



Project Report
San Diego River Park Economic Analysis

Prepared for
ICF Jones & Stokes
San Diego, CA

Submitted by
Economics Research Associates, an AECOM
company (ERA)
May 13, 2010
ERA Project No. 17881

Table of Contents

I. Executive Summary	5
Project Overview	5
Market Demand.....	5
Value Premiums.....	5
Funding Techniques.....	6
II. Introduction.....	7
Master Plan Overview	7
Report Outline	7
III. Market Analysis Summary	8
Region Overview	8
San Diego River	9
Mission Valley CPA.....	9
Navajo CPA.....	19
Tierrasanta CPA.....	26
East Elliot CPA	31
Absorption Estimate	32
IV. Land Use Analysis	38
Methodology	38
Land Use Analysis by CPA	39
V. Property Value Premium	46
National Case Studies.....	46
Local Case Studies	52
Estimated Range of River Premiums.....	55
Incremental Value Premium.....	57
VI. Funding Techniques.....	62
National Case Studies.....	62
Funding Analysis Summary	79

Index of Tables/Figures

Tables

Table 1: Condominium Properties in Mission Valley (92108).....	12
Table 2: Rental Properties in Mission Valley.....	14
Table 3: Major Shopping Centers in Mission Valley	17
Table 4: Planned and Proposed Projects in Mission Valley	19
Table 5: SANDAG Projections for Mission Valley	19
Table 6: Rental Properties in Navajo.....	22
Table 7: Planned and Proposed Projects in Navajo	26
Table 8: SANDAG Projections for Navajo.....	26
Table 9: Rental Properties in Tierrasanta	28
Table 10: SANDAG Projections for Tierrasanta	31
Table 11: SANDAG Projections for East Elliot	32
Table 12: Office Demand Estimate (2010 – 2050)	35
Table 13: Market Rate Housing Demand Estimate (2010 – 2050)	37
Table 14: Community Plan Areas Land Summary (all zones).....	40
Table 15: Mission Valley Land Summary (all zones).....	41
Table 16: Navajo Land Summary (all zones).....	41
Table 17: Tierrasanta Land Summary (all zones)	41
Table 18: East Elliot Land Summary (all zones)	45
Table 19: Price Premiums in Austin Neighborhoods (Premium Average Sales Price)	48
Table 20: Price Premiums from Portland (Premium Average Sales Price)	49
Table 21: Residential River Premium by Zone.....	56
Table 22: Value Premium Assumptions.....	59
Table 23: Incremental Value Creation Estimate.....	60
Table 24: Net Present Value Summary	61
Table 25: San Antonio River Partners and Budget Overview (millions)	65
Table 26: Buffalo Bayou Economic Development Potentials	69
Table 27: Rio Salado Project Funding Overview.....	71
Table 28: Recent Development in Rio Salado Beyond the Banks Planning Area	73
Table 29: Trinity River Cost Estimates by Phase (millions).....	76
Table 30: Trinity River Funding Sources (Actual and Potential).....	76
Table 31: Trinity River O&M by Phase	77
Table 32: River Case Studies Cost Summary (presented in millions of dollars).....	79
Table 33: River Case Studies Financing Summary.....	80

Figures

Figure 1: Historic Condo Resales and Median Price Per Unit in Mission Valley (92108).....	11
Figure 2: Mission Valley Office Statistics.....	16
Figure 3: Mission Valley Retail Statistics	18
Figure 4: Historic Condo Resales and Median Price Per Unit in Navajo (92120).....	21
Figure 5: Historic Condo Resales and Median Price Per Unit in Navajo (92119).....	22
Figure 6: Navajo Office Statistics	24
Figure 7: Navajo Retail Statistics	25
Figure 8: Historic Condo Resales and Median Price Per Unit in Tierrasanta (92124)	28
Figure 9: Tierrasanta Office Statistics	29
Figure 10: Tierrasanta Retail Statistics.....	30
Figure 11: Mission Valley Undeveloped Land by Zone and Use.....	42
Figure 12: Navajo Undeveloped Land by Zone and Use	43
Figure 13: Tierrasanta Undeveloped Land by Zone and Use	44
Figure 14: River and Non-River Units Sales Data Per Square Foot at The Lido (2008 Dollars).....	54
Figure 15: Comparative River Park Operations and Maintenance per Acre	77

[Page Intentionally Left Blank]

General & Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this report are accurate as of the date of this study; however, factors exist that are outside the control of Economics Research Associates, an AECOM company (ERA) and that may affect the estimates and/or projections noted herein. This study is based on estimates, assumptions and other information developed by Economics Research Associates from its independent research effort, general knowledge of the industry, and information provided by and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives, or any other data source used in preparing or presenting this study.

This report is based on information that was current as of May, 2010 and Economics Research Associates has not undertaken any update of its research effort since such date.

Because future events and circumstances, many of which are not known as of the date of this study, may affect the estimates contained therein, no warranty or representation is made by Economics Research Associates that any of the projected values or results contained in this study will actually be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Economics Research Associates" in any manner without first obtaining the prior written consent of Economics Research Associates. No abstracting, excerpting or summarization of this study may be made without first obtaining the prior written consent of Economics Research Associates. This report is not to be used in conjunction with any public or private offering of securities, debt, equity, or other similar purpose where it may be relied upon to any degree by any person other than the client, nor is any third party entitled to rely upon this report, without first obtaining the prior written consent of Economics Research Associates. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from Economics Research Associates.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

I. Executive Summary

Project Overview

The San Diego River Park Master Plan (Master Plan) focuses on the San Diego River (River) within the boundaries of the City of San Diego (City) extending from the Pacific Ocean to the City of Santee. In order to successfully implement the Master Plan, the City is currently amending the Mission Valley, Navajo, Tierrasanta, and East Elliot Community Plans (collected defined as the Community Plan Areas). Economics Research Associates (ERA), an AECOM Company, was retained as a sub-consultant by ICF Jones and Stokes to assist the City in estimating the potential development value impacts for the Master Plan. In order to determine the feasibility of any “value driven” financing mechanism to fund the proposed Master Plan improvements we evaluated local market demand, potential value premiums, and existing funding techniques.

Market Demand

The anticipated greatest demand pressure for future real estate development within the Community Plan Areas is from housing. Future housing potentials will be largely successful based on the quality of residential development, better connectivity to the existing Trolley station, and improvements to the River. Buyers and renters will be attracted to the Community Plan Areas as a living alternative¹ to downtown due to access to transit, a central location, close proximity to the Mission Valley activity cluster (retail and entertainment), and passive and active open space (i.e. San Diego River, Golf Course, and hillside views). Similarly, office market locations in close proximity to downtown with access to transit, along with the existing employment center in Mission Valley, will be increasingly important in the future. All demand estimates were utilized to estimate absorption of new residential and commercial (office space and for-rent residential units) land, which was then used to evaluate the range of value premiums attributable to River improvements.

Value Premiums

Based on our analysis of academic research and local real estate agent interviews, the assumed incremental residential value appreciation is estimated to be between 5 and 15 percent, with the mid estimate (10 percent) used to evaluate potential value creation associated with River improvements. There appears to be a slight premium placed on both office and for-rent residential properties with adjacency to open space. However, while not significant in relation to rent premiums, there is abundant evidence that such adjacency helps attract tenants and thus speeds absorption. As such, we have placed a minimal premium on commercial office and for-rent properties (one percent) within a quarter-mile of the River.

¹ General preference of multi-family housings in an area with mixes of land use, not in terms of density, scale, etc.

The total cumulative value creation amounts to approximately \$1.6 billion over a 20 year period. In net present value terms, this total value amounts to \$919 million, \$803 million, and \$704 million applying discount rates of 4 percent, 5 percent, and 6 percent respectively. If the City captures 20 percent (our low estimate) of the value created from River improvements, then revenues would total \$183.8 million, 160.6 million, and \$140.8 million using the aforementioned discount rates over a twenty year period.

This analysis does not include existing properties that are currently within proximity to the River. The average assessed value for commercial and residential land for crossing a 200 foot threshold from the River is approximately \$2.9 million per acre. All reported value creation is based on development potential per the existing Community Plan Areas planning. Based on existing and potential, but not approved development, within the Community Plan Areas there may be significant additional benefit created by River improvements.

Funding Techniques

The cost of the river restoration projects vary by size and scope. Based on the estimated hard costs (mostly projected costs at time of analysis), river improvements analyzed in this study ranged from \$100 million to \$1 billion. On a per mile basis (measured in linear feet of the river), the costs ranged from \$20 million to just over \$50 million per mile. In each case study, the city's contribution to the overall hard costs was relatively consistent, ranging between 18 and 23 percent of the total project costs. Other funding sources, such as the County, State, Federal, and other sources varied by project. Finally, the river improvements aided in the economic development of adjacent properties. Due to issues related to quantifying economic development the various values were not summarized herein.

ES Table 1: Key Assumptions and Findings

Value Premium Assumptions	
Residential (Zone 1 & 2)	10%
Residential (Zone 3)	3%
Commercial (All Zones)	1%
Total Value Creation (NPV)	
@ 6% Discount Rate in Millions	\$704
@ 20% Potential City Capture in Millions	\$141
Existing Properties Assessed Value	
Total in Millions (Zone 1 & 2)	\$2,445.4
Average per Acre in Millions (Zone 1 & 2)	\$2.9

Note: "Existing Properties" only captures commercial and residential properties.
Source: ERA AECOM

II. Introduction

Economics Research Associates (ERA), an AECOM Company, was retained as a sub-consultant by ICF Jones and Stokes to assist the City of San Diego (City) in estimating the potential development value impacts for the San Diego River Park Master Plan (Master Plan). By means of this analysis, ERA will help the City determine the feasibility of any “value driven” financing mechanism to fund the proposed Master Plan improvements.

Master Plan Overview

In 2001, the San Diego River Park Foundation was formed to coordinate the efforts of community groups and organizations dedicated to the San Diego River (River) and to work toward making San Diego River Park (River Park) a reality. These planning efforts lead to the City hiring professional planning consultants, Civitas and ICF Jones and Stokes, to write a Master Plan for the River Park in 2003. Many community workshops were held and in 2005 a draft Master Plan was presented to the City Council as an information item and received unanimous support. Currently, the City has hired the same design and planning consultants to provide an implementation element, a Program Environmental Impact Report, and the community plan area (CPA) amendments required to implement the Master Plan.

The Draft Master Plan is a framework that adjacent communities can use to set policy on riverfront land uses within their boundaries that will encourage coordination between River Park planning and other future development along the River corridor. Both public and private properties are within the planning area of the Draft Master Plan. The Draft Master Plan acknowledges the need to work with private property owners to determine the course of future development and re-development projects.

Report Outline

The report presents the findings of ERA’s analysis based on four major components that include the following:

1. Market Analysis Summary;
2. River Land Use Summary;
3. Incremental Property Value Premium Analysis; and
4. Funding Techniques.

III. Market Analysis Summary

The following section provides a brief overview of the long-range population and employment forecasts for the region, followed by an overview of key inputs that inform our absorption estimates. ERA has focused its market research on the current and projected future demand for residential and commercial office serving land uses. These land uses were chosen because these uses are most likely to derive incremental value from the proposed Master Plan improvements.²

Region Overview

The baseline projections used in this report are taken from the San Diego Association of Governments (SANDAG) 2030 Regional Growth Forecast. The report, issued in 2006, and updated in 2008, provides the region's most comprehensive long-range economic and demographic forecast. The forecast is developed through a collaborative effort with experts in demography, housing, the economy, and other disciplines in close cooperation with the local planning directors and their staffs. While the forecast looks out to the year 2030, the horizon year of current local plans is typically between 2020 and 2030. As those plans evolve, future forecasts may result in different outcomes.³

SANDAG estimates that more than two-thirds of land in the County is off limits to development. This land is publicly-owned (military bases, state parks, and national forests) or undevelopable because of habitat protection. Some of the remaining land is impractical or impossible to build on because of topographical limitations such as hills and valleys indigenous to the region. As a result, in 2005, 84.5 percent of all residents lived in the County's 18 cities⁴, an area equal to only 16.2 percent of the County's physical expanse.

Over the next 40 years, most cities will fully develop under their current plans. Therefore, most of the growth in housing units (about 80 percent) is anticipated to occur within designated higher density areas of the City and low density unincorporated areas in the County. The City is expected to attract the greatest number of people (316,000) or 37 percent of all new regional population growth, by 2030.

² Without a specific plan to orient an entertainment district towards the River, other retail commercial uses are not likely to benefit as a result of investment in the River.

³ In the context of long-term planning, short-term market cycles (e.g. the recent recessionary period) have less relevance given a buildout horizon stretching to 2030 and beyond. The conclusions discussed in this report are based on adjustments to long-term data projections and an understanding of market dynamics affecting the region.

⁴ 2008 Housing San Diego Report (SD Regional Economic Development Corporation).

Similarly, the City is expected to increase its total employment by approximately 200,000, which represents 43 percent of all projected net new employment growth in the region.

In total, SANDAG projects by the year 2030, the region will grow by approximately one million people, 290,000 new homes, and approximately half a million jobs, assuming current adopted land use plans and polices do not change over the coming decades.

San Diego River

The River is an important natural resource and a site for economic and recreational activities in the City. The 52-mile River travels from its source on Volcan Mountain to the Pacific Ocean near Mission Beach. The Draft Master Plan focuses on the River within the boundaries of the City extending from the Pacific Ocean to the City of Santee. In order to successfully implement the Master Plan, the City is currently amending the Mission Valley, Navajo, Tierrasanta, and East Elliot Community Plans (collected defined as the Community Plan Areas).

The Community Plan Areas are centrally located within proximity to Interstate 15 (north/south), Interstate 805 (north/south), State Highway 163 (north/south) and Interstate 8 (east/west) giving the Community Plan Areas excellent regional connectivity. The Community Plan Areas also have access to transit. The Mission Valley and Navajo Community Plan Areas already benefits from the San Diego Trolley (Trolley). Future development will likely orient itself to public transportation as the region will require alternative transportation options to assist with traffic issues associated with existing long-term population forecasts.

Mission Valley CPA

CPA Overview

The Mission Valley planning area comprises approximately 2,418 net acres and is located near the geographic center of the City. It is generally bounded by Friars Road and the northern slopes of the valley on the north, the eastern banks of the San Diego River on the east, the southern slopes of the valley on the south, and Interstate 5 on the west.

Throughout the history of Mission Valley, the River has been a primary attraction, first as a source of fresh water and later as a scenic recreational asset. Major urban development has occurred since the late 1950s, primarily as a result of improvements in the regional highway network. The construction of Interstate 8 provided an impetus for commercial development in Mission Valley. Other significant projects include Qualcomm Stadium. The community is also a center for office, hotels, retail sales,

and one of the fastest growing residential communities in the region. It also benefits from the multiple Trolley stations.

Residential Real Estate Overview

According to SANDAG estimates, as of January 1st, 2009, the Mission Valley CPA had a total household population of 22,466 occupying 10,622 housing units. In total, there are an estimated 11,132 total units. Approximately 90 percent are classified as multifamily⁵ housing units. Since the 2000 Census, the CPA has added 3,526 units, suggesting the development and absorption, on average, of approximately 400 units per year. Housing unit growth since the 2000 Census represents 8.6 percent of all new units constructed in the City. The Mission Valley CPA currently represents 2.2 percent of all housing units in the City. While the current distribution of rental and owner-occupied units is unknown, the following data provide a detailed account of the current residential projects in Mission Valley, which suggest a fairly even distribution of owner-occupied (44%) and for-rent (56%) properties in the area.

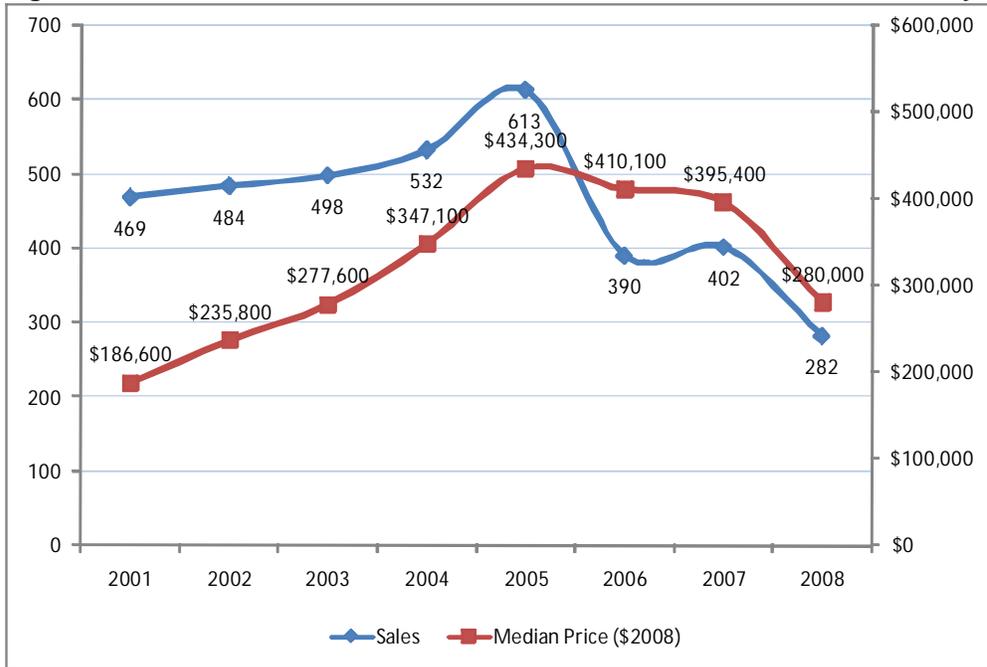
Condominium Developments

Since the peak in 2005, regional housing prices have retreated approximately 40 percent. However, because of the combination of land scarcity and strong economic fundamentals, many believe the effects of this situation will prove only temporary and will ultimately have a negligible effect on the County's long-term challenge of demand for housing outstripping supply. Furthermore, it is assumed that as the existing foreclosure market is absorbed in the region, the supply of homes will shrink rather rapidly because there has been limited development over the few years.

Similar to the region, Mission Valley condominium units more than doubled in value between year-end 2001 and 2005 (presented in constant dollars). However, since year-end 2005, sales and median sales prices have retreated dramatically. Since the peak of 2005, prices have declined approximately 35.5 percent with sales decreasing 54 percent (**Figure 1**). Since 2001, the overall price trend has been positive with median values increasing by just over 50 percent.

⁵ Apartments and higher density condominium developments (generally more than 12 units per acre).

Figure 1: Historic Condo Resales and Median Price Per Unit in Mission Valley (92108)



Source: DataQuick and US Bureau of Labor Statistics

Table 1 presents a summary of existing sales prices for condominium developments in Mission Valley. It should be noted that information related to price is based on a limited number of existing listings or recent sales transactions. The overall average is in-line with reported sales provided by DataQuick from year-end 2008. In October 2009, DataQuick reported 35 sales of condominium units in Mission Valley with a median sales price of \$240,000. This represents an 11 percent decline in the median sales price from a year ago in October 2008. The area is one of the most active (in terms of sales) and has price points comparable with those in the Central San Diego region.

Table 1: Condominium Properties in Mission Valley (92108)

	Units	Square Feet	Listed Sales Price ¹		Sales Price / SF	
			Min	Max	Min	Max
Mission Greens	212	644 - 1,794	\$325,000	- \$330,000	\$254	- \$315
Mission Village	256	700 - 950	\$124,900	- \$124,900	\$296	- \$296
Friars Pointe	189	506 - 690	\$90,000	- \$130,000	\$177	- \$188
River Scene	108	1,200 - 1,300	\$320,000	- \$358,000	\$255	- \$328
Rio del Oro	154	770 - 1,479	\$290,000	- \$530,000	\$377	- \$358
Mission Gate	98	1,235 - 1,646	\$265,000	- \$385,000	\$288	- \$343
Union Square	120	950 - 1,345	\$330,000	- \$330,000	\$347	- \$347
Park Villas South	344	506 - 1,050	\$85,000	- \$216,000	\$165	- \$427
Park Villas North	296	726 - 1,056	\$149,876	- \$205,000	\$194	- \$206
Mission Verde	234	680 - 1,082	\$165,000	- \$165,000	\$250	- \$250
Mission Heights	116	667 - 1,227	\$105,000	- \$105,000	\$157	- \$157
Friars Mission	166	1,172 - 1,538	\$305,000	- \$315,000	\$224	- \$243
Mission Ridge	277	868 - 1,352	\$225,000	- \$343,000	\$251	- \$272
Mission Plaza	325	616 - 1,135	\$220,000	- \$220,000	\$236	- \$236
Mission Playmor	200	885 - 1,576	\$369,000	- \$369,000	\$234	- \$234
Mission Walk	56	1,830 - 2,102	\$390,000	- \$390,000	\$213	- \$213
The Lido	220	903 - 1,793	\$525,000	- \$525,000	\$296	- \$296
Missions at Rio Vista	464	704 - 1,327	\$169,000	- \$177,000	\$240	- \$243
The Franciscan	193	664 - 957	\$145,000	- \$200,000	\$218	- \$301
Mission Bellwood	*	* - 1,334	\$335,000	- \$349,000	\$251	- \$262
The Bluffs	324	432 - 1,130	\$94,900	- \$94,900	\$220	- \$220
Total/Average	4,352	834 - 1,326	\$261,032	- \$290,324	\$249	- \$277

Notes:

¹ Limited Sales Price Data as of November 12, 2009

* Unknown

Source: SANDICOR and AECOM

Rental Properties

Due to an increased demand for rental properties in the region, the average asking rent per unit has increased from \$1,200 to \$1,400, or just less than 17 percent in the last four years. Rental property fundamentals have remained relatively strong during the economic downturn, as many people have left owned homes for rental properties, as well as existing rental tenants who are waiting for the housing market to stabilize before they enter the market. Since year-end 2004, occupancy has hovered around 95 to 96 percent.

According to REIS, a third party provider of impartial commercial real estate performance information and analysis, the Clairemont/Linda Vista Mission submarket of San Diego currently has about 120

apartment buildings (about 21,600 units)⁶. The Clairemont/Linda Vista Mission submarket is bounded by the Interstate 5 freeway to the east, State Highway 52 to the north, State Highway 125 to the east, and Interstate 8 to the south. It includes the Mission Valley, Tierrasanta, and Navajo Community Plan Areas. The apartment units in the Clairemont/Linda Vista Mission area compose about 6 percent of the larger San Diego metro area.

The majority of apartment units (51 percent) are 2 bedroom units, with an additional 41 percent of units in 1 bedroom configuration. Rents in apartment buildings built after 1999 command a greater average rent of \$1,900 compared to \$1,266 (buildings built before 1970). The average rent in the area is about \$1,500. The asking rent per square foot remained under \$2.00 per square foot, regardless of the type of the apartment unit (number of bedrooms).

While the REIS data provides a helpful snapshot of general rental properties statistics, it is not comprehensive in its accounting, as it only provides information from particular properties willing to share its operating information. In order to better understand the existing rental property supply in Mission Valley, and each subsequent CPA, we compiled data on individual facilities as provided in **Table 2**. Mission Valley has the most rental units, as well as commands the highest asking price on a per square foot basis in comparison to the Community Plan Areas. The area is home to many recent developments along Friars Road including Aquatera, Avalon Mission Valley, among others. Specific properties adjacent to the San Diego River will be further analyzed in Section IV.

⁶ REIS only tracks large apartment complexes usually over 50 units in size.

Table 2: Rental Properties in Mission Valley

	Units	Square Feet	Asking Rate per Month	Price Per SF
Padre Gardens	344	695 - 1,100	\$1,030 - \$1,610	\$1.48 - \$1.46
Prado	282	701 - 985	\$1,045 - \$1,383	\$1.49 - \$1.40
Portofino	396	727 - 1,373	\$1,625 - \$2,875	\$2.24 - \$2.09
The Promenade Rio	970	652 - 1,273	\$1,344 - \$2,072	\$2.06 - \$1.63
Club River Run	368	600 - 965	\$1,340 - \$1,780	\$2.23 - \$1.84
Avalon Fashion Valley	161	1,049 - 1,347	\$2,105 - \$3,015	\$2.01 - \$2.24
Aquatera	254	729 - 1,370	\$1,635 - \$2,820	\$2.24 - \$2.06
Archstone Mission Valley	736	726 - 1,346	\$1,330 - \$2,500	\$1.83 - \$1.86
River Run Village	192	602 - 988	\$1,275 - \$1,700	\$2.12 - \$1.72
Monte Vista	640	610 - 1,356	\$1,460 - \$2,515	\$2.39 - \$1.85
Bluffs II	224	400 - 900	\$952 - \$1,582	\$2.38 - \$1.76
Archstone Presidio View	350	729 - 1,137	\$1,530 - \$2,635	\$2.10 - \$2.32
Missions at Rio Vista	464	706 - 1,327	\$1,375 - \$2,399	\$1.95 - \$1.81
River Front	229	977 - 1,025	\$1,715 - \$1,855	\$1.76 - \$1.81
Total/Average	5,610	707 - 1,178	\$1,412 - \$2,196	\$2.02 - \$1.85

Source: Apartments.com, REIS, and Individual Facilities

Employment Overview

While current in-place job estimates are not known, in 2004, SANDAG estimated there were approximately 53,000 jobs in the CPA. Since year-end 2004, the amount of occupied office space has declined by 0.65 percent⁷. Similarly, occupied retail space has remained relatively unchanged. This would suggest a small loss of local jobs in the area assuming the square feet per employee has remained constant over the years.

Examining the larger regional economy, since 2000, the San Diego regional economy (County) added nearly 109,000 jobs, an increase of about 10 percent occupancy. According to the California Employment Development Department (EDD), the County currently has over 1.3 million jobs. However, between year-end 2007 and 2008, the region lost 5,100 jobs, with more net losses expected by year-end 2009. The greatest growth since 2000 was in the services sector, with nearly 80,000 new jobs generated in the fields of information technology, professional and business services, education and health services, leisure and hospitality services, and other services. EDD projects that most future growth will take place in industries that require office space.

⁷ CoStar estimate for Mission Valley

Commercial Real Estate Overview

Office

The majority of office product in Mission Valley is characterized as Class A⁸ or Class B⁹ office properties. A large cluster of office space is located off of Friars Road generally bounded by State Highway 163 and Mission Center Road, as well as along Rio San Diego Drive between Qualcomm Way and Interstate 805. The office product in Mission Valley demands the highest rental prices but also has the highest vacancy rate as compared to other Community Plan Areas since companies have suffered declines in recent years and vacated Class A space. Current vacancy rates and quoted rents are slightly above those reported at the City level.

Market potentials for office-related development in Mission Valley and other CPAs will be a function of the particular attributes of the regional office market. Although the regional market is comprised of many submarkets, each with a distinct tenant profile, office space has a high level of substitutability, such that the potentials in any given submarket are largely determined by the overall strength of the regional office market. Thus, development activity, absorption¹⁰, vacancy rates, and change in rental rates follow similar patterns in most of the region.

Until recently, strong job growth in San Diego has helped drive demand for office product. While the average monthly full-service asking rent increased steadily from 2002 to 2006, over the last two years there has been relatively little growth in overall asking rental rates. In previous years, as vacancy rates declined, there was upward pressure on rents.

The Mission Valley CPA, as of the 3rd quarter of 2009, has over 7.1 million square feet of office space in 142 properties. The Mission Valley office market area is one of the largest office clusters with approximately nine percent of leasable space in the City. After fluctuating between 8 and 10 percent between 2002 and 2006, the amount of occupied office space has declined since 2006. Vacancy rates have sharply increased in 2008, reaching about 16 percent. Average rental rates have steadily

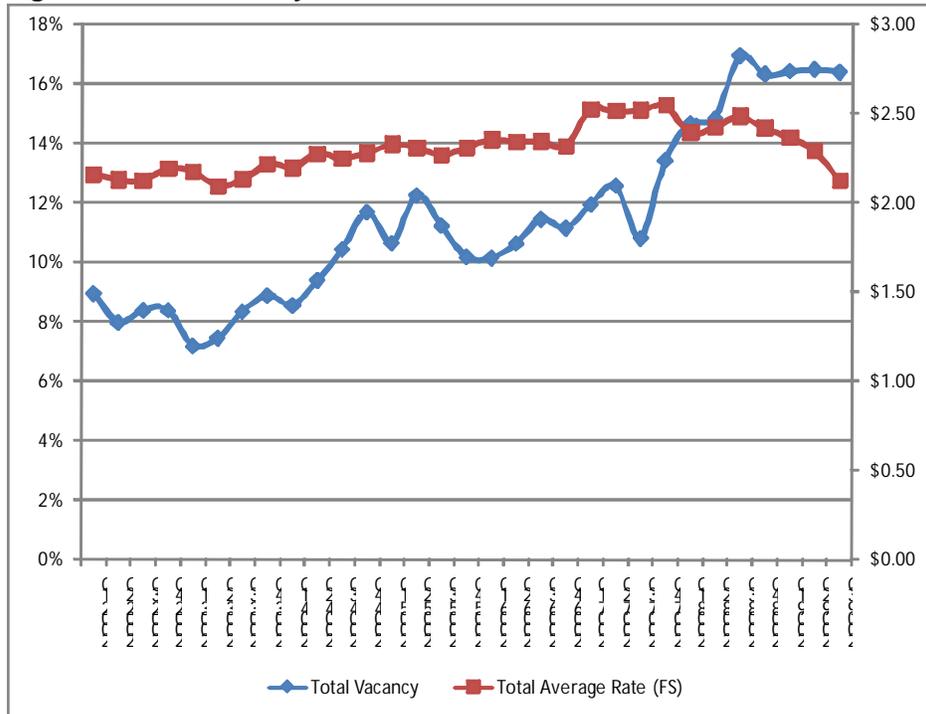
⁸ Class A is used to describe buildings that generally qualify as extremely desirable investment-grade properties and command the highest rents or sales prices compared to other buildings in the same market area.

⁹ Class B is used to describe buildings that generally qualify as a more speculative investment, and as such, command lower rents as compared to Class A properties. In some cases, these buildings are older and were once classified as Class A product.

¹⁰ Absorption refers to the change in physically occupied space during a given time period. Net absorption can be positive or negative. For example, when a tenant moves into a new location (positive absorption) and vacates its former space (negative absorption) the net change is measured.

increased since 2002, with a recent decline over that last year. As of 3Q 2009, CoStar reports an average asking rate of \$25.47 per year full-service¹¹ (FS) or \$2.12 per square foot per month.

Figure 2: Mission Valley Office Statistics



Source: CoStar

Retail

Mission Valley is one of the largest retail centers in the City. The current occupied space in the area represents just less than 10 percent of all occupied retail space in the City and is a regional destination for a wide variety of retail shopping. Major retail malls, such as Westfield’s Mission Valley Shopping Mall and Fashion Valley Mall collectively represent approximately three million square feet of retail space. Other smaller, but significant, community shopping centers include Rio Vista Shopping Center, Hazard Center Mall, and Friars-Mission Shopping Center. There is also the Fenton Market Place, which represents the largest infusion of retail space to the area in the last nine years. The Fenton Market Place development is home to three “big box” retailers along with other smaller retailers.

¹¹ Rental rates that include all operating expenses such as utilities, electricity, janitorial services, taxes, and insurance.

Table 3: Major Shopping Centers in Mission Valley

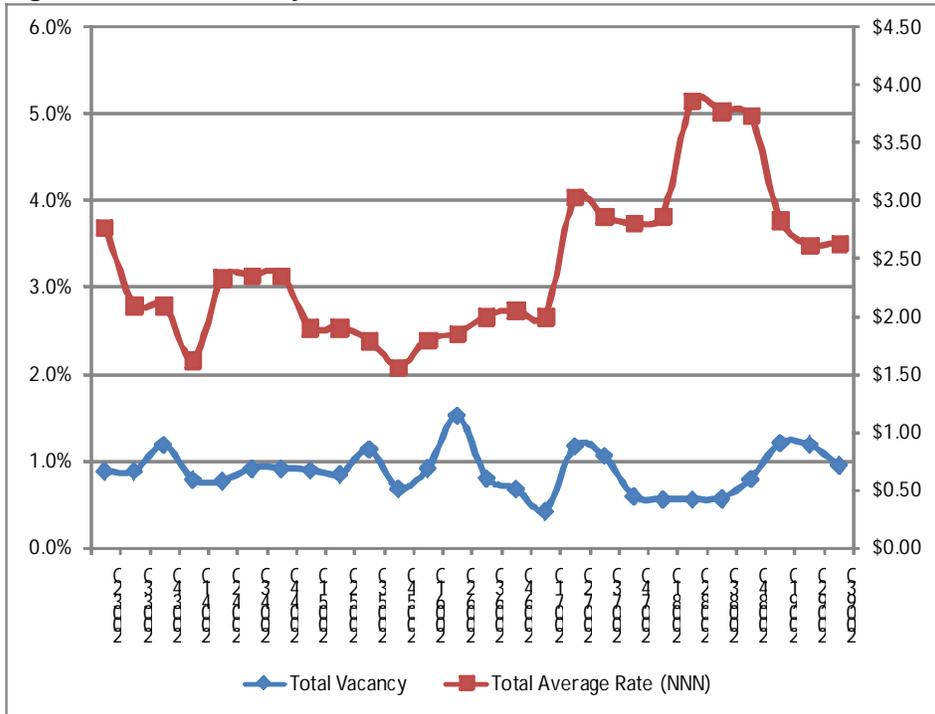
Center Name	Size/SF	Anchors
Fashion Valley	1,710,035	Nordstrom's, Macys, Saks
Mission Valley Shopping Mall	1,370,370	Target, Macys, AMC 20
Fenton Marketplace	560,000	IKEA, Costco, Lowes
Rio Vista Plaza	260,000	Ross, Sports Authority, Office Depot
Mission Valley West	191,900	Borders, Old Navy, Marshalls
Park in the Valley	155,000	Best Buy
Friars Mission	145,796	Ralphs, Longs Drug, Burger King
Hazard Center	135,949	Barnes and Nobles, Ultra Star Theatres
Hazard Center East	65,000	Food 4 Less

Source: Burnham Real Estate

As shown in **Figure 3**, occupancy of the retail space has not fluctuated greatly since 2003, averaging about 5.2 million square feet of occupied retail space in 96 retail properties. The average rental rate experienced sharp price appreciation between 2005 and 2008 but has since retreated to the current average asking rate of \$31.53 per year or \$2.63 per square foot per month triple-net¹² (NNN). Retail product in the CPA demands the highest rental prices and has the lowest vacancy rate as compared to the other Community Plan Areas. Compared to the City, the area has lower reported retail vacancy and higher rental rates reflecting its position as a desired retail location in the City.

¹² All costs of operation including, but not limited to, real estate taxes, insurance, and common area maintenance are borne by the tenant on a pro rata basis.

Figure 3: Mission Valley Retail Statistics



Source: CoStar

The strength in the retail market is based on job growth and disposable income. As such, current economic conditions have forced many national and local store closures. The City dramatically increased its taxable sales during the ten year period between 1996 and 2006, which subsequently drove demand for commercial retail product in the region. Recent trends suggest the commercial retail markets weakening with approximately 865,000 square feet becoming available since the third quarter of 2007 in the City.

Planned and Proposed Projects

There are currently over 6,100 dwelling units, close to 1,000,000 commercial (retail) square feet, and 550,000 office square feet planned in Mission Valley as of year-end 2009. As noted in **Table 4**, there are currently five projections in various stages of approval. It is assumed that these projects will come on line first before future development occurs in the CPA.

Table 4: Planned and Proposed Projects in Mission Valley

	Units	Commercial	Office
West End	562	12,242	NA
Mission Valley Mixed Use	72	NA	127,310
Westfield Mission Valley	250	500,000	TBD
Quarry Falls	4,780	480,000	420,000
Hazard Center	<u>473</u>	<u>NA</u>	<u>NA</u>
Total	6,167	992,242	547,310

Note: Does not include hotel properties.
 Source: City of San Diego Planning & Community Investment

Socioeconomic Projections

According to SANDAG, Mission Valley is anticipated to have 17,918 total housing units by 2030. Between 2009 and 2030 an additional 6,786 new units are projected to be constructed, above the current supply, which suggests the delivery of approximately 340 units, on average, on an annual basis. During the same time-period SANDAG projects that the CPA will increase the number of in-place employees by approximately 25 percent or approximately 13,200 workers to the area (**Table 5**).

Table 5: SANDAG Projections for Mission Valley

	2009	2010	2020	2030	2009-2030	
					Numeric	Percent
Employment (In-Place) ¹	53,281	59,978	64,902	66,472	13,191	25%
Housing Units	11,132	11,307	16,242	17,918	6,786	61%
Employment/Housing Ratio	4.8	5.3	4.0	3.7		

¹ 2009 In-Place employment uses 2004 SANDAG estimate as proxy.
 Source: SANDAG

Navajo CPA

CPA Overview

The Navajo community, encompassing approximately 14 square miles, lies roughly north of Interstate 8, northwest of the city of La Mesa, west of the cities of El Cajon and Santee, and southeast of the River. The community includes the neighborhoods of Grantville, Allied Gardens, Del Cerro, and San Carlos. Prominent and attractive geographic features include the River and Lake Murray, Cowles Mountain, and the Mission Gorge areas of Mission Trails Regional Park.

A wide variety of land uses are represented in the western portion of the Navajo community, including detached and attached residential in Allied Gardens, and some significant commercial and light industrial centers in Grantville situated along both sides of Mission Gorge Road. The central and eastern portions of Navajo are primarily residential in character in the Del Cerro and San Carlos

neighborhoods. Pockets of neighborhood¹³ and community¹⁴ serving commercial are situated at the intersections of major transportation corridors, such as Navajo Road at the intersections of Jackson Drive and Lake Murray Boulevard.

Transit service was upgraded with the construction of the Mission Valley East trolley extension, which connects the Orange and Blue Lines and provides service to San Diego State University. Navajo is served by the Trolley via a station located at Mission Gorge Road and Alvarado Canyon Road.

Residential Real Estate Overview

According to SANDAG estimates, as of January 1st, 2009, the Navajo CPA had a total household population of 49,568 occupying 19,481 housing units. In total, there are an estimated 20,654 total units. Approximately 70 percent are classified as single family¹⁵ housing units. Since the 2000 Census, the CPA has added 398 units, suggesting the development, on average, of approximately 50 units per year. However, current estimates indicate the loss of 433 occupied housing units over the same time period. The Navajo CPA currently represents 4.0 percent of all housing units in the City.

Condominium Developments

The number of annual condominium resales in Navajo has remained relatively constant in the 92120 zip code (includes Allied Gardens, Del Cerro neighborhood). Similar to the regional trends, sales activity peaked in 2005 and has since retreated by approximately 35 percent from sales activity during 2003 to 2005. Similarly, median sales prices (presented in constant 2008 dollars) peaked in 2005, then dropped by 12.5 percent in 2006, remained stable in 2007, and then declined rapidly between 2007 and 2008. The median condominium sales price declined 41 percent between 2007 and 2008, and in 2008 was only seven percent above median sales prices in 2001.

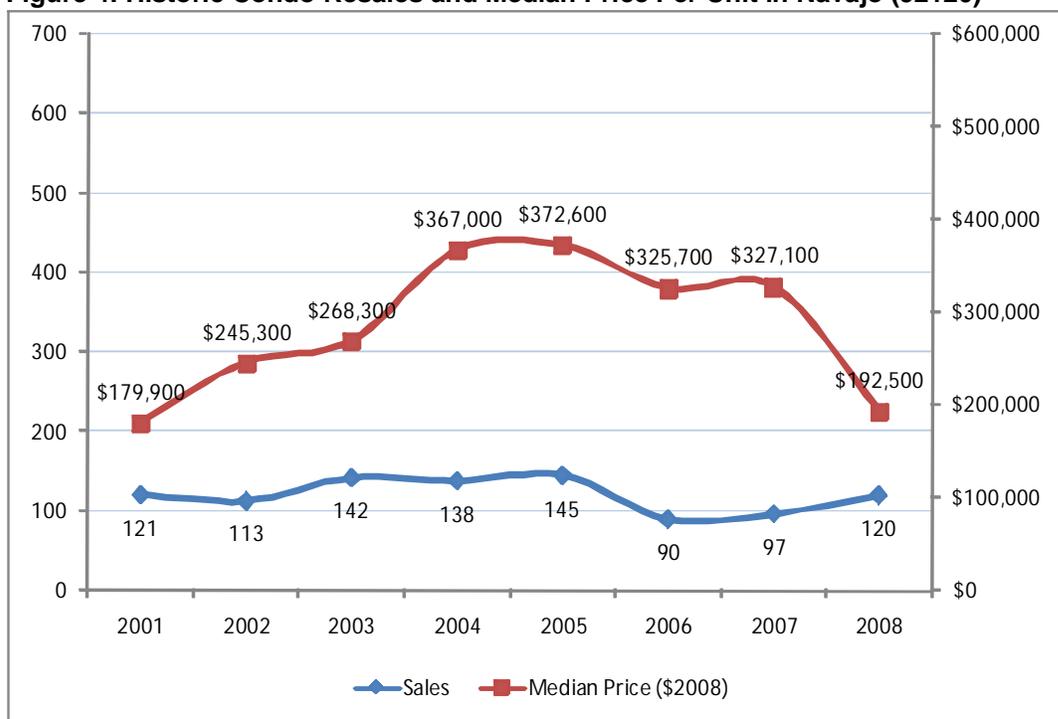
Unlike the 92120 zip code (includes San Carlos neighborhood), the 92119 zip code within the Navajo CPA saw sales activity peak in 2004 and has since experienced a severe and steady decline in sales activity. As of year-end 2008, the number of condominium sales in the area has declined by 58 percent since 2004. Median price appreciation peaked in 2005 and has since declined by 50 percent, which is 4.5 percent below the median sales price in 2001.

¹³ A neighborhood shopping center is designed to provide convenience shopping for the day-to-day needs of consumers in the immediate neighborhood. Approximately one-half of these centers are anchored by a supermarket while a third of these centers are anchored by a drugstore. The trade area is typically no more than three miles.

¹⁴ A community center offers a wider range of apparel and other goods than a neighborhood center. These centers typically draw from a trade area of three to six miles and have a larger collection of retailers with 100,000 to 300,000 square feet per center.

As of October 2009, current median sales prices for condos in the Navajo CPA are below both the Mission Valley and Central San Diego median resale price by 30 percent. According to DataQuick, the Allied Gardens, Del Cerro neighborhoods recorded 12 sales in the month of October, with a median sales price of \$157,000. San Carlos only had six reported transactions with a median sales price of \$138,000. The 92120 and 92119 zip codes within the Navajo CPA are approximately 37 percent and 45 percent below the Central San Diego region, respectively. It should be noted that the majority of housing units in the Navajo CPA are single family homes with values near or above the median sales price in the region.

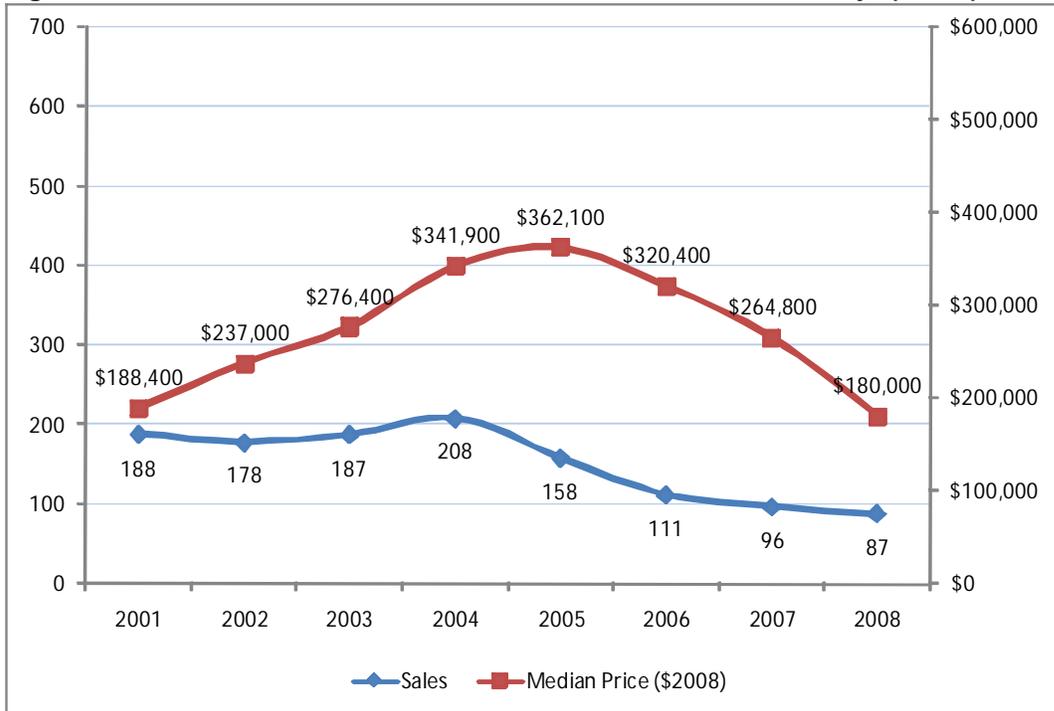
Figure 4: Historic Condo Resales and Median Price Per Unit in Navajo (92120)



Source: DataQuick and US Bureau of Labor Statistics

¹⁵ Defined as traditional detached single family housing units.

Figure 5: Historic Condo Resales and Median Price Per Unit in Navajo (92119)



Source: DataQuick and US Bureau of Labor Statistics

Rental Properties

There is limited data regarding residential rental properties in the Navajo CPA. Presented below in **Table 6** is information for professionally managed for-rent properties in the area. This list does not include existing homes that are being leased as an income property. According to SANDAG, there are currently 4,230 multifamily units and the distribution between condominium and rental properties is unknown. According to our research, existing asking prices per square foot are below the Mission Valley by 25 to 30 percent.

Table 6: Rental Properties in Navajo

	Units	Square Feet	Asking Rate per Month	Price Per SF
Summit Park Village	300	721 - 918	\$936 - \$1,143	\$1.30 - \$1.25
Mission Trails	*	670 - 995	\$1,245 - \$1,755	\$1.86 - \$1.76
San Carlos Townhome	*	780 - 1,160	\$1,225 - \$1,520	\$1.57 - \$1.31
Unknown	*	925 - 925	\$1,100 - \$1,100	\$1.19 - \$1.19
Mission Arbor	47	700 - 900	\$900 - \$1,275	\$1.29 - \$1.42
Total/Average	347	759 - 980	\$1,081 - \$1,359	\$1.44 - \$1.39

Note: *Unknown

Source: Apartments.com, REIS, and Individual Facilities

Commercial Real Estate Overview

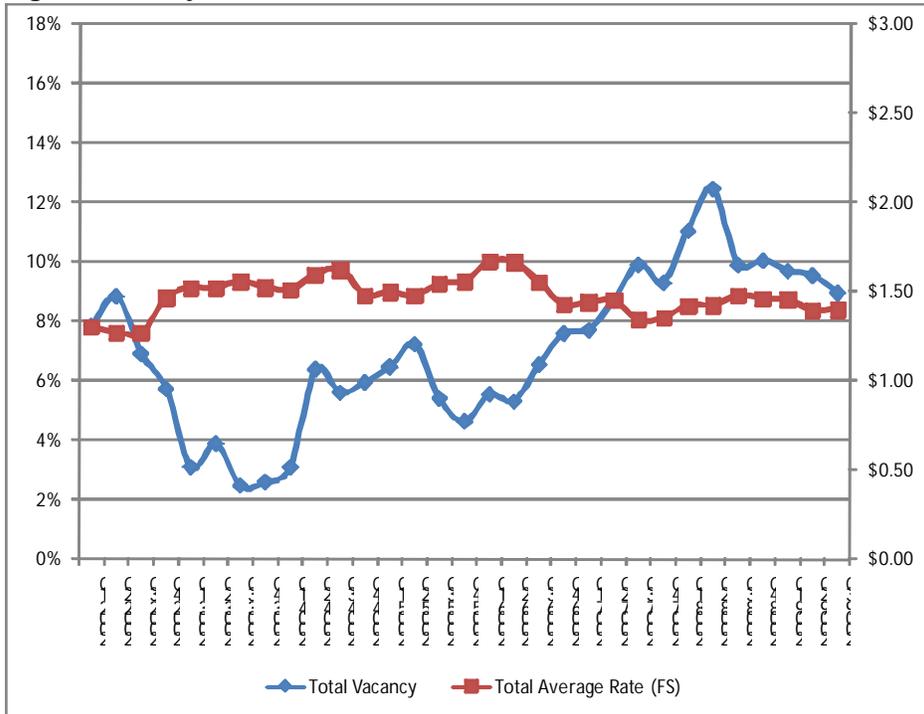
Office

The Navajo CPA currently has about 856,000 square feet of office space. The area has not had any new office construction since 1999. The amount of occupied office space peaked in 2003, with total occupied office space reaching about 849,000 square feet. Since 2003, the amount of occupied office space has steadily decreased until the third quarter of 2008 when space began to be absorbed, bringing the vacancy rates down to their current level of around 9 percent. Since reaching a peak in the first quarter of 2001, average rental rates have declined approximately 16 percent to their current level of \$1.40 per square foot per month (FS). In general, prices have been stagnant since the beginning of 2007.

Most commercial office space in the CPA falls within the Class B and Class C¹⁶ property classification. Most of the office space is located in the Grantville area along Mission Gorge road and near the Kaiser Permanente campus. The character of office space is very different than Mission Valley. In the Navajo CPA, the majority of office space is in low rise business park configuration, as opposed to the high rise Class A space in Mission Valley. A number of the office spaces are located adjacent to industrial and flex-industrial space that is prominent in the area.

¹⁶ Class C is used to describe buildings that generally qualify as no-frills, older buildings that offer basic space and command lower rents or sales prices compared to other buildings in the same market area. These buildings lack prestige and depend chiefly on a lower price to attract tenants and investors.

Figure 6: Navajo Office Statistics



Source: CoStar

Retail

There is a number of strip retail offerings generally located around Mission Gorge Road in the Navajo CPA. One of the larger retail centers is located near the intersection of Mission Gorge and Friars Road at the Friars Road Shopping Center. The area also includes a Home Depot and numerous automotive dealers, automotive repair, and fast food restaurants. Unlike Mission Valley, excluding the Home Depot automotive and retail centers, the retail is more focused on attracting patrons from adjacent residential neighborhoods and the surrounding community market areas.

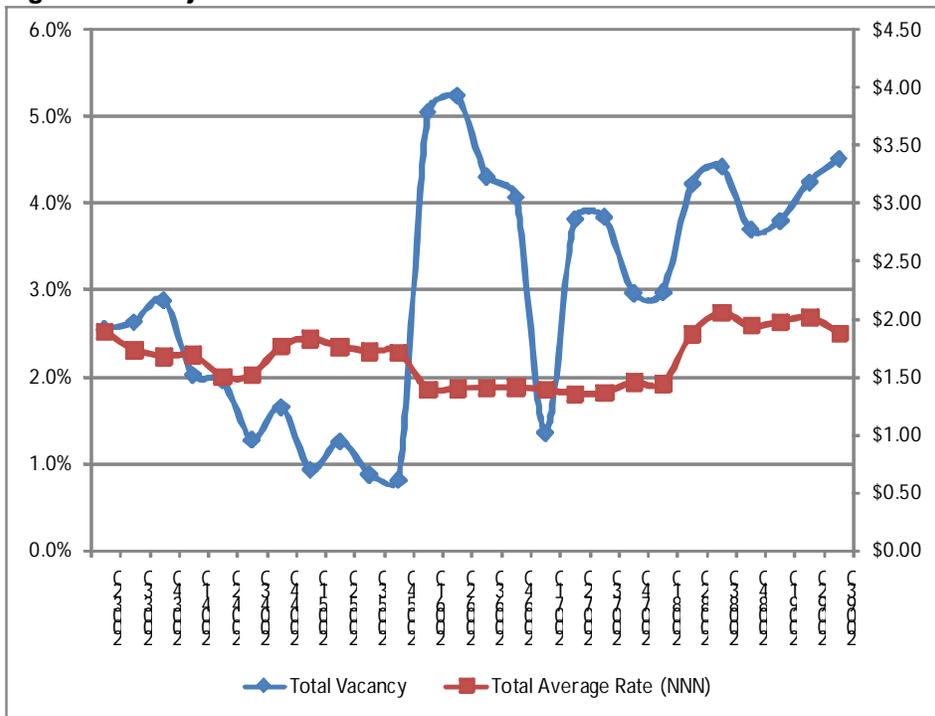
The amount of retail space available in the Navajo CPA has fluctuated over the last nine years; most notably with an addition of about 30,000 square feet of retail space between 1999 and 2000, and a loss of about 11,000 square feet between 2001 and 2002. Currently, the area has 133 properties with over 1.6 million square feet of retail space with the average retail property providing 12,200 square feet of leasable space. In contrast to Mission Valley, the average retail property is 56,000 square feet, further illustrating the difference in retail character (e.g. smaller stand-alone and retail configurations).

The amount of occupied retail space has varied significantly since year-end 2005. The loss of approximately 64,000 tenanted square feet caused the total vacancy rate to increase to around 5

percent. Between 2006 and 2007, the majority of the lost space was absorbed and has since then been lost in the area. Average asking lease rates (NNN) remained resilient to the market changes, showing slight increases even as overall vacancy has increased in the area.

As of the third quarter 2009, average asking lease rates were \$24.13 per square foot per year or just over \$2.00 per square foot per month NNN with overall vacancy at 4.5 percent. This suggests average asking lease rates around 20 percent less than Mission Valley with significantly higher vacancy rates. However, the reported lease rates and vacancy are comparable to the larger City market area.

Figure 7: Navajo Retail Statistics



Source: CoStar

Planned and Proposed Projects

Grantville Subarea A and B have the greatest development potential in the Navajo CPA. These two areas are under the process of planning for land use changes that will allow a significant amount of residential use within the traditionally industrial areas. The projects, as noted in **Table 7**, are those that have been approved or are close to approval. Over 11,000 residential units could potentially be allowed based on proposed land use changes in the CPA.

Table 7: Planned and Proposed Projects in Navajo

	Units	Commercial	Office
Centerpointe at Grantville	588	25,428	109,800
Archstone Mission Gorge	444	NA	NA
Grantville Subarea A	TBD	TBD	TBD
Grantville Subarea B	<u>3,200</u>	<u>37,000</u>	<u>NA</u>
	TBD	TBD	TBD

Note: Grantville Subarea preferred alternative to be determined (TBA = to be determined).
 Source: City of San Diego Planning & Community Investment

Socioeconomic Projections

According to SANDAG, Navajo is anticipated to develop 653 total housing units by 2030, which suggests approximately 31 units developed on an annual basis. During the same time-period SANDAG projects that the CPA will increase the number of in-place employees by approximately 22 percent, suggesting an increase of approximately 4,700 workers to the area (**Table 8**).

Table 8: SANDAG Projections for Navajo

	2009	2010	2020	2030	2009-2030	
					Numeric	Percent
Employment (In-Place) ¹	21,733	22,059	23,166	26,442	4,709	22%
Housing Units	20,654	21,129	21,295	21,307	653	3%
Employment/Housing Ratio	1.1	1.0	1.1	1.2		

¹ 2009 In-Place employment uses 2004 SANDAG estimate as proxy.
 Source: SANDAG

Tierrasanta CPA

CPA Overview

The Tierrasanta community, encompassing approximately 11 square miles, lies roughly northwest of the River, north of Friars Road, south of State Route 52, and east of Interstate 15. The residential development of Tierrasanta began in 1960, when the federal government declared a portion of Camp Elliott, a Marine Corps Training Camp, as surplus land.

In the mid 1970s, the City adopted the boundaries for Mission Trails Regional Park, bisecting the Elliott planning area into two distinct sections. The park and the newly-developing section to the west were severed from the Elliott Community Plan, and a new planning area was formed with the adoption of the Tierrasanta Community Plan in the early 1980s. The more remote section east of Mission Trails Regional Park is now known as the East Elliott planning area and remains undeveloped.

The inclusion of extensive areas of natural open space has played a considerable role in shaping the form of development within Tierrasanta. Mission Trails Regional Park comprises approximately one-half of the planning area, and the River roughly forms the southerly boundary of the community. Canyon systems meander throughout the community, defining the transitions between individual development areas and interconnecting to the larger Mission Trails Regional Park canyon systems. Now, near build-out, the vast majority of developed land in Tierrasanta is devoted to residential uses, with several small commercial centers scattered throughout the community and light industrial near the intersection of Interstate 15 and State Route 52.

Residential Real Estate Overview

According to SANDAG estimates, as of January 1st, 2009, the Tierrasanta CPA had a total household population of 31,617 occupying 11,114 housing units. In total, there are an estimated 11,434 total units. Approximately 26 percent are classified as multifamily housing units, with 41 percent single family units. Unlike the other CPAs, there is a significant number (33 percent) of single family multiple units¹⁷. Since the 2000 Census, the CPA has added 365 units. The Tierrasanta CPA currently represents 2.2 percent of all housing units in the City.

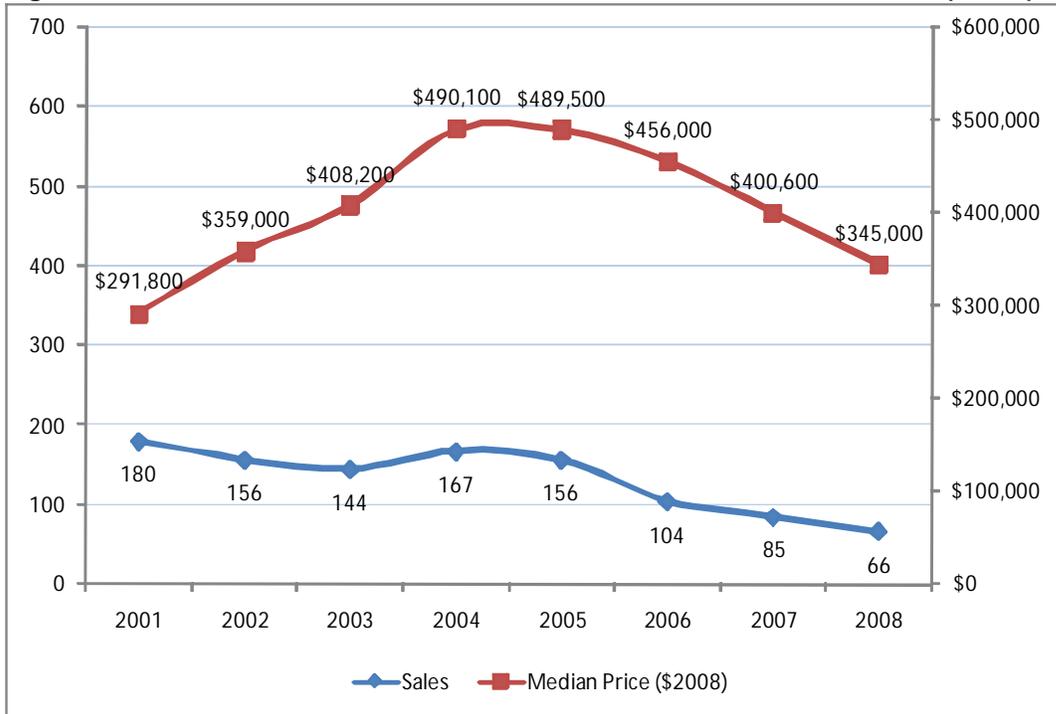
Condominium Developments

Similar to the Mission Valley and Navajo CPAs, condo prices rose until 2005 and have steadily declined since. In comparison to the other CPAs, the median condominium sales price in Tierrasanta is the highest. The peak transaction price in 2005 was approximately 12 percent higher than Mission Valley, and the year-end 2008 price is approximately 23 percent higher. The median sale price per square foot, however, was \$241 in 2008, which is 14 percent lower than Mission Valley. This suggests that many of the properties defined as “condos” may be in a townhouse or lower density configuration with larger unit sizes.

While prices have depreciated over the last four years in Tierrasanta, the overall declines have not been as great as in the other CPAs. In fact, the October data from DataQuick, as reported in the San Diego Union Tribune, indicate prices have appreciated in the CPA from the same time last year. While there were a limited number of transactions (six), prices rose by 5.6 percent with a median sales price of 353,750 (2009 dollars). This suggests a 42 percent premium over the median sales price in the Central San Diego area.

¹⁷ These include attached housing units, duplexes, townhouses, and lower density condominiums developments (generally less than 12 units per acre).

Figure 8: Historic Condo Resales and Median Price Per Unit in Tierrasanta (92124)



Source: DataQuick and US Bureau of Labor Statistics

Rental Properties

According to our research, there are approximately 2,350 professionally managed for-rent units in the CPA. According to SANDAG, this list accounts for 82 percent of the multi-family units in the area. The asking rent, per square foot, is slightly below Mission Valley and above the Navajo CPA. Unlike Mission Valley, where a number of properties are oriented near the River, the rental properties are located throughout the CPA with adjacencies to Interstate 15 and State Highway 52.

Table 9: Rental Properties in Tierrasanta

	Units	Square Feet	Asking Rate per Month	Price Per SF
Montanosa	472	631 - 1,018	\$1,195 - \$1,735	\$1.89 - \$1.70
Tierrasanta Ridge	356	650 - 957	\$1,275 - \$1,770	\$1.96 - \$1.85
La Mirage	1,070	654 - 1,136	\$1,250 - \$2,000	\$1.91 - \$1.76
El Dorado Hills	455	625 - 925	\$1,255 - \$1,770	\$2.01 - \$1.91
Total/Average	2,353	640 - 1,009	\$1,244 - \$1,819	\$1.94 - \$1.81

Source: Apartments.com, REIS, and Individual Facilities

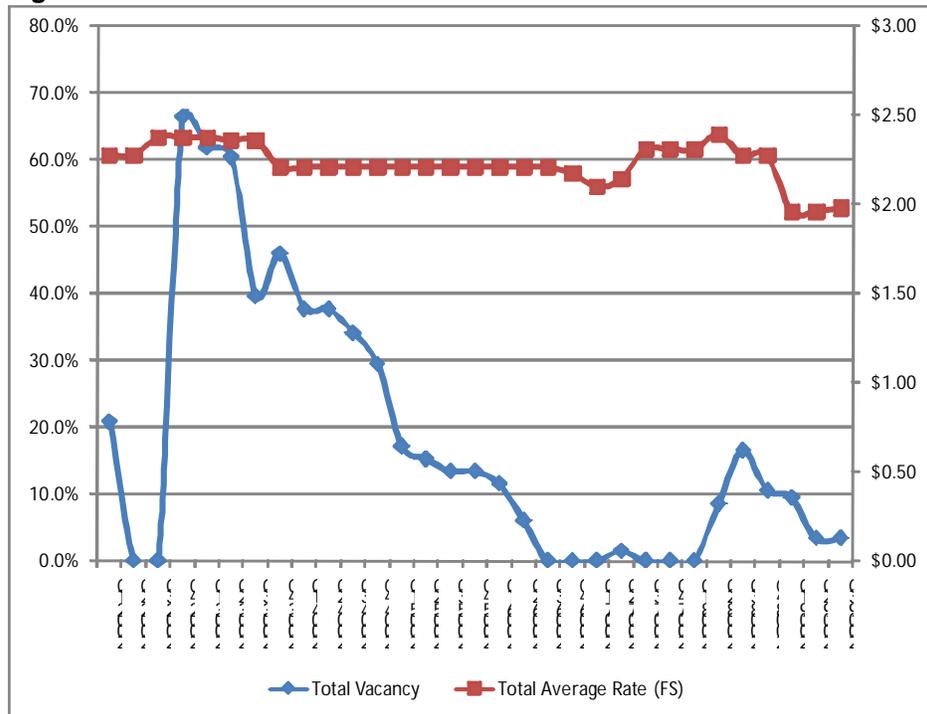
Commercial Real Estate Overview

Office

As presented below in **Figure 9**, the vacancy scale has been changed based on the extremely high vacancy rates in the area from 2002 to 2004. According to CoStar, Tierrasanta has only four office properties with approximately a total of 67,500 square feet. The high vacancy rates presented below are a result of the development and subsequent absorption of the newest office property in the area, consisting of slightly over 50,000 square feet of leasable space that came online in mid-year 2002.

Office properties in the CPA are generally Class B properties with the largest cluster located in a business park configuration adjacent to Interstate 15 off Clairemont Mesa Boulevard. With the limited rentable office space, the CPA will be subject to large swings in vacancy, as one tenant may influence overall market statistics. However, the average asking rent per month (FS) has remained relatively stable since 2002, with a slight dip in 2008 after the absorption of lost tenanted space at a reduced rental price. As of the third quarter 2009, there is 2.7 percent vacancy with an average asking rental price of \$23.44 per year or \$1.95 per square foot per month.

Figure 9: Tierrasanta Office Statistics



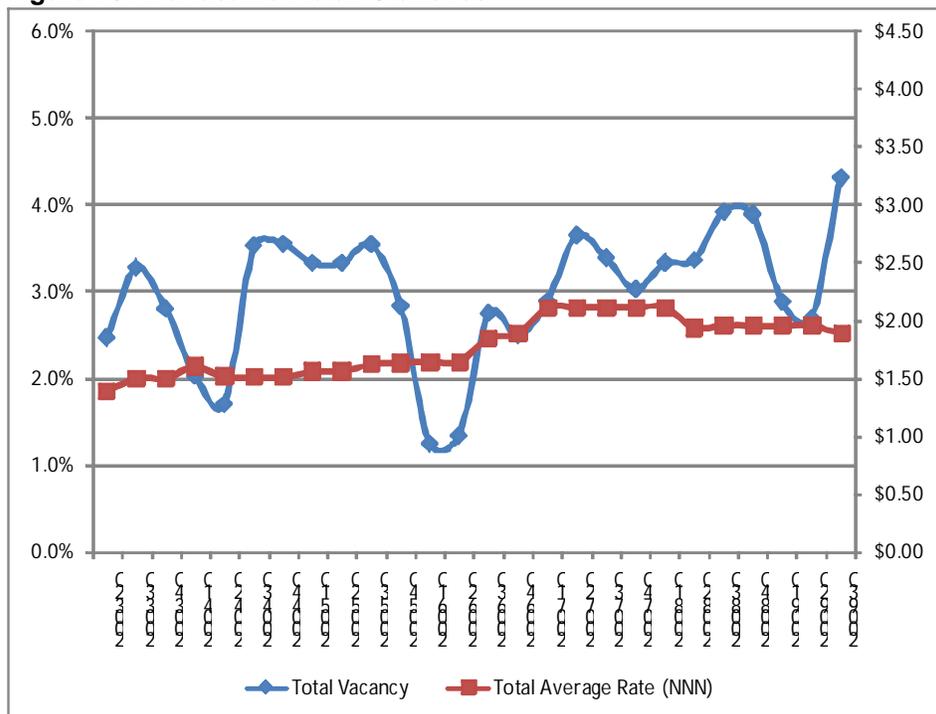
Source: CoStar

Retail

The amount of retail space available in the Tierrasanta CPA has remained unchanged over the last 10 years. CoStar tracks 21 properties consisting of approximately 328,600 leasable square feet. Average rental rates (NNN) have generally risen over the last five years with a slight decline over the last year. The asking rates in Tierrasanta are slightly above Navajo and significantly less than Mission Valley. In comparison with the City, retail space asking rental rates are 10 percent below the City average, while existing vacancy rates are in-line with larger market area.

There are a couple of neighborhood and community-serving retail developments in the area that include the Tierrasanta Town Center (Santo Road and Tierrasanta Boulevard) and Tierrasanta Shopping Center (Clairemont Mesa Boulevard and Santo Road). These centers represent the majority of leasable space in the CPA.

Figure 10: Tierrasanta Retail Statistics



Source: CoStar

Planned and Proposed Projects

There are no planned and proposed projects at this time.

Socioeconomic Projections

According to SANDAG, Tierrasanta is anticipated to develop only 81 total housing units by 2030. This would represent a minimal change in the existing housing stock. During the same time-period

SANDAG projects that the CPA will increase the number of in-place employees by approximately 19 percent, suggesting an increase of 784 workers to the area. Once again, the long-term assumptions for growth are low in the area due to a limited amount of vacant developable land in the area as much of the CPA is built-out.

Table 10: SANDAG Projections for Tierrasanta

	2009	2010	2020	2030	2009-2030	
					Numeric	Percent
Employment (In-Place) ¹	4,191	4,451	4,832	4,975	784	19%
Housing Units	11,434	11,467	11,511	11,515	81	1%
Employment/Housing Ratio	0.4	0.4	0.4	0.4		

¹ 2009 In-Place employment uses 2004 SANDAG estimate as proxy.
Source: SANDAG

East Elliot CPA

CPA Overview

The East Elliot CPA is bounded by Miramar Marine Corps Air Station to the north and west, State Road 52 and Mast Boulevard to the south, and the city of Santee to the east. As previously noted, in the early 1960s, approximately one-half of Camp Elliott-including present day East Elliott, Tierrasanta, and a portion of Mission Trails Regional Park was sold.

In 1997, the Multiple Species Conservation Program identified the majority of East Elliott as Multiple Habitat Planning Area (MHPA), where preservation of the natural habitat would be pursued. The East Elliott Community Plan was amended at that time to designate the MHPA as open space. Areas outside of the MHPA include the 474-acre Sycamore Landfill; a 117-acre area bordering the city of Santee, which was designated for low density residential development; and an 8-acre area at State Road 52 and Mast Boulevard, designated for office use. The community plan was amended in April 2002 to add aggregate processing as a permitted use at Sycamore Landfill, and a long-range master plan is currently under review for the landfill.

East Elliott remains undeveloped, with the only uses being the Sycamore Landfill and a few telecommunication antennas. It is dominated by native vegetation, including sage scrub, chaparral, native grassland, and oak and sycamore woodland. It constitutes one of the largest and biologically most important remaining open space areas in San Diego with a number of endangered and threatened wildlife species.

Residential Real Estate Overview

At this time there is no residential real estate development in the CPA.

Commercial Real Estate Overview

At this time there is no commercial real estate development, as tracked by CoStar, in the CPA.

Planned and Proposed Projects

There are no planned and proposed projects at this time. As noted, there is approximately 117-acre area on the eastern fringe of East Elliott, adjacent to a residential area in Santee, designated for residential use. A maximum of 500 single-family residential units can be constructed in this area. Due to a lack of nearby residential development or services in San Diego and proximity to residential development in Santee, deannexation of this 117-acre area to Santee should be considered if, in the future, Santee favors such an annexation. As such, future estimates, as provided below, may not occur within the City.

Socioeconomic Projections

SANDAG reports there are currently no residential and limited job-serving land uses in the CPA. However, long-term, the projections suggest growth in residential and employment-serving land uses. Between 2009 and 2030, the area is projected to add 384 residential units and 929 jobs¹⁸. As noted, this would consist of low-density residential and limited office use.

Table 11: SANDAG Projections for East Elliot

	2009	2010	2020	2030	Numeric	Percent
Employment (In-Place) ¹	33	42	213	962	929	NA
Housing Units	0	130	383	384	384	NA
Employment/Housing Ratio		0.3	0.6	2.5		

¹ 2009 In-Place employment uses 2004 SANDAG estimate as proxy.
Source: SANDAG

Absorption Estimate

The following presents ERA’s estimates for office and residential development within the Community Plan Areas. We have provided a range of potential demand that could be captured in the area. It is important to note that demand for office and residential land uses will be based on future market conditions, the availability of land, and future City policy decisions regarding desired densities and land uses. The goal of this section is provide a reasonable range of office and residential absorption that can later be applied to potential total land use allowed within the areas proximate to the River.

¹⁸ Please see Land Use Analysis by CPA for other analysis.

Office

In order to estimate demand for office space, ERA examined a variety of employment projections provided by SANDAG between 2010 and 2050. According to revised 2050 employments estimates, the County is projected to increase its employment base by 0.75 percent, per year, based on a compound annual growth rate over the 41-year term. Using this assumed level of growth, we projected total potential non-farm employment in five year increments based on the current employment estimates in the County.

Using SANDAG projections by industry, ERA next examined how various jobs are projected to grow in the future. Three industries, in general, demand commercial office space. These “office-serving” industries include information, financial activities, and professional and business services. The composition of new employment is anticipated to change in the County and there will be increased demand for office space and as such, 37 percent of net new jobs will require office space as they are projected to be in these office-serving industries.

ERA used the existing percentage of commercial office space in relation to the County to estimate the number of new jobs that could be captured by the City. According to CoStar, approximately 70 percent of the County’s commercial office space is located in the City. As a result, we have assumed that the City can continue to attract this level of capture in the future as the majority of job centers are located in various areas within the City.

Once the number of jobs in the City was estimated, ERA applied a ratio of 300 square feet of gross office space per employee to estimate future demand for commercial office space in the City. Anticipated future demand was calculated, and it was assumed that future office development would not occur until the City reached an occupancy rate of 94 percent, which represents a stable market¹⁹. According to our estimates, the City is not likely to reach this level until sometime between 2015 and 2020.

Finally, ERA examined the Community Plan Area’s exiting “fair share” deliveries in relation to the City office market to establish the low capture scenario. The mid and high scenarios are based on ERA’s understanding that office markets in close proximity to downtown with access to transit, along with the existing employment center in Mission Valley, will be increasingly important in the future. The total office demand was calculated to project the range office potentials in the Community Plan Areas.

¹⁹ The “stable market occupancy level” is the level of occupancy where demand for new development becomes feasible.

ERA estimates that there will be demand for 17.6 million square feet of office space in the City from 2010 to 2040. In total, ERA estimates that the Community Plan Areas' could capture between 1.9 and 2.4 million square feet of office demand in the next three decades. This would represent an absorption rate between 60,000 and 80,000 square feet per year (noting, however, that no new development is anticipated in the next 5 years)²⁰.

²⁰ It is important to note that the nature of office demand could be at a point of change. These estimates assume that office space will continue to be utilized as it has been in the past. However, advances in technology and the decentralization of workforces could affect these estimates significantly in the long-term.

Table 12: Office Demand Estimate (2010 – 2050)

	2010	2015	2020	2025	2030	2035	2040
San Diego County							
Non-Farm Jobs (millions) ¹	1.26	1.30	1.35	1.40	1.46	1.51	1.57
Net Jobs Change	9,313	47,620	49,427	51,302	53,249	55,269	57,367
Net Office Job Change ²	3,474	17,762	18,436	19,136	19,862	20,615	21,398
Total Office Serving Jobs ¹	320,374	338,136	356,572	375,708	395,570	416,185	437,583
Percent of Non-Farm Jobs	25.5%	26.0%	26.4%	26.8%	27.2%	27.5%	27.9%
City of San Diego							
Projected New Office Jobs ³	2,428	12,415	12,886	13,375	13,883	14,410	14,956
Required Office SF (millions) ⁴	0.73	3.72	3.87	4.01	4.16	4.32	4.49
Total Office SF (millions) ⁵	77.64	77.64	78.29	82.30	86.47	90.79	95.28
Total Vacant SF (millions) ⁶	11.83	8.11	4.52	4.94	5.19	5.45	5.72
Total Vacant Percent ⁷	15.2%	10.4%	5.8%	6.0%	6.0%	6.0%	6.0%
Capture Rate for CPAs							
Low ⁸	10.5%						
Medium ⁹	12.0%						
High ⁹	13.5%						
Office Space in CPAs (millions)	8.07						
Office Absorption in CPAs							
Low	0	0	68,200	421,300	437,300	453,900	471,100
Medium	0	0	77,900	481,500	499,800	518,700	538,400
High	0	0	87,600	541,700	562,200	583,600	605,700
Total Office Space in SF (cumulative)							
Low (millions)	8.07	8.07	8.14	8.56	9.00	9.45	9.92
Medium (millions)	8.07	8.07	8.15	8.63	9.13	9.65	10.19
High (millions)	8.07	8.07	8.16	8.70	9.26	9.85	10.45

Notes:

(1) 2009 data from EDD projected forward using SANDAG; (2) SANDAG Projection for office serving jobs; (3) CoStar share of office space in City in relation to County; (4) Assumed 300 square feet per employee (CoStar); (5) CoStar 3Q 2009; (6) Includes under construction; (7) 94 percent occupancy before development; (8) CoStar Share of City; (9) ERA Estimate.

Source: SANDAG; CoStar; ERA AECOM

Market Rate Housing (for-sale and for-rent)

The anticipated greatest demand pressure for future real estate development is from housing. SANDAG projects that the number of households in the City will increase by over 1.3 million by 2050. These revised 2050 estimates assume that the population will grow by 0.86 percent per year, based on compound annual growth rate. The required housing units to satisfy the population growth are projected to increase by 0.76 percent per year. ERA utilized these estimates to project population and housing unit growth in five year increments based on year 2009 data provided by the California Department of Finance. We relied on SANDAG's previously released 2030 forecast in order to estimate potential capture in the Community Plan Areas. The future growth potentials in this report are based on current land use planning. As such, the low capture rate assumes that no land use changes are made in the Community Plan Area. The medium and high capture rate is estimated by ERA based on known planned and proposed projects with land uses changes, as well as projected land use changes in Grantville. Consequently, we estimate that the Community Plan Areas will capture between 8 to 18 percent of citywide housing demand.

Future housing potentials will be largely successful based on the quality of residential development, better connectivity to the existing Trolley station, and improvements to the River. Buyers and renters will be attracted to the Community Plan Areas due to access to transit, a central location, close proximity to the Mission Valley activity cluster (retail and entertainment), and passive and active open space (i.e. San Diego River, Golf Course, and hillside views). Much like existing residential properties in Mission Valley, future residential developments in the area can position themselves as a downtown living alternative²¹.

ERA's 30-year (2010 to 2040) forecast for market rate housing demand ranges from a low of 370 units to a high of 650 units, on average, per year. It is assumed that these units would be almost exclusively in a multi-family configuration, appropriate for townhome/condominium or apartment dwelling units. This housing demand analysis does not include additional demand from capture of future San Diego State University growth or demand for affordable housing units in the area. While the percent allocation between for-rent and for-sale units has not been calculated, and will be determined by future market demand, we would assume it will be comparable to existing ratios in Mission Valley.

²¹ General preference of multi-family housings in an area with mixes of land use, not in terms of density, scale, etc.

Table 13: Market Rate Housing Demand Estimate (2010 – 2050)

	2010	2015	2020	2025	2030	2035	2040
San Diego County							
Population ^{1,2}	3,074,600	3,208,800	3,348,800	3,494,900	3,647,400	3,806,500	3,972,600
Housing Units (HU) ^{1,2}	1,315,000	1,365,700	1,418,400	1,473,000	1,529,800	1,588,800	1,650,000
City of San Diego							
Population ^{1,3}	1,315,000	1,364,900	1,416,900	1,471,200	1,527,900	1,587,000	1,648,700
HU ^{1,3}	510,700	531,800	553,600	576,300	599,800	624,300	649,700
Incremental HU	0	21,100	21,800	22,700	23,500	24,500	25,400
CPAs Capture Rate							
Low ⁴	8.0%						
Medium ⁵	11.0%						
High ⁵	14.0%						
CPAs HU Demand							
Low	0	1,700	1,700	1,800	1,900	2,000	2,000
Medium	0	2,300	2,400	2,500	2,600	2,700	2,800
High	0	3,000	3,100	3,200	3,300	3,400	3,600

Notes:

- (1) 2009 data from Department of Finance (2) SANDAG 2050 projection for population and housing unit growth in the County;
- (3) SANDAG 2030 estimate for City of San Diego Capture of County growth; (4) Capture based on SANDAG 2030 estimate;
- (5) ERA AECOM Estimate.

Source: SANDAG; Department of Finance; ERA AECOM

IV. Land Use Analysis

In the following section, ERA describes the methodology for analyzing and classifying potential available land, as well as existing land uses in the areas affected by the Master Plan. The purpose of this analysis is to provide the baseline land assumptions for future development potentials along the River. This information, along with absorption estimates provided in the previous section, will guide the value creating projections provided in the next section of this report.

Methodology

Overview

ERA utilized GIS mapping software and information from the 2009 San Diego Assessor Parcel Database, as provided by San Diego Geographical Information Source (SANGIS), to determine the amount of vacant and developed land within the selected zones of analysis as well as the associated assessed valuation by land use in the selected Community Plan Areas. These analysis zones help to estimate the current distribution of land uses and land value with respect to the River improvements. It also allows ERA to spatially distribute potential future land uses relative to the proposed improvements. Finally, these analysis zones help to benchmark anticipated values of land and improvements in the future.

Current as of 2009, this information is derived from a GIS parcel database made available by SANGIS. It is important to note that the boundaries of these zones are determined by parcel ownership boundaries.

Additional notes about the data set include:

- All parcels falls into exactly one zone category;
- All parcels are classified within exactly one CPA;
- For the sake of simplicity ERA has consolidated the data into four major land use categories: Industrial, Commercial, Residential, and Other²²; and
- The database counts condos as individual parcels. In an effort to not complicate the results, in instances where condominiums properties (residential, office, etc.) are present, we only

²² Agriculture, Institution, Miscellaneous Non-Taxable, Municipal/Utility, Natural Resource/Extraction, Parking Lot, Recreation, and Unknown land uses.

counted the parcels and associated acres with ground floor units. The assessed value is inclusive of all condominium units.

Zone 1

Zone 1 corresponds to the River Corridor Area. The River Corridor Area, as noted in the Draft Master Plan, is defined as the existing 100-year Floodway as currently mapped by the Federal Emergency Management Agency (FEMA) plus 35 feet on each side for a path corridor. Any parcel that intersects²³ this area is included in the zone.

Zone 2

Zone 2 corresponds to the River Influence Area. The River Influence Area, as noted in the Draft Master Plan, is defined as the area that extends 200 feet from the River Corridor Area on each side of the River. Any parcel that intersects this area is included in the zone with the exception of any parcels previously identified in Zone 1.

Zone 3

Zone 3 was established by ERA. Zone 3 extends 1,320 feet (one-quarter mile) from the River Corridor Area on each side of the River. Any parcel that has its centroid²⁴ located this area is included in the zone with the exception of any parcels previously identified in Zone 1 and Zone 2.

Land Use Analysis by CPA

The following presents information specific to the Community Plan Areas based on the selected zones of analysis. Following is a summary of current use distribution across the zones (**Table 14**). As illustrated below, the area in zones within proximity to the River are largely built out or constrained by the “other” land uses which are not conducive to future development opportunities. The specific attributes for each Community Plan Area are presented below in a summary format. In summary, approximately 205 acres or 84 percent of the undeveloped land is within Zone 1 of our analysis with about half of the land within the Navajo CPA. While not considered in this analysis, it is likely that once River improvements are made many existing developed land may be redeveloped in the future.

²³ Defined by GIS as a parcel that is touching the designated boundary.

²⁴ Centroid is defined by GIS as the parcel's center point.

Table 14: Community Plan Areas Land Summary (all zones)

	Industrial	Commercial	Residential	Other	Total
<i>Undeveloped</i>	87.3	62.2	89.5	6.5	245.5
<i>Developed</i>	<u>149.0</u>	<u>717.4</u>	<u>213.0</u>	<u>3,828.6</u>	<u>4,908.0</u>
<i>Total</i>	236.4	779.6	302.6	3,835.0	5,153.6
<i>Undeveloped</i>	37%	8%	30%	0%	5%
<i>Developed</i>	<u>63%</u>	<u>92%</u>	<u>70%</u>	<u>100%</u>	<u>95%</u>
<i>Total</i>	100%	100%	100%	100%	100%

Source: SANGIS

Mission Valley

The following **Table 15** presents a summary of existing development and development potentials within all zones in Mission Valley. The largest development opportunity is within the 61 acres of commercial land. Approximately 36 acres of this land is located within Zone 1 while the remaining 25 acres is located within Zone 3. In total, existing commercial land represents 80 percent of all commercial land in the Community Plan Areas. Mission Valley also has 40 percent of the residential land in the CPAs, but has a very small amount of undeveloped residential land located within Zone 3. ERA has created a land use map to highlight areas of development potential, presented in **Figure 11**.

Navajo

The following **Table 16** presents a summary of existing development and development potentials within Navajo. Among all the Community Plan Areas, Navajo has the largest development opportunities associated with 83 acres of undeveloped industrial land and 36 acres of residential land almost exclusively within Zone 1. In total, existing industrial land represents 96 percent of all industrial land in the Community Plan Areas. Like Mission Valley, Navajo also has 40 percent of the residential land in the CPAs. However, as noted, there is potential for future development. ERA has created a land use map to highlight areas of development potential, presented in **Figure 12**.

Tierrasanta

The following **Table 17** presents a summary of existing development and development potentials within all zones in Tierrasanta. The largest development opportunity is within the 50 acres of residential land exclusively located within Zone 1. In total, developed other land represents 50 percent of all other land in the Community Plan Areas. This is largely due to the Mission Trails Regional Park. ERA has created a land use map to highlight areas of development potential, presented in **Figure 13**.

Table 15: Mission Valley Land Summary (all zones)

	Industrial	Commercial	Residential	Other	Total
Mission Valley					
<i>Undeveloped</i>	4.4	61.3	3.1	0.0	68.7
<i>Developed</i>	<u>4.1</u>	<u>566.0</u>	<u>117.2</u>	<u>746.5</u>	<u>1,433.8</u>
<i>Total</i>	8.5	627.3	120.2	746.5	1,502.5
Share of CPAs					
<i>Undeveloped</i>	2%	8%	1%	0%	1%
<i>Developed</i>	<u>2%</u>	<u>73%</u>	<u>39%</u>	<u>19%</u>	<u>28%</u>
<i>Total</i>	4%	80%	40%	19%	29%

Source: SANGIS

Table 16: Navajo Land Summary (all zones)

	Industrial	Commercial	Residential	Other	Total
Navajo					
<i>Undeveloped</i>	82.9	1.0	36.0	6.5	126.4
<i>Developed</i>	<u>144.9</u>	<u>107.9</u>	<u>86.5</u>	<u>977.8</u>	<u>1,317.1</u>
<i>Total</i>	227.9	108.9	122.5	984.2	1,443.5
Share of CPAs					
<i>Undeveloped</i>	35%	0%	12%	0%	2%
<i>Developed</i>	<u>61%</u>	<u>14%</u>	<u>29%</u>	<u>25%</u>	<u>26%</u>
<i>Total</i>	96%	14%	40%	26%	28%

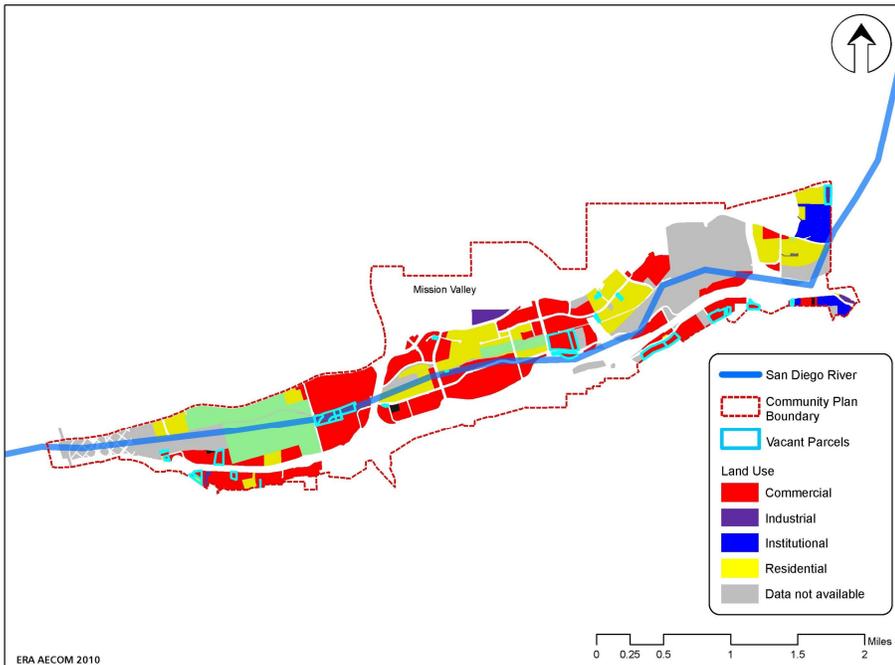
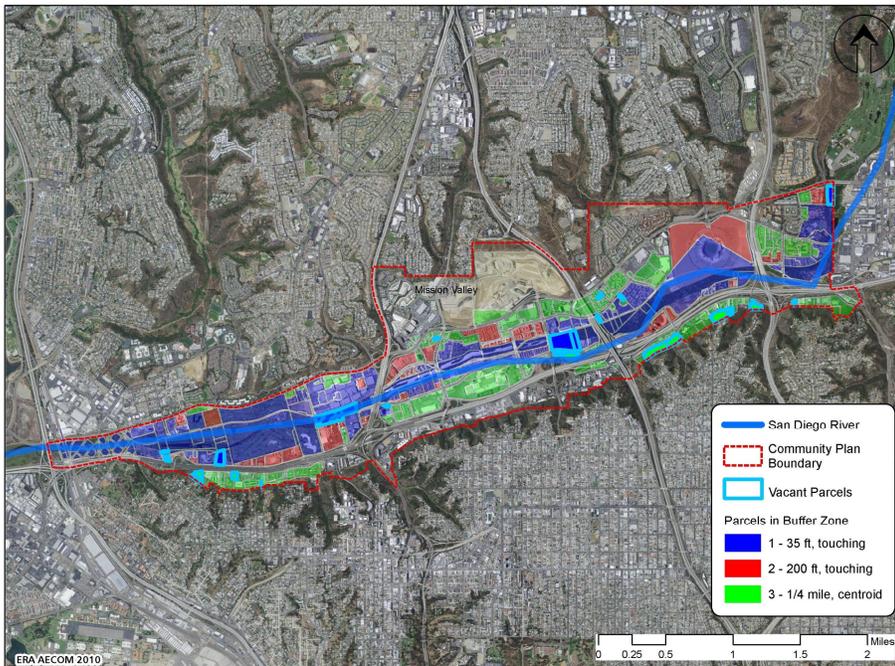
Source: SANGIS

Table 17: Tierrasanta Land Summary (all zones)

	Industrial	Commercial	Residential	Other	Total
Tierrasanta					
<i>Undeveloped</i>	0.0	0.0	50.5	0.0	50.5
<i>Developed</i>	<u>0.0</u>	<u>43.5</u>	<u>9.4</u>	<u>1,996.1</u>	<u>2,049.0</u>
<i>Total</i>	0.0	43.5	59.8	1,996.1	2,099.4
Share of CPAs					
<i>Undeveloped</i>	0%	0%	17%	0%	1%
<i>Developed</i>	<u>0%</u>	<u>6%</u>	<u>3%</u>	<u>52%</u>	<u>40%</u>
<i>Total</i>	0%	6%	20%	52%	41%

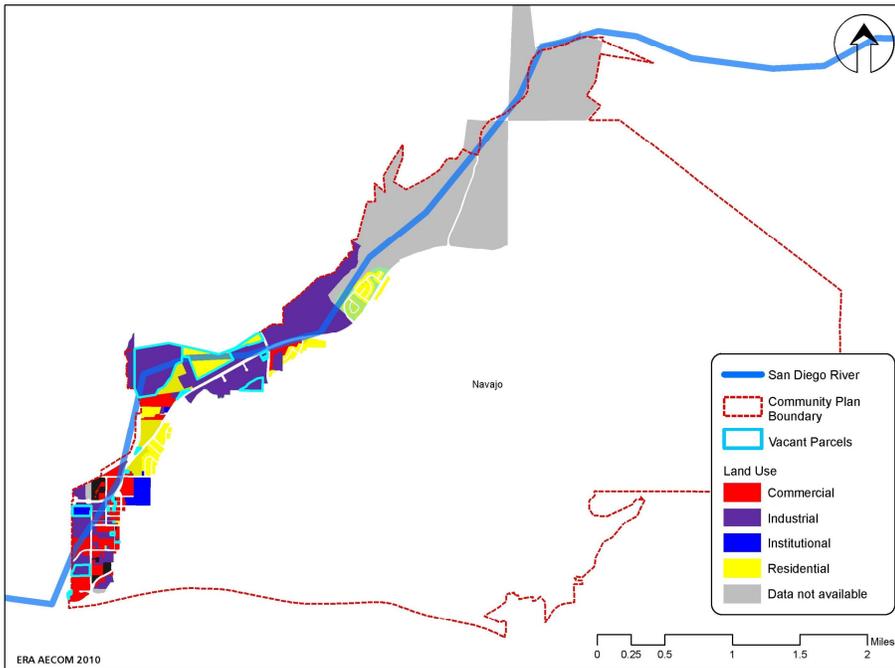
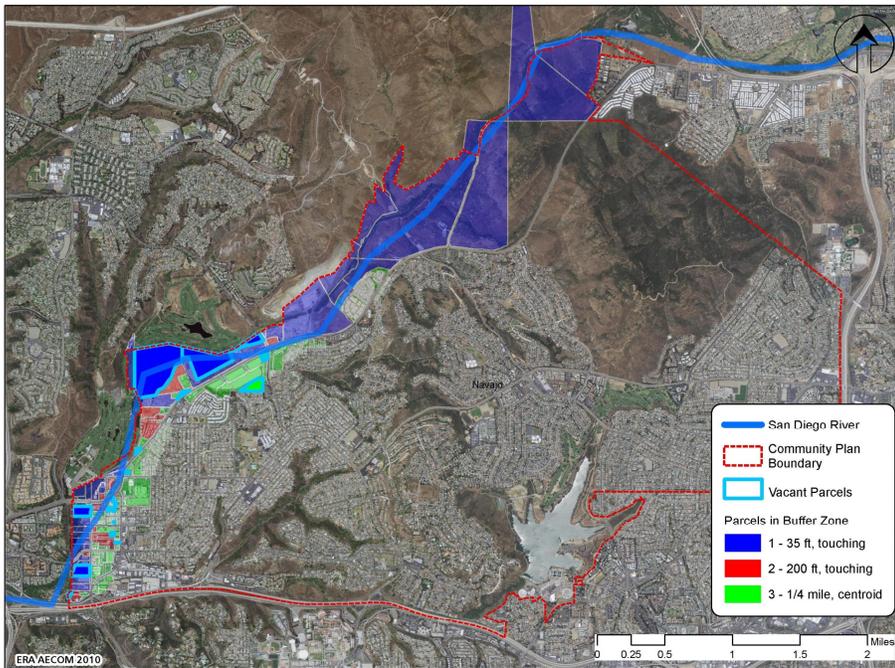
Source: SANGIS

Figure 11: Mission Valley Undeveloped Land by Zone and Use



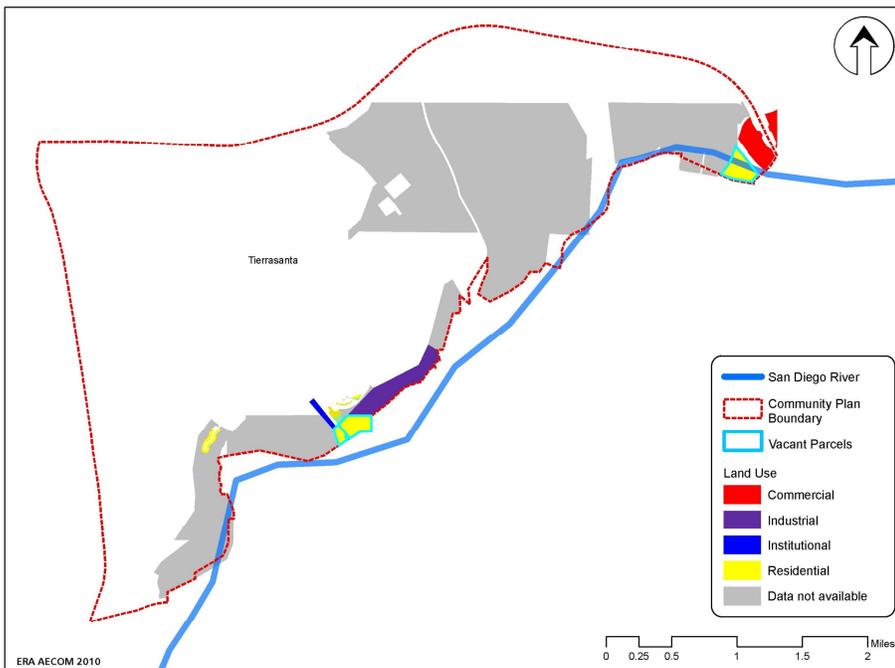
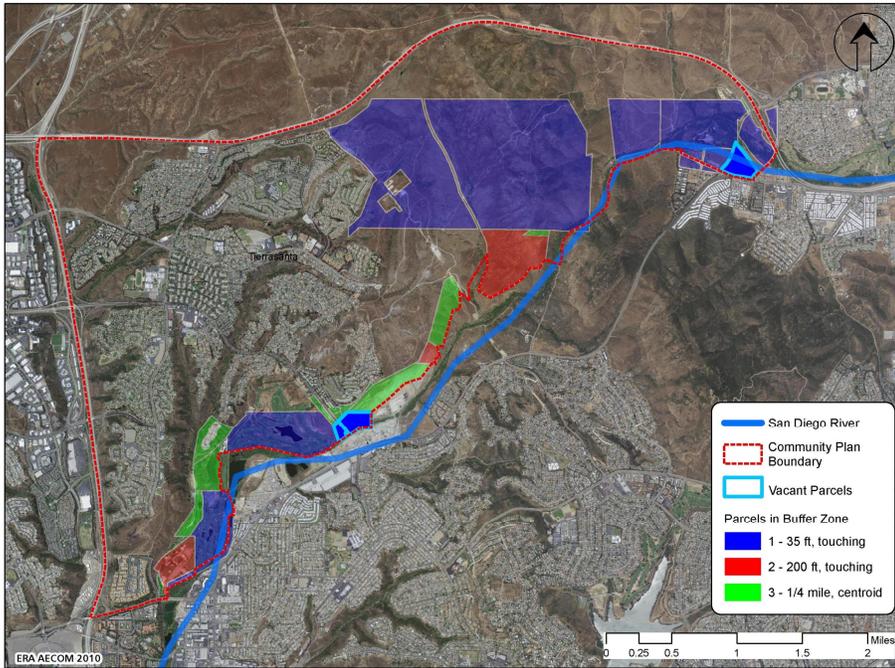
Source: SANGIS

Figure 12: Navajo Undeveloped Land by Zone and Use



Source: SANGIS

Figure 13: Tierrasanta Undeveloped Land by Zone and Use



Source: SANGIS

East Elliot

The following **Table 18** presents a summary of existing development in East Elliot. As shown below, there are no existing development opportunities. At this time, we are not sure why the existing 117-acre area on the eastern fringe of East Elliott, adjacent to a residential area in Santee, designated for residential use does not appear in the database. The information will be incorporated in our analysis in future sections of this report.

Table 18: East Elliot Land Summary (all zones)

	Industrial	Commercial	Residential	Other	Total
East Elliot					
<i>Undeveloped</i>	0.0	0.0	0.0	0.0	0.0
<i>Developed</i>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>108.2</u>	<u>108.2</u>
<i>Total</i>	0.0	0.0	0.0	108.2	108.2
Share of CPAs					
<i>Undeveloped</i>	0%	0%	0%	0%	0%
<i>Developed</i>	<u>0%</u>	<u>0%</u>	<u>0%</u>	<u>3%</u>	<u>2%</u>
<i>Total</i>	0%	0%	0%	3%	2%

Note: Database does include approximately 117 acres of residential land that is available for development in the future.
Source: SANGIS

V. Property Value Premium

The following highlights findings with respect to the real estate impacts of open space²⁵ and is organized as follows. First, ERA examined a number of relevant national case studies to determine the value premium associated with open space in relation to residential and commercial real estate. Second, ERA contacted a number of local residential and commercial real estate agents and brokers to determine what affect the River was currently having on residential and commercial real estate values and absorption in the area. Third, the information was analyzed and then ERA estimated the range of value premium that could be expected based on proposed improvements in the Master Plan. Finally, based on the previous absorption potentials and land use analysis, we provide an estimate for incremental net new value premium based on the proposed River improvements.

The impacts highlighted herein are quantitative, although it is important to also keep in the mind the qualitative benefits, such as improved quality of life, increase pedestrian activity, and protection of the natural environment that are not presented, nor valued, in this report.

National Case Studies

Analysts have completed a number of studies that attempt to assess the value that open space adds to the surrounding properties. Over the years the studies have become more refined, attempting to eliminate the impacts of outside factors such as size, type, improved access to transit, and so forth. ERA has focused its literature review on the associated value of residential and commercial office land uses within proximity to open space.

It should be noted that the existing research provides analysis on value premiums generated by a variety of open space formats. While some of the case studies are not directly comparable to the proposed River improvements, they provide a reasonable range of value premiums that can be used to guide our estimates. Direct comparable research regarding value premium for river improvements similar to those proposed in the Master Plan is not available.

Residential

In order to better understand the range of potential value premium based on the proposed River improvements, ERA has selected the following five studies that help illuminate existing real estate value impacts of open space to surrounding land uses. It should be noted that according to the Trust for Public Land more than 30 studies have demonstrated a positive effect on nearby property values

²⁵ Open Space is defined to include parks, passive recreation, greenways, and other open space formats. Specific references will be made when discussing a particular open space typology.

adjacent to open space. The case studies were selected due to their level of detail and applicability to future River improvements.

Boulder, Colorado

In 1978, Correll, Lillydahl, and Singell²⁶ studied the effect of a 1,382 acre greenbelt purchased by the City of Boulder on property values in three different neighborhoods. The focus of the study was 82 single-family homes that sold in a selected year which were located within 3,200 feet of the greenbelt. Seven variables were identified that were believed to influence the sales price of the properties. Using a statistical regression model, the analysis showed that there was a \$4.20 decrease in the average sales price of residential property for every one foot distance from the greenbelt. The study found that the value of the properties adjacent to the greenbelt was 32 percent higher than those located 3,200 feet away.

Austin, Texas

In 2005, Nicholls and Crompton²⁷ reported the impact of Barton Creek Greenbelt and Wilderness Park in the City of Austin. The greenbelt is a linear 171 acre natural area that includes a 7.5 miles of multi-use trails. Three major residential areas border the greenbelt and were the subject of the analysis over a three year time period between 1999 and 2001. The examination of single-family home transactions concluded that the adjacency to the greenbelt produced property value premiums in two of the three neighborhoods. The premium for adjacency to the greenbelt, based on average home sales price in comparison to other homes in the same neighborhood, but not adjacent to the greenbelt, ranged from 20 percent to 6 percent. The one neighborhood that showed no price premium was attributed to the different character of the greenbelt due to deep, thickly vegetated ravines that offered neither recreational access nor attractive views. Similar to the previous study, the authors found that the average sales price depreciated the further homes were from those adjacent to the greenbelt.

²⁶ Correll, Mark R., Lillydahl, Jane H., & Singell, Larry D. (1978). The effect of greenbelts on residential property values: some findings on the political economy of open space. *Land Economics*, 54 (2), 207-217.

²⁷ Nicholls, Sarah & Crompton, John L. (2005). Impact if Greenways on Property Values: Evidence from Austin Texas. *The Journal of Literature Research*. Third Quarter.

Table 19: Price Premiums in Austin Neighborhoods (Premium Average Sales Price)

Neighborhood	Average Sales Price Percentage Premium
Barton	20%
Lost Creek	0%
Travis	6%

Source: Nicholls and Crompton

Portland, Oregon

In 2001, Lutzenhiser and Netusil presented findings from their study of over 16,500 single-home sales in the City of Portland between 1990 and 1992 to measure the relationship between a home’s sale price and its proximity to different open space typologies. A statistical technique called the “hedonic price method” was used relating the sales price of a property to structural characteristics, location, and environmental attributes. The hedonic model attempts to isolate the impact of numerous individual values on a single dependent value (i.e. average home sales price premium)

Open space was categorized by four major types: natural area parks, urban parks, specialty parks/facilities, and golf courses. As shown below in **Table 20**, results indicate that open spaces gave a statistically significant effect on a home’s average sale price in comparison to similar homes although the effect varies by open space type and with the distance from the home to the open space. Homes located within 1,500 feet of a natural park were found to experience, on average, the largest increase in sale price.

Table 20: Price Premiums from Portland (Premium Average Sales Price)

Distance	Natural Park	Urban Park	Specialty Park/Facility	Golf Course
Less than or equal to 200 Feet	16.9%	2.9%	11.2%	21.0%
201 - 400 Feet	15.4%	3.1%	8.7%	11.9%
401 - 600 Feet	19.1%	1.8%	15.5%	4.3%
601 - 800 Feet	17.0%	NS	8.6%	13.4%
801 - 1,000 Feet	13.6%	NS	7.5%	13.4%
1,001 - 1,200 Feet	12.3%	2.6%	6.9%	6.6%
1,201 - 1,500 Feet	15.1%	NS	5.8%	6.6%

Notes:

Urban Park: More than 50% of the park is manicured or landscaped and develop for nonnatural resource dependent recreation (e.g., swimming pools, sports courts, ball fields).

Natural Area Park: More than 50% of the park is preserved in native and/or natural vegetation. Park use is balanced between preservation of natural habitat and natural resource-based recreation (e.g., hiking, wildlife viewing, camping). This definition includes parcels managed for habitat protection only with no public access or improvements.

Specialty Park/Facility: Primary use at the park and everything in the park is related to the specialty category (e.g., boat ramp facilities).

Findings reported at various levels of statistical significance. NS = Not statistically significant.

Source: Lutzenhiser and Netusil

Chicago, Illinois

In 2005 Goodman Williams Group reported the economic impact of Millennium Park for the City of Chicago's Department of Planning and Development. In an attempt to capture the roles of the park in generating demand for new residential development, Goodman Williams analyzed the price per square foot premium in achievable sales price that was linked to Millennium Park and the market's perception of the location. The research concluded that adjacency to the park created a 33 percent increase in overall residential value. Goodman Williams also estimated that over a ten period approximately 25 percent of future development and subsequent absorption near the park could be attributable to the park's development.

Philadelphia, Pennsylvania

The Trust for Public Land's Center for City Park Excellence issued a report to the city of Philadelphia regarding the value the city receives from its park and recreation system²⁸. Using GIS mapping technology, all residential properties were analyzed within 500 feet of every "significant park and

²⁸ The Trust for Public Land. How Much Value Does the City of Philadelphia Receive from its Park and Recreation System?

recreation”²⁹ area in Philadelphia. The study found that some 98,000 properties or 15 percent were located within 500 feet of the park and recreation land in the city. Without being able to assign Philadelphia parks into various categories, the study concluded that price premium associated with park proximity is five percent, which was noted to be a conservative estimate.

Summary

In general, the benefits of open space and parks are partially captured in the price of properties close to it. Based on the literature reviewed, this value can generally be measured within 2,000 feet from open space. However, residential value premiums are largely captured, whether it is large or small, within properties with close proximity to open space. The residential value premiums researched in this report range from approximately 0-30 percent depending on the characteristics of the park or open space. These findings are consistent with past ERA research that noted that upward bounds of benefits in residential real estate value were 20-30 percent based on park proximity³⁰.

Commercial

Much of the available research for price appreciation associated with open space is focused strictly on residential values. The previously summarized literature is based on academic studies that have investigated residential property value in relation to proximity of open space. The information presented in this section is empirically based and not analyzed with same academic rigor. It is also important to point out that the commercial office examples are taken from established office markets with strong demand for office space.

New York, New York

The rehabilitation of Manhattan’s Bryant Park is a frequently cited example of how open space can create value premiums for nearby commercial properties. The eight-acre park behind the New York Public Library was long considered dangerous and attracted crime. Rebuilt and reopened in 1991, the park is now one of the most attractive locations in midtown. According to local brokers, 24 months after the park opened, leasing activity on 6th Avenue had increased 60 percent in the first eight months of 1994 compared to 1993. Additionally, between 1990 and 2002, rents for nearby commercial office space around Bryant Park increased 115 percent to 315 percent, while surrounding

²⁹ Significant park and recreation area included every park, one acre in size or larger, in Philadelphia even if owned by the county, state, federal or some other agency.

³⁰ Economics Research Associates (ERA), Real Estate Impact Review of Parks and Recreation for Illinois Association of Park Districts (2005).

submarkets experienced only a 41 percent to 73 percent increase in similar commercial properties.³¹ Proximity to the park is currently viewed as a positive attribute and amenity, whereas decades earlier, proximity to the park negatively impacted the marketability of the commercial properties. At the time ERA analyzed the properties, brokers reported a 40 percent premium for comparable properties within a close proximity of the park.

Boston, Massachusetts

The City of Boston finished its Central Artery tunnel project (also known as the Big Dig) in 2007. According to a review of tax-assessing records by the Boston Globe in 2004, commercial properties along the mile-long greenway (Rose Kennedy Greenway) increased \$2.3 billion between 1998 and 2003, up 79 percent. Over the same time period, the value of commercial properties in the city rose 41 percent. The research only examined assessed values³² as reported by the state. Under state law the assessments are intended to reflect actual market value, and the city adjusts the figures annually.³³ The almost doubling in price appreciation³³ suggests that the Rose Kennedy Greenway has provided an amenity to adjacent commercial properties that is reflected in the rising property values.

Another example is Boston's Post Office Square, a 1.7 acre urban park situated above a parking garage in Boston's financial district. Based on past ERA research the park's transformation from an above ground parking structure to an urban park has significantly increased adjacent commercial office values. According to local real estate brokers, lease rates for office space facing the park command a ten percent premium over office space within the same building without a park view. Moreover, while building located two or three blocks from the park before the park was developed commanded higher lease terms, at the time of our research office properties adjacent to the park commanded the highest lease terms.

Summary

Although each case is different, lease rates for units with a view of open space can command higher rates. In the cases examined, the rental premium ranged from 10 to 40 percent. There is also a precedent that the introduction of a park can also stimulate overall leasing activity. However, it should be noted that the case studies and general research on the subject is limited. ERA believes that open space provides a valuable amenity for commercial office properties. In some examples, the

³¹ Ernest & Young. How Smart Park Investment Pays Its Way.

³² Assessed values are the dollar figures placed on buildings and land for taxation purposes.

³³ The measure has its limitations because city assessors are required to place a value on a building based on the revenues it could command if fully leased, whereas investors consider both current conditions and future market value.

large price appreciation reported is based on the removal of unsafe conditions (e.g. crime) and thus skew the potential value premium that open space might provide commercial office properties in other market areas.

Local Case Studies

During the months of November and December 2009, ERA contacted a number of residential real estate agents, leasing agents, and commercial brokers working in the Mission Valley area. The purpose of these interviews was to determine the extent that the River (in its current condition) creates premiums for residential and commercial office uses.

Residential (for-sale)

The majority of the residential complexes that face the River are situated along the street Camino De La Reina in Mission Valley. This street is located on the south side of the River facing north, and north of Interstate 8, and east of State Route 163. Another newer and more modern complex, The Lido, is situated on the north side of the River facing south. Complexes in this area along the River with River views include the following:

- The **River Scene** stacked flat condominium complex (1991)³⁴ at 510 Camino Del La Reina. The cross streets are Camino De La Seista and Mission Center Road. These are 2 bedroom 2 bath units of approximately 1,200-1,300 square feet that have recently sold for \$255-\$328 per square foot.
- The **Rio Del Oro** townhomes (1995) in the 600 block of Camino De La Reina. The cross street is Mission Center Road. These are larger, 2 bedroom 2 Bath, 2-story townhome units of approximately 1,500 square feet. One recently sold for \$355,000, or approximately \$330 per square foot without a river view.
- The **River Colony** (1991) at 2110 Camino De La Reina. The cross street is Qualcomm Way. At this time, there are 7 units available, both one- and two-bedroom. These units are listed from \$199,900 to \$349,900. Many of the lower units facing the river have obstructed views of plants/trees, thus limiting associated view premiums.
- The **Mission Gate** (1997) at 966 Camino De La Reina. The cross street is Mission Center Road. These are larger, 3 bedroom 3 bath, 3-story units ranging from 1,500-1,600 square

³⁴ Year built (in parentheses)

feet. According to MLS data, two units have recently sold in this complex for approximately \$280-\$320 square feet with river views. The 1628-square foot unit that recently sold is situated on the river and the largest in the complex.

- On the north side of the river facing south is the newest condominium complex, **The Lido**, which was completed in 2005. Situated on Station Village Lane, the Lido is in a gated complex with 220 units. It is considered the most high-end condominium complex in the area. At this time, all units available in these complexes are re-sales only. Units in The Lido are typically 1,200 square feet and have resold for approximately \$320 square foot.

Summary

At this time, all of the properties for sale along the San Diego River are resales. Therefore, it is difficult to draw comparisons between the premiums for river view versus non-view units. Furthermore, some of the river units facing north along Camino De La Reina such as River Scene and River Colony receive less sunlight than those facing south. This means that in some instances the river view units may not command a premium. Since the units are resales, the quality of the unit (i.e. upgrades, etc.) and amenities within the complex can be more important than whether it has a river view.

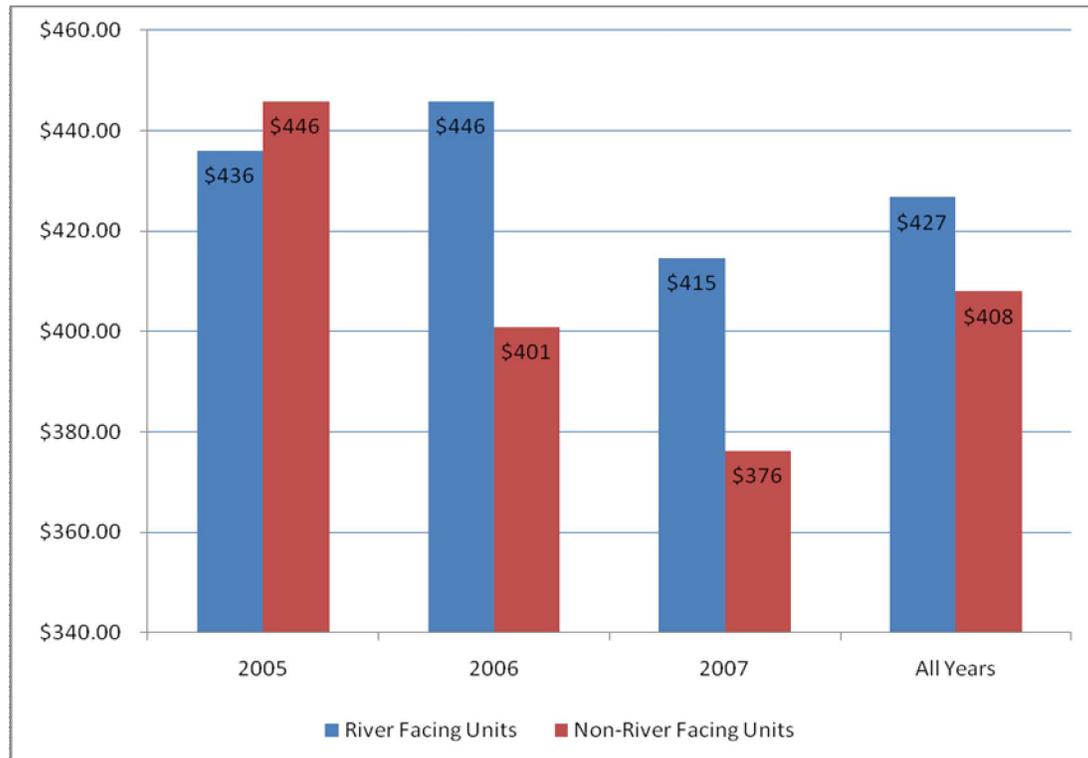
ERA asked real estate agents, if a brand new complex were built in today's market, and all units were comparable and had unobstructed river views, how much would the river view units sell for versus those without a view? The answer ranged from a \$10,000 to \$25,000 premium per unit sold. Since the average price of standard new units, in today's market, would likely be in the \$325,000 range, this would suggest a premium of between 4 to 8 percent.

In order to test the accuracy of these estimates, ERA examined sales data for the Lido from 2005 to 2008, which represents the duration when the new units were sold. The sales prices are presented by square foot, in constant 2008 dollars, and bifurcated by river and non-river facing units. As shown below in **Figure 14**, during the first year of sales, there was no premium associated with units sold with River views.³⁵ However, in 2006 and 2007, units facing the River had between a 9 and 10 percent premium over non-River facing units. During all years, the premium of units facing the River was 4 percent. While a number of factors can affect price points, the data is helpful because it is generally consistent with estimates provided by local real estate agents specializing in condominium

³⁵ In the first year a high proportion of pool facing units were sold that most likely inflated value of non-river facing units.

sales in the Mission Valley area. It also indicates that while there is some existing premium associated with River views, they are low in comparison to the national research.

Figure 14: River and Non-River Units Sales Data Per Square Foot at The Lido (2008 Dollars)



Note: 197 units analyzed, 135 units had complete data available regarding sales price, square feet, and location.

Source: San Diego Daily Transcript Home Sales Database and ERA AECOM

Beyond the premium the River presents within an individual development, ERA also investigated the relative premium the Lido had in comparison to other new developments during the same time period (2005 – 2007). Using DataQuick median sales prices for new condominium units in 2007 in comparison to transactional data from the Lido, the Lido held a 5 percent premium over other new for-sale. In 2005, there was no premium from the Lido units, but in 2006 the units had a 20 percent premium over other new for-sale units in Mission Valley. While the range is instructive, it is difficult to get a comparable estimate based on the unknown quality and size of the units sold during this time period³⁶. It does, however, generally support the range of premiums reported herein.

³⁶ While the Lido unit sizes are comparable to other new properties at the time of analysis, on a per square foot basis, the actual per square foot value is unknown.

Residential (for-rent)

There are several for-rent properties along the San Diego River as follows:

- **River Front**, which was originally built as condominiums and is currently leasing as apartments. The project is located at 750 Camino De La Reina and lies between River Scene and Rio Del Oro. At this time, 2 Bedroom 2 Bath units with River views lease for \$1,825 per month. A comparable unit with no River view leases for \$1,755 per month. This suggests an approximate 3 percent premium.
- The **Promenade Rio Vista** at 2185 Station Village Way is a six-building, 970-unit complex. Only two of the six buildings are situated along the River. Prices are estimated \$50 month higher for units facing the River. This equates to an approximate 3 to 4 premium.

Summary

In summary, apartment complexes with river views appear to command a 3-4 percent premium for units facing the River given the River's existing condition. Based on our interviews, the premium associated with River facing units may also come in terms of absorption of vacant units. While properties do not receive significant price premiums today, there is evidence that these units rent faster than other comparable units.

Commercial

One inherent problem with determining view premiums with commercial office properties in Mission Valley is that nearly all of the office space, especially on Hotel Circle and Camino Del Rio, have some sort of river view, depending on their location within the building. The commercial brokers with whom ERA interviewed estimate that River views command a \$0.10 per square foot per month premium in additional rent in Class A properties per month, which suggests a 3 percent premium. However, it is difficult to estimate if this is accurate using secondary data sources.

Estimated Range of River Premiums

The following section presents an overview of our estimates regarding potential incremental value premiums based on the proposed level of River improvements. These estimates provide a conservative range of premiums that could be captured by future development on vacant land and future redevelopment of existing improved land uses. While a number of unknown factors will influence the ability to drive up the value (e.g. number of allowable units, orientation to river, etc.), these baseline premiums should provide an order of magnitude estimate to gauge the potential incremental value premium from the River improvements.

Value Premium Estimate by Community Plan Area and Zone For-Sale Residential

Based on our research, the value associated with comparable open space adjacency varies by proximity and typically ranges between 10 and 30 percent above comparable development without proximity to open space. Sales transaction data as well as interviews with real estate brokers in Mission Valley suggest that the River already has an existing premium for residential properties given the River's condition today. ERA has estimated that the River currently provides a 5 percent value premium for for-sale residential properties. The assumed incremental low, medium and high residential value appreciation is estimated to be 10, 15, and 20 percent, respectively, predicted on implementation of the Plan. The adjusted low, medium, and high value premium is in addition to the existing 5 percent value premium of residential land presented below in **Table 21**. The base value premium is included in order to not over estimate future incremental value premiums. The potential price appreciation does not differ by the Community Plan Areas.

Table 21: Residential River Premium by Zone

	Base	Low	Medium	High
Zone 1 & 2	5%	5%	10%	15%
Zone 3	0%	2%	3%	5%

Source: ERA AECOM

It is important to note that price premiums are applied to anticipated future residential home prices in the various Community Plan Areas. As such, while the incremental value premiums are the same, the total appreciation, in dollar terms, is different.

Commercial Office and For-Rent Residential

As previously noted, there has been less research conducted that evaluates open space's effect on commercial properties. Based on our interviews, there appears to be a slight premium placed on both office and for-rent residential properties with adjacency to the River. There is stronger evidence that proximity to comparable open space, while not significant in relation to rent premiums, are shown when examining a property's ability to attract tenants. As such, we have placed a minimal premium on commercial office and for-rent properties (one percent).

We believe the River improvements will become an attractive amenity that will attract new development to the Community Plan Areas. The value of the River improvements will be noted in the incremental value creation tables based on more aggressive estimates in terms of total capture of commercial and for-rent residential units in the City. ERA believes without such improvements the

ability to capture future growth in commercial office and for-rent properties in some of the Community Plan Areas would be limited.

Incremental Value Premium

Historical market data, as presented in the market analysis summary, provide a benchmark for potential future property values of existing vacant and approved specific plans within the CPAs³⁷. The model includes a number of base assumptions that are critical to the analysis. First, ERA has assumed a level of development in each CPA based on the existing community plans, approved specific plans, and the limited amount of vacant land. In the Navajo CPA we have assumed a planning assumption based on the current mid-development land use scenario of the draft Grantville Master Plan. Second, land use data as provided by the County Assessor does not distinguish commercial land by type. As a result, the allocation of future office land is based on the existing percent of office development in relation to total commercial space within the Community Plan Areas, approved specific plans, and our demand projections. As such, we have assumed that 55 percent of the vacant (available) land will be developed as office properties with a floor area ratio (FAR) of 1.2³⁸.

ERA's estimated absorption scenario estimates the potential land that could be absorbed in the CPAs over a 20-year period. The absorption pattern is based on historic deliveries and projected market absorption patterns for the specific land uses in the region as well as this specific market area. Our base case scenario is a fairly conservative estimate of potential future value of developments. This is especially true because there is a minimal premium established for commercial office and for-rent residential properties that could be adjacent to potential future River improvements. Also, we have not included estimates regarding price appreciation, in real terms, for existing for-sale residential product in vicinity to the River. ERA has also capped achievable price premiums to 10 percent above new average residential sales prices within proximity to the River (as defined in our Zone analysis). This may also be conservative depending on the level of River improvements and demand for housing in the various Community Plan Areas.

Value Premium Estimate

The following tables present the estimated value premium provided by the River improvements. **Table 22** presents key assumptions used in the analysis regarding average market value of the projected development. All assumptions regarding absorption are taken from Section I of this

³⁷ Navajo CPA includes proposed redevelopment of existing improved land uses.

³⁸ Planning estimate and not based on site specific zoning.

analysis. **Table 23** presents the incremental value creation estimate. Other assumptions are built into the model. They include the following:

- Medium for-sale residential real estate value premium;
- 1 percent real estate value premium for all commercial development;
- Real appreciation rate is 1 percent per year;
- Inflation is 2 percent per year;
- Commercial turnover is assumed at 5 percent per year;
- Residential turnover is assumed at 10 percent per year

The total cumulative value creation amounts to approximately \$1.6 billion over a 20 year period. In net present value terms, this total value amounts to \$919 million, \$803 million, and \$704 million applying discount rates of 4 percent, 5 percent, and 6 percent respectively (**Table 24**). If the City captures 20 percent (our low estimate) of the value created from River improvements, then revenues would total \$183.8 million, 160.6 million, and \$140.8 million using the aforementioned discount rates.

Table 22: Value Premium Assumptions

	Assumptions	Notes
Residential		
Annual Residential Absorption	625 Units per Year	Mid Scenario
For-Sale	45%	
For-Rent	55%	
For-Sale Residential Sales Price per SF		
Mission Valley	\$450 \$/SF	1,020 Net SF
Navajo	\$410 \$/SF	1,020 Net SF
Tierra Santa	\$415 \$/SF	1,250 Net SF
East Elliot	\$0 \$/SF	1,020 Net SF
For-Rent Residential Rent (Gross) Price per SF		
Mission Valley	\$2.30 \$/SF	1,020 Net SF
Navajo	\$2.10 \$/SF	1,020 Net SF
Tierra Santa	\$0.00 \$/SF	1,020 Net SF
East Elliot	\$0.00 \$/SF	1,020 Net SF
For-Rent Vacancy	5.00%	
For-Rent Expenses	30.0%	
For-Rent Cap Rate	6.5%	
Office		
Annual Office Absorption	80,000 SF per Year	High Scenario
Rent Per Square Foot		
Mission Valley	\$2.50 \$/SF	
Navajo	\$2.00 \$/SF	
Tierra Santa	\$0.00 \$/SF	
East Elliot	\$0.00 \$/SF	
Vacancy	10.0%	
Office Expenses	6.5%	
Office Cap Rate	7.0%	

Source: ERA AECOM

Table 23: Incremental Value Creation Estimate

	2009	2010	2015	2020	2025	2030
Annual For Sale Residential AV Increment (\$000s)	\$ -	\$ -	\$ 3,167.1	\$ 2,754.0	\$ 10,120.4	\$ 3,387.4
For Sale Residential Value Increment (000's)	\$ -	\$ -	\$ 15,836	\$ 13,770	\$ 50,602	\$ 16,937
Annual Rental Residential & Commercial AV (\$000s)	\$ -	\$ -	\$ 662	\$ 862.7	\$ 1,030.1	\$ 1,084.4
Rental Residential & Commercial Value Increment (000's)	\$ -	\$ -	\$ 3,312	\$ 4,314	\$ 5,151	\$ 5,422
APPRECIATION FACTOR:						
Year After Property First Sold	<i>Annual Rate</i>					
Real Appreciation Rate (2% Plus Inflation)	3.0%	100%	100%	116%	134%	156%
Inflation Rate	2.0%	100%	100%	110%	122%	135%
Proposition 13 AV Limitation	2.0%	0.0%	2.0%	2.0%	2.0%	2.0%
Commercial Annual Turnover Rate	5.0%	5%	5%	5%	5%	5%
Residential Annual Turnover Rate	10.0%	10%	10%	10%	10%	10%
(In Current \$ 000s)						
For Sale Residential						
YEAR PROPERTY FIRST SOLD:	2009	\$ -	\$ -	\$ -	\$ -	\$ -
	2010	\$ -	\$ -	\$ -	\$ -	\$ -
	2011		\$ 3,563	\$ 4,036	\$ 4,617	\$ 5,312
	2012		\$ 3,585	\$ 4,050	\$ 4,627	\$ 5,318
	2013		\$ 3,611	\$ 4,067	\$ 4,637	\$ 5,325
	2014		\$ 3,639	\$ 4,086	\$ 4,650	\$ 5,333
	2015		\$ 3,672	\$ 4,107	\$ 4,663	\$ 5,342
	2016			\$ 3,591	\$ 4,068	\$ 4,654
	2017			\$ 3,614	\$ 4,083	\$ 4,664
	2018			\$ 3,640	\$ 4,100	\$ 4,675
	2019			\$ 3,669	\$ 4,119	\$ 4,687
	2020			\$ 3,701	\$ 4,140	\$ 4,701
	2021				\$ 15,300	\$ 17,331
	2022				\$ 15,397	\$ 17,395
	2023				\$ 15,507	\$ 17,466
	2024				\$ 15,630	\$ 17,546
	2025				\$ 15,767	\$ 17,636
	2026					\$ 5,937
	2027					\$ 5,974
	2028					\$ 6,017
	2029					\$ 6,065
	2030					\$ 6,118
	Stable Year					
FOR SALE RESIDENTIAL ASSESSED VALUE						
(In \$ 000s)	\$ -	\$ -	\$ 18,070	\$ 38,561	\$ 121,304	\$ 167,496
Commercial & Rental Residential						
YEAR PROPERTY FIRST SOLD:	2009	\$ -	\$ -	\$ -	\$ -	\$ -
	2010	\$ -	\$ -	\$ -	\$ -	\$ -
	2011		\$ 742	\$ 832	\$ 940	\$ 1,069
	2012		\$ 748	\$ 837	\$ 944	\$ 1,072
	2013		\$ 754	\$ 842	\$ 949	\$ 1,076
	2014		\$ 761	\$ 848	\$ 953	\$ 1,080
	2015		\$ 768	\$ 854	\$ 959	\$ 1,085
	2016			\$ 1,120	\$ 1,256	\$ 1,419
	2017			\$ 1,129	\$ 1,263	\$ 1,425
	2018			\$ 1,139	\$ 1,271	\$ 1,432
	2019			\$ 1,149	\$ 1,280	\$ 1,439
	2020			\$ 1,159	\$ 1,289	\$ 1,447
	2021				\$ 1,551	\$ 1,738
	2022				\$ 1,563	\$ 1,749
	2023				\$ 1,576	\$ 1,760
	2024				\$ 1,590	\$ 1,772
	2025				\$ 1,605	\$ 1,784
	2026					\$ 1,892
	2027					\$ 1,907
	2028					\$ 1,923
	2029					\$ 1,940
	2030					\$ 1,958
	Stable Year					
COMMERCIAL & RENTAL RESIDENTIAL ASSESSED VALUE						
(In \$ 000s)	\$ -	\$ -	\$ 3,773	\$ 9,908	\$ 18,988	\$ 30,969
TOTAL ASSESSED VALUE (000's)						
Residential (For-Sale)	\$ -	\$ -	\$ 18,070	\$ 38,561	\$ 121,304	\$ 167,496
Commercial			\$ 3,773	\$ 9,908	\$ 18,988	\$ 30,969
Incremental Value Based on River Improvements						
Incremental Value Creation (by Year)			\$ 21,843	\$ 48,469	\$ 140,292	\$ 198,465
Incremental Value Creation (Cumulative)			\$ 63,351	\$ 249,800	\$ 758,525	\$ 1,628,910

Source: ERA AECOM

Table 24: Net Present Value Summary

NPV Value Creation (\$000)			
Discount Rate @ 4%			\$919,000
Discount Rate @ 5%			\$803,000
Discount Rate @ 6%			\$704,000
City Capture of Value Creation @ 20%	@ 20%	@ 25%	@ 30%
Discount Rate @ 4%	\$183,800	\$229,800	\$275,700
Discount Rate @ 5%	\$160,600	\$200,800	\$240,900
Discount Rate @ 6%	\$140,800	\$176,000	\$211,200

Source: ERA AECOM

VI. Funding Techniques

The following section provides a summary of funding techniques used for river restoration projects in other southwestern states. The focus of these summaries is to provide information regarding the scale of improvements, timeline of improvements, cost, and sources of project funding. We will also provide, to the extent available, information regarding the level of private investment and any value premiums leveraged from the publicly funded river improvements. The purpose of this section is to assist with developing potential implementation strategies for the River.

National Case Studies

San Antonio River Improvement Project (San Antonio, Texas)

Project Overview

The San Antonio River Improvements Project (SARIP) is a \$384.5 million investment by the City of San Antonio, Bexar County, the U.S. Army Corps of Engineers (USACE), the San Antonio River Authority (SARA), and the San Antonio River Foundation (SARF) in a 4-mile segment of the river from Hildebrand to Lexington (called the Museum Reach), and a 8-mile segment from South Alamo Street to Mission Espada (called the Historic Mission Reach). The SARIP aims to provide, along approximately 13 miles of the river, stable and maintainable flood control, environmental restoration, amenities and recreational opportunities.

Project Origins and Background

For several centuries, the San Antonio River has served as a cultural, economic and environmental center for the City of San Antonio. During the late 1930's the Paseo del Rio, or the River Walk, was constructed as a Works Progress Administration project. The 2.5 mile-long riverside park spans the city's business district and includes sidewalks, footbridges, and park-like amenities. The San Antonio River Walk is lined with sidewalk cafes, hotels and nightclubs.

The 13 miles of river that run throughout the rest of San Antonio, however, did not fare as well. Flood control measures taken throughout the past century have altered the river's landscape. North of the River Walk, the San Antonio River was characterized by a narrow channel lined with sparse vegetation, vacant lots and the back walls of commercial and industrial buildings. South of the River Walk, the river flowed in a concrete channel lined with rubble and is devoid of trees.

In 1998, Bexar County, the City of San Antonio and the San Antonio River Authority created the San Antonio River Oversight Committee (SAROC) to spearhead the revitalization of the San Antonio River to provide stable, maintainable flood control while increasing recreation and economic development

opportunities for the community. Twenty-two civic and neighborhood leaders were appointed to SAROC to oversee the project's planning, design, project management, construction and funding.

SAROC undertook a 2-year study and planning process that resulted in a planning document specifying the programming for the SARIP. In 2001, the San Antonio City Council, the SARA Board, Bexar County Commissioners and the SAROC approved the project. The project provides flood control, amenities, ecosystem restoration and recreational improvements to the San Antonio River, both north and south of downtown San Antonio.

Involved Parties

Several different entities (as noted above) maintain jurisdiction over the San Antonio River and are involved in the SARIP. SARA is the local authority responsible for water resource management. SARA provides project and technical management and overall project coordination between the project's partners. SARA also provides approximately \$1.5 million annual for operations and maintenance activity on the SARIP. The funding from SARA offsets future city operations and maintenance costs and provides the city additional funding capacity to issue debt to cover a portion of the city's funding for construction of the Museum Reach Urban Segment (discussed below).

The City of San Antonio owns and manages facilities surrounding the river corridor, including water/wastewater, transportation and recreational facilities. The City of San Antonio is anticipated to contribute approximately \$76.7 million over the life of the project, derived from the city's capital improvements fund for amenities and recreation elements.

Bexar County, who also owns and manages facilities surrounding the river corridor, will contribute approximately \$146.4 million with \$59 million from the county's flood tax specifically to fund flood control elements of the project. In May 2008, Bexar County voters approved a venue tax proposition for an additional \$125 million to go towards SARIP.

The USACE could contribute \$72.1 million to support the ecosystem restoration and recreation elements in the Mission Reach (discussed below). The federal government also provided \$1.8 million towards the construction of the Eagleland segment on the southern edge of downtown.

The San Antonio Missions National Historical Park owns and manages several properties along the river corridor. A number of other organizations have contributed to the SARIP.

Scale

The San Antonio River Improvements Project targets two separate sections of the river - the 4-mile Museum Reach, which is north of the downtown area and the 8-mile Historic Mission Reach, which is south of downtown.

Museum Reach Urban Segment

Specific objectives for the Museum Reach Urban Segment include extending the amenities of the River Walk into areas that are currently inaccessible because of sheer banks, vegetative growth and lack of pathways. A linear park will also be created to create the framework for urban development with a continuous pedestrian link to adjacent urban areas. The Museum Reach offers opportunities for high-density, multifamily residential development along with commercial and support services, restaurants and entertainment venues.

Historic Mission Reach

Objectives for the Historic Mission Reach aim to restore the native habitat and the natural meander of the river that was altered by earlier flood control measures. Fluvial geomorphology techniques will be used to replicate the original flow of the river while simultaneously increasing flood control protection, reducing erosion and creating an environment more suitable for recreation and wildlife. Two characteristics of the southern portion of the river create the opportunity for using fluvial geomorphology - a wider river right-of-way and a greater percentage of adjacent public property ownership along the river.

Timeline

Restoration planning projects in San Antonio commenced in 1997. The Downtown Reach, Museum Reach Park, Eagleland, Museum Reach Urban Segment are complete with the Mission Reach still under development. The Mission Reach will be constructed in four phases that began in 2008 is anticipated to be completed by 2013.

Project Financing

Bexar County will fund the River Improvement Project's flood-control improvements, which account for approximately 38 percent of the project's total budget. Since 1951, Bexar County has collected property taxes for flood control purposes. Bexar County's Commissioners Court adopted a tax rate of \$.0161 per \$100 of valuation to provide sufficient debt capacity to undertake flood control projects, including the estimated funds needed for SARIP. The flood control tax is also used to operate and

maintain completed flood control projects. Additional funding is collected through the Bexar County Visitor Tax.

The City of San Antonio will provide approximately 20 percent of the project's funding. In 2000, the city's residents rejected a ballot proposition that would have funded the city's portion of the project using municipal sales taxes. As such, the city will now have to approve project funding each term. Because of this restraint and the County's need to fit its funding within its annual bond capacity, the project design and implementation schedule has been planned to span a 10-year period. Funding for the amenities portion must come from the City of San Antonio or the private sector since the flood control tax cannot be used for these purposes.

The balance of the funding will come from the private sector and federal government contributions. Private foundations will contribute approximately \$11.3 million for various river enhancements. Over the life of the project, the federal government is estimated to contribute over \$143.9 million on ecosystem restoration, flood control and recreation-related amenities.

The Museum Reach Urban Segment was funded by the City of San Antonio (\$52.3 million), Bexar County (\$13.1 million), SAWS (\$200,000 for utility line relocation) and through private donations collected by SARF (\$6.5 million). The Mission Reach is being funded by the City of San Antonio (\$4.5 million), Bexar County (\$115.3 million), SAWS (\$6 million), USACE (\$141.3 million) and through private donations collected by SARF (\$4.8 million).

Table 25: San Antonio River Partners and Budget Overview (millions)

Project	Total	City	County	Private	SAWS	USACE
Concept Design	\$ 1.0	\$ 0.3	\$ 0.7	\$ -	\$ -	\$ -
Downtown Reach	\$ 13.3	\$ 2.4	\$ 10.9	\$ -	\$ -	\$ -
Eagleland	\$ 13.6	\$ 6.2	\$ 4.8	\$ -	\$ -	\$ 2.6
Museum Reach Park	\$ 12.6	\$ 11.0	\$ 1.6	\$ -	\$ -	\$ -
Museum Reach Urban	\$ 72.1	\$ 52.3	\$ 13.1	\$ 6.5	\$ 0.2	\$ -
Mission Reach	\$ 271.9	\$ 4.5	\$ 115.3	\$ 4.8	\$ 6.0	\$ 141.3
Total	\$ 384.5	\$ 76.7	\$ 146.4	\$ 11.3	\$ 6.2	\$ 143.9

Source: San Antonio River Authority

Economic Development

The Museum Reach Urban Segment and Mission Reach have different market potentials, but in both cases the SARIP is anticipated to enhance economic development potential and real estate values. The project is expected to stimulate new development and rejuvenate existing properties along the river.

The Museum Reach Urban Segment is anticipated to become a destination for multi-family residential developments along with small businesses and restaurants, shops, and coffee houses. The area's most attractive residential development opportunities fall directly along the river, but in time could expand to the blocks beyond the river corridor. Limited hotel and entertainment development potential may also be feasible.

Two projects, under construction, reflect this vision. B. Knightly Development has completed the first phase of a condominium development within the vacated Lone Star Brewery. The 23-acre parcel is adjacent to the San Antonio River and has over 1,100 feet of river frontage located less than 2-miles from the San Antonio River Walk. The project is LEED certified and has 190 units currently for sale.

Another brewery (Pearl Brewery), purchased by Silver Ventures, in 2002, has been redeveloped. The site, which is located on the last segment of the Museum Reach Urban Segment, is planned to be an exciting mixed-use destination for retail, educational, entertainment, residential, and recreation uses. The Pearl Brewery is an existing culinary center within the city with the Culinary Institute of America, the Farmers Market, and a number of restaurants. There are also a limited number of work/live residences, with hundreds more planned for development, as well as additional office and retail space. Construction is expected to begin this year on an outdoor theater adjacent to the river.

The Mission Reach is designed to enhance quality of life through improved recreational opportunities, thus creating a more desirable living and working environment for area residents. To maximize economic development potential in the Mission Reach, visible water will be established where currently the riverbed is nearly dry at times. SARIP calls for bodies of water to be developed that could vary from two to three times the width of the base flow channel, depending on the ability to widen the main channel at that point. Office development currently exists on the river north of downtown. It is possible that companies moving to San Antonio may consider the improved river for a potential location, especially in the Mission Reach area of the project given the large parcels of land. Retail development is also likely, with heavy concentration at major intersections along the river reaches.

Buffalo Bayou (Houston, Texas)

Project Overview

The Buffalo Bayou, which runs through the heart of downtown, is an area of cultural, historical and ecological significance for the City of Houston. A multitude of historic sites, early ethnic neighborhoods, and some of the city's oldest parks lie along the banks of the Bayou. The Bayou is also a part of the Houston Ship Channel, a 400-foot-wide, 40-foot-deep, 52-mile-long man-made waterway flowing into the Gulf of Mexico.

Project Origins and Background

The Buffalo Bayou Partnership (“BBP”) was created in 1986 to act as an overseer authority for development along the historic waterway. The 501(c)(3) non-profit organization is a coalition of civic, environmental, governmental and business representatives. Over the past eight years, more than \$45 million in private and public funds have been raised for Buffalo Bayou's redevelopment.

On September 23, 2002, BBP in conjunction with local government entities released the Master Plan for revitalizing the Buffalo Bayou. Buffalo Bayou and Beyond calls for \$800 million of public sector investment (hard costs only) in improvements that aim to act as a catalyst for commercial and residential development along the Bayou.

Involved Parties

To date, the non-profit BBP has coordinated work with a public/private coalition that has included the City of Houston, Texas Department of Transportation (TXDOT), Harris County Flood Control District, and numerous other corporations, civic groups, planners, and designers.

Scale

Key proposals for the 20-year redevelopment of 10 miles along the Buffalo Bayou include: (1) A 25 million SF expansion of the downtown area as a mixed-use, water view district focused on a waterfront promenade; (2) A 2,500-acre linked park centered on Buffalo Bayou as the first step to a landmark regional eco-preserve; (3) Flood capacity improvements integrated with waterfront growth to protect the downtown area; (4) 850 acres of new park and 20 miles of trails to connect a continuous public realm along both sides of the Bayou in the central city; (5) New investments to improve mobility in the East End and to connect nearby neighborhoods to each other and to the Bayou; (6) Fourteen accessible boat landings at key destinations to activate the waterfront as a regional recreational destination; and (7) Improving the jobs/housing balance by creating new residential neighborhoods on key sites to offer homes and workplaces in close proximity to the river and downtown area.

Timeline

To date, several key projects have been completed along the waterway. They include the Sabine-To-Bagby Promenade, International Coffee Building, and Allen's Landing. The Sabine-To-Bagby Promenade project has received numerous awards and accolades for its design. The project, which created more than 3,000 linear feet of parks along the waterway, adds 23 acres of parkland to the downtown area. The \$15 million Sabine-To-Bagby project is a key component of the Buffalo Bayou and Beyond Master Plan. The promenade project began with a \$25,000 startup grant from the

Houston Endowment followed up with a \$750,000 grant from the Wortham Foundation to help fund planning and design work. Among the improvements in place are extensive naturalized landscaping along the Bayou's riverbanks, continuous biking and hiking trails on both sides of the river, public art, canoe and kayak launch sites, dramatic outdoor lighting, wayfinding signage, street-to-river entries, and a pedestrian bridge connecting the north and south sides of the Bayou. The project has helped revitalize the waterfront and has hosted community events, such as concerts, and festivals. The project is often cited as a model of how to transform a neglected and run-down natural waterway into a flourishing public space.

Project Financing

The estimated costs fall into three general categories: (1) Up-front capital improvements that include costs for flood mitigation, brownfields cleanup and land acquisition; (2) Financial, which include site-specific incentives that the City of Houston may end up providing to enhance public-private partnership feasibility; (3) Ongoing costs for maintenance, management and marketing.

The Master Plan for Revitalizing Buffalo Bayou recommends regional and intergovernmental funding for the up-front capital requirements for infrastructure, parks and land acquisition. The Master Plan also proposes a multi-pronged approach to financing the redevelopment of the Buffalo Bayou corridor. Outlined below are the major components of the suggested financing plan:

- Use general obligation bonds backed by incremental new fiscal revenue associated with the investment anticipated within the project corridor.
- Seek funding from the Harris County Flood Control District for major flood control improvements.
- Mount a campaign to generate the maximum amount of intergovernmental funds from a broad array of federal and state sources, including both existing programs and special appropriations.
- Create a new public improvement district and/or expand the responsibilities of existing management districts funded by special assessments on real property in the corridor to fund ongoing management, supplemental services, maintenance and marketing of the corridor.
- Employ a regional assessment earmarked for Bayou-related infrastructure, parks improvement, and land acquisition. This could be a sales tax, transfer tax, dedicated

property tax assessment or a similar mechanism all of which could be integrated with bond financing.

Economic Development

The Buffalo Bayou Master Plan anticipates that improvements will lead to approximately \$5.6 billion of private investment over the next 20 years. The public/private investment is expected to have the following benefits associated with economic development: (1) greater regional competitiveness; (2) enhanced property values; (3) increased tourism and visitation; and (4) enhanced quality of life for residents and attractive focus for new jobs and housing.

In 2005, the BBP sponsored a study to help quantify the economic benefit potentials within the Buffalo Bayou Corridor study area. As of 2004, the Buffalo Bayou Corridor study area had 574.4 acres available for development with a total assessed value of \$161.1 million. Overall, 289.4 acres were available because the land was vacant and an additional 285.0 acres was considered redevelopable because the improvements were abandoned or aged. Similar to the San Diego River, industrial uses dominated the land use, accounting for 44.5 percent of the total acreage. The study concluded that with increased pressures from housing demand in the region, the corridor could capture 30 percent of demand by providing medium priced for-sale and for-rent housing near the downtown area. As illustrated below, the study estimated the study area could provide up to 6,000 units to satisfy the estimated level of market demand. This housing, along with commercial development, would create a new assessed value ranging between \$800 million to \$1.2 billion. This level of development is calculated to be able to support \$330.1 to \$580.6 in public improvements for the river project.

Table 26: Buffalo Bayou Economic Development Potentials

	Low	Medium	High
Residential (Units)	4,200	4,300	6,000
Commercial (SF)	335,000	375,000	555,000
Total Improved Value (Millions)	\$800.0	\$820.0	\$1,200.0

Source: CDS Market Research

Rio Salado River (Phoenix, Arizona)

Project Overview

Construction of the Phoenix Rio Salado Habitat Restoration Project (Rio Salado Project), a river corridor through central Phoenix, Arizona, began in June 2000 and opened to the public in 2005. The Rio Salado Project transformed 580 acres along five miles of the Rio Salado or Salt River, stretching

approximately five-miles from 19th Avenue to the I-10 Bridge. The project was designed to bring enough water into the Rio Salado to restore native grasslands, trees, and wildlife, while preserving the river's flow capacity. Trails for hiking, biking, and horseback riding were developed as part of the project. Completion of the project was deemed as an important step toward generating local economic development benefits for the nearby community through river revitalization.

Project Origins and Background

Once a free-flowing river lined by cottonwoods and willow trees, mesquite groves and wildlife, the Salt River had not flowed naturally since dams were built on the river during the first quarter of the last century. The construction diverted water from the river as it passed through metropolitan Phoenix, resulting in the loss of plant and wildlife habitat. With most of its vegetation gone, the riverbed was primarily used to mine sand and gravel and has been used as a dumping ground for refuse and garbage. Landfills placed on the river's edge had been ignored for years, significantly impacting the environmental quality of the surrounding area.

The Rio Salado Project mitigated these conditions by re-establishing the natural habitat - wetlands, cottonwood and willow trees, mesquite groves, woody shrubs and grasslands. Plants and wildlife have been reintroduced to the river area starting back in late 2001. Water quality has improved by passing through constructed wetlands. Landfills and dumping areas in the project were also stabilized by reducing groundwater infiltration. A permanently constructed channel that was built into the river to create additional flood capacity carries small, frequent stream flows to minimize impacts from damaging floods that sometimes occur in the desert.

Scale

The Rio Salado Project area consists of approximately 580 acres along five miles of the Rio Salado.

Involved Parties

The U.S. Army Corps of Engineers, in cooperation with the City of Phoenix, designed the project and has prepared engineering plans for construction. The Maricopa County Flood Control District, a local partner with the City of Phoenix, is constructing the flood control elements of the project.

Timeline

The Gateway to the project (Central Avenue Gateway), which is comprised of a bicycle and pedestrian plaza on the bank of the Salt River at Central Avenue featuring terraced seating, interpretative gardens and a 40-foot by 80-foot shade structure, opened in June 2001. Work to construct the low flow channel and habitat restoration took place from 2000 to 2005.

Project Financing

Funding for the project came from a variety of sources. Phoenix was awarded a grant from the Arizona Department of Transportation to fund the Central Avenue Gateway. The city's Parks and Recreation Department teamed with the Phoenix Arts Commission and the Public Works and Street Transportation departments to complete this first phase of the Rio Salado Project.

Congress approved the \$100 million dollar river restoration project in 1999. Federal funding from the Water Resources Development Act contributed approximately two-thirds of the project costs, with local funds paying the remaining one-third. Local funds were comprised of a voter approved \$16 million in bond funding to continue clean up of the riverbed and begin habitat restoration and a voter approved \$1.5 million sales tax initiative. The Maricopa County Board of Supervisors approved an additional \$7 million to the \$11 million they already have committed to the project.

Table 27: Rio Salado Project Funding Overview

Funding Source	Total (millions)
USACE	\$63.25
County	\$18.00
City	\$17.50
Grants (Private)	\$1.25
Total	\$100.00

Source: City of Phoenix

Economic Development

The City of Phoenix Planning Department prepared a land use plan to identify goals and policies to guide development decisions for an area beyond the banks of the Salt River or Rio Salado and to complement the Rio Salado Project. In response, the Planning Department initiated a five-phase planning process to develop an area plan. The resulting "Beyond the Banks Area Plan" builds on the community's vision of how the area should develop in the future and identifies the steps needed to make that vision a reality.

In early 2002, the Counselors of Real Estate Consulting Corps (CRE), an international, professional membership organization of real estate consultants, was asked to provide an independent evaluation of Beyond the Banks Area Plan. The organization's tasks were to identify broad development issues from an investor's perspective, assess market position, and recommend strategies that would yield tangible benefits to the city and local community.

The CRE identified strengths and weaknesses of the Beyond the Banks Area Plan. Among the strengths noted are the area's favorable location, proximity to Phoenix Sky Harbor International Airport, Rio Salado Project, existing street system and infrastructure, the Rio Salado Interim Overlay zoning district, the nearby community college facilities, and area investment opportunities. The CRE identified the area's weaknesses, which included its mining activities and landfill operations, blighted areas, environmental concerns, unscreened open storage, junk and auto salvage yards, incompatible existing land uses, crime perceptions, lack of appropriate retail and service facilities, and lack of a positive image to support investment.

The CRE assessment made several suggestions about land use that would enhance the area's attractiveness to business and future residents. Major emphasis was placed on completion of a golf course as a centerpiece for future development and provision of a mix of quality ownership housing, recreational attractions, and institutional facilities.

The CRE evaluation encouraged stronger code enforcement, maintenance requirements, and screening and design guidelines. Activities that would enhance the Rio Salado Project amenities were recommended. In addition to completing the golf course, suggestions put forward by the CRE included locating the nature center at Central Avenue, creating a mix of complementary retail facilities, developing historical and cultural themes, and providing view and photo opportunity sites along the scenic drives.

Financial strategies to ensure both short and long-term success of Beyond the Banks Area Plan revitalization were also detailed. The CRE suggested that the city levy reclamation fees on pit filling, tap available financial assistance programs, and explore creative financing and development tools as part of economic development incentives. The following projects have been recently developed in the Beyond the Banks Area Plan area. In total, the 11 projects represent \$325 million in new investment in areas adjacent to the river.

Table 28: Recent Development in Rio Salado Beyond the Banks Planning Area

Name	Cost (millions)
University of Phoenix	\$126
Sky Harbor Business Park	\$100
University Center	\$30
Lincoln Commerce Bank	\$20
Riverview Center	\$10
Single-Family Residential Infill	\$10
Senior Housing	\$8
Audubon Nature Center	\$7
Ace Asphalt	\$6
Arizona Business Sales	\$5
Buesing Corp	\$3
Total	\$325

Source: City of Phoenix Planning Department

Trinity River (Dallas, Texas)

Project Overview

The Trinity River Corridor Project entails construction of levees, wetlands, a downtown lake, gateway parks, trails, equestrian centers, and an interpretive center. Other highlights include the expansion and preservation of the Great Trinity Forest through the acquisition of 2,700 acres of land along the Trinity River and transportation improvements for the Trinity Parkway and the Woodall Rodgers Extension Bridge.

Project Origins and Background

In 1996, representatives of the City of Dallas, U.S. Army Corps of Engineers, U.S. Department of the Army, Environmental Protection Agency, Texas Department of Transportation, Texas Turnpike Authority, Texas Parks & Wildlife Department, Texas Natural Resource Conservation Commission, and the County of Dallas initiated full inter-agency cooperation for improvements within the Trinity River Corridor. Historically, the Trinity River has been a physical barrier separating northern and southern Dallas.

In May 1998, the citizens of Dallas approved a capital bond program for the Trinity River Corridor Project. On November 18, 1998, the Dallas City Council authorized the development of an Implementation Plan for the Trinity River Corridor. This Trinity River Corridor Master Implementation Plan serves as a footprint that will guide the implementation of the river corridor improvements.

In December 2003 the Balanced Vision for the Trinity River Corridor urban design study was completed. This study expanded the Trinity River Corridor Master Implementation Plan with the participation of city staff, State and Federal agencies, consultants, and citizens. The goals of the original project were redefined and summarized as follows: (1) provide flood protection, (2) complete bold initiatives of environmental responsibility, restoration, and proper management in the midst of an intensely urban setting, (3) create a recreation and urban open space amenity, (4) meet stated regional transportation goals, (5) create important community and economic opportunities for the neighborhoods bordering the Trinity River.

The Trinity River Corridor Comprehensive Land Use Plan, which was adopted by Dallas City Council in March 2005, serves as a framework for a coordinated approach to the Trinity Project infrastructure improvements, land use and economic development. The plan will be used to guide development and investment decisions in the Trinity River Corridor. Its broad vision describes the character this corridor should have for the future. It establishes general principles that direct preparation of detailed plans for smaller parts of the corridor. It provides guidance about the appropriate land uses and development patterns for the corridor that can be used by citizens, property owners, and city officials as they review specific development proposals.

Involved Parties

There is a wide variety of private and public agency partners involved with project at the city, local, state, and national level. Some key participants moving forward to implement the Trinity Corridor Plan include: City of Dallas, Dallas Area Rapid Transit, Dallas County, North Central Texas Council of Governments (NCTCOG), North Texas Tollway Authority (NTTA), Texas Department of Transportation (TxDOT), Texas Parks and Wildlife Department (TPWD), Texas Transportation Commission (TTC), Surface Transportation Enhancement Program (STEP), Texas Water Development Board, United States Army Corps of Engineers, Bureau of Reclamation, Environmental Protection Agency, Department of Transportation, Trinity Commons Foundation, Trinity Trust Foundation, Neighborhood, Community and Business Organizations, Homeowners and Residents, Developers, Business Owners & Non-Residential Property Owners.

Scale

The Trinity River Corridor is the geographic area within the city limits of Dallas that includes the floodplain area downstream from the levees and the neighborhood and business areas adjacent to the river and extending approximately one mile on either side.

The geographical area addressed by the Trinity River Corridor Comprehensive Land Use Plan is approximately 44,000 acres in size – about 20% of the land area in Dallas. The boundaries of the

corridor span from Royal Lane in the north to I-20 in southern Dallas, and approximately 1.5 miles on either side of the Trinity River.

Timeline

The project has completed many components within the first phase of the plan (please see below). The Trinity Parkway and Dallas Floodway Implementation are anticipated to be complete by 2014.

Project Status

Although the plan outlines a vision that will take “generations” to fully implement, many of the elements have been realized. The Balanced Vision for the Trinity River Corridor study divides the scope of work into three parts based on the potential for funding, they include:

- **Basic Phase 1:** The elements of the project that can be completed within the funds from the 1998 City Bond Election combined with anticipated funding from other governmental sources.
- **Expanded Phase 2:** The basic plan plus a series of elements that are highly desirable in achieving in the Trinity River Corridor in the first ten years of investment. Additional funding is required.
- **Ultimate Plan:** This is the long range vision to guide development of the Trinity River Corridor in future decades.

Project Financing

To spur revitalization in the Trinity River Corridor, the City of Dallas is collaborating with state and federal agencies to construct the Trinity River Corridor Project. The total capital cost of the basic plan is estimated to be \$1.06 billion. The City of Dallas is responsible for \$246 million in total costs, which is allocated and available from the voter approved bond program. State, federal and other agencies are providing additional funds totaling approximately \$814.2 million. Completion of the expanded basic plan, concurrently with the basic plan, would require an additional \$110.2 million. Identification of funding sources has begun and is outlined below. The cost of the ultimate plan is estimated to be \$1.7 billion (inclusive of first two phases) and would require an additional \$559 million in funding sources beyond those allocated to the Expanded Phase 2.

Table 29: Trinity River Cost Estimates by Phase (millions)

Plan Components	Basic	Expanded	Ultimate	Total
Flood Protection	\$171.0	\$0.0	\$26.0	\$197.0
Environmental Management & Restoration	\$54.0	\$4.1	\$48.9	\$107.1
Park & Recreation	\$47.5	\$43.7	\$110.7	\$201.9
Transportation	\$786.6	\$66.5	\$373.3	\$1,226.5
Community & Economic Development	<u>\$1.1</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$1.1</u>
Total	\$1,060.2	\$114.4	\$559.0	\$1,733.6

Source: Trinity River Corridor Project

Table 30: Trinity River Funding Sources (Actual and Potential)

Plan Components	Basic (Actual)	Expanded (Potential)	Ultimate (Potential)
Flood Protection	1998 Bond Funds (\$44M), US Army Corps of Engineers (\$127M)	None	Unknown
Environmental Management & Restoration	1998 Bond Funds (\$36.7M), STEP Grant (\$4.1M), TPWD (\$0.1M), US Army Corps of Engineers (\$31.1M)	Private Donations, Urban and Community Forestry Program, Land & Water Conservation Fund	Unknown
Park & Recreation	1998 Bond Funds (\$46.7M), TPWD (\$0.2M), US Corps of Engineers (\$13.1M)	Naming Rights, Land & Water Conservation Fund, Private Donations, Future Bond Program, Urban and Community Forestry Program	Unknown
Transportation	1998 Bond Funds (\$84M), NTTA (\$150M) TCC (\$17M), NCTCOG (\$13M), Federal (\$6.7M), Future Bond Programs (\$50M), TxDOT and County (\$466M)	Future Bond Program, TxDOT, Private Development	Unknown
Community & Economic Development	Interest from 1998 Bond Funds	None	Unknown
Total	\$1,060,241	\$114,374,000	\$559,020

Source: Trinity River Corridor Project

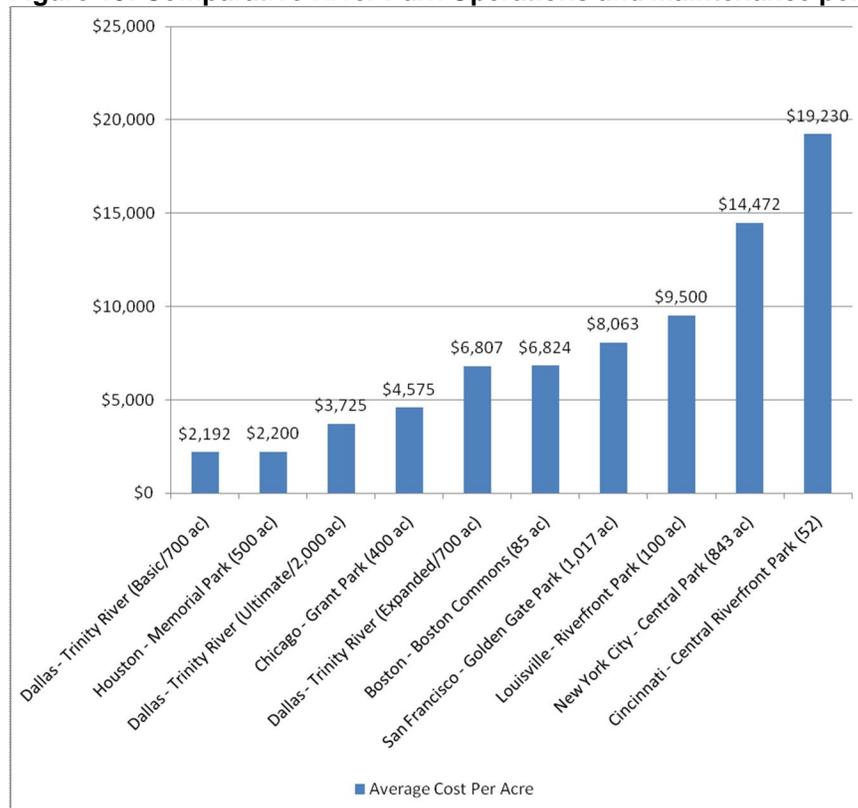
The costs described and outlined above do not include operations and maintenance (O&M). O&M responsibilities within the Trinity River Corridor Project are expected to be carried out by several agencies such as Dallas County, the Texas Department of Transportation, the North Texas Tollway Authority, and several City of Dallas departments. All O&M cost estimates are based on independent units (i.e., per park road mile, acre, etc.) and can be changed as future concepts are refined. The Park and Recreation Department surveyed several other cities in the US that have some form of waterfront or riverfront park to help estimate annual O&M costs based on the proposed levels of development. A summary of the O&M costs by concept is provided below.

Table 31: Trinity River O&M by Phase

	Basic	Expanded	Ultimate
Elm Fork	\$648,000	\$648,000	\$933,000
Trinity River (Floodway)	\$1,754,000	\$4,765,000	\$7,823,000
Great Trinity Forest	<u>\$1,770,000</u>	<u>\$1,770,000</u>	<u>\$1,770,000</u>
Total	\$4,172,000	\$7,183,000	\$10,526,000
Staffing	35 FTE	81 FTE	131 FTE

Source: Trinity River Corridor Project

Figure 15: Comparative River Park Operations and Maintenance per Acre



Source: Trinity River Corridor Project

The city is also using a redevelopment authority to help finance the project. The purpose of the redevelopment authority is to stimulate and promote economic growth and development. Similar to redevelopment agencies in California, the redevelopment authority has the authority to issue bonds, capture taxes, borrow money and sell, purchase, and/or condemn private property for public purposes. In particular, tax increment financing (TIF) districts are an important tool to fund infrastructure that is needed to attract private development and investment to the area. The City of Dallas has created many TIF districts and a number of these are located within the Trinity River Corridor. These TIF districts will continue to play an important role in the revitalization envisioned by the plan.

Economic Development

The ultimate scale of development potential due to river related improvements is unknown. However, the land use plan divided the Trinity River Corridor into seven planning districts in order to establish unique land use planning and design policies for each parts of the corridor. Additionally there were 23 study areas identified for more detailed evaluation and policy recommendation. These areas include important existing neighborhood and business assets adjacent to key Trinity River Corridor project improvements or adjacent to other major public facilities or investments. The final component of the land use plan was establishing ten prototype sites within the Trinity River Corridor. The prototype sites do not show actual projects, rather, they are examples of new development that could be supported by public investments. The case studies for these prototype sites include an economic analysis and specific implementation tools to achieve the illustrative developments.

Stakeholders engaged in the Trinity River Corridor believe the City of Dallas will capitalize on the significant public investment it is making in the River. Existing and future public improvements should support new investment by area homeowners, business property owners and developers. In turn, these private investments should enhance property values throughout the corridor and, as a result, should generate increased tax revenue for the City of Dallas and other taxing entities. Partnering with Dallas Area Rapid Transit and developing transit oriented developments at key transit centers along the river corridor will help foster new commercial activity, residential units, and employment. Similarly, partnerships with developers and financial institutions will encourage new community investments along the river corridor.

As noted, the City of Dallas will continue to explore the use of all available economic development tools along the Trinity River. Creation or expansion of tax increment financing districts, public improvement districts or other special districts will support development. The land use plan indicates that over the 30-year plan horizon the public's investments in the Trinity River Corridor should

produce significant returns in economic development and community revitalization in the neighborhoods and business areas all along the river.

Funding Analysis Summary

The following summarizes some of the key finding from the case studies. As noted below, the cost of the river restoration projects vary by size and scope. Based on the estimated hard costs (mostly projected costs at time of analysis), river improvements ranged from \$100 million to \$1 billion. On a per mile basis (measured in linear feet of the river), the costs ranged from \$20 million to just over \$50 million per mile. In each case study, the City’s contribution to the overall hard costs was relatively consistent, ranging between 18 and 23 percent of the total project costs. Other funding sources, such as the County, State, Federal, and other sources varied by project.

Annual operation costs associated with the projects were not analyzed for all projects based on the complexity of what is counted within the costs of operations and the various staged of project development. The Trinity River case study, however, does provide some illustrative metrics based on annual operations of the park or open space components associated with its development. The costs associated with annual operations for the base plan (presented herein) were estimated at approximately \$4.1 million annually.

Table 32: River Case Studies Cost Summary (presented in millions of dollars)

	SARIP	Buffalo Bayou	Salt River	Trinity River
Hard Cost Estimate	\$385	\$800	\$100	\$1,060
Miles of River Improvements	13	20	5	20
Cost Per Mile	\$30	\$40	\$20	\$53
Funding Sources				
City	\$77		\$18	\$246
County/State	\$146		\$18	\$637
Federal	\$144		\$63	\$147
Other	\$18		\$1	\$30
City Cost as Percentage of Total	20%		18%	23%

Note: Costs are not reported in constant dollars.

Source: ERA AECOM, Individual Projects

A variety of funding mechanisms were used at the City and County level to fund the river restoration projects. While the Buffalo Bayou improvements have not been completed and the City of Houston is exploring a menu of financing options, in all cases the city used a voter approved bond to fund

improvements. In each case the bonds identified an existing tax revenue stream (e.g. sales tax) or were structured as general obligation bonds (voter approved).

Table 33: River Case Studies Financing Summary

	SARIP	Buffalo Bayou	Salt River	Trinity River
Property Tax (County)	X			
Sales Tax (City)			X	
Public Improvement Districts		X		
Real Estate Transfer Tax		X		
Tax Increment Financing		X		X
Voter Approved GO Bonds	X	X	X	X

Note: Buffalo Bayou represents menu of options under consideration, while others are actual.

Source: ERA AECOM, Individual Projects