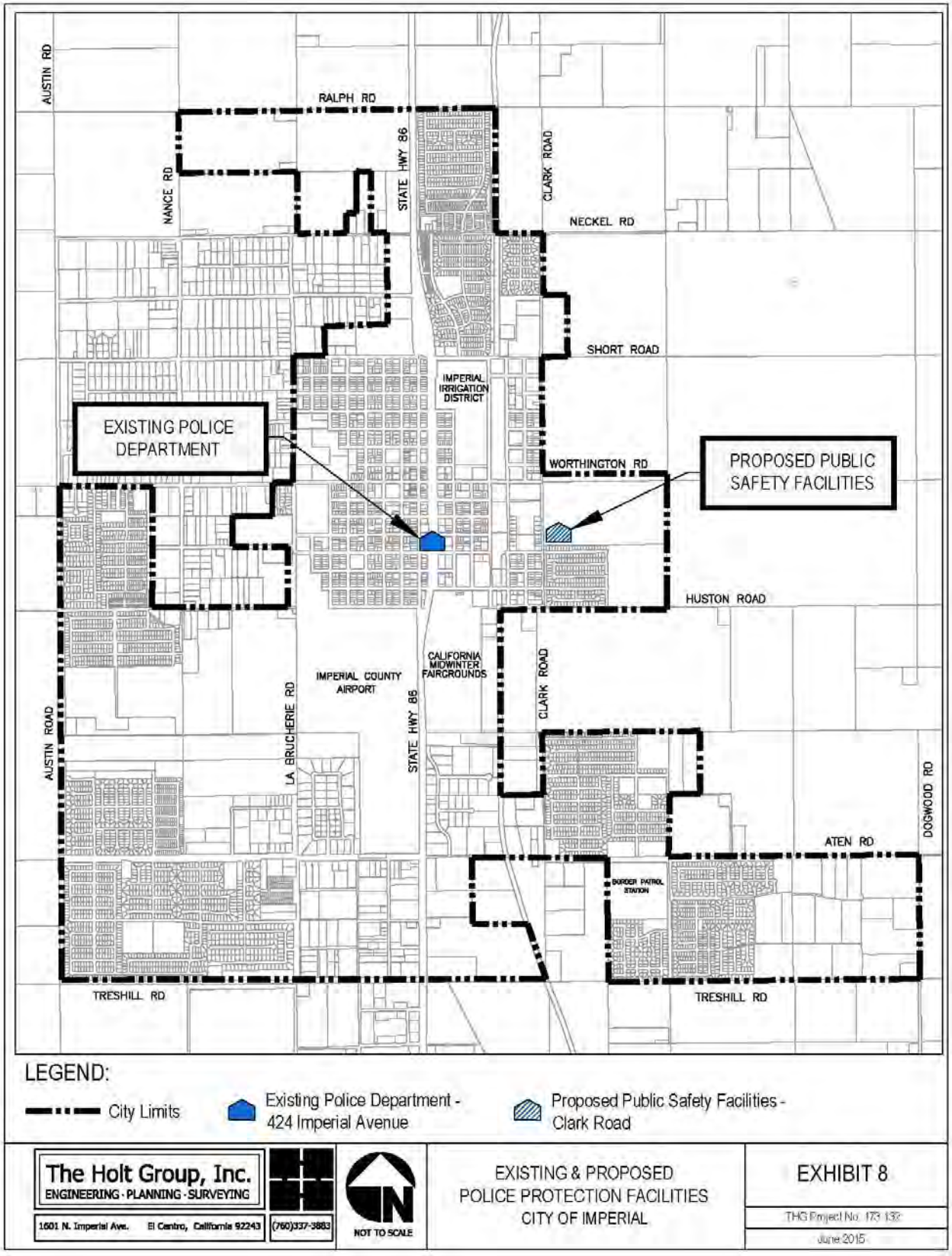
27 full-time personnel x 237 Sq. Ft. of Building Area = 6,399 Sq. Ft.

The Police Department currently has a staffing level of 17 officers and one volunteers thus a deficiency of -10 police officers and -3 volunteers. Based on the current demand for 6,399 square feet of building space, there is a current deficiency of -2,611 square feet given that the current offices are limited to 3,788 SF.

3. Future Demand for Facilities

The City is estimated to have a population of 62,541 people by the year 2035, using planned development figures. Using the established performance standard, the City will need 100 sworn officers 50 patrol vehicles to meet future demand by the year 2035. Therefore, the City will need to employ 83 more sworn officers and obtain 40 more patrol vehicles by the year 2035. In order for the Police Department to meet the performance standard in the future, there will also be a need for a total of 15 non-paid reserve officers/volunteers and 23,700 square feet of building space by the year 2035. The City has set aside a 10-acre property on the northeast corner of Worthington Road and P Street for Public Facility usage as depicted in **Exhibit 8-Existing and Proposed Police Protection Facilities**. The future demand for law enforcement facilities is provided on the Demand for Police Protection Services.

Exhibit 8-Existing and Proposed Police Protection Facilities



It is assumed that the fire department will utilize approximately 10,000 square feet of the facility which leave 5,000 square feet for the Police Department. The public safety building is currently in the conceptual phase, so the size, number of people needed to adequately serve the station, and the cost is unknown at the time of preparation of this Service Area Plan update. Based the analysis conducted by this Service Area Plan, it does not appear that a joint use public safety facility at 15,000 square feet will be adequate for demand beyond 2020. The planned public safety facility would include training facilities to be shared by the fire and police departments.

4. Opportunities for Shared Facilities

Although the City of Imperial maintains its own Police Department, it fully utilizes facility sharing opportunities. Dispatching services are currently provided through the 911 dispatching facility located in the City of El Centro. However, a regional dispatching facility that would be located within the City of Imperial is being considered. Additionally, the Imperial Police Department and the County Sheriff provide emergency law enforcement back-up for each other on an as needed basis. It is further anticipated that the Police Department will share a new facility with the Imperial County Fire Department on the aforementioned 10 acre property at the northeast corner of Worthington Road and P Street.

5. Phasing

As the City's population increases, adequate Police Department staff and patrol vehicles can be added, as necessary, in order to meet the current level of service standards. The following **Table P-1** represents the demand for police department staff, vehicles and square footage for the next 20 years in 5 year increments. A more detailed service demand is noted on **Table P-1** which includes reserves and other personnel.

Table P-1 - Projected Police Service Demand

Year	Projected/Planned Population	Police Service Demand
2020	29,476	11,139 SF Facility 47 Police Officers/24 Vehicles/7 Volunteers
2025	48,692	18,249 SF Facility 77 Police Officers/39 Vehicles/12 Volunteers
2030	53,533	20,145 SF Facility 85 Police Officers/43 Vehicles/13 Volunteers
2035	62,541	23,700 SF Facility 100 Police Officers/50 Vehicles/15 Volunteers

C. Mitigation

Temporary buildings, vehicles and personnel can be added incrementally as demand for police protection service demand increases with population growth and until the permanent capital investments can be made. The following is a list of mitigation recommendations for Police Protection:

P-1 The City of Imperial shall continue to monitor the response times for priority 911 calls to ensure adequate public safety.

P-2 Prior to the year 2017, a financing mechanism shall be identified that will enable the City to construct a new police station with possible dispatching services.

P-3 The Police Department shall continue obtaining grants and other funds to combat crime through proactive preventative measures.

P-4 The City of Imperial and the Imperial Police Department should consider the preparation of a Law Enforcement Facilities Master Plan that conducts an in depth analysis of the facility needs to meet the goals and objectives of the Police Department through build out of the City of Imperial by 2020.

D. Financing

The current revenue sources for police protection services include property and sales taxes from the City's general fund. The 2014-2015 budget allocated approximately $2,380,204 for police protection services from the City's general fund. Other revenue is derived from special revenue sources including the State C.O.P.S. Grant (1584 COPS Grant), asset forfeitures, and Development Impact Fees.

1. Current and Per Capita Costs

The 2014-2015 City of Imperial budget provided approximately $2,380,204 for police protection services from the City's General Fund. Using the City's current population of 17,313, police protection service costs $137.48 per resident. This cost was determined by dividing the funds appropriated from the general fund for police protection services by the existing population. A cost estimate for future police services is provided in **Table P-2** below.

$2,380,204 / 17,313 population = $137.48 per capita

Table P-2 Projected Police Service Costs

Year	Projected/Planned Population	Police Service Cost
2020	29,476	$4,052,360.48
2025	48,692	$6,694,176.16
2030	53,533	$7,359,716.84
2035	62,541	$8,598,136.68

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources and continue to contract with the City of El Centro for dispatching services. However, due to the future growth anticipated, other funding sources for a new police station with possible dispatching facilities and additional vehicles and equipment will be needed. Further descriptions of these and other financing mechanisms are provided in the Financing section.

V. LIBRARY

The Imperial Public Library is owned and operated by the City of Imperial and it is located at 200 West 9th Street. The single library serves the entire population of Imperial. Services provided by the library include circulation of library materials to all patrons, reference service, audio visual services, computer use and other services.

A. Performance Standard

The performance standard for library facilities was determined during the preparation of the Service Area Plan approved by LAFCO on January 25, 2001. It was based on the existing library facilities square footage and the existing population at the time of the preparation of the Service Area Plan. Therefore, the performance standard for library facilities for the City of Imperial is 217 square feet of library facilities per 1,000 residents.

B. Facility Planning and Adequacy Analysis

This analysis provides an inventory of the existing library facility owned by the City of Imperial, the existing and future demand for facilities, as well as a projected phasing schedule. The purpose of this analysis is to determine if the existing facilities are adequate and to identify approximately when additional facilities will be needed in order to meet future demand.

1. Inventory of Existing Facilities

As noted above, the City of Imperial operates and maintains its own public library. The library staff consists of two full-time personnel and four part-time employees. The library was in the process of hiring another part-time employee at the time this Service Area Plan was being prepared. The Imperial Public Library located at 200 West Ninth Street currently shares 7,260 square feet of space with the Council Chambers/Community Center, with an estimated 4,920 square feet strictly for library use (2,340 square feet is used for Council Chambers/Community Center). The library houses the following:

<u>Collection</u>

- 31,692 books
- 391 serial volumes
- 536 audio materials
- 720 video items
- 1 database-1500+ eBooks an Audio eBooks
- 26 current serial subscriptions

<u>Computers and Equipment</u>

- 1 copier for staff/public use
- 11 public use computers/1 library catalog computer

- 12 laptops and 1 storage/charging cart (for literacy programs)
- 3 library staff computers
- 2 black/white laser printers
- 1 fax machine for staff/public use
- Video surveillance equipment (3 cameras, monitor/VCR)
- Miscellaneous (shelving, paper back spinners, tables and chairs)

2. Adequacy of Existing Facilities

Using the performance formula provided above of 217 SF per 1,000 residents, the existing demand for library facilities is 3,757 square feet. Based on the performance standard formula, there is a surplus of 1,163 square feet of library building square footage.

Existing Population x Performance Standard = Current Facility Demand
17,313 Population x 217 Sq.Ft. / 1,000 population = 3,757 Sq. Ft.

The current space reserved for library use at the facility, of 4,920 SF of library space, is currently adequate and is currently undergoing another expansion. The current improvements at the library are estimated at $610,000 that will result in an additional 4,738 SF of total space, of which 2,754 will be reserved for library use. The ending library space by the end of 2015 will be 7,674 SF. As the population increases, there will be a need for additional library facilities, beyond the 7,674, by the year 2035.

3. Future Demand for Facilities

As the City of Imperial continues to grow, so does the need for library facilities. With a planned population expected to reach 62,541 by the year 2035, additional library facilities will be needed to serve the future residents. In order to meet this future demand, an additional 5,897 square feet of library facilities, beyond the 2,754 SF library space expansion, will be needed by 2035.

4. Opportunities for Shared Facilities

The City of Imperial participates in the SERRA Cooperative System that includes libraries from Imperial County and San Diego County for inter-library loan program, the library shares resources with other libraries in the region. The public library will continue to pursue this opportunity for shared resources in order to keep costs down while providing acceptable services to City residents. The library further has a conference room that is used for closed sessions by City Council. If needed, the library could be used for public meetings when other City administrative facilities are occupied.

5. Phasing

The yearly demand for library facilities is shown on Demand for Library Services table below. The yearly demand **Table L-1** below provides the square footage needs for the library over a twenty-year period in five-year increments.

Table L-1 Projected Library Service Demand

Year	Projected/Planned Population	Library Service Demand
2020	29,476	6,396 SF Facility
2025	48,692	10,566 SF Facility
2030	53,533	11,616 SF Facility
2035	62,541	13,571 SF Facility

C. Mitigation

The City shall support the continuation of library services as a necessary and desirable community service facility. The following mitigation is recommended:

L-1 The City of Imperial shall continue efforts to obtain additional funding in order to continue providing adequate library services to the residents.

D. Financing

The current revenue sources for library facilities and services include property and sales taxes from the City's general fund and impact fees. The 2014-2015 budget allocated approximately $210,751 for library services from the City's general fund.

1. Per Capita Costs

The 2014-2015 City of Imperial budget identifies approximately $210,751 for continued operation of library services. Using the City's current population of 17,313 library services cost $12.17 per resident. This cost was determined by dividing the funds appropriated form the general fund for library services by the existing population. A cost estimate for future library services is provided in the **Table L-2** below. Note that the table uses 2015 dollars, and based on the following:

$210,751 / 17,313 population = $12.17 per capita

Table L-2 - Projected Library Service Costs

Year	Projected/Planned Population	Library Service Cost
2020	29,476	$358,722.92
2025	48,692	$592,581.64
2030	53,533	$651,496.61
2035	62,541	$761,123.97

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources for the continued maintenance and operation of the Imperial Public Library. Due to future growth anticipated, other funding sources should be considered to maintain an adequate level of library service for the existing and future residents. There are several funding sources for library facilities such as community facilities district, special assessment district, the California Literacy Campaign Fund, as well as Community Development Block Grants and user fees. Further descriptions of these and other financing mechanisms are presented in the Financing Plan of this Service Area Plan.

VI. RECREATIONAL AND PARK FACILITIES

There are a number of recreational facilities within the City of Imperial including open space areas used for recreation. Open space and recreational uses include fourteen city parks. City parks offer picnic facilities and recreational opportunities, including baseball and softball diamonds, basketball courts and tot-lots. Eager Park is centrally located in the City and also has a splash pad. In addition to these amenities, the City also offers an array of local recreation programs and services for children, adults, and seniors at City facilities.

A. Performance Standard

The City of Imperial has adopted the Performance Standard of 3.0 acres parkland/1,000 population. This standard is applied to developer impacts and further stipulated as a Goal in the Open Space and Recreation Element of the General Plan.

B. Facility Planning And Adequacy Analysis

The existing public parks within the City of Imperial are owned and operated by the City of Imperial Parks Department. The recreation department has six (6) full time employees (three maintenance employees and three professional employees) and one part time employee. Part-time employees are increased to 25 during the summer months.

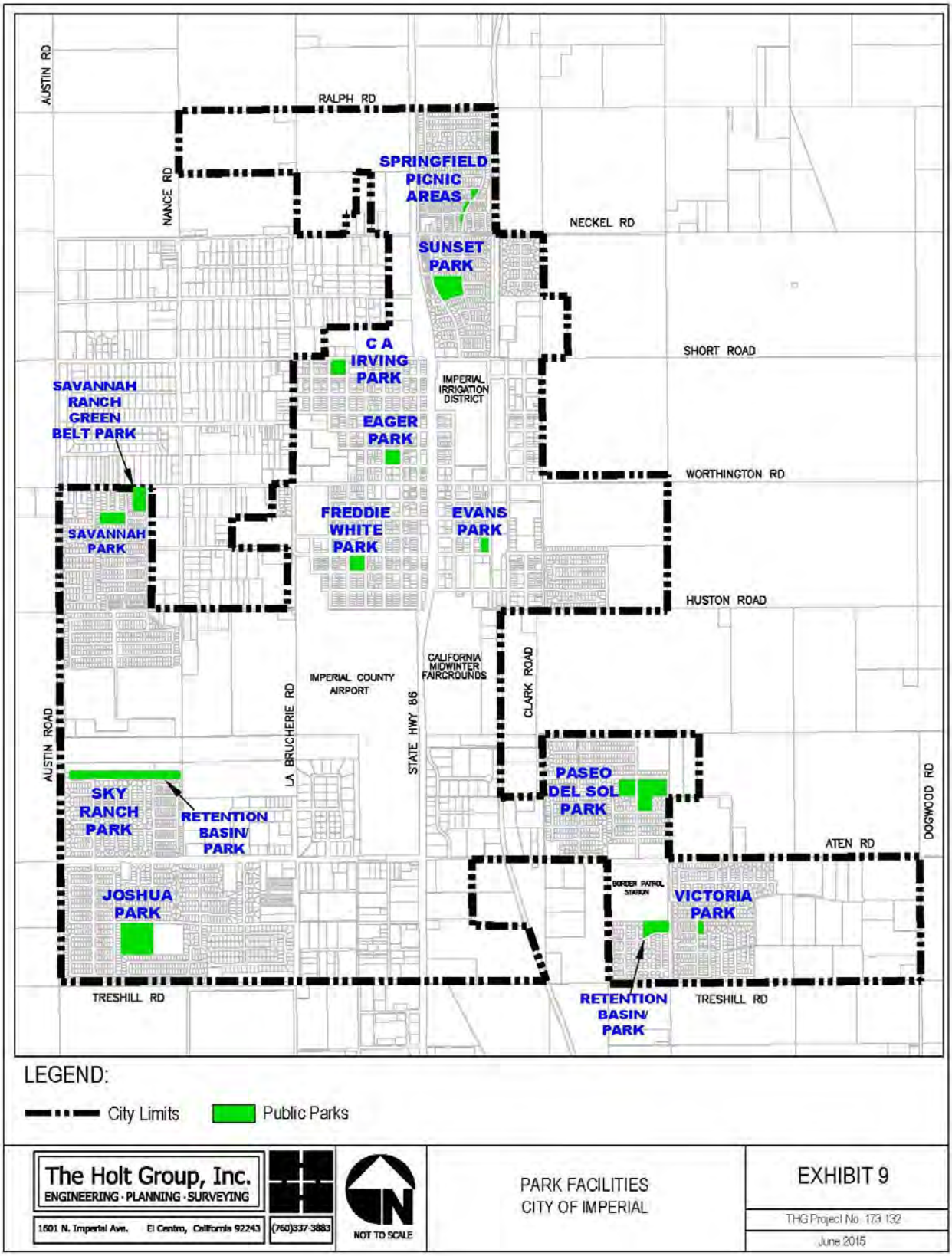
1. Inventory of Existing Facilities

The City of Imperial currently has over 50 acres of parkland as depicted in **Exhibit 9-Park Facilities**. Park inventory included over 50 acres as follows:

Table R-1
City of Imperial Park Space

Park	Acres
C.A. Irving Sports Complex	2.07
Aviation Park	.89
Imperial Dog Park	4.75
Eager Park	2.07
Evans Park	1.35
Freddie White Park	2.07
Joshua Tree Park	11.50
Paseo Del Sol Park	14.00
Savanna Ranch Green Belt	3.94
Savanna Ranch Park	2.94
Sky Ranch Green Belt	4.59
Sky Ranch Park	2.19
Sunset Park	5.25
Springfield Picnic Areas	1.68
Victoria Basin/Park	2.9
Victoria Park	0.68
Total	**62.87**

Exhibit 9- Existing Park Facilities



2. Adequacy of Existing Facilities

Using the goal of 3.0 acres per 1,000 population, there should be a minimum of 51.94 acres of parkland. Based on the existing park acreage of 52.25 acres, there is an existing surplus of 10.62 acres. The adequacy is calculated as follows:

Existing Population x Performance Standard = Current Demand

17, 313 Population x 3.0 Acres / 1,000 population = 51.94 Acres

Existing Facilities – Current Demand = Adequacy

62.87 Acres – 51.94 Acres = 10.93 Acres Surplus

The city currently has a surplus of park acreage. It is important that adequate park facilities be provided to serve the residents of Imperial. The City actively requires the development community to provide parkland either through the payment of the development impact fee or through parkland donations or improvements as a part of the development approval process.

3. Future Demand for Facilities

Based on a 2035 population projection of 62,541 the City of Imperial will need 187.62 acres of recreational open space in order to be consistent with the performance standard objective of the General Plan. This indicates that the City will need to obtain an additional 135.37 acres of recreational open space by the year 2035. This figure was determined as follows:

3.0 Acres / 1,000 Population x 62,541 population = 187.62 Acres of Future Demand

187.62 Acres of Future Demand - 62.87 Acres Existing Parkland = 124.75 Acres Needed

The City has been planning a Regional Park and Equestrian Center to be located along the northern part of the City Limits in an area bound by Larsen Road to the north, Ralph Road to the south and Nance and La Brucherie Roads at the respective west and east boundaries. The subject area encompasses 144 acres of which some will be dedicated for recreational facilities.

4. Opportunities for Shared Facilities

The City currently contracts with the Imperial High School during the summer for use of the pool located at the high school for public swimming. The City has Joint Use Agreements with the Imperial Unified School District for use of other recreational facilities outside of school hours. There are three schools within Imperial Unified School District that could provide for recreational opportunities

during the after school hours and on weekends. A Joint Use Agreement with the Imperial Unified School District for the new Frank Wright Middle School at the corner of Fifteenth Street and Imperial Avenue was adopted by the City and the School District. The Ben Hulse gym is also used for dance and drama. Additional discussions may occur between the School District and the City regarding additional joint use agreements for use of school facilities for recreation purposes.

5. Phasing

Based on the 3.0 acres per 1,000 population performance standard for parkland, the following **Table R-2** represents the demand for recreational land/parkland acreage for the next 20 years in five year increments.

Table R-2 Projected Parkland Demand

Year	Projected/Planned Population	Parkland Demand
2020	29,476	88.43 Acres
2025	48,692	146.08 Acres
2030	53,533	160.60 Acres
2035	62,541	187.62 Acres

C. Mitigation

The City of Imperial should continue to pursue various means by which to obtain and provide for adequate park facilities for the existing and future residents of the City of Imperial. The following are mitigation recommendations to achieve adequacy for park facilities.

R-1 Continue to require developers of new subdivisions to dedicate parkland and/or pay the development impact fee to ensure that future residents pay their fair share for impacts on park facilities.

R-2 Pursue federal and state grants and aid funds to ensure there are sufficient parks in the future.

D. Financing

The current revenue sources used to pay for park facilities include property and sales taxes from the general fund, user fees for recreational activities and pool use, and park impact fees collected from new residential developments. The City of

Imperial will continue to use these funding sources for the continued maintenance and operation of parks and recreational facilities.

1. Per Capita Costs

The 2014-2015 City of Imperial budget provided approximately $617,592 for parks and recreation. Using the City's current population of 17,313, parks and recreation facilities cost $35.67 per resident. This cost was determined by dividing the funds appropriated for parks and recreation facilities by the existing population. The **Projected Recreation Cost Table R-3** provides a cost for park operation and maintenance based on the year 2015 dollars and in 5-Year increments.

$617,592 / 17,313 population = $35.67 capita

Table R-3 Projected Recreation Cost

Year	Projected Population	Recreation Cost
2020	29,476	$1,051,408.92
2025	48,692	$1,736,843.64
2030	53,533	$1,909,522.11
2035	62,541	$2,230,837.47

2. Future Funding Sources

The City of Imperial will continue to use the existing funding sources for the continued maintenance and operation of the park and recreation facilities. However, due to the anticipated future growth, other funding sources will be needed in order to develop the regional park and equestrian center in order to provide an adequate level of service for future residents. There are several other funding sources available for park facilities such as community facilities district, special assessment district, as well as Community Development Block Grants and other state and federal grants. Further descriptions of these and other financing mechanisms are provided in the *Financing Plan* section.

VII. CIRCULATION & TRANSPORTATION

A. Performance Standard

The Circulation Element of the Imperial General Plan was created to sustain safe and efficient vehicular travel throughout the City. The Circulation Element is consistent with the Land Use Element which dictates that no land use will be approved that will increase the traffic on planned or existing City streets above the street's existing design capacity at a "level of service" of "C" or above. This "level of service" criterion is the most traditional method used to determine the current and future needs for adequate circulation facilities with an assignment of A to F as noted below.

Level of Service	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, delays are high, and there are more vehicles entering the roadway than can be accommodated.

The City of Imperial, similar to many other jurisdictions, has started using a different performance standard known as Complete Streets. Complete Streets is a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. Modes of transportation in the City of Imperial include pedestrians, bicycles, cars, trucks, buses, trains and emergency vehicles.

B. Facility Planning and Adequacy Analysis

The City of Imperial contains a circulation system which is predominantly oriented in a north/south and east/west grid system. The major north/south arterial system consists of Austin Road, Imperial Avenue, State Highway 86, P Street (Clark Road), and Dogwood Road. The major east/west arterial system consists of Ralph Road, Neckel Road, Fifteenth Street, Barioni Boulevard (Worthington Road) and Aten Road. These streets have independent classifications in accordance with the Imperial General Plan and updated structural section guidelines as follows:

Table C-1 City of Imperial Major Street Classifications & Guidelines

CLASSIFICATION	ROW/PAVED WIDTH	NO. OF LANES
Highway	300/226 Feet	4
Major Arterial	102/80 Feet	4
Secondary Arterial	84/50 Feet	2
Industrial Collector	70/44 Feet	2
Residential Collector	60/40 Feet	2

1. **Inventory of Existing Facilities-** The City of Imperial maintains over seventy one (71) lineal miles of roadway (Source: ICTC, 2015). The existing facilities, identified per the noted classifications are depicted in attached **Exhibit-10 City of Imperial Circulation System**. A more detailed discussion for each of the facilities identified is noted below:

   Signalized Intersections - The City of Imperial contains six signalized intersections which include the intersections of Aten Road/Highway 86, Barioni Boulevard/Highway 86, Fifteenth Street/Highway 86, La Brucherie/Aten Road, Clark Road/Aten Road and Cross Road/Aten Road. A seventh signal is planned for the Aten and Dogwood intersection.

   State Highway – Highways are main roads that typically connect major towns or cities and are designed for high speed traffic. Highways collect a large volume of traffic with speed limits from 55 to 70 miles per hour. The City of Imperial has approximately 3.5 lineal miles of highway within its incorporated City Limits.

   - **State Highway 86** - Highway 86, a major four lane Expressway, is located within the City of Imperial but is maintained and managed by the California State Department of Transportation. The State Department of Transportation also controls the State Highway right-of-way.

Major Arterials - Major arterials move traffic through a City from one point to another. Speed limits on major arterials are typically 45 mph and are designed with four lanes. On-street parking should be limited and residential lots should not have direct access onto major arterials. The City of Imperial has over eight (8) lineal miles of existing and planned major arterials within its current incorporated City Limits.

- **Ralph Road-**The majority of Ralph Road that lies within the City's Sphere of Influence is currently within unincorporated areas of Imperial County and has a pavement width less than the designed pavement width/capacity of a major arterial.
- **Neckel Road-** The majority of Neckel Road that lies within the City's Sphere of Influence is currently within unincorporated areas of Imperial County and has a pavement width less than the designed pavement width/capacity of a major arterial.
- **Barioni Boulevard (Worthington Road)-** The majority of this major arterial, within the Sphere of Influence boundaries, is within the incorporated City Limits as Barioni Boulevard, but not improved as a four lane roadway. Roadway sections within unincorporated areas of Imperial County have a pavement width less than the designed capacity of a major arterial.
- **Aten Road**- All of Aten Road within the City's Sphere of Influence is within the Imperial City Limit boundary. The entire roadway segment between Austin Road and Dogwood Road are improved with four lanes and to the full pavement width.
- **La Brucherie Road (Between Barioni Boulevard & Larsen Road)-** Although La Brucherie Road is designated as a major arterial, between Larsen Road at the north and Barioni Boulevard to the south, it is not improved to designed capacity, and is an unimproved facility north of Larsen Road.
- **P Street (Clark Road)-** There are many segments of P Street that are still within unincorporated areas of Imperial County. P Street is currently not improved to its designed capacity.
- **Dogwood Road-** The majority of Dogwood Road within the Sphere of Influence is within unincorporated areas of Imperial County. Dogwood is a major arterial that links to several Imperial County communities and is further planned as a transit corridor. The roadway segment within Imperial's Sphere of Influence is not improved to its designed capacity.

Exhibit-10 City of Imperial Circulation & Transportation System

Secondary Arterials - Secondary arterials move traffic in a similar manner as major arterials, except they are designed with two lanes instead of four lanes. These arterials carry a lower volume of traffic and typically have a 35 mph speed limit. On-street parking should be limited and residential lots should not have direct access onto secondary arterials. The City of Imperial has just over seven (7) lineal miles of existing and planned secondary arterials within the current City Limits.

Secondary Arterials Improved at Designed Capacity:

- Imperial Avenue
- Fifteenth Street

Secondary Arterials Not Improved to Designed Capacity:

- Cross Road
- Second Street
- Treshill Road
- P Street
- Huston Road
- Brewer Road

Industrial Collectors - Industrial collectors have a wider curb to curb width in order to facilitate large truck movements. These collectors are designed for low volumes with speed limits 30 to 35 miles per hour. The City of Imperial has over just over three (3) lineal miles of existing and planned industrial collectors within the current incorporated City Limits.

Industrial Collectors Improved at Designed Capacity:

- La Brucherie Road (Aten Road to Airport)

Industrial Collectors Not Improved to Designed Capacity:

- First Street (east)
- Fourth Street (N Street to P Street)
- M Street
- N Street

Residential Collectors - Local collectors collect a smaller volume of traffic from a smaller area. Streets are usually two lanes wide with a speed limit of 25 to 30 miles per hour. Access is not restricted and on street parking is available. The City of Imperial has over fifty (50) lineal miles of existing and planned residential collectors within the incorporated City Limits.

Residential Collectors

- La Brucherie Road (South City Limits to Aten Road)
- First Street (west)
- Third Street
- Fourth Street (B Street to M Street)
- Remaining number and letter streets not previously mentioned.

Signalized Intersections-The City of Imperial contains five signalized intersections which include the intersections of Aten Road/Highway 86, Barioni Boulevard/Highway 86, 15th Street/Highway 86, La Brucherie/Aten Road, and Clark Road/Aten Road. A sixth signal light is currently under construction for the Aten Road/Dogwood road intersection.

Transit Services and Facilities-There are five IV Transit bus routes serving the City of Imperial. Barioni Boulevard, SR-86 and Aten Road are recommended as transit priority routes. There a total of three bus stops equipped with bus shelter facilities within the City Limits as noted below. A fourth bus stop is at Imperial Valley College within a future planned Sphere of Influence.

- Imperial Avenue just North of Barioni Boulevard along East
- East Barioni Boulevard just East of North K Street
- West Aten Road just East of La Brucherie Road

2. Adequacy of Existing Facilities

Although all the existing streets are not constructed to full build-out and some are not constructed to designed capacity, as noted in existing conditions, they are operating at adequate volume to capacity ratios of 0.80 or better. There have been a number of traffic studies tied to planned development that conclude existing conditions are satisfactory and that it is only when new development is in place modifications and improvements would be needed.

The existing circulation system is adequate to accommodate the current needs of the City. Existing roadways properly link existing land uses. In the proceeding section, this Service Area Plan discusses proposed improvements to accommodate anticipated development within the City Limits and in unincorporated areas planned for annexation.

3. Future Demand of Facilities

As the City of Imperial continues to grow, future improvements will be required to build streets to full improvements in accordance with the design standards set forth by the City of Imperial Engineering Department and with a Complete Street focus. Future roadway improvements should be designed to provide a circulation network that prioritizes and provides safe and convenient, and attractive facilities for all users of the system. Roadway segments in incorporated areas that are planned for major improvements within the Service Area planning period are noted in **Table C-2** for connectivity.

Table C-2 Future Roadway Improvements in City Limits

Street Name	Street Type	Street Segment	Improvement	Length
Aten	Major Arterial	Cross Road to Dogwood Road	Full Street	5,250 LF
La Brucherie	Major Arterial	Barioni Blvd to Larsen Road	Half Street	9,900 LF
Worthington	Major Arterial	P Street to 4,500 LF East	Half Street	4,500 LF
Dogwood	Major Arterial	Aten Road to Treshill Road	Half Street	2,690 LF
Ralph	Major Arterial	Highway 86 to Nance Road	Full Street	4,930 LF
Clark Street	Major Arterial	Aten Road to Treshill	Half Street	2,690 LF
P Street	Secondary Arterial	1st Street to 12th Street	Half Street	4,200 LF
Neckel	Secondary Arterial	Highway 86 to Rodeo Drive	Full Street	300 LF
Neckel	Secondary Arterial	Rodeo Drive to 1,400 LF East	Half Street	1,400 LF
15th Street	Residential Collector	La Brucherie to E Street	Half Street	1,220 LF
Brewer	Residential Collector	Nance Road to La Brucherie	Half Street	2,460 LF
Shiloh	Residential Collector	Wall Road to Aten Road	Full Street	2,020 LF
La Brucherie	Residential Collector	Joshua Tree to Treshill	Full Street	2,820 LF

Source: City of Imperial Planning Department

Developers will construct required internal street improvements associated with each project Additionally, developers will be required to construct frontage improvements along all Circulation Element roadways adjacent to each proposed annexation and future project. Bikeways may be necessary along Major Arterials such as Aten Road. Another City focus is to provide for separated multi-use paths for bikeways, pedestrian walkways, or equestrian facilities along major collector roadways which prioritize vehicular use. Some key locations considered for separated facilities include:

1) Along Austin Road (to include equestrian pathway/connection)
2) Along Highway 86 (for pedestrian safety to serve higher density areas)
3) Along Aten Road (to connect bicyclists with Imperial Valley College)

The City's current facility demand continues to be highly automobile-oriented. **Table C-3** in the proceeding page identifies roadway demand from planned annexation areas.

Table C-3 Future Roadway Improvements in Annexation Areas

Annexation Area	Street	Street Type	Width	Length
N-1 Barioni Lakes North	Larsen Road	Residential Collector	Half Street	4,930 LF
	Nance Road	Residential Collector	Full Street	2,570 LF
N-2 Barioni Lakes West	Larsen Road	Residential Collector	Full Street	2,590 LF
	La Brucherie	Major Arterial	Half Street	1,350 LF
	Neckel Road	Secondary Arterial	Half Street	5,110 LF
	Nance Road	Residential Collector	Half Street	2,740 LF
	Austin Road	Major Arterial	Half Street	5,260 LF
N-3 Regional Park	Larsen Road	Residential Collector	Half Street	2,560 LF
	La Brucherie	Major Arterial	Half Street	2,490 LF
	Ralph Road	Major Arterial	Full Street	2,490 LF
	Nance Road	Residential Collector	Half Street	2,740 LF
N-4 Barioni Phase I	Larsen Road	Residential Collector	Half Street	2,370 LF
	Ralph Road	Major Arterial	Full Street	2,370 LF
	La Brucherie	Major Arterial	Half Street	2,680 LF
N-5 HBC	Larsen Road	Industrial Collector	Half Street	2,640 LF
	Clark Road	Major Arterial	Half Street	2,640 LF
	Ralph Road	Major Arterial	Half Street	2,640 LF
NE-1 McFarland Ranch	Neckel Road	Secondary Arterial	Full Street	5,320 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
NE-2 Sanchez Ranch	Neckel Road	Secondary Arterial	Full Street	2,610 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
	Worthington Road	Major Arterial	Half Street	7,930 LF
	Clark Road	Major Arterial	Half Street	1,260 LF
	Clark Road	Secondary Arterial	Half Street	2,600 LF
W-1 Western Development	La Brucherie	Major Arterial	Half Street	5,780 LF
	Neckel Road	Secondary Arterial	Half Street	6,900 LF
	15th Street	Residential Collector	Half Street	790 LF
SE-1 Encanto Estates	Worthington	Major Arterial	Half Street	7,640 LF
	Dogwood	Major Arterial	Full Street	2,500 LF
	Cross Road	Residential Collector	Half Street	2,500 LF
	Huston	Secondary Arterial	Half Street	5,230 LF
SE-2 East Annexation	P Street	Major Arterial	Half Street	2,600 LF
	P Street	Major Arterial	Full Street	1,600 LF
	1st Street	Industrial Collector	Half Street	900 LF
SE-3 Crown Commercial	P Street	Major Arterial	Half Street	2,600 LF
	1st Street	Industrial Collector	Full Street	2,640 LF
	Huston	Secondary Arterial	Half Street	2,510 LF
	Cross	Secondary Arterial	Full Street	2,600 LF
SE-5 NE Cross/Aten	Aten Road	Major Arterial	Half Street	5,280 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
	Future Road (E/W)	Residential Collector	Half Street	5,280 LF
	Future Road (N/S)	Residential Collector	Full Street	2,640 LF
	Cross Road	Secondary Arterial	Half Street	2,640 LF
SE-6 S Aten/E RR Tracks	Clark Road	Major Arterial	Full Street	2,600 LF
	Treshill Road	Secondary Arterial	Full Street	1,383 LF
	Aten Road	Major Arterial	Half Street	2,900 LF

Source: 2007 Service Area Plan, 2015 Annexation Areas Updated per Imperial Planning Director.

4. Opportunities for Shared Facilities

While there are no real opportunities for shared roadway facilities with an adjacent jurisdiction, the City's system links with City of El Centro roadways, to the State and with the County and State Highway system. The City continues to work with local and State government agencies to monitor the operation of the regional system for implementation of necessary improvements.

5. Phasing

Roadway improvements identified within City Limits are anticipated to be completed within a five year timeframe. Improvements to circulation facilities within annexation areas will be provided concurrently with new development as noted in **Table C-4**. Each five year section identifies the total lineal fee of roadway as well as the anticipated new mileage to be maintained by the City of Imperial after annexation and improvement. By the end of the 20 year planning period an additional 22.5 miles of new arterial and major collector roadways constructed by developers are anticipated to be maintained by the City. Developers are further responsible to pay all associated fair share costs of traffic signals serving the development.

Table C-4 Phasing of Roadway Improvements In Annexation Areas

5 Year Plan				
Annexation Area	**Street**	**Street Type**	**Width**	**Length**
N-3 Regional Park	Larsen Road	Residential Collector	Half Street	2,560 LF
	La Brucherie	Major Arterial	Half Street	2,490 LF
	Ralph Road	Major Arterial	Full Street	2,490 LF
	Nance Road	Residential Collector	Half Street	2,740 LF
N-4 Barioni Phase I	Larsen Road	Residential Collector	Half Street	2,370 LF
	Ralph Road	Major Arterial	Full Street	2,370 LF
	La Brucheri	Major Arterial	Half Street	2,680 LF
N-5 HBC	Larsen Road	Industrial Collector	Half Street	2,640 LF
	Clark Road	Major Arterial	Half Street	2,640 LF
	Ralph Road	Major Arterial	Half Street	2,640 LF
NE-2 Sanchez Ranch	Neckel Road	Secondary Arterial	Full Street	2,610 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
	Worthington	Major Arterial	Half Street	7,930 LF
	Clark Road	Major Arterial	Half Street	1,260 LF
	Clark Road	Secondary Arterial	Half Street	2,600 LF
SE-1 Encanto Estates	Worthington	Major Arterial	Half Street	7,640 LF
	Dogwood	Major Arterial	Full Street	2,500 LF
	Cross Road	Residential Collector	Half Street	2,500 LF
	Huston	Secondary Arterial	Half Street	5,230 LF
SE-2 East Annexation	P Street	Major Arterial	Half Street	2,600 LF
	P Street	Major Arterial	Full Street	1,600 LF
	1st Street	Industrial Collector	Half Street	900 LF
SE-3 Crown Commercial	P Street	Major Arterial	Half Street	2,600 LF
	1st Street	Industrial Collector	Full Street	2,640 LF
	Huston	Secondary Arterial	Half Street	2,510 LF
	Cross	Secondary Arterial	Full Width	2,600 LF
			Total Lineal Feet	**75,980**
			Additional Lineal Miles to be Maintained (Full Width)	**11.5**

10 Year Plan				
Annexation Area	**Street**	**Street Type**	**Width**	**Length**
N-1 Barioni Lakes North	Larsen Road	Residential Collector	Half Street	4,930 LF
	Nance Road	Residential Collector	Full Street	2,570 LF
N-2 Barioni Lakes West	Larsen Road	Residential Collector	Full Street	2,590 LF
	La Brucherie	Major Arterial	Half Street	1,350 LF
	Neckel Road	Secondary Arterial	Half Street	5,110 LF
	Nance Road	Residential Collector	Half Street	2,740 LF
	Austin Road	Major Arterial	Half Street	5,260 LF
NE-1 McFarland Ranch	Neckel Road	Secondary Arterial	Full Street	5,320 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
SE-5 NE Cross/Atem	Aten Road	Major Arterial	Half Street	5,280 LF
	Dogwood Road	Major Arterial	Full Street	2,640 LF
	Future Road (E/W)	Residential Collector	Half Street	5,280 LF
	Future Road (N/S)	Residential Collector	Full Street	2,640 LF
	Cross Road	Secondary Arterial	Half Street	2,640 LF
SE-6 S Aten/E RR Tracks	Clark Road	Major Arterial	Full Street	2,600 LF
	Treshill Road	Secondary Arterial	Full Street	1,383 LF
	Aten Road	Major Arterial	Half Street	2,900 LF
			Total Lineal Feet	**57,873**
			Additional Lineal Miles to be Maintained (Full Width)	**9.5**

20 Year Plan				
Annexation Area	**Street**	**Street Type**	**Width**	**Length**
W-1 Western Development	La Brucherie	Major Arterial	Half Street	5,780 LF
	Neckel Road	Secondary Arterial	Half Street	6,900 LF
	15th Street	Residential Collector	Half Street	790 LF
			Total Lineal Feet	**13,470**
			Additional Lineal Miles to be Maintained (Full Width)	**1.5**

C. Mitigation

Most of the circulation improvements identified will be constructed by the future developers as development occurs. The following are the recommended mitigation measures:

C-1 For Industrial and Residential Collectors, the developer shall be responsible for two street improvements including one travel lane, curb, gutter, and sidewalk constructed to City standards for all land fronting on said collectors.

C-2 For Major and Secondary Arterials, the developer shall be responsible for frontage improvements including two medians, one travel lane, curb, gutter, and sidewalk.

C-3 New development that results in increased traffic impacts that exceed 5,000 vehicles per day on local streets shall provide for a traffic study to outline needed improvements to mitigate the increased traffic levels.

D. Financing

The existing funding sources for circulation improvements, maintenance and operation come from the City's general fund, Motor Vehicle In-Lieu Tax, State Gas Tax, CalTrans, and LTA Measure D as well as developers. The City of Imperial will continue to utilize these funding sources.

1. Current Costs and Per Capita Costs for Operation & Maintenance

The current cost for the continued maintenance and operation of the circulation system in the City of Imperial is approximately $17.72 per capita. The 2014 - 2015 City of Imperial budget allocated $306,817 for Streets & Sidewalk maintenance which is primarily used to match available transportation grant funds. Using the City's current population of 17,313 residents, maintenance and operation of the circulation maintenance cost approximately $17.72 per capita as calculated below and projected in **Table C-5**.

$306,817 /17,313 population = $17.72 per capita

Table C-5 Projected Street Maintenance Costs

Year	Projected Population	Street Maintenance Cost
2020	29,476	$522,366.89
2025	48,692	$862,908.41
2030	53,533	$948,699.50
2035	62,541	$1,108,226.52

2. Current Estimated Costs for Capital Improvements

Development Impact Fees are levied by the City of Imperial for circulation facilities. Revenue generated by development impact fees for roadways are placed in a separate fund and are used for specific circulation system and roadway capital improvement projects. An assessment of street improvement costs was prepared based on the City's adopted Structural Street Section improvement guide for roadway classifications as follows:

Street Classification	Pavement Width	Structural
Major Arterial	80 Feet	5.5" AC over 12" Class 2 AB
Secondary Arterial	50 Feet	4.5" AC over 12" Class 2 AB
Industrial Collector	44 Feet	4.5" AC over 12" Class 2 AB
Residential Collector	40 Feet	4.5" AC over 12" Class 2 AB

Source: BJ Engineering Gateway Street Structural Section Sheet BJ31

The *Cost Estimate for Future Roadway Improvements - City* **Table C-6** and the *Cost Estimate for Future Roadway Improvements – Annexation Areas* **Table C-7** identify the roadway improvements needed for the City and the annexation areas. The following street unit costs are assumed for future circulation improvements in the respective tables (Please refer to **Appendix C** for a complete Engineers Opinion of Probable Quantity and Cost Calculation):

- Major Arterial - $916.00/LF
- Secondary Arterial - $571.00/LF
- Industrial Collector - $484.00/LF
- Residential Collector - $388.00/LF

Table C-6 Future Roadway Costs Within City Limits

Street Name/ (classifications)	Street Segment	Improvement/ Unit Cost	Length	Project Cost
Aten (major arterial)	Cross Road to Dogwood Road	Full Street $916	5,250 LF	$4,809,000
La Brucherie (major arterial)	Barioni Blvd to Larsen Road	Half Street $458	9,900 LF	$4,534,200
Worthington (major arterial)	P Street to 4,500 LF East	Half Street $458	4,500 LF	$2,061,000
Dogwood (major arterial)	Aten Road to Treshill Road	Half Street $458	2,690 LF	$1,232,020
Ralph (major arterial)	Highway 86 to Nance Road	Full Street $916	4,930 LF	$4,515,880
Clark Street (major arterial)	Aten Road to Treshill	Half Street $458	2,690 LF	$1,232,020
P Street (secondary arterial)	1st Street to 12th Street	Half Street $285	4,200 LF	$1,197,000
Neckel (secondary arterial)	Highway 86 to Rodeo Drive	Full Street $571	300 LF	$171,300
Neckel (secondary arterial)	Rodeo Drive to 1,400 LF East	Half Street $285	1,400 LF	$399,000
15th Street (residential collector)	La Brucherie to E Street	Half Street $194	1,220 LF	$236,680
Brewer (residential collector)	Nance Road to La Brucherie	Half Street $194	2,460 LF	$477,240
Shiloh (residential collector)	Wall Road to Aten Road	Full Street $388	2,020 LF	$783,760
La Brucherie (residential collector)	Joshua Tree to Treshill	Full Street $388	2,820 LF	$1,094,160
			Total Estimated Construction Costs	**$22,743,260**
			10% Contingency	**$2,274,326**
			30% Design Engineering & Construction Management	**$6,822,978**
			Total Cost	**$31,840,564**

The following are the assumptions used for the above unit costs:

- New construction for all streets identified.
- New construction includes grading, aggregate base, A.C. pavement, curb gutter and sidewalk all built to City of Imperial standards by the contractor, including subgrade.
- New construction also includes a 25% to project cost for mobilization of equipment, permits, insurance, taxes, construction staking, air pollution control district requirements, environmental requirements, stormwater pollution prevention plans (SWPPP), geotechnical testing, striping and signage, and traffic control during construction, etc.
- Acquisition of right-of-way land to be donated by future developer(s), therefore no cost is assumed.

Table C-7 Future Roadway Costs by Annexation Areas

5-Year Area	Street	Street Type	Width	Unit Cost	Length	Total Cost
N-3	Larsen Road	Residential Collector	Half Street	$194	2,560 LF	$496,640
	La Brucherie	Major Arterial	Half Street	$458	2,490 LF	$1,140,420
	Ralph Road	Major Arterial	Full Street	$916	2,490 LF	$2,280,840
	Nance Road	Residential Collector	Half Street	$194	2,740 LF	$531,560
N-4	Larsen Road	Residential Collector	Half Street	$194	2,370 LF	$459,780
	Ralph Road	Major Arterial	Full Street	$916	2,370 LF	$2,170,920
	La Brucherie	Major Arterial	Half Street	$458	2,680 LF	$1,227,440
N-5	Larsen Road	Industrial Collector	Half Street	$242	2,640 LF	$638,880
	Clark Road	Major Arterial	Half Street	$458	2,640 LF	$1,209,120
	Ralph Road	Major Arterial	Half Street	$458	2,640 LF	$1,209,120
NE-2	Neckel Road	Secondary Arterial	Full Street	$571	2,610 LF	$1,490,310
	Dogwood Road	Major Arterial	Full Street	$916	2,640 LF	$2,418,240
	Worthington	Major Arterial	Half Street	$458	7,930 LF	$3,631,940
	Clark Road	Major Arterial	Half Street	$458	1,260 LF	$577,080
	Clark Road	Secondary Arterial	Half Street	$258	2,600 LF	$670,800
SE-1	Worthington	Major Arterial	Half Street	$458	7,640 LF	$3,499,120
	Dogwood	Major Arterial	Full Street	$916	2,500 LF	$2,290,000
	Cross Road	Residential Collector	Half Street	$194	2,500 LF	$485,000
	Huston	Secondary Arterial	Half Street	$258	5,230 LF	$1,349,340
SE-2	P Street	Major Arterial	Half Street	$458	2,600 LF	$1,190,800
	P Street	Major Arterial	Full Street	$916	1,600 LF	$1,465,600
	1st Street	Industrial Collector	Half Street	$242	900 LF	$217,800
SE-3	P Street	Major Arterial	Half Street	$458	2,600 LF	$1,190,800
	1st Street	Industrial Collector	Full Street	$484	2,640 LF	$1,277,760
	Huston	Secondary Arterial	Half Street	$258	2,510 LF	$647,580
	Cross	Secondary Arterial	Full Street	$571	2,600 LF	$1,484,600
					5-Year Plan Subtotal	**$35,251,490**

10 Year Area	Street	Street Type	Width	Unit Cost	Length	Total Cost
N-1	Larsen Road	Residential Collector	Half Street	$194	4,930 LF	$956,420
	Nance Road	Residential Collector	Full Street	$388	2,570 LF	$997,160
N-2	Larsen Road	Residential Collector	Full Street	$388	2,590 LF	$1,004,920
	La Brucherie	Major Arterial	Half Street	$458	1,350 LF	$618,300
	Neckel Road	Secondary Arterial	Half Street	$258	5,110 LF	$1,318,380
	Nance Road	Residential Collector	Half Street	$194	2,740 LF	$531,560
	Austin Road	Major Arterial	Half Street	$458	5,260 LF	$2,409,080
NE-1	Neckel Road	Secondary Arterial	Full Street	$571	5,320 LF	$3,037,720
	Dogwood Road	Major Arterial	Full Street	$916	2,640 LF	$2,418,240
SE-5	Aten Road	Major Arterial	Half Street	$458	5,280 LF	$2,418,240
	Dogwood Rd	Major Arterial	Full Street	$916	2,640 LF	$2,418,240
	Future Rd (E/W)	Residential Collector	Half Street	$194	5,280 LF	$1,024,320
	Future Rd (N/S)	Residential Collector	Full Street	$388	2,640 LF	$1,024,320
	Cross Road	Secondary Arterial	Half Street	$258	2,640 LF	$681,120
SE-6	Clark Road	Major Arterial	Full Street	$916	2,600 LF	$2,381,600
	Treshill Road	Residential Collector	Full Street	$388	1,383 LF	$536,604
	Aten Road	Major Arterial	Half Street	$194	2,900 LF	$562,600
					10-Year Plan Subtotal	**$24,338,824**

20 Year Area	Street	Street Type	Width	Unit Cost	Length	Total Cost
W-1	La Brucherie	Major Arterial	Half Street	$458	5,780 LF	$2,647,240
	Neckel Road	Secondary Arterial	Half Street	$258	6,900 LF	$1,780,200
	15th Street	Residential Collector	Half Street	$194	790 LF	$153,260
					20-Year Plan Subtotal	**$4,580,700**
					Total Estimated Annexation Area Construction Cost	**$64,171,014**
					10% Contingency	**$6,417,101**
					30% Design & Engineering	**$19,251,304**
					Total Cost in Annexation Areas	**$89,839,409**

3. Future Funding Sources

Objective 8 of the General Plan Circulation Element states "the financing of improvements to the City circulation system made necessary by new development projects shall be borne by the developer, while the maintenance and improvements of the existing street system shall be borne by the City and its residents."

The City of Imperial collects development impact fees as a means to assist in the funding of future capital improvements to circulation facilities. Both future residential and nonresidential developments will be required to pay development impact fees.

Policy 8 of the Circulation Element suggests that the City utilize assessment district financing, grants and other sources of revenue as well as a five-year capital improvement plan to help finance City circulation improvements. There are several funding sources for circulation facilities

such as community facilities district, special assessment district, Certificate of Participation, Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA), Surface Transportation Program (STP), as well as Community Development Block Grants and other state and federal grants. Further descriptions of these and other financing mechanisms are provided in the *Financing* section.

VIII. SANITARY SEWER

The City of Imperial owns, operates, and maintains a wastewater collection and treatment system that services to the City of Imperial, and some isolated areas immediately outside of the City boundary, but within the Sphere of Influence. The Imperial Water Pollution Control Plant (IWPCP) is located at 701 East 14th Street, located just east of the railroad tracks. The existing wastewater treatment plant is currently located on a 4.68 acre site (net acreage) and services the entire City limits. The IWPCP was constructed in the 1940's and was rebuilt in 1995. The most recent expansion was completed in 2004, and has a current treatment capacity of 2.4 million gallons per day (MGD).

Much of the information for this section was acquired from the Master Plan for the Sanitary Sewer Collection System for the City of Imperial prepared by BJ Engineering and Surveying, Inc., and dated June 2008. Some of the information provided in this section is paraphrased while other parts are used word-for-word from the Master Plan. Additional information was provided by the City of Imperial Public Works Department. For additional details relating to wastewater treatment and conveyance, the Master Plan should be consulted.

A. Performance Standard

Although there are no adopted Performance Standards for wastewater treatment and conveyance, there are design criteria and regulations that must be met to ensure that adequate wastewater treatment and conveyance is provided. The Performance standards and requirements for the Imperial Wastewater Treatment Plant are further governed by the National Pollution Discharge Elimination System (NPDES) discharge permit number CA0104400 adopted by the California Regional Water Quality Control Board, Colorado River Basin Region on September 16, 2010, by Board Order Number R7-2010-0020. The NPDES permit expires on September 30, 2015, and was being renewed as of the date of this Service Area Plan. The NPDES permit establishes the Waste Discharge Requirements 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 minimum standards and criteria by which the IWPCP operates.

At a local level, the City further has established design criteria for the collection and conveyance 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 the design criteria for determining pipeline capacity:

Table S-1 Pipeline Design Criteria

Pipe Diameter	Design Criteria
8" to 10"	½ Full @ Peak Flow
12" to 18"	⅔ Full @ Peak Flow
21" or greater	¾ Full @ Peak Flow

Gravity pipelines should also have a general peak flow velocity of 2.0 fps (feet per second) at 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.

B. Facility Planning and Adequacy Analysis

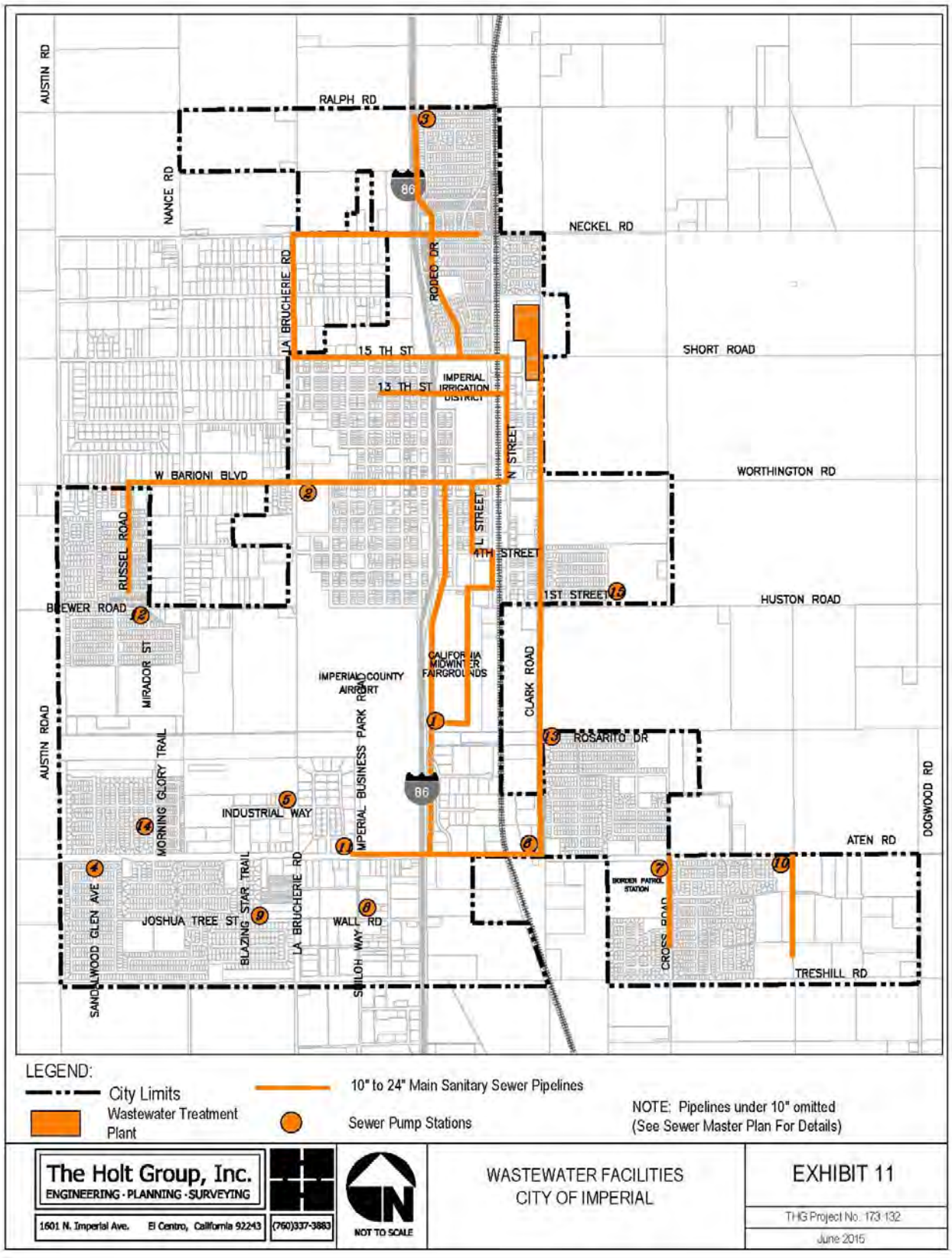
As previously noted, the 2.4 MGD wastewater treatment plant for the City of Imperial is located in the northwest portion of the City within two parcels of land. The major treatment units are located north of Fourteenth Street and east of the Southern Pacific Railroad Right-of-Way on the 4.68 acre site. The City also owns a 15-acre site, located northeast of the above-mentioned site, which is occupied by treatment ponds for emergency use.

Over the last few years, the average daily flow to the City of Imperial Wastewater Treatment Plant has varied, with monthly averages ranging from 1.4 million gallons per day (MGD) to 1.6 MGD during the 2014 calendar year.

1. Inventory of Existing Facilities

Wastewater Treatment Plant- The existing wastewater treatment plant uses primarily an oxidation ditch-type process. The process flow scheme consists of a headworks structure, an effluent pumping station, a grit chamber, an oxidation ditch, an intermediate pump station, three secondary clarifiers, an ultra-violet light disinfection chamber, an 18-inch diameter outfall line, an aerobic digester, and 10 sludge drying beds. **Exhibit 11- Wastewater Facilities** identifies the location of the Imperial Water Pollution Control Plant, the primary conveyance system and pump stations

Exhibit 11- Wastewater Facilities



Wastewater Conveyance System- The topography of the City is fairly flat, sloping gently to the northeast thus gravity flow is optimized. The existing wastewater collection system consists of vitrified clay pipe (VCP) and polyvinyl chloride (PVC) pipelines, and includes approximately 63 miles of gravity sewers ranging in size from 6 to 24 inches in diameter, 16 lift stations, and 6 miles of force mains. Trunk sewers in the major roads transport wastewater to the treatment plant.

Wastewater Pumping Stations- As previously noted, the topography of the City is fairly flat, thus pumping stations are necessary in order to receive flows and pump them through force-mains located throughout the incorporated City limits. **Table S-2** details the sixteen pumping stations noted in Exhibit 12 and available throughout the City.

Table S-2 Pump Station Inventory

Pump Station	Pumps Station Location	Facility Description
PS-1	SW Corner of California Mid Winter Fair Grounds and east of Highway 86	Duplex self-priming pumping units (150 GPM/ 200 GPM)
PS-2	Intersection of Barioni Boulevard and "B" Street	Two submergible pumping units (500 GPM)
PS-3	Intersection of Ralph Road and Highway 86	Single pumping unit (200 GPM)
PS-4	Intersection of Aten Road and Sandalwood Glen	Single pumping unit (350 GPM)
PS-5	Intersection of La Brucherie Road & Industry Way	No specification available
PS-6	Aten Road near the Clark Road Intersection	Single pumping unit (900 GPM)
PS-7	Aten Road near the Cross Road Intersection	Two horizontal self pumping units (250 GPM e/o)
PS-8	Shiloh Way, approximately 950 feet south of Aten Road	Duplex self-priming pumping units (250 GPM e/o)
PS-9	Joshua Tree Street, 240 feet more or less from the Blazing Star intersection	Duplex self-priming pumping units (300 GPM e/o)
PS-10	Legakes Avenue and Aten Road intersection	No specification available
PS-11	Imperial Business Park Road and Aten Road intersection	Duplex self-priming pumping units (220 GPM)
PS-12	Brewer Road and Mirador Street intersection	No specification available
PS-13	Rosarito Drive and Clark Road intersection	No specification available
PS-14	Morning Glory Trail and Sheffied Avenue intersection	No specification available
PS-15	First Street and Brighton Street intersection	No specification available
PS-16	Aten and Legaski	No specification available

2. Adequacy of Existing Facilities

Wastewater Treatment Plant- The wastewater treatment facility has performed adequately because of its inherently conservative design and the fact that the existing flows (ranging between 1.4 MGD and 1.6 MGD) are less than the design flow of 2.4 million gallons per day (MGD). Even with current planned development, the flow would not increase to designed capacity until 2020.

The current wastewater treatment plant is undergoing a $3 Million capital improvement project. The improvements consist of improvements to the headworks screening and some internal pipeline reorganization.

Conveyance System- BJ Engineering and Surveying Inc., developed a computer model of the existing City wastewater system using data which was available for existing facilities and established flow estimates. Using this model, the hydraulic capacity of the existing system was evaluated under peak wet weather flow (PWWF) conditions in 2005. The results of the modeling indicated that the existing system provides adequate capacity at average daily flow (ADF) conditions, but during PWWF conditions, two pipelines did not have adequate capacity. These pipelines are Pipes #14 and #17 and are located along N Street between Barioni Boulevard and 12th Street. The flow into these lines is currently being rerouted and capacity will be satisfactory upon project completion.

The model also confirmed that the capacity remaining in the Barioni Boulevard trunk sewer is required to serve future development in its dedicated service area. The existing trunk sewer system is therefore not available to serve future development areas outside of the present service area. The capacity of the trunk line from B Street to N Street and from Barioni Boulevard to 14th Street needs to be evaluated. It is estimated that 85% of this pipe section is clay and has deteriorated over time which has resulted in reduced capacity. A similar situation is occurring with the sewer trunk line in 13th Street from C Street to N Street.

Wastewater Pumping Stations- Pump stations are constructed as development occurs, thus many of the existing pump stations are aging. Pump Station #16 is the newest, serving the Victoria Ranch Subdivision. Pump Station #16 is expected to be placed into operation by the end of 2015. There are at least three older pump stations that need improvements. Improvement priority is needed for pump stations #1, #4 and #6 as they do not adequately meet the current demand**.** **Table S-3 Pump Station Adequacy** details the current condition of all the pump station facilities and further identifies the areas they serve.

Table S-3 Pump Station Adequacy

Pump Station	Area/Development Serviced by Station	2015 Condition
PS-1	Sub-area VIII-Southern end, bound by HWY 86 on east, City limit on south, Myrtle Avenue on the west and Aten Road on the north	Needs Upgrade: From 150 GPM to 400 GPM
PS-2	Residential Area bound by Dahlia Park, Ben Hulse Elementary, and City Water Plant	Adequate
PS-3	Residential Area bound by Sunset Ranch Subdivision	Adequate
PS-4	Residential Area bound by Sandalwood Glen Subdivision and Wildflower North Subdivision	Adequate
PS-5	Industrial Area between Industrial and West of La Brucherie	Adequate
PS-6	Residential Area bound by Sandalwood Glen Subdivision and Wildflower North Subdivision	Adequate
PS-7	Paseo Del Sol Subdivision and Border Patrol Station	Needs Upgrade: From 250 GPM to 500 GPM
PS-8	Portion of South Colonia	Adequate
PS-9	Wildflower North Subdivision and La Fuente Patio Homes	Adequate
PS-10	Victoria Ranch Subdivision	Adequate
PS-11	Imperial Business Park Subdivision	Adequate
PS-12	Monterrey Park Subdivision	Adequate
PS-13	Bratton Subdivision	Adequate
PS-14	Sky Ranch Subdivision	Adequate
PS-15	Mayfield Ranch Subdivision	Adequate
PS-16	Victoria Ranch Subdivsion	Pending Activation (2015)

Source: 2008 Master Plan for Sanitary Sewer Collection System & 2015 Interview with Public Works Director.

3. Future Demand for Facilities

Assuming a conservative impact of 100 GPD (gallons per day) per capita on the wastewater treatment facilities, the City projected Average Daily Flow wastewater flow demand is as follows:

Table S-4 Daily Sewer Flow Projections

Year	Projected Population	Average Daily Flow
2020	29,476	2.497 MGD
2025	48,692	4.869 MGD
2030	53,533	5.353 MGD
2035	62,541	6.254 MGD

Demand is based on an assumed impact of 100 gallons per day per capita.

As previously noted, the City of Imperial average household size is 3.35 persons per household. The average discharge of wastewater is 100 gallons per day per person, thus each dwelling units discharges an average of 335 gallons per day. Assuming an impact of 335 GPD (gallons per day) per Equivalent Dwelling Unit (EDU) on the wastewater treatment facilities, the City was able to project non-residential impacts to water facilities from commercial and industrial operations. The projected average daily wastewater flow demand for all "units," including non-residential equivalent dwelling units, is as follows:

Table S-5 Daily Sewer Flow Projections with EDU's

Year	Total Planned Cumulative Development Dwelling Units	Planned Cumulative Non-Residential Equivalent Dwelling Units	Total Equivalent Dwelling Units	Average Daily Flow Demand
2020	8,799	12,170	**20,969**	7.025 MGD
2025	14,535	16,936	**31,471**	10.542 MGD
2030	15,980	16,997	**32,977**	11.047 MGD
2035	18,669	17,057	**35,726**	11.968 MGD

Average Daily Flow is based on an assumed impact of 335 gallons per EDU

4. Opportunities for Shared Facilities

The City of Imperial has plans to relocate the treatment facilities out to the Mesquite Lake area and build a regional Keystone Reclamation Plant to serve a number of unincorporated commercial/industrial operations, the Imperial Valley College and all of the City's anticipated growth areas. The proposed wastewater treatment facility is to be located near the Keystone/Mesquite Specific Plan Area north of the City of Imperial in the jurisdiction of the County of Imperial and it will be a shared facility. The City and the County are currently working together to plan, construct and operate the treatment facility.

The design plans, specifications, and bid documents shall include all information necessary to construct a fully functional 3.0 MGD average day capacity tertiary facility in conformance with the operational intent described in the approved PDR. The design shall be prepared to accommodate future plant expansions up to 10.0 MGD average day capacity. The design of the facility shall further conform to current City of Imperial Standards, County of Imperial Standards, current UBC requirements, AWWA requirements, and the "Greenbook" Standard Specifications for Public Works Construction (current edition). If there are conflicting standards, the City of Imperial Standard Drawings and Specification shall prevail.

5. Phasing

Improvement phasing is recommended at five year increments for budgetary purposes. Based on the results of the analysis performed by BJ Engineering, the following backbone improvements are recommended in order to provide adequate capacity during PWWF conditions:

Short Term Improvements

- Remove and replace the existing 8" pipeline along Highway 86-Imperial Avenue between Pumping Station #1 and Barioni Boulevard (from MH #160 to MH #10) due to age and condition considerations.
- Install 8" force main north along La Brucherie Road from Pumping Station #10 to 15th Street.

5-10 Year Improvements

- Remove and replace the existing 8" to 10" pipeline along Aten Road between Shilo Road and Highway 86 (from MH #362 to MH #166) due to age and condition considerations.
- Install 12" gravity line east along 15th Street from 8" force main at La Brucherie Road to Pumping Station #11.

10-15 Year Improvements

- Slipline the existing 8" to 12" pipeline along 13th Street between C and N Street (from MH #139 to MH #85A) due to age and condition considerations.
- Install Pumping Station #13 along Aten Road near Dogwood Road to be able to serve Imperial Valley College
- Construction of a new wastewater treatment facility - Keystone Reclamation Plant with an initial average day treatment capacity of at least 3.0 MGD to be expandable to 10 MGD. The facility shall be constructed to provide tertiary treatment and meet all applicable Title 22 requirements for recycled water reuse.

20 Year Improvements

- Provide improvements to the Keystone Reclamation Plant Wastewater Treatment facility to expand capacity to meet projected growth.

C. Mitigation

The City of Imperial should continue to pursue various means by which to obtain funding and provide for adequate wastewater conveyance facilities for the existing and future residents of the City of Imperial. The following are

recommendations to maintain adequacy for wastewater treatment and conveyance facilities:

S-1 Facilities identified in the Wastewater Master Plan update shall be constructed as new development and annexation of land occurs.

S-2 Prior to the recordation of a final map within any of the annexation areas, a development agreement must be in place to ensure that adequate wastewater facilities will be provided during the PWWF conditions for the wastewater conveyance system being utilized by said annexation area.

S-3 All system improvements shall be designed and constructed in accordance with Federal, State and local regulations.

S-4 Construct new wastewater treatment facility at Mesquite Lakes.

D. Financing

The primary sources of revenue for wastewater treatment and conveyance facilities are the sewer service charges and sewer capacity fees. The sewer service charges function to subsidize off-site facilities such as sewer interceptors and sewer treatment plant operation and maintenance. The sewer capacity fee is based on the equivalent dwelling unit (EDU) impact created and funds planned expansions of the City of Imperial Wastewater Treatment Plant. The City will continue to utilize these funding sources in addition to searching for other sources to improve the existing system in order to meet future demand.

1. Current Costs and Per Capita Costs

The current annual cost for the continued maintenance and operation of the sewer system in the City of Imperial is approximately $197.28 per capita. The 2014-2015 City of Imperial budgeted $3,415,567 for wastewater operations and debt service. Using the City's current population of 17,313 residents, maintenance and operation of the wastewater facilities cost approximately $197.28 per resident per year.

$3,415,567 / 17,313 population = $197.28 per capita

Using the City's current population, the per capita cost of $197.28 for the continued maintenance and operation of the sewer facilities are noted below in **Table S-6** in five year increments.

Table S-6 Projected Sewer Costs

Year	Projected/Planned Population	Sewer Costs
2020	29,476	$5,815,124.64
2025	48,692	$9,606,121.89
2030	53,533	$10,561,170.69
2035	62,541	$12,338,088.48

Future cost estimates are based on current cost per capita for wastewater operations and debt service. These costs do not yet reflect the improvements and financing of the wastewater treatment facility to be located in the Keystone Reclamation site.

2. Future Funding Sources

The sewer service charge collected by the City is the primary funding source. The city will continue to utilize the existing funding sources for wastewater facilities. The current fees will need to be reviewed annually and during proposed annexations to ensure that there is sufficient funding to provide wastewater service to increased demand.

There are a number of financing mechanisms available to assist in the funding for capital facilities related to the treatment and conveyance of wastewater. Special assessment districts, community facility districts, local bond issuance, developer contributions and development impact fees can be used to fund wastewater treatment and conveyance facilities. Also, there are a number of State and Federal grant and loan programs available such as *USDA Water and Waste Disposal Loans and Grants for Public Works and Infrastructure Development and the Regional Water Quality Control Board Clean Water State Revolving Fund*. Further descriptions of these and other financing mechanisms are provided under the *Financing* section.

IX. DOMESTIC WATER

The City of Imperial owns, operates and maintains a system for the treatment, storage and distribution of potable water resources that serves approximately 5,015 (January 2015) water service connections for residences and businesses within the City's service area and Sphere of Influence. The City purchases all of its untreated water from the Imperial Irrigation District, which is conveyed to City facilities via IID's Dahlia Canal via a 24-inch diameter raw water pipeline, and the Newside Canal as a secondary source via 27-inch and 16-inch diameter pipelines.

All information for this section was acquired from the Master Plan for the Water Distribution System for the City of Imperial prepared by BJ Engineering and Surveying, Inc. and dated 2008. Some of the information provided in this section is paraphrased while other parts are used word-for-word from the Master Plan. Additional information was provided by the City of Imperial Public Works Department. For additional details relating to water facilities, the Master Plan should be consulted.

A. Performance Standard

Potable water must meet or exceed water quality standards established by the California Department of Health Services and the US Environmental Protection Agency. The California Department of Public Health further requires that specific system pressures be maintained under normal and peak demand conditions. The design criteria are based on Maximum Day Demand (MDD) plus fire flow. The potable water system must be able to adequately treat and provide 150 gallons per person per day as well as fire flow.

Although there are no adopted Performance Standards for water distribution, there are design criteria that must be met to ensure that adequate potable water supply and fire flow needs are provided. The design criteria are based on the Maximum Day Demand @ Peak Hour plus fire conditions (MDPHF). Peaking factor is 1.78. The treatment plant capacity shall further meet the demand of the maximum daily flow, plus provide an operational storage capacity of at least 25 percent of the maximum day demand used. Storage required is one maximum average day demand plus a 2,500 GPM fire flow for a four-hour duration. The design criteria includes the following:

Table W-1 Water Flow Standards

Flow Demand	Maximum Velocity	Pressure Level
Maximum Day Demand + Fire Flow[1]	15.0 FT per second	20 psi – 35 psi
Maximum Day Demand	3.0 FT per second	32 psi ≥ 20 psi

[1]Fire flow minimums are targeted at 1,200 GPM for residential, 2,000 GPM for commercial, and 2,500 GPM for industrial.

B. Facility Planning and Adequacy Analysis

The City's Water Treatment Plant was completely rebuilt in 1995 and is located to the west of town, just west of B Street at the north end of the airport runway. Raw water from the Dahlia and Newside Canals is diverted into open reservoirs located at the Water Treatment Plant. This water is then treated through a sedimentation, filtration, and disinfection process in compliance with the Surface Water Filtration and Disinfection Treatment Regulations (Chapter 17, Title 22, California Code of Regulations), the California Department of Health Services, and Local Agency requirements. The City utilizes a number of facilities to treat water to an acceptable level of compliance as noted in **Exhibit 12-Existing Water Facilities**, and further discussed below.

1. Inventory of Existing Facilities

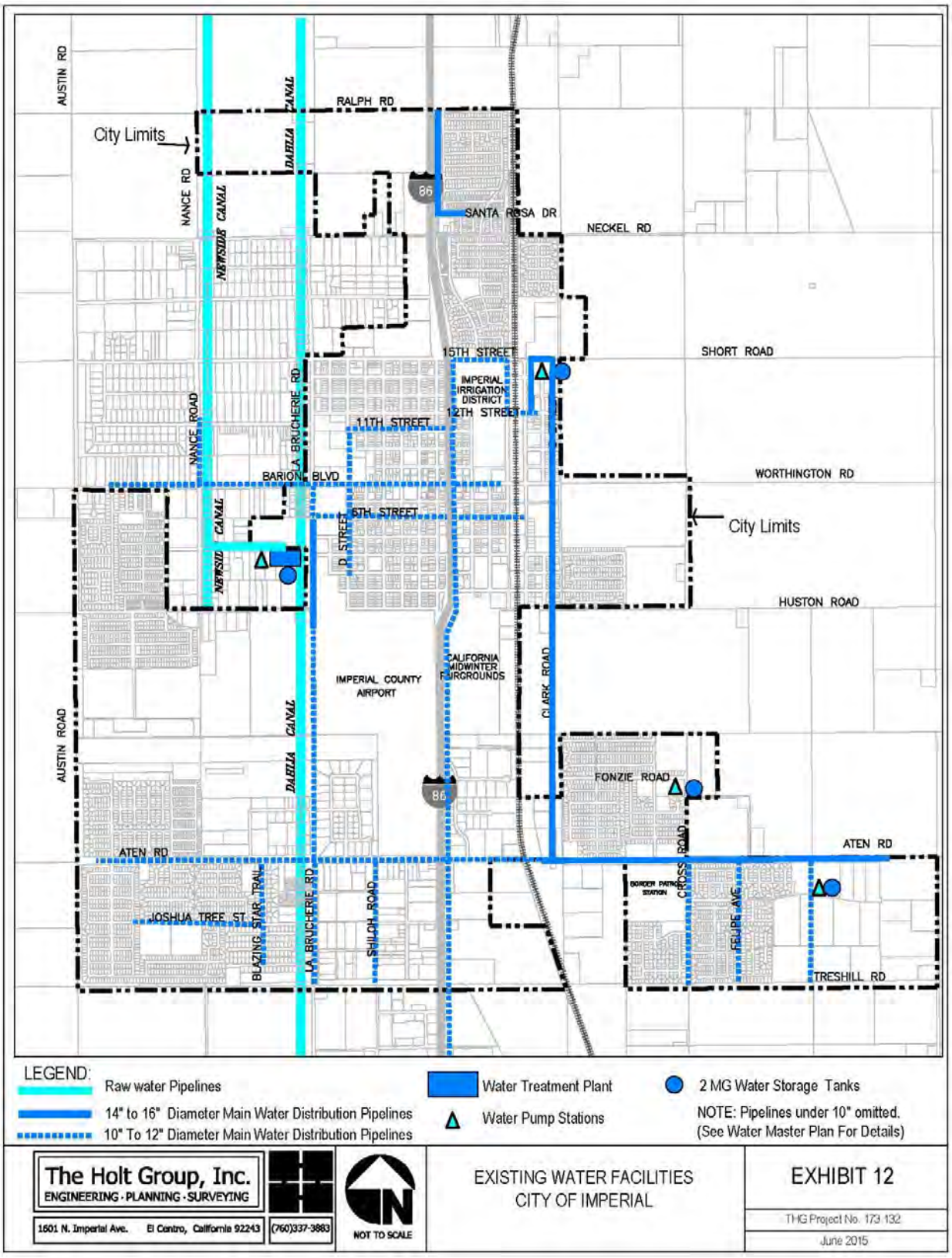
Water Treatment Plant-The City of Imperial Water Treatment Plant currently has a capacity of approximately 7.0 million gallons a day (MGD), which is capable of providing adequate service for the entire City and proposed annexation areas. The Plant is currently operating at 37% capacity. The following is a summary of the present capacity of the individual plant components:

Table W-2 Water Plant Facility Capacity by Component

Water Plant Component	2015 Capacity Each	2015 Total Capacity
24" Diameter Raw Water Gravity Pipeline	10.30 MGD	10.30 MGD
16" and 27" Diameter Raw Water Pipeline	7 MGD	7 MGD
Raw Water Reservoirs (3 Total)	10 MGD	10 MGD
Raw Water Pump Stations (2)	1.5 MGD ea	3.0 MGD
Raw Water Pump Stations (2)	3.5 MGD ea	7.0 MGD
Sedimentation Basins (4)	3.5 MGD ea	14 MGD
Filter Units (4)	2.5 MGD ea	10 MGD
Clean Water Pump Stations (3)	3.6 MGD ea	10.8 MGD
Chemical Feed System	6.9 MGD	6.9 MGD
Chlorinator	3.4 MGD	3.4 MGD
Service Pump Stations (3)	3.6 MGD ea	10.8 MGD

Water Storage- The surplus water is currently being stored at the water treatment site in a 2.0 MG storage ground facility. A remote 2.0 MG ground-level storage tank is located at the northeast corner of 13th and O Streets intersection. Another 2.0 MG tank was constructed near Cross Road and Fonzi Road. A future possible 2.0 MG and booster is planned near Barioni Estates.

Exhibit 12-Existing Water Facilities Map



Pump Stations-To maintain sufficient water pressure (currently about 57/33 psi), the City has three pump stations. One main station containing three pumps is located at the Water Treatment Plant (WTP) and a smaller station consisting of two pumps is located at the 2.0 MG storage tank at 13th Street and O Street. The third is at the 2.0 MG storage tank at Cross and Fonzi and contains two pumps. The pumps are used to keep water available and to assist when higher pressure is required to fight fires. A standby generator that operates the WTP at half capacity is used during emergencies.

Water Pipelines-The existing water distribution system includes 63 miles of pipelines ranging in size from 2" to 16". However, the minimum water pipeline size for new development is generally 8" and existing pipelines under 4" are earmarked for replacement. Furthermore, a large portion of the existing water distribution system is up to 50 years old. The system contains Asbestos Cement Pipe (ACP) and Polyvinyl Chloride Pipe (PVC). The ACP is the oldest and accounts for roughly 46% of the total pipe length as of 2008. All new pipelines are required to be PVC.

2. Adequacy of Existing Facilities

Water Treatment Plant- The water treatment facility is currently operating at 37% of its designed capacity. Since the Water Treatment Plant has a current capacity of 7.0 MGD, the existing facility can provide for an adequate supply of potable water through the year 2025 into several areas planned for annexation and development.

Water demand data available for estimating flow rates in the water distribution system consist of total flow from the treatment plant. Based on available Public Works records, the average daily demand from the water plant has varied with monthly averages ranging between 1.7 million gallons per day (MGD) to 1.9 MGD. The average daily demand was determined to be 1.9 MGD to err on the conservative side.

Water Storage- The current water storage demand for the City is 4.312 MGD. This number is based on a 3.45 MGD maximum daily flow, derived from the 2007 City of Imperial Service Area Plan, plus 25 percent of the maximum day demand (0.862 MGD), for a total water storage demand of 4.312 MGD. The existing water storage capacity of 6 MG is adequate.

Water Distribution System-A computer model of the existing water distribution system was developed by BJ Engineering & Surveying Inc. using available data for the existing facilities and the demand estimates stated above. The capacity of the existing system was evaluated under Maximum Day Demand at Peak- Hour plus fire conditions (MDPHF). The result of the modeling indicates

that the existing system provides adequate pressure for the Average Annual Demand (AAD) condition, but that during MDPHF conditions many areas of the City experience inadequate pressures. The existing water distribution system is therefore not adequate to serve future development areas outside of the present service area.

3. Future Demand for Facilities

Assuming the demand for approximately 150 gallons of potable water per day per capita, the City's average annual projected water use is as follows:

Table W-3 Daily Water Flow Projections

Year	Projected Population	Average Daily Flow
2020	29,476	4.421 MGD
2025	48,692	7.303 MGD
2030	53,533	8.029 MGD
2035	62,541	9.381 MGD

Demand is based on an assumed impact of 150 gallons per day per capita.

As previously noted, the City of Imperial average household size is 3.35 persons per household. The average water consumption is 150 gallons per day per person, thus each dwelling units consumes an average of 502.5 gallons per day. Assuming an impact of 502.5 GPD (gallons per day) per Equivalent Dwelling Unit (EDU) on the water treatment facilities, the City was able to project non-residential impacts to water facilities from commercial and industrial operations as follows:

Table W-4 Daily Water Flow Projections with EDU's

Year	Total Planned Cumulative Development Dwelling Units	Planned Cumulative Non-Residential Equivalent Dwelling Units	Total Equivalent Dwelling Units	Average Daily Flow Demand
2020	8,799	12,170	20,969	10.537 MGD
2025	14,535	16,936	31,471	15.814 MGD
2030	15,980	16,997	32,977	16.571 MGD
2035	18,669	17,057	35,726	17.952 MGD

Average Daily Flow is based on an assumed impact of 502.5 gallons per day per EDU.

4. Opportunities for Shared Facilities

The City does not share water treatment, storage, or distribution facilities with other jurisdictions. There may be an opportunity for an emergency interconnection facility to be planned with the City of El Centro and the Heber Public Utility District.

5. Phasing

In order to maintain an adequate water supply for the existing population as well as provide for future development, the following improvements and future facilities are recommended:

Short Term Improvements

- Install a new 18" diameter waterline from the WTP along La Brucherie Road to the Morningstar Subdivision.
- Install a new 12" waterline from northwest side of Sky Ranch Subdivision to the southwest side of Monterey Subdivision.
- Install a new 12" waterline from north side of Sky Ranch Subdivision to the south side of Monterey Subdivision to achieve fire demand pressure (1,200 gpm) in this area.

5-10 Year Improvements

- Install a new 12" water line from the west water treatment plan reservoir along Banta Road up to Quartz Street on Savanna Ranch Subdivision.
- Install a new 12" waterline on 13th Street to connect across Highway 86 to a 12" waterline located at the east side of the Highway to achieve fire demand.
- Construct one additional 2 MG storage tank at the Morningstar Subdivision to insure adequate fire flow pressure. This new tank will include four pumps that must be equal or better than the existing pumps at the WTP.
- Install a new 8" waterline from 13th Street across Highway 86.
- Install a new 12" waterline from the WTP to the 2 MG tank located at 14th Street and Clark road to provide refill capacity.
- Install one additional 2 MG storage tank with four pumps near the north east corner of La Brucherie Road and Aten Road.

15-Year Improvements

- Install a new 14" waterline from 2 MG storage tank up to Ralph

Road on the northeast side of Sunset Ranch Estates Subdivision and from there install a 12" waterline along Ralph Road up to Rodeo Drive on the northwest side of Sunset Ranch estates.

- Install a new 12" waterline along Cross Road from Paseo Del Sol to Mayfield Subdivision to achieve fire demand pressure in Mayfield Subdivision.

C. Mitigation

The City of Imperial should continue to pursue various means by which to obtain funding for and to provide for adequate water distribution facilities for the existing and future residents of the City of Imperial. The following are recommendations to achieve adequacy for water distribution facilities:

W-1 Facilities identified in the Water Master Plan update shall be constructed as needed as new development and annexation of land occurs.

W-2 Prior to the recordation of a final map within any of the annexation areas, a development agreement shall be in place to ensure that adequate water pressures will be provided during the MDPHF conditions for the water distribution system being utilized by said annexation area.

W-3 A potable water supply shall be provided for all annexation areas.

W-4 Adequate fire flow, subject to the approval of the fire department, shall be provided for all annexation areas.

W-5 All system improvements shall be designed and constructed in accordance with Federal, State and local regulations.

D. Financing

The primary sources of revenue for water treatment and distribution facilities are the water service charges, water capacity fees and water turn on fees. The City will continue to utilize these funding sources in addition to searching for other sources to improve the existing system and in order to meet future demand. The water capacity fee is based on the equivalent dwelling unit (EDU) impact created and funds planned for capital improvements. The City will continue to utilize these funding sources in addition to searching for other sources to improve the existing system in order to meet future demand.

3. Current Costs and Per Capita Costs

The current annual cost for the continued maintenance and operation of the water system in the City of Imperial is approximately $256.42 per capita. The 2014 – 2015 City of Imperial budget allocated $4,439,500 for water services. Using the city's current population of 17,313 residents, operation and debt service of the water facilities cost approximately $256.42 per resident per year.

$4,439,500 / 17,313 population = $256.42 per capita

Using the City's current population, the per capita cost of $256.42 for the continued maintenance and operation of the water facilities are noted below in five year increments.

Table W-5 Projected Water Costs

Year	Projected/Planned Population	Water Costs
2020	29,476	$7,558,407.09
2025	48,692	$12,485,885.40
2030	53,533	$13,727,242.74
2035	62,541	$16,036,763.22

4. Future Funding Sources

The water service charge collected by the City is the primary funding source. These are charges based on the actual water usage. The City will continue to utilize the existing funding sources for water facilities. The current fees will need to be reviewed annually and during proposed annexations to ensure that there is sufficient funding to supply water service to new development.

There are a number of financing mechanisms available to assist in the funding for capital facilities related to the delivery of potable water. Special assessment districts, community facilities districts, local bond issuance, developer contributions and development impact fees can be used to fund water treatment and distribution facilities. Also, there are a number of State and Federal grant and loan programs available such as USDA Water and Waste Disposal Loans and Grants for Public Works and Infrastructure Development as well as the State Water Resource Control Board Drinking Water State Revolving Fund. Further descriptions of these and other financing mechanisms are provided under the Financing section of this study.

FINANCING PLAN

I. INTRODUCTION

This section of the Service Area Plan discusses various financing mechanisms available to the City of Imperial. It also describes how each existing facility is currently financed and how future financial demands for these facilities can be ensured. Recommended finance plans and available financing options are also discussed.

Most financing options discussed in this section are subject to the guidelines of Prop 218. In 1996, Proposition 218, a Constitutional amendment was enacted. Prop 218 clearly defined general taxes and special taxes and set guidelines on the issuance, use, and implementation of taxes. General taxes must be approved by a majority of voters before they can be imposed, extended or increased. Special taxes require approval by a 2/3 vote.

II. FINANCING OPPORTUNITIES AND CONSTRAINTS

There are many opportunities available to the City of Imperial to finance its present and future facility needs. The following section briefly describes some of the most widely used financing mechanisms.

A. Tax Revenue

A. General Taxes

General taxes generate revenue that is deposited in a City's General Fund and can be used to support various improvements and services including general government operations, development services, public safety and community services. These revenues can also be used to construct public facilities. The City of Imperial can levy various types of general taxes, which include property tax, franchise tax, sales tax and business license tax. Property taxes generally comprise the largest revenue source for a City, but sales tax revenue can be significant as well depending on the amount and types of business within a City. However, the budget shows almost all general revenue the City generates is utilized for the day-to-day operations of City government, making it necessary to find other ways to finance facilities.

B. Gas Tax

The State levies a tax on all in-state sales of gasoline. A portion of the revenue derived from the State taxes on gasoline is allocated to cities to be used specifically for the construction, improvement and maintenance of streets and roads.

C. Tax Levy for Local Bond Issues

Local governments can issue general obligation (GO) bonds to finance the acquisition and construction of public capital facilities and real property. These bonds cannot be used for operations and maintenance or to purchase equipment. GO bond measures must be approved by 2/3 of the jurisdiction's voters. In order to pay back GO bonds, City's are authorized to impose a property tax levy at the rate needed for repayment of the principal and interest of the bonds.

B. Fees

1. Development Impact Fees

Development Impact Fees can be a significant funding source to finance large scale public facilities. These fees are intended to ensure that new development pays its proportional share of public facilities based on the impacts created by this new development. In concept, the City charges the development community a series of adopted fees which provide the source of income to pay for capital projects. When enough cash has been assembled, the City constructs capital facility projects in order of priority. Development Impact Fees can be used for the following public facilities:

- Police Protection
- Fire Protection
- Streets & Traffic Signals
- Storm Drainage
- Water Treatment and Distribution
- Wastewater Treatment and Conveyance
- General Facilities
- Open Space Acquisition, Park Land & Facilities
- Public Library

2. User Fees

User fees are usually authorized by statute for specific uses and are typically required for monthly service. The fees are used as a revenue source to maintain the systems in proper operating condition and for the construction of facilities needed to meet demand. These fees are charged to patrons or other users on a fee-for-service basis.

3. Motor Vehicle In-Lieu Fee

Motor Vehicle in-lieu fees (VLF) are levied by the State for the ownership of automobiles within the State. Funds are then returned to the County based on

population and distributed by the County to the cities, again, based on population.

C. Community/Developer Contributions

1. Developer/Builder Contribution

Many of the drainage, sewer, water and circulation improvements required as a result of new development can be directly funded and constructed by the developer and/or builder(s) through private funding sources. Facilities earmarked for developer/builder funding are typically those which normally would have been imposed as a condition of approval of a tentative map under the City's existing development review process.

2. Donations

Donations are sometimes available for a specifically cause of facility. The City of Imperial has a donation fund exclusively for the purchase of books.

D. Special Assessments/Districts

1. Special Districts

Special districts can be formed for the purpose of financing specific improvements for the benefit of a specific area. People within a special district must pay an additional property tax levy or user fees to help repay the bonds issued by the district and finance the district's ongoing operations. A detailed report prepared by a qualified engineer is required, which must demonstrate that the assessment amount is of special benefit to the parcel upon which the assessment is levied. There are many assessment acts that govern the formation of assessment districts such as the Improvement Act of 1911, Municipal Improvement Act of 1913, Improvement Bond Act of 1915, Benefit Assessment Act of 1982, Integrated Financing District Act as well as other specific facility improvement acts. The provisions of Proposition 218 have altered the procedures and facilities that can be financed through some of these acts. Any assessment district formed must follow all applicable state laws including the provisions set forth in Proposition 218.

2. Fire Suppression Assessment Act (Government Code Section 500078 et seq.)

Under this act, a City is allowed to levy assessments on specific parcels or zones for the provision of fire suppression services. A fire suppression assessment does not require the formation of an assessment district, but requires the adoption of an ordinance or resolution in which the parcels or zones subject to the assessment must be identified. In addition, all requirements of Proposition 218 must be met when imposing a fire suppression assessment.

3. Community Services District

A Community Services District (CSD) can serve as a source of funding for a wide variety of facilities in both unincorporated and incorporated areas. CSDs can levy a range of taxes including ad valorem property tax, general taxes and special taxes, in addition to creating rates and other charges for services. Any fee assessed within a CSD must directly relate to the benefit being received. As a result, a CSD may be broken into zones which only pay for those facilities and services that provide a benefit to that zone.

4. Community Facilities District

A Community Facilities District (CFD), not to be confused with a Community Services District, 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. The special tax levy (Mello-Roos tax) is used to either provide direct funding or pay off bonds. The facilities being funded are not required to be physically located within the boundaries of the CFD.

E. State and Federal Funding

Various government programs are available at the State and Federal levels to assist local jurisdictions in financing public facilities and services. Most funding sources at the State level require an application requesting assistance and specify the projects or purposes for which the funds can be used. Financial assistance from the state can include grants, low interest loans and matching funds. At the Federal level financial assistance includes grants and federal matching funds for state run assistance programs. State and Federal funding sources include the following:

1. State Funding

- ***Local Law Enforcement Block Grant Program***- Grant funds through the State of California (in partnership with Imperial County) for participation in the joint Local Law Enforcement Block Grant Act of 1995, to provide COP's (Citizens Option for Public Safety) Program to supplement local law enforcement with additional equipment.
- ***State Water Resources Control Board State Revolving Fund Programs***- 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 under the Clean Water State Revolving Fund (CWSRF) for potable water treatment facilities and distribution systems. Severely disadvantaged communities can obtain up to 100% grant funding.

- ***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 seq, and the California Code of Regulations (Title 25, Section 7050, et seq). 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. 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.

- ***California Department of Transportation*** –The State administers several grant programs including the *State Transportation Improvement Program*, which are roadway funds allocated for specific and joint decisions of Caltrans and the Imperial County Transportation Commission. The *Transportation Development Act (Article 3)* funds are other funds granted by the State Transportation Commission for specific projects related to pedestrian, bicycle, and wheelchair mobility.

2. Federal Funding

- ***Federal Highway Administration*** –The State also administers several federally funded grant programs for roadway safety and improvement including: The *Congestion Mitigation and Air Quality Improvement Program (CMAQ)*. CMAQ funds are available for the specific purpose of developing and implementing transportation programs that reduce traffic congestion and air pollution; The *Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA).* Under this act, federal funding is available for highway, safety, and public transportation programs.

- ***USDA Rural Assistance-*** There are a number of water, wastewater and community facility loan and grant programs administered through USDA. *Under the Community Facilities Direct Loan & Grant Program, r*ural municipalities with a population of 20,000 or less are eligible for funding of essential community facilities such as first responder vehicles and equipment,

healthcare, public safety and public services from the Rural Utilities Service (RUS) of the USDA. These facilities may further be used to finance city halls, courthouses, community centers, airports, libraries, homeless shelters, and animal shelters.

- ***U.S. Economic Development Administration -*** *Grants for Public Works and Infrastructure Development.* The objective of this grant is to promote economic development and assist in the construction of facilities needed to encourage the creation and retention of permanent jobs in areas experiencing severe economic distress. The facilities can include water and sewer systems, industrial access roads to industrial parks, rail road siding and spurs, tourism facilities, vocational schools, business incubator facilities and infrastructure improvements for industrial parks. The basic grant may fund up to 50% of the cost of the facilities. For communities that are severely depressed, the grant may fund up to 80% of the cost of the facilities.

- ***U.S. Environmental Protection Agency***- The Environmental Protection Agency makes low interest loans to communities to assist in the construction of new or upgraded sewage treatment facilities. In partnership with the North American Development Bank it also makes grant funds available through the Border Environmental Infrastructure Fund Program for jurisdictions within 62 miles of the US. Mexico border. 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.

F. Other Financing

1. Financial Institution Financing

- ***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 of up to 30 years. Interest rates are set on a monthly basis. Preliminary applications are continuously accepted.

2. Lease Financing

Instead of purchasing or issuing bonds, agencies can enter into a lease agreement to acquire and dispose of property. Generally, one of two types of lease agreements is entered. The first type is a lease-purchase agreement, where an agency leases a facility while purchasing it. The second type is a sale-leaseback agreement, where a facility is sold to a lessor by an agency, which immediately leases the facility back to the agency. Leases are designed to be tax-exempt investments and a properly constructed lease is not considered a public debt. Lease financing requires finding an investor or group of investors to invest in the return from the agency's lease payments. *Certificates of Participation (COPs)* are issued. Certificates of participation refer to the undivided shares of the lease obligation, which are purchased by a group of investors. COPs attract investors because they are designed to be a source of tax-free interest income. If projects are too small to attract investors or to be feasible for lease financing, local agencies can pool COPs. Pooling COPs allows agencies to minimize the costs of initiating and issuing a COP and may reduce the interest required to be paid on the lease. Entities involved with a pooled COP must form a Joint Powers Authority (JPA) to oversee the pooled COP.

III. FACILITY FINANCING

The following section provides a brief discussion of the funding sources used for the specific services and facilities in the City of Imperial. Any sources of funding that are not currently being utilized, as well as opportunities for cost avoidance, are identified.

A. Administrative Facilities

Current Funding

Funding for administrative facilities is currently provided by the General Fund. Specific revenue sources include property and sales taxes, licenses and permits, fines and penalties, charges for services and other miscellaneous sources. Additionally, there are Special Revenue Transfers to the General Fund that directly or indirectly fund administrative services. Large-scale improvement projects would be funded by development impact fees.

Cost Avoidance Opportunities

In order to reduce administrative services costs, the City of Imperial out sources some of the administrative services such as City attorney, some planning services and special project management.

Recommended Funding

In addition to the continued use of existing general funding sources, the established development impact fees will help fund future administrative facilities demand created by future development. If additional funding is needed, then General Obligation Bonds can be issued or a citywide community facilities district can be formed.

B. Drainage Facilities

Current Funding

Maintenance of storm water drainage facilities is currently funded by the General Fund, including property and sales taxes, licenses and permits, charges for services and other miscellaneous sources. Future storm water drainage facilities will be installed at the developer/builder's expense at the time of construction and will be maintained using funds from the General Fund.

Cost Avoidance Opportunities

In order to reduce drainage facilities maintenance and capital improvements costs, the City of Imperial maintains only those storm water conveyance facilities installed by newer development to control storm water runoff. Some services are outsourced such as those capital improvement projects requiring a special projects manager.

Recommended Funding

Funding for drainage facilities should continue to be borne by developers, while some of the ongoing maintenance can continue to be part of the general fund. Additional funding sources, if needed, should include the creation of a citywide community facilities district, special assessment district or a community services district.

C. Fire Facilities

Current Funding

Costs for the Imperial County Fire Department to provide fire protection services to the City of Imperial are currently financed by property and sales taxes from the General Fund. The City has a Service Contract with the County which is valid for a one year term and the City of Imperial pays the County a set amount per year.

Cost Avoidance Opportunities

In order to reduce fire protection services costs, the City of Imperial and the Imperial County Fire Department maintain an agreement on a share of costs for fire protection services. The County owns and operate most of the large equipment. The City owns various hoses, nozzles, adapters, breathing apparatus, as well as one 1,250 gallon pumper engine. The County manages all personnel and provides for minor maintenance on all equipment. The City provides insurance and major maintenance on the pumper.

Recommended Funding

Current use of General Fund as a funding source for fire facilities should continue to be used. In addition, development impact fees have been implemented to ensure costs of future demand created by future development can fund major capital investments. A special fire suppression assessment district or a special tax can also be implemented to assist in the financing of fire facilities costs.

D. Police/Law Enforcement Facilities

Current Funding

A portion of financing for police protection is currently financed by property and sales taxes from the General Fund. Other funding sources include the Narcotics Task Force, State C.O.P.S. Grant, State Police Technology Grant and the Local Law Enforcement Block Grant (LLEBG). Development impact fees are also used for larger investments and equipment.

Cost Avoidance Opportunities

In order to reduce police protection cost, the City of Imperial receives dispatching services from the City of El Centro as a part of the 911 request for emergency response.

Recommended Funding

Current General Fund and impact fee sources for law enforcement should continue to be used. The development impact fees being collected will ensure future development contributes its proportional share to the future demand created.

E. Library Facilities

Current Funding

Library facilities are currently financed by property and sales taxes from the General Fund and development impact fees. The library also accepts private donations of books and material. Some grant funding has been made available through the California Literacy Campaign Fund.

Cost Avoidance Opportunities

Although the amounts received are small, the library charges fees for miscellaneous services such as copies of documents or publications. Through inner library programs, the library shares resources with other libraries in the region.

Recommended Funding

The City should continue using the General Fund as a current funding source for library facilities. Additional funding sources such as community facilities district, special assessment district, Community Block Development Grants, and the State Public Library Fund should be pursued.

F. Park and Recreation Facilities

Current Funding

Park and recreational facilities are currently financed by property and sales taxes from the General Fund, developers, and by user fees for recreational activities and pool use.

Cost Avoidance Opportunities

A parks master plan was being prepared by Wallace Roberts & Todd Planning Design in 2008 but as of 2015 is yet to be completed. The master plan intends to provide implementing measures to upgrade and improve the City's park system.

Recommended Funding

Current funding sources should continue to be used as a source for financing park and recreational facilities. It would also be beneficial to develop and implement a five-year capital improvement plan for all park and recreational facilities within the City as recommended by the General Plan. The City should also pursue funding through the State Department of Parks and Recreation.

G. Circulation Facilities

Current Funding

Funding for circulation facilities is provided by the General Fund, Motor Vehicle-In-Lieu Tax, State Gas Tax and the Local Transportation Authority (LTA) Measure D Sales Tax Fund, as development impact fees and developer funding. Developer funding is used to construct required street improvements associated with a specific project. FHWA/CalTrans Grant Programs are also used by the City including Congestion Management Air Quality Grant Fund (CMAQ), State Transportation Improvement Program (STIP), Regional Surface Transportation Program (RSTP), and Transportation Development Account-Article 3 funds.

Cost Avoidance Opportunities

Although there are no real opportunities to share roadway facilities with any adjacent jurisdiction, the City's system does not exist independently and circulation within and through the City is mutually affected by the operation of the circulation system along the north end of El Centro, the County roadway system and the State circulation system. The City will continue to cooperate with the City of El Centro, County of Imperial and the State in monitoring the

operation of the regional system and the implementation of necessary improvements.

Recommended Funding

Current funding sources for circulation facilities should continue to be used. Additionally, there are several funding mechanisms for circulation facilities such as community facilities district, special assessment district, and Certificate of Participation. There are also a number of additional grant funding programs including the Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA), Active Transportation Program (ATP), as well as Community Development Block Grants and other state and federal grants which should be pursued, as suggested by the Circulation Element of the City's General Plan.

H. Wastewater Treatment and Sewer Facilities

Current Funding

The City used funds from revenue bonds (Wastewater Bond 2012) for expenditures related to improvements and enhancements to the Wastewater Facilities. The primary sources of revenue for wastewater treatment and conveyance facilities are the sewer service charges and sewer connection fees collected in the City's Enterprise Fund. Operation, maintenance, salaries, and equipment purchases are financed by the Wastewater Enterprise Fund. The sewer service charges function to subsidize off-site facilities such as interceptors and sewer treatment plants. The sewer connection fee is dependent upon the size of the sewer line needed to serve the area and whether the street or alley is paved.

Cost Avoidance Opportunities

The City often requires developers to construct wastewater-related infrastructure that will connect a specific development with the existing City wastewater system. In order to further reduce wastewater treatment facilities maintenance and capital improvement costs, the City of Imperial out sources services requirement a special project management for some of the City's wastewater treatment and conveyance system capital improvement projects.

Recommended Funding

The current fee structure will need to be reviewed annually and during proposed annexations to ensure that there is sufficient funding to provide wastewater service to new development. Special assessment districts, community facilities districts, local bond issuance and development impact

fees should be considered as alternative funding sources for wastewater treatment and conveyance facilities. Also, State and Federal grant and loan programs are available such as the *Water Resources Control Board Clean Water State Revolving Fund* and *USDA Water and Waste disposal Loans* and *Grants for Public Works and Infrastructure Development*.

I. Water Facilities

Current Funding

The City used funds from revenue bonds (Waster Bond 2012) for expenditures related to improvements and enhancements to the Water Treatment Plant and distribution facilities. The primary sources of revenue for water treatment and distribution facilities are the water service charges, water connection fees and water turn on fees tied to the City's Enterprise Fund. Operation, maintenance, salaries, and equipment purchases are financed the Water Enterprise Fund. Developer funding is used for specific project water improvements.

Cost Avoidance Opportunities

The City often requires developers to construct water-related infrastructure that will connect a specific development to the City's existing potable water system. In order to reduce water facilities maintenance and capital improvement costs, the City of Imperial further out sources services requiring a special projects manager for some of the City's water treatment and water conveyance system capital improvement projects.

Recommended Funding

The current fee structure will need to be reviewed annually and during proposed annexations to ensure that there is sufficient funding to supply water service to new development. Special assessment districts, community facilities districts, local bond issuance and development impact fees should be considered as alternative funding mechanisms for water treatment and distribution facilities. State and Federal grant and loan programs should be pursued including the *Water Resources Control Board Drinking Water State Revolving Fund* and *USDA Water and Waste disposal Loans* and *Grants for Public Works and Infrastructure Development*.

APPENDIX A

City of Imperial Adopted Municipal Budget FY 2014-2015

CITY OF IMPERIAL
REVENUE ESTIMATES

FISCAL YEAR ENDED 2014 - 2015 & 2015 - 2016

GENERAL FUND

				2012 - 2013 ACTUAL	2013 - 2014 BUDGET	2013 - 2014 ESTIMATED	2014 - 2015 PROPOSED	2015 - 2016 PROPOSED
			TAXES					
01	000	4110	PROPERTY TAXES - SECURED	1,232,557	1,129,667	1,141,300	**1,200,000**	**1,200,000**
01	000	4111	PROPERTY TAXES - UNSECURED	82,881	60,000	125,000	**100,000**	**100,000**
01	000	4112	PROPERTY TRANSFER TAX	12,947	35,000	32,000	**32,000**	**32,000**
01	000	4113	AIRCRAFT TAX	28,319	25,000	26,000	**26,000**	**26,000**
01	000	4120	SALES TAX	2,066,822	2,010,000	2,010,000	**1,900,000**	**2,010,000**
01	000	4130	FRANCHISES	293,996	250,000	260,000	**260,000**	**260,000**
01	000	4135	CFD ADMINISTRATIVE FEE	100,000	100,000	100,000	**100,000**	**100,000**
01	000	4140	TRANSIENT OCCUPANCY TAX	21,089	15,000	30,000	**30,000**	**30,000**
				3,838,611	*3,624,667*	*3,724,300*	***3,648,000***	***3,758,000***
			LICENSE & PERMITS					
01	000	4210	BUSINESS LICENSE	46,933	40,000	43,000	**45,400**	**40,000**
01	000	4220	TAXI CAB LICENSE	0	2,800	1,580	**2,560**	**2,560**
01	000	4230	ANIMAL LICENSE	3,249	2,500	3,500	**3,500**	**3,500**
01	000	4240	BUILDING PERMITS	413,008	250,000	425,000	**265,000**	**265,000**
				463,190	*295,300*	*473,080*	***316,460***	***311,060***
			FINES & PENALTIES					
01	000	4311	LOCAL COURT FINES	19,751	15,000	16,200	**15,000**	**15,000**
01	000	4330	UTILITY PENALTIES	95,708	90,000	90,500	**90,000**	**90,000**
01	000	4335	LICENSE PENALTIES	2,022	2,000	1,300	**1,300**	**1,300**
				117,481	*107,000*	*108,000*	***106,300***	***106,300***
			INTERGOVERNMENTAL					
01	000	4410	MOTOR VEHICLE IN LIEU	1,064,108	950,000	1,111,500	**950,000**	**650,000**
01	000	4430	HOMEOWNERS EXEMPTION	6,873	15,100	2,019	**2,000**	**2,000**
01	000	4431	HOUSING AUTHORITY IN LIEU	1,667	1,500	1,541	**1,500**	**1,500**
01	000	4469	SCHOOL RESOURCE OFFICER	0	0	0	**59,900**	**0**
01	000	4473	HIDTA SALARY	111,196	87,312	43,000	**79,110**	**79,113**
01	000	4477	DEA SALARY	12,671	14,000	0	**0**	**0**
01	000	4480	STONEGARDEN	199,016	150,000	95,000	**15,000**	**15,000**
01	000	4483	DHE OVERTIME	2,772	10,000	8,500	**10,000**	**10,000**
01	000	4485	BEST OVERTIME	0	15,000	15,000	**15,000**	**15,000**
				1,398,303	*1,242,912*	*1,276,560*	***1,132,510***	***772,613***

CITY OF IMPERIAL
REVENUE ESTIMATES

				2012 - 2013 ACTUAL	2013 - 2014 BUDGET	2013 - 2014 ESTIMATED	2014 - 2015 PROPOSED	2015 - 2016 PROPOSED
			CHARGES FOR SERVICE					
01	000	4508	CFD SERVICES FEE	100,000	100,000	100,000	**100,000**	**100,000**
01	000	4509	FIRE FEES	15,020	13,000	38,500	**83,700**	**65,900**
01	000	4510	ZONING/SUBDIVISION FEES	54,399	23,000	32,000	**23,000**	**23,000**
01	000	4521	PLAN CHECK / ENCROACHMENT FEES	241,382	145,000	250,400	**155,000**	**150,000**
01	000	4522	SEISMIC FEES	4,887	3,000	4,200	**3,000**	**3,000**
01	000	4523	CBSC	3,933	2,000	2,300	**2,000**	**2,000**
01	000	4524	RUBBISH COLLECTION FEES	871,486	867,000	845,000	**861,000**	**904,050**
01	000	4525	RUBBISH COLLECTION FEES AB 939	71,855	100,000	75,000	**78,000**	**80,000**
01	000	4526	RECYCLING	0	3,000	8,500	**6,500**	**6,500**
01	000	4533	POOL REVENUE	39,870	28,000	30,000	**30,000**	**30,000**
01	000	4534	RECREATION FEES	7,593	34,000	21,500	**8,000**	**8,000**
01	000	4535	ADMINISTRATIVE SERVICES	114,318	26,600	38,000	**30,000**	**30,000**
01	000	4536	RECREATION PROGRAMS FR	1,030	10,000	23,245	**50,000**	**50,000**
01	000	4537	INSTRUCTOR PROGRAMS (REC)	0	0	0	**30,000**	**30,000**
01	000	4540	LIBRARY FEES	12,791	12,000	10,500	**10,000**	**10,000**
				1,538,564	*1,366,600*	*1,479,145*	***1,470,200***	***1,492,450***
			USE OF MONEY & PROPERTY					
01	000	4610	INTEREST EARNED	1,915	2,500	2,000	**2,500**	**2,500**
				1,915	*2,500*	*2,000*	***2,500***	***2,500***
			OTHER REVENUE					
01	000	4700	FARMER'S MARKET	0	0	21,838	**21,000**	**21,000**
01	000	4710	SALE OF MAPS, PUBS & COPIES	698	1,000	1,500	**1,000**	**1,000**
01	000	4711	SALES OF SURPLUS PROPERTY	21,500	500	18,590	**5,000**	**5,000**
01	000	4720	POLICE - DUI	90	280	25	**150**	**150**
01	000	4721	POLICE - OTHER	22,995	36,000	24,000	**30,000**	**30,000**
01	000	4723	POLICE DETAIL -AIRPORT	4,150	0	0	**1,000**	**0**
01	000	4724	POST REIMBURSEMENT	20,549	5,000	8,500	**17,000**	**17,000**
01	000	4727	POLICE DETAILS	15,364	0	9,000	**15,000**	**5,000**
01	000	4740	INSURANCE DIVIDENDS	8,164	5,000	69,710	**8,000**	**8,000**
01	000	4790	NOT OTHERWISE CLASSIFIED	92,578	25,000	51,000	**40,000**	**40,000**
				186,088	*72,780*	*204,163*	***138,150***	***127,150***
			OTHER RECEIPTS					
01	000	4910	OPERATING TRANSFERS IN	1,188,344	1,914,466	687,911	**1,743,304**	**997,750**
				1,188,344	*1,914,466*	*687,911*	***1,743,304***	***997,750***
			GENERAL FUND TOTAL:	*8,732,496*	*8,626,225*	*7,955,159*	***8,557,424***	***7,567,823***
				807,196		***53,653***	***5,577***	***-552,844***

CITY OF IMPERIAL - DIVISION SUMMARY

FISCAL YEAR 2014 - 2015

DIVISION NO: 50-510

DIVISION NAME: **WATER OPERATIONS**

FUND: **Water** **FUND NO:** **50** **DIVISION BUDGET:** ***$4,439,500***

DEPARTMENT: **Water** **DIV NO:** **510**

THIS DIVISION: **Water Operations**

DIVISION DESCRIPTION:

This division provides personnel support and all resources necessary to operate and maintain the City's water treatment plant and distribution system comprised of a 7MGD surface water treatment plant, 2 MG reservoirs and pump station, and 28 miles of water mains and appurtenances and a customer base of approximately 4,500 accounts.

DIVISION GOAL:

To maintain and operate the City's water system in accordance with CDHS regulations in order to provide a safe and reliable supply of potable water customers.

CURRENT YEAR DIVISION OBJECTIVES:

1. Complete bond funding projects.

CITY OF IMPERIAL - DIVISION SUMMARY
FISCAL YEAR 2014 - 2015

DIVISION NO: 55-520

DIVISION NAME: **WASTEWATER OPERATIONS**

FUND: **Wastewater** **FUND NO:** **55** **DIVISION BUDGET:** ***$3,415,567***

DEPARTMENT: **Wastewater** **DIV NO:** **520**

THIS DIVISION: **Wastewater Operations**

DIVISION DESCRIPTION:
This division provides personnel support and all resources necessary to maintain and operate the City's wastewater system comprised of approximately 25 miles of collection system mains, eight (8) pump stations, and a 1.7 MGD activated sludge (oxidation ditch) treatment facility and serves approximately 4,500 customers.

DIVISION GOAL:
To maintain and operate the City's wastewater treatment system in accordance with the CRWQCB's and NPDES regulations and requirements in an attempt to generate an effluent the is environmentally safe and that mitigates noxious odor.

CURRENT YEAR DIVISION OBJECTIVES:
1. Complete bond funding projects.

APPENDIX B

Agreement for Fire Protection Services between
County of Imperial and City of Imperial

AGREEMENT FOR FIRE PROTECTION SERVICES BETWEEN COUNTY OF IMPERIAL AND CITY OF IMPERIAL

THIS AGREEMENT ("Agreement") is made and entered into this 18 day of June 2014 by and between the COUNTY OF IMPERIAL, a political subdivision of the State of California ("COUNTY"), and **CITY OF IMPERIAL**, a municipal corporation organized and existing under the laws of the State of California ("CITY"), (individually, "Party;" collectively, "Parties").

RECITALS

A. COUNTY intends to provide fire protection and emergency medical services, through the office of COUNTY's Fire Chief, to CITY; and

B. Such services shall be rendered by COUNTY to CITY on the terms and conditions set forth herein and as described in the "Services Summary" attached and made a part of the terms of this agreement as **Exhibit A**.

NOW THEREFORE, for and in consideration of the mutual promises and covenants herein contained, the parties hereto agree as follows:

1. FIRE PROTECTION/EMERGENCY MEDICAL SERVICES.

1.1. COUNTY shall operate CITY's fire-fighting equipment provided under this Agreement in response to fire calls within the corporate boundaries of CITY.

1.2. The services shall encompass duties and functions of the type coming within the jurisdiction of and customarily rendered by said Fire Chief under the statutes of the State.

1.3. Such services shall include the enforcement of State statutes and such fire department ordinances of CITY as are of the same type or nature as ordinances of COUNTY which are enforced by the Fire Chief. Services shall also include, for example, Uniform Fire Codes enforcement, fire prevention, plan checking, fire investigation, training, hydrant testing, hazardous material spills, firefighter housing and maintenance and consulting on fire protection/emergency medical services matters.

1.4. COUNTY shall provide first responder service to all requests for emergency medical service originating within CITY ("the 911 system"). Requests for emergency medical service that originate outside of the 911 system shall be relayed to the appropriate Public Safety Answering Point for

the dispatch of a transporting ambulance. First responder services shall be provided by a non-transporting unit. First responder services shall be provided at a minimum staffing level of Emergency Medical Technician ("EMT")-I as defined by COUNTY's Emergency Medical Services ("EMS") agency, and as outlined in the California Code of Regulations, Title 22, Division 9. COUNTY intends to provide first responder services at an Advanced Life Support ("ALS") staffing level during the three-(3) year term of this Agreement. Staffing on the ALS unit shall be in accordance with COUNTY's EMS Agency policies and the California Code of Regulations, Title 22, Division 9. In the event that the ALS unit is committed to an emergency response, and an additional request for first responder services is received, COUNTY will provide first responder service at the EMT-I level.

2. LEVEL OF SERVICES.

2.1. The basic fire protection service provided by COUNTY pursuant to this Agreement shall include general fire protection and fire prevention services and shall be provided on a twenty-four (24) hour day, seven (7)-day-a-week basis. The level of fire protection service provided shall be that level of the foregoing services which can be provided by the assignment to CITY of three (3) full-time Captains, three (3) full-time Fire Fighter II, and three (3) Reserve Fire Fighters. CITY and COUNTY acknowledge that, in order to provide said level of service on a twenty-four (24) hours, seven (7)-day-a-week basis, COUNTY may require a staffing level in excess of the above due to scheduled and unscheduled time off, as well as unforeseen emergencies.

2.2. Dispatching of fire equipment will be performed by El Centro communications or another dispatch center that is mutually agreed to by the City and County.

2.3. CITY will provide equipment and/or manpower as required to clear or remove debris during or after a fire; provide police protection of equipment and/or property at a fire scene as may be required.

3. INCREASE TO LEVEL OF SERVICES. CITY may from time to time, upon giving of not less than thirty (30) days written notice to COUNTY's Fire Chief and complying with the applicable provisions of this Agreement, vary the level of services provided herein. Any increase in COUNTY's cost due to a change in the level of services as provided for herein shall be borne entirely by CITY, as determined pursuant to the provisions of Paragraph 10 of this Agreement.

4. PERSONNEL.

4.1. For the purpose of performing said services, COUNTY shall furnish and supply all necessary labor, supervision, communication facilities, and supplies necessary to maintain the level of services to be rendered hereunder.

4.2. CITY shall not be called upon to assume any liability for the direct payment of any salaries, wages, or other compensation to any COUNTY employee performing services hereunder for CITY, or any liability other than that provided for in this Agreement.

4.3. Except as herein otherwise specified, CITY shall not be liable for compensation or indemnity to any COUNTY employee for injury or sickness arising out of his or her employment.

5. CONTROL OF PERSONNEL. The rendition of said services, the standards of performance, the discipline of fire fighters, and other matters incident to the performance of said services and the control of personnel so employed, shall remain in COUNTY. In the event of a dispute between the parties as to the extent of the duties and functions to be rendered hereunder, or the minimum level or manner or performance of such services, the determination thereof made by COUNTY's Fire Chief shall be final and conclusive as between the parties hereto.

6. EQUIPMENT. CITY owns and shall retain legal title to all the property as specifically described in **Exhibit B** attached hereto and incorporated herein by reference.

7. MAINTENANCE OF EQUIPMENT. COUNTY will perform minor preventative maintenance on CITY's fire engine(s) as further described in **Exhibit C** attached hereto and incorporated herein by reference. Major repairs such as engine, pump and transmission overhaul or replacement or other major repairs to drive line will be borne by CITY.

8. INSURANCE. Vehicle and liability insurance on said fire engines will be the responsibility of CITY. A copy of certificate of insurance is to be furnished to COUNTY within thirty (30) days of the execution of this agreement. CITY agrees to maintain a minimum of ten million dollars ($10,000,000) general liability insurance on said fire engines.

9. TERM. This agreement shall be effective on the date first written above and shall continue in effect until June 30, 2017.

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10. COMPENSATION.

10.1. COUNTY shall bill CITY for, and CITY shall pay to COUNTY the actual costs incurred by COUNTY to provide the services and equipment provided for by this Agreement, currently estimated to be as follows:

Year 1 FY 2014 – 2015 $896,699

Thereafter, the aforementioned estimated amount shall be reviewed and/or modified by the Parties on a yearly basis before the budget for COUNTY is finalized. Where there is no consensus amongst the Parties, COUNTY shall have the right to terminate this Agreement upon written notice as stipulated herein.

10.2. CITY and COUNTY understand and agree that the figures set forth in paragraph 10.1 are estimated guidelines and that CITY shall be obligated to pay the actual costs incurred by COUNTY to COUNTY.

10.3. All payments due to COUNTY from CITY pursuant to this Agreement shall be billed by COUNTY to CITY on a monthly basis, and shall be paid by CITY within twenty (20) days from the date the monthly statement is received by CITY.

10.4. Both COUNTY and CITY may request further negotiations relating to compensation each July during the term of this Agreement.

11. HOLD HARMLESS. Neither party to this Agreement, nor its officers, agents or employees, shall have any liability for intentional or negligent acts or omissions of the other party, or of any fire fighter, agent or employee thereof.

12. TERMINATION. Should either party fail or refuse to comply with any term or condition of this Agreement, the other party may, upon serving one hundred eighty (180) days notice specifying the nature of the noncompliance, terminate this Agreement if corrective action is not taken within said period. In the event of any termination pursuant to the terms of this Agreement, the obligations for payment shall be prorated and paid or refunded accordingly, and COUNTY will return to CITY all CITY property in a serviceable condition, less reasonable wear and tear.

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IN WITNESS WHEREOF, the City of Imperial, by resolution duly adopted by its City Council, has caused this agreement to be signed by the Mayor and attested and sealed by its Clerk, and the County of Imperial, by order of its Board of Supervisors, has caused this agreement to be subscribed by the Chairman of said Board and sealed and attested by the Clerk of the said Board, all on the day and year first above written.

COUNTY OF IMPERIAL

By: John R. Renison
John R. Renison, Chairman
Board of Supervisors, County of Imperial

ATTEST:

By:
Blanca Acosta, Clerk of the
Board of Supervisors of the
County of Imperial

CITY OF IMPERIAL

By: Marlene D. Best
Marlene Best, City Manager

By:
Geoff Dale, Mayor

ATTEST:

By:
Deborah Jackson, City Clerk
City of Imperial

APPROVED AS TO FORM:

Michael L. Rood
County Counsel

By: Katherine Turner
Katherine Turner
Assistant County Counsel

CITY OF IMPERIAL

By: Dennis H. Morita
Dennis H. Morita
City Attorney

EXHIBIT A

Summary of Services
City of Imperial

SERVICES:

- Fire Suppression
- Fire Prevention
- Fire Investigation
- Training (Fire and Hazardous Materials)
- Hazardous Materials Spills
- Equipment Maintenance
- Consultation
- Firefighter Housing
- Fire Engine Maintenance
- Advanced Life Support
- Bomb Disposal

SERVICES PROVIDED BY SEPARATE FEE: Fees to be charged in accordance with COUNTY's Fire Department fee schedule to party receiving the service.

COSTS: All costs are not to exceed total agreement amount except the cost of major repairs to the CITY-owned fire engine.

PERSONNEL AVAILABLE:

Three (3) Full-time Captains, one (1) per 24 hour shift

Three (3) Full-time Firefighter II, one (1) per 24 hour shift

Three (3) Reserve Firefighter, one (1) per 24 hour shift

One of the personnel on duty per shift shall be a Paramedic, or if not available then Limited and/or ALS, to provide the Advanced Life Support service to CITY. CITY fire response personnel will be on call back status and will be available for special events.

EQUIPMENT AVAILABLE:

1	500 Gallon Engine (City)
1	105 Foot Ladder Truck (City)
2	1,000 Gallon Engine (County)
1	2,500 Gallon Water Tender (County)
1	1,800 Gallon Water Tender (County)
1	1,500 Gallon Aircraft Crash/Rescue Truck (County)
1	Medium Rescue Squad (County)
1	Hazardous Device (Bomb) Unit (County)

ACTUAL AVERAGE RESPONSE TIME:

Northeast area (Neckel Road)	7 minutes
Southwest area (Aten/Austin)	3 minutes
Northwest area (14th/D St)	5 minutes
Southeast area (Clark/Aten)	5 minutes

ACTIVITY AND MANAGEMENT REPORTING:

COUNTY's Fire Department will provide CITY with a monthly report concerning all incidents that have occurred during the month. The report shall include the kind of incidents, response time, number investigations, fire prevention activities, and fire training. The report shall also include maintenance performed on any CITY-owned equipment, and status report on condition of all CITY equipment.

COUNTY's Fire Chief and CITY's City Manager shall meet quarterly to review the contract and discuss any issue related to COUNTY's Fire Department under the terms and conditions of the contract. COUNTY's Fire Chief shall appear before CITY's City Council when requested.

COUNTY ADMINISTRATION:

This Agreement will be administered by the COUNTY's County Executive Officer under the direction of COUNTY's Board of Supervisors. All concerns with COUNTY's administration of this Agreement shall be directed to COUNTY's County Executive Officer.

Imperial County Fire Department
City of Imperial Fire Agreement
Estimated Costs

	FY 2013-14
Permanent Salaries	$ 575,417
Emergency Clothing	7,000
Uniform Allowance	6,000
Insurance Liability	2,245
Travel Expense	5,000
Maintenance-Equipment	12,000
Fuel Expense	12,000
Fire Training	6,000
Equipment	12,000
Prevention	3,000
Medical Supplies	7,000
Self-Contained Breathing Apparatus	2,000
Office Expense	2,000
Miscellaneous Expense	3,000
Overhead Reimbursement (Dept)	13,305
Overhead Reimbursement (County)	228,732

Total Estimated Contract Costs	$896,699

EXHIBIT B

City of Imperial
Equipment Inventory

ENGINE
1 2011 Pierce 105 Foot Ladder Truck

HOSE
35 Sections (50 ft.) of 1 ½" hose (Total: 1500 ft.)
35 Sections (50 ft.) of 2 ½" hose (Total: 1750 ft.)
06 Sections (100 ft.) of 4" hose (Total: 600 ft.)

NOZZLES
1" nozzles
1 ½" nozzles
2 ½" nozzles

MASTERSTREAM
With tips and stands

BREATHING APPARATUS[1]
4 Brackets – extra (replace with 4.5)

ADAPTOR & REDUCERS
1 ½" Double male adapters
1 ½" Double female adapters
2 ½" Double male adapters
2 ½" Double female adapters
1 ½" to 2 ½" reducer
2 1" to 1 ½" reducer
1 5" to 4" reducer
1 5" to 2 ½" reducer
2 ½" Siamese

LADDERS
24 ft. extension
14 ft. roof ladder

MISCELLANEOUS EQUIPMENT
4 Hose straps
2 Exhaust fans
2 Roll drop cords
10 Spanners
5 Hydrant wrench
2 Rubber mallets
1 Extinguisher
4 Gated Wye (2 in service)
1 Pike pole
1 Pry bar
1 K12 saw
2 Axes
1 Positive pressure O_2

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[1] Obsolete breathing apparatus transferred to ROP for training purposes only.

4 Rope packs
1 Hose clamp
1 Portable lights
1 150 ft. red line
2 2 ½" quick seat 4"
3 Medical O2 tanks
1 Halligan tool
1 Kelley tool
1 Clemens hook
2 5" hard suction
1 5" to 4" 20ft. Soft Suction
1 5" strainer
1 Box with 3 emergency triangular reflectors
1 Large bolt cutter
1 Gas can
1 Stihl chain saw
1 5" x 5" Keystone valve
1 500-watt Telescoping light

Hose
15 Sections of 1 ½" hose damaged
14 Sections of 2 ½" hose damaged

Nozzles
1-2 ½" nozzle not repairable
2-2 ½" nozzle taken out of inventory
2-1" nozzle in storage (out of service)

Miscellaneous Equipment
1- Hurst Air Bag Kit 2- Bags, Regulator and Hoses
1- Ames Gas Detector
1- Zoll Defibrillator Model P-14
1- Honda Generator / Light Model E-U 1000
3-2 ½" gated wyes not repairable
1 axe damaged (out of service)
Large bolt cutter not repairable

Radios
1- Motorola Astro 800 mgz Radio
1- Motorola Radius 460 mgz Radio
4- Motorota XTS 5000R 800 mgz hand Held Radios

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ENGINE 3412
INVENTORY

IN CAB / GLOVE BOX

ERG BOOK
EXTENTION FOR HEAD SET
WATER PLANT REMOTE
KEY FOR 3411 STALL DOOR
2 SCREW DRIVER/SOCKET, ALLEN WRENCH
FUEL CARD AND LOG BOOK

IN CAB

CAPTAIN SCBA PACK
MSA THERMAL IMAGER W/ CHARGER
LOCK OUT KIT
(4) SAFETY VEST
FIREFIGHTER SCBA PACK
SAGER SPLINT
(2) BOX OF GLOVES
CELL PHONE W/ CHARGER
MAP BOOK
AIRPORT RADIO W/ CHARGER
COMPUTER W/ SCREEN
(2) REMOTES FOR AIRPORT
(4) HEAD SETS
ALS BAG - MED BAG
AIRWAY BAG
ZOLL EKG
K.E.D.
PORTABLE SUCTION
C-COLLAR BAG
OXYGEN BOTTLE

FIRST COMPARTMENT UNDER PASSENGER DOOR

RESCUE TOOL / AIR HAMMER
4 ROAD FLARES
CAUTION TRIANGLES

1# RIGHT SIDE COMPARTMENT- BEHIND CAB

SCBA PACK
WILDLAND WEB GEAR WITH FIRE SHELTER

#2 RIGHT SIDE COMPARTMENT- MIDDLE

COOL CAN
CUP HOLDER
STORTZ WRENCH

AIMS 3 GAS DETECTOR
HYDRANT SET - WRENCH AND (2) SPANNERS
6"- 4" FEMALE TO MALE REDUCER
2 ½" ADAPTER TREE
(4) HOSE STRAPS
(2) 1 ½ " HOSE CLAMPS
PORTABLE FLOOD LIGHT/ GENERATER
ROPE BAG

#3 RIGHT SIDE COMPARTMENT- REAR

K-12 SAW
CHAIN SAW
(3) AIR BAGS
(2) AIR HOSES
AIR CONTROLLER WITH BAG
FIRE EXTINGUISHER

RIGHT SIDE OF 3412

(1) 6" HARD SUCTION 10'
10' ATTIC LADDER
24' EXTENTION LADDER
14' ROOF LADDER
8' PIKE POLE
SKULL SAVER

OVER RIGHT REAR TIRE

(2) SCBA BOTTLES

REAR COMPARTMENT

AMKUS RESCUE TOOL W/ SREADER / CUTTER
RESCUE TOOL HOSE

HOSE BED

CARLIN VALVE
HYDRANT BAG W/ WRENCH
(2) BACK BOARDS
1000' OF 4" HOSE
800' OF 2 ½ " HOSE
150' 2 ½ " ATTACK LINE W/ 2 ½ " NOZZLE

BEHIND HOSE BED IN THE WELL- (TOP OF ENGINE)

300' OF 1 INCH HOSE IN PACKS
PLASKY
FLAT NOSE SHOVEL

ROUND NOSE SHOVEL
PRY BAR
MC CLOUD
(2) 5 GAL. BUCKETS OF FOAM
2 ½ " FOG MONITOR NOZZLE
MONITOR BASE
2 ½ " STRAIGHT BORE TIP
MONITOR

PRE-CONNECTS

(2) 150' OF 1 ½" HOSE W/ 1 ½" NOZZLES
(2) 2 ½" TO 1 ½ " GATED WYE
200' OF 1 ½" HOSE APARTMENT PACK W/ 1 ½" NOZZLE

#4 DRIVERS SIDE LEFT COMPARTMENT - REAR

VENTILATION FAN
(2) 1 GAL. GAS CANS
VENTILATION ROOF KIT

#3 DRIVER SIDE LEFT COMPARTMENT - MIDDLE

HALOGAN TOOL
24" BOLT CUTTERS
PICK HEAD AXE
FLAT HEAD AXE
4' PIKE POLE
SLEDGE HAMMER
K-TOOL
PRY AXE

#2 DRIVER SIDE LEFT COMPARTMENT - FRONT

2 ½" SIAMESE
WIRE CUTTERS
DEWALT SAW-ALL W/ BOX AND BLADES
2 ½" FILLER HOSE
4" FILLER HOSE
ROPE BAG
(2) BEE HOODS
(2) FLASH LIGHTS W/ CHARGERS
4" TO 2 ½" GATED WYE
(3) 2 ½" TO 1 ½" GATED WYES

#1 DRIVERS SIDE COMPARTMENT - ENGINEERS COMPARTMENT

(2) 1" NOZZLES
(1) 1 ½" NOZZLE
4" TO 2 ½" STORZ COUPLING
(2) 2 ½" COUPLING TREES
(2) 2 ½" TO 1½" REDUCERS

(1) 2 ½" NOZZLE
STRAINER
4" DOUBLE MALE
4" DOUBLE FEMALE
4" FEMALE TO 4" STORZ
HYDRANT SET W/ WRENCH AND (2) SPANNERS
RUBBER MALLET

DRIVER SIDE LEFT OF 3412

10' SECTION OF 6" HARD SUCTION

OVER DRIVER SIDE LEFT TIRE

(2) SCBA BOTTLES

EXHIBIT C

Imperial County Fire Department
Preventative Maintenance Service Procedures

Unit #:_____ Mileage:_____ Date:_____

Engine:

____ 1. Change engine oil

____ 2. Change oil filter

____ 3. Change air filter

____ 4. Change fuel filter

____ 5. Change water filter if applicable

____ 6. Check fan, alternator belts and tighten to proper tension

____ 7. Check motor mounts for signs of slack or wear

____ 8. Check all mounting bolts on intake and exhaust manifolds

____ 9. Check for bolt tightness and leaks on valve covers, oil pan

____ 10. Check carburetor operation and lube linkage

____ 11. Check engine performance, spark plugs, points, rotor, distributor cap, spark plug wires, if applicable

____ 12. Check front and rear oil seals

____ 13. Check water pump, bearing and seals

____ 14. Check overall engine cleaniness

____ 15. Check exhaust system for condition and leakage

Electrical system:

____ 1. Check alternator bearing, tightening belts to proper tension

____ 2. Check alternator and regulator for proper operation

____ 3. Check condition of battery cables

____ 4. Check batteries, condition and cleanliness; clean terminals and apply corrosion protection

____ 5. Check battery compartment; cleanliness and condition

____ 6. Check all lights and emergency lighting equipment and sirens

____ 7. Check starter for proper operation

____ 8. Check operation of all dash instruments

Cooling System:

____ 1. Check radiator for leaks and fluid condition

____ 2. Check radiator core, clear of obstructions

____ 3. Check heater core for leaks and proper operation

____ 4. Check all engine, heater hoses and hose clamps for leakage and deterioration

____ 5. Check thermostat for proper operation (engine temperature)

____ 6. Check fan and fan clutch; insure all bolts are secured

Air Conditioning Unit (if applicable):

____ 1. Check air conditioning units for proper operation

____ 2. Check all hoses for leakage and deterioration

____ 3. Check condenser core for cleanliness

____ 4. Check compressor, bearings

Transmission and Differentials:

____ 1. Check oil transmission (filter if applicable)

____ 2. Change oil in transfer case

____ 3. Check/change oil in differential

____ 4. Check drive train U-joints for condition; check transmission, transfer case, and differential seals for leakage

____ 5. Check clutch, pressure plate and throw-out bearing for proper operation

____ 6. Check clutch fluids (if applicable)

____ 7. Check all mounting bolts on bell housing transmission, differential and rear

____ 8. Check auto transmission fluid lines to fluid cooler for leakage

____ 9. Check auxiliary transmission cooler for cleanliness

____10. Check clutch adjustment

Suspension/steering:

____ 1. Check springs, front and rear, for alignment, tightness of mounting bolts and brackets; condition of shackles and center bolts

____ 2. Check operation and alignment of steering, both power and manual.

____ 3. Check oil level on power steering

____ 4. Check hoses for leakage and deerioration

____ 5. Check hydraulic steering ram seals for leaks

____ 6. Check front and rear wheel bearings; raised

____ 7. Grease all fittings with proper grease, using only manufacturer recommendations

____ 8. Check shock absorbers for proper operation and leaks

____ 9. Lube all linkage pins and swivel joints

____ 10. Check tires, condition and pressure

Brake system:

____ 1. Check brake fluid level, if applicable

____ 2. Check brake proper operation

____ 3. Check brake lining for excessive wear

____ 4. Check brake lines for leaks and deterioration

____ 5. Check for proper brake adjustment

____ 6. Lube brake exterior moving components (air)

____ 7. Check parking brake for proper adjustment

Air System:

____ 1. Check compressor for proper operation

____ 2. Check all air lines for leaks and deterioration

____ 3. Check condenser core for cleanliness

Pump and Valves:

____ 1. Check proper pump operation

____ 2. Check for proper pump packing adjustment

____ 3. Check primer oil level

____ 4. Check proper primer operation

____ 5. Check for proper relief valve operation

____ 6. Check pump panel gauges, valves, controls, and all pump controls elsewhere for operation and leakage

____ 7. Lube all valve controls

____ 8. Lube chick sans and reel chains

Body:

____ 1. Check all body doors and panels for loose or missing bolts

____ 2. Lube all hinges

____ 3. Check condition of all compartments, interior and exterior rust or damage; clean and repair as necessary

____ 4. Check general operation of unit; road test and pump test

Sign and date when Preventive Maintenance is complete:

_____ _____

Signature Date

APPENDIX C

Engineers Opinion of Probable Quantity & Cost Calculation

Engineers Opinion of Probable Quantity & Cost Calculation

1. INDUSTRIAL COLLECTOR

A. Assumptions

1. Assume pavement section of 4 inches A.C. over 11 inches of Class 2 Aggregate Base based upon City of Imperial – Gateway Street Structural Section Sheet prepared by B.J. Engineering dated 11/21/08

2. Assume 6 inch pcc curb and gutter

3. Assume 4 inch deep, 4.5 foot wide pcc sidewalk

4. Assume paved road width is 44 feet

5. Assume Right of Way width is 70 feet

6. Assume demolition, earthwork import/export, native subgrade preparation, limited driveway entrances, pcc curb returns, pcc crossgutters and street lights in the unit costs for A.C. pavement, class 2 base, pcc curb and gutter and sidewalk.

7. Assume State of California Department of Industrial Relations Wage Determinations (Prevailing Wages) are applicable.

B. Costs

1. A.C. Pavement

$$\frac{1' \times 1' \times 4''/12''/\text{foot} \times 150 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.025 \text{ tons/sf}$$

44 feet wide x 1 foot x 0.025 tons/sf = 1.1 tons

1.1 tons A.C./lineal foot of road x $130.00/ton = $143/l.f.

$143.00/lineal foot of road for A.C. pavement cost

2. Class 2 Base beneath A.C. Pavement

$$\frac{1' \times 1' \times 11''/12''/\text{foot} \times 138 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.0633 \text{ tons/sf}$$

44 foot wide x 1 foot x 0.0633 tons/s.f. = 2.79 tons

2.79 tons/l.f. of road x $44/ton = $122.76/l.f. of road

Rounded off use $123/lineal foot of road for Class 2 Base Cost

3. 6 inch curb and gutter

$27.00/lineal foot of curb and gutter

2 l.f. of curb and gutter/1 l.f. of road x $27.00/lineal foot =

$54.00/lineal foot of roadway – 6 inch curb and gutter cost

4. 4 inch pcc sidewalk

$7.50/square foot of sidewalk

2 sides of the street x 4.5' x 1' x $7.50/s.f. = $67.50/s.f.

$67.50/lineal foot of roadway – 4 inch pcc sidewalk

5. Subtotal of A.C. Pavement, Class 2 Base, curb and gutter and pcc sidewalk cost

143/l.f. + 123/l.f. + 54/l.f. + 67.50/l.f. = $387.50/l.f.

6. Add 25 percent to the project cost for mobilization of equipment, permits, insurance, taxes, construction staking,air pollution control district requirements, environmental requirements, stormwater pollution prevention plans (SWPPP) and/or erosion control plan/BMP's, geotechnical testing, striping and signage, traffic control during construction and similar requirements.

7. Total per lineal foot cost of Major Arterial Improvement

387.50/l.f. x 0.25 percent + 387.50/l.f = $484.38/l.f.

Rounded off total lineal foot Industrial Street improvement cost is $484/lineal foot of street

2. MAJOR ARTERIAL

A. Assumptions

1. Assume pavement section of 5.5 inches A.C. over 12 inches of Class 2 Aggregate Base based upon City of Imperial – Gateway Street Structural Section Sheet prepared by B.J. Engineering dated 11/21/08

2. Assume 8 inch pcc curb and gutter

3. Assume 4 inch deep, 4.5 foot wide pcc sidewalk

4. Assume paved road width is 80 feet

5. Assume Right of Way width is 102 feet

6. Assume demolition, earthwork import/export, native subgrade preparation, limited driveway entrances, pcc curb returns, pcc crossgutters and street lights in the unit costs for A.C. pavement, class 2 base, pcc curb and gutter and sidewalk.

7. Assume State of California Department of Industrial Relations Wage Determinations (Prevailing Wages) are applicable.

B. Costs

1. A.C. Pavement

$$\frac{1' \times 1' \times 5.5"/12"/\text{foot} \times 150 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.03438 \text{ tons/sf}$$

80 feet wide x 1 foot x 0.03438 tons/sf = 2.75 tons

2.75 tons A.C./lineal foot of road x $130.00/ton = $357.50/l.f.

$358.00/lineal foot of road for A.C. pavement cost

2. Class 2 Base beneath A.C. Pavement

$$\frac{1' \times 1' \times 12"/12"/\text{foot} \times 138 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.0690 \text{ tons/sf}$$

80 foot wide x 1 foot x 0.0690 tons/s.f. = 5.52 tons

5.52 tons/l.f. of road x $44/ton = $242.88/l.f. of road

Rounded off use $243/lineal foot of road for Class 2 Base Cost

3. 8 inch curb and gutter

$32.00/lineal foot of curb and gutter

2 l.f. of curb and gutter/1 l.f. of road x $32.00/lineal foot =

$64.00/lineal foot of roadway – 8 inch curb and gutter cost

4. 4 inch pcc sidewalk

$7.50/square foot of sidewalk

2 sides of the street x 4.5' x 1' x $7.50/s.f. = $67.50/s.f.

$67.50/lineal foot of roadway – 4 inch pcc sidewalk

5. Subtotal of A.C. Pavement, Class 2 Base, curb and gutter and pcc sidewalk cost

358/l.f. + 243/l.f. + 64/l.f. + 67.50/l.f. = $732.50/l.f.

6. Add 25 percent to the project cost for mobilization of equipment, permits, insurance, taxes, construction staking, air pollution control district requirements, environmental requirements, stormwater pollution prevention plans (SWPPP) and/or erosion control plan/BMP's, geotechnical testing, striping and signage, traffic control during construction and similar requirements.

7. Total per lineal foot cost of Major Arterial Improvement

   732.50/l.f. x 0.25 percent + 732.50/l.f = $915.63/l.f.

   Rounded off total lineal foot Major Arterial improvement cost is $916/lineal foot of street

3. RESIDENTIAL COLLECTOR

A. Assumptions

1. Assume pavement section of 3 inches A.C. over 9 inches of Class 2 Aggregate Base based upon City of Imperial – Gateway Street Structural Section Sheet prepared by B.J. Engineering dated 11/21/08

2. Assume 6 inch pcc curb and gutter

3. Assume 4 inch deep, 4.5 foot wide pcc sidewalk

4. Assume paved road width is 40 feet

5. Assume Right of Way width is 60 feet

6. Assume demolition, earthwork import/export, native subgrade preparation, limited driveway entrances, pcc curb returns, pcc crossgutters and street lights in the unit costs for A.C. pavement, class 2 base, pcc curb and gutter and sidewalk.

7. Assume State of California Department of Industrial Relations Wage Determinations (Prevailing Wages) are applicable.

B. Costs

1. A.C. Pavement

$$\frac{1' \times 1' \times 3''/12''/\text{foot} \times 150 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.01875 \text{ tons/sf}$$

40 feet wide x 1 foot x 0.01875 tons/sf = 0.75 tons

0.75 tons A.C./lineal foot of road x $130.00/ton = $97.50/l.f.

$98.00/lineal foot of road for A.C. pavement cost

2. Class 2 Base beneath A.C. Pavement

$$\frac{1' \times 1' \times 9''/12''/\text{foot} \times 138 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.05175 \text{ tons/sf}$$

40 foot wide x 1 foot x 0.05175 tons/s.f. = 2.07 tons

2.07 tons/l.f. of road x $44/ton = $91.80/l.f. of road

Rounded off use $91/lineal foot of road for Class 2 Base Cost

3. 6 inch curb and gutter

$27.00/lineal foot of curb and gutter

2 l.f. of curb and gutter/1 l.f. of road x $27.00/lineal foot =

$54.00/lineal foot of roadway – 6 inch curb and gutter cost

4. 4 inch pcc sidewalk

$7.50/square foot of sidewalk

2 sides of the street x 4.5' x 1' x $7.50/s.f. = $67.50/s.f.

$67.50/lineal foot of roadway – 4 inch pcc sidewalk

5. Subtotal of A.C. Pavement, Class 2 Base, curb and gutter and pcc sidewalk cost

98/l.f. + 91/l.f. + 54/l.f. + 67.50/l.f. = $310.50/l.f.

6. Add 25 percent to the project cost for mobilization of equipment, permits, insurance, taxes, construction staking, air pollution control district requirements, environmental requirements, stormwater pollution prevention plans (SWPPP) and/or erosion control plan/BMP's, geotechnical testing, striping and signage, traffic control during construction and similar requirements.

7. Total per lineal foot cost of Major Arterial Improvement

   310.50/l.f. x 0.25 percent + 310.50/l.f = $388.13/l.f.

   Rounded off total lineal foot Residential Street improvement cost is $388/lineal foot of street

4. SECONDARY ARTERIAL

A. Assumptions

1. Assume pavement section of 4.5 inches A.C. over 12 inches of Class 2 Aggregate Base based upon City of Imperial – Gateway Street Structural Section Sheet prepared by B.J. Engineering dated 11/21/08

2. Assume 6 inch pcc curb and gutter

3. Assume 4 inch deep, 4.5 foot wide pcc sidewalk

4. Assume paved road width is 50 feet

5. Assume Right of Way width is 84 feet

6. Assume demolition, earthwork import/export, native subgrade preparation, limited driveway entrances, pcc curb returns, pcc crossgutters and street lights in the unit costs for A.C. pavement, class 2 base, pcc curb and gutter and sidewalk.

7. Assume State of California Department of Industrial Relations Wage Determinations (Prevailing Wages) are applicable.

B. Costs

1. A.C. Pavement

$$\frac{1' \times 1' \times 4.5"/12"/\text{foot} \times 150 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.02813 \text{ tons/sf}$$

50 feet wide x 1 foot x 0.02813 tons/sf = 1.41 tons

1.41 tons A.C./lineal foot of road x $130.00/ton = $183.00/l.f.

$183.00/lineal foot of road for A.C. pavement cost

2. Class 2 Base beneath A.C. Pavement

$$\frac{1' \times 1' \times 12"/12"/\text{foot} \times 138 \text{ lb/cubic foot}}{2{,}000 \text{ \#/Ton}} = 0.0690 \text{ tons/sf}$$

50 foot wide x 1 foot x 0.0690 tons/s.f. = 3.45 tons

3.45 tons/l.f. of road x $44/ton = $151.80/l.f. of road

Rounded off use $152/lineal foot of road for Class 2 Base Cost

3. 8 inch curb and gutter

$27.00/lineal foot of curb and gutter

2 l.f. of curb and gutter/1 l.f. of road x $27.00/lineal foot =

$54.00/lineal foot of roadway – 6 inch curb and gutter cost

4. 4 inch pcc sidewalk

$7.50/square foot of sidewalk

2 sides of the street x 4.5' x 1' x $7.50/s.f. = $67.50/s.f.

$67.50/lineal foot of roadway – 4 inch pcc sidewalk

5. Subtotal of A.C. Pavement, Class 2 Base, curb and gutter and pcc sidewalk cost

183/l.f. + 152/l.f. + 54/l.f. + 67.50/l.f. = $456.50/l.f.

6. Add 25 percent to the project cost for mobilization of equipment, permits, insurance, taxes, construction staking, air pollution control district requirements, environmental requirements, stormwater pollution prevention plans (SWPPP) and/or erosion control plan/BMP's, geotechnical testing, striping and signage, traffic control during construction and similar requirements.

7. Total per lineal foot cost of Major Arterial Improvement

   456.50/l.f. x 0.25 percent + 456.50/l.f = $570.63/l.f.

   Rounded off total lineal foot Secondary Arterial improvement cost is $571/lineal foot of street