

# MILE SQUARE REGIONAL PARK

## Master Plan

.....  
July 13, 2021





*Mile Square Regional Park - View of East Entry, 2019*  
*Mile Square Regional Park - View of North Pond, 2019 (Cover page)*

# MILE SQUARE REGIONAL PARK

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## Master Plan

**APPROVED**

per Minute Order dated July 13, 2021

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*Mile Square Regional Park - View of pedestrian path, 2019*

# MILE SQUARE REGIONAL PARK

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## Master Plan

JULY 13, 2021

Prepared for



OC Parks Headquarters  
Irvine Ranch Historic Park  
13042 Old Myford Road  
Irvine, CA 92602  
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*Mile Square Golf Course*

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An aerial photograph of a sports complex. On the left, a golf course features a winding path, several ponds, and green fairways. In the center, a dense line of trees separates the golf course from the right side. On the right, there are several baseball fields with brown dirt bases and green grass, each enclosed by a chain-link fence. The sky is clear, and the overall scene is bright and green.

# CHAPTER 1

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# BACKGROUND



## 1.1 Introduction

Mile Square property is a 607-acre urban park owned by Orange County Parks (OC Parks) located in the City of Fountain Valley in Orange County, California. As the name suggests, the site is approximately a mile in length on all four sides and is currently partitioned into four independent operators: Fountain Valley Sports Park, Mile Square Golf Course, David L. Baker Golf Course, and Mile Square Regional Park (MISQ).

In 1967, Orange County leased the perimeter space of Mile Square from the United States Navy, creating an opportunity for OC Parks to develop the site for regional park purposes. Development of the property occurred in four phases with the opening of the first phase in 1970 and the completion of the fourth phase in 1987. In 2018, the lease for Mile Square Golf Course was amended to reduce the land they operate from two 18-hole courses to one 18-hole course, a conversion that will incorporate 93 acres of the golf course into the existing MISQ.

## 1.2 Purpose

The Mile Square Master Plan focuses on MISQ, a 186-acre passive turf park on the eastern side of Mile Square operated by OC Parks. The plan proposes to improve the existing Regional Park and integrate the converted 93 acres of golf turf into the Regional Park. MISQ has hosted a variety of community events throughout its history, and the park expansion will serve to accommodate more open space for a growing population (Strategic Plan Goal 4, OC Parks, 2018). Based on feedback from community events that took place in 2019 and 2020, the plan seeks to accomplish four goals:

1. to increase park access
2. to improve and increase multimodal circulation
3. to promote education and engagement opportunities
4. to increase environmental and natural elements in the park

In addition, the expansion intends to enhance regional parks in northwest Orange County—an area constrained by historical development patterns (**Exhibit 1.1**). Based on research, assessments, and public outreach efforts, the expansion of MISQ is an opportunity for OC Parks to further accomplish their Mission to “preserve and enhance natural and cultural resources for recreation, education and exploration” (OC Parks, 2018). The Master Plan will identify multimodal circulation improvements, specific programming opportunities, areas for ecological restoration, and other recreational improvements that focus on expanding the park’s recreational value and open space preservation.

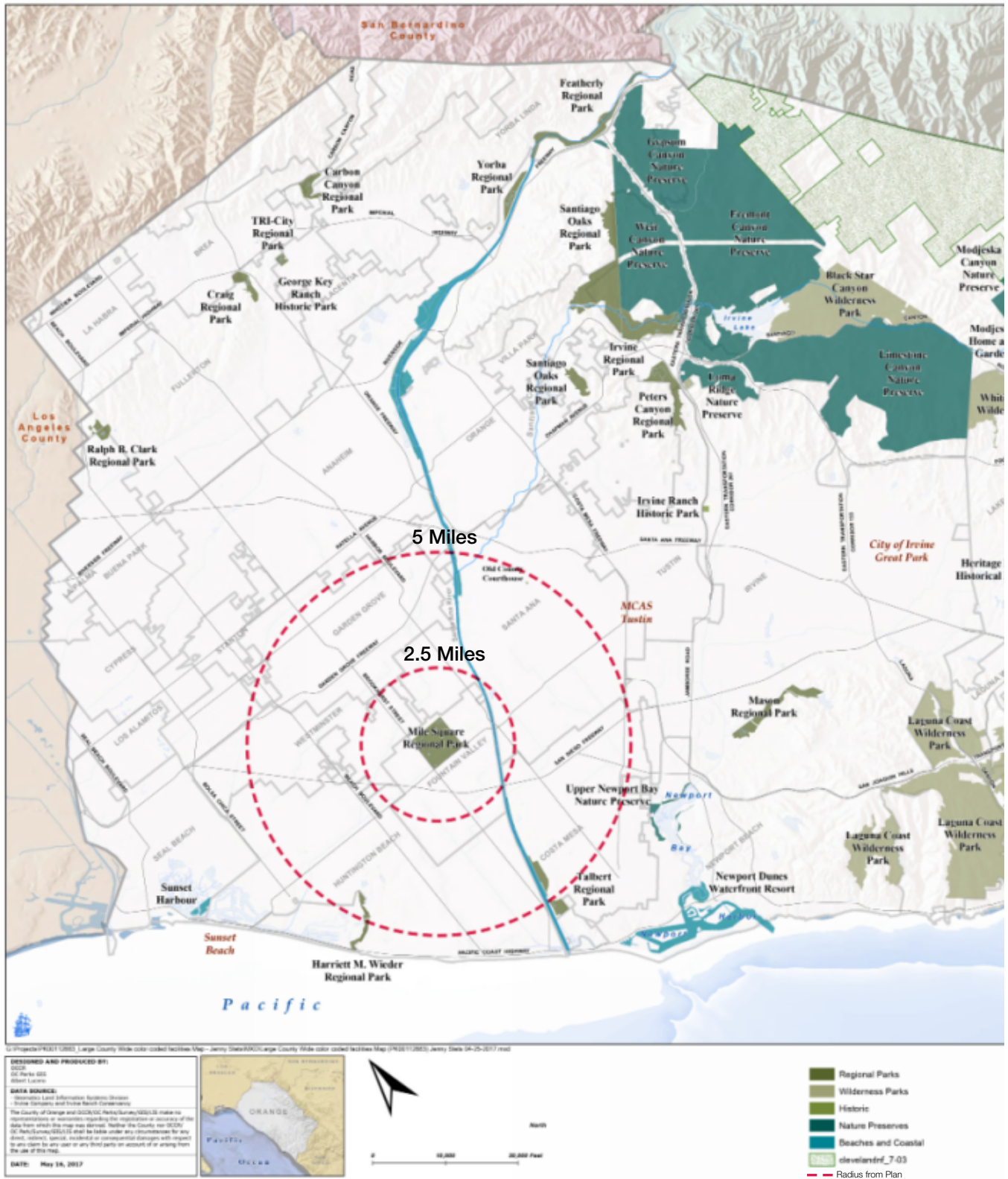


Exhibit 1.1 - Regional Context

## 1.3 Park Location

OC Parks oversees 60,000 acres of regional parks, nature preserves, wilderness parks, historical facilities, and coastal facilities throughout the county (**Exhibit 1.1**). However, due to historical development patterns driven by urban sprawl, there are less open green spaces, particularly in North Orange County. MISQ supports the open space needs of many neighboring cities, and the vast open space of MISQ serves as an ecological “patch” that converges with the Santa Ana watershed

Located in Fountain Valley, MISQ is unique in urban quality and form—with its rectilinear shape delineated between the crossroads of Brookhurst Street, Euclid Street, Edinger Avenue and Warner Avenue (**Exhibit 1.2**). It is accompanied by two other significant municipal open spaces nearby: Huntington Beach Central Park and Bolsa Chica Ecological Reserve. Moreover, the OC Parks facilities closest to MISQ include the Harriet M. Wieder Regional Park in Huntington Beach, Talbert Regional Park in Costa Mesa, Upper Newport Bay Nature Preserve in Newport Beach, and Mason Regional Park in Irvine, all which are within 10 miles of the site. These adjacent natural areas help provide context of open spaces in North Orange County.

## 1.4 Park Description

The 607-acre property of Mile Square is an urban park that is adjacent to the three cities of Garden Grove, Westminster and Santa Ana. Square in shape and form, the site is approximately four miles in perimeter, populated with a variety of tree species and turf lawn. The Ocean View drainage channel spans north and south through the park before turning east and west in the southerly section of the park to convey water during rain events.

MISQ is primarily flat in topography, where paved walking paths allow pedestrians to circulate around various programs. Vehicles circulate within the site on a 25-foot wide paved road that meanders throughout the park. While the immediate context of the site is both urban and residential, the park provides a picturesque quality of a regional park setting.

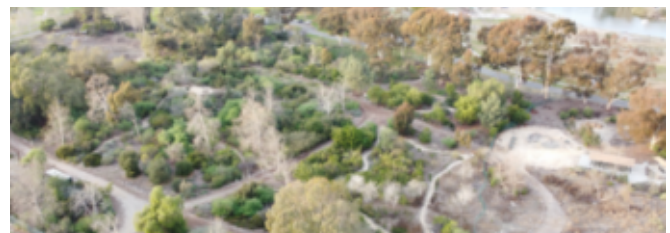
## 1.5 Existing Amenities

MISQ offers passive park amenities including picnic areas, barbecues, two fishing lakes, concession-operated bike and paddle boat rentals, a 15-acre nature reserve, and an area for overnight youth camping. Active amenities include six softball/baseball fields, three soccer fields, a sand volleyball court, an archery range, 10,000 SF multi-purpose facility, 12 fitness stations, and three playgrounds. Additionally, MISQ contains several artistic elements including statues of historical figures contributed by local communities. Subtle grade changes and landforms throughout the park further enhance the pedestrian and recreational experience. Chapter 2 describes the existing park amenities and physical resources in more detail.



*Left: Paddle Boats at North Lake*

*Right: Nature Area and Overnight Youth Camp Area*





**Exhibit 1.2 - Site Aerial**

## 1.6 Site History

### Topography

The foundation and context of Mile Square was built over a historic river floodplain that had been covered by riparian vegetation (**Exhibit 1.3**). Before development, the Santa Ana River would deposit soils into Newport Bay, which then drained into the Pacific Ocean (now known as the entrance to Newport Harbor). Due to the historical geology of the flood plain, there is a very subtle grade change, which demonstrates the site's relative flat topography. Similar to the Newport and Huntington estuaries, the site is naturally marshy and wet (Brown, 2011).

### Early Settlement and Advent of Agriculture

Former local historian, Jim Dick, reported that the early settlement of Fountain Valley was once a part of Manuel Nieto's ranch—a recipient of a Spanish land grant that began in 1784 (Dick, 2004). The Nieto land grant, approximately 165,000 acres, was the largest grant in pre-California history (Bolsa Chica Conservancy, 2019). After the Mexican overthrow of the Spanish government in 1834, the Nieto property was segmented into six parcels, one of which was named Rancho Las Bolsas (Bolsa Chica Conservancy, 2019). This parcel included swamp land in the mouth of the Santa Ana River, and some small islands that enabled cattle to graze (Dick, 2004). By 1848, American settlement in the area significantly increased after Mexico ceded California to the United States (Bolsa Chica Conservancy, 2019).

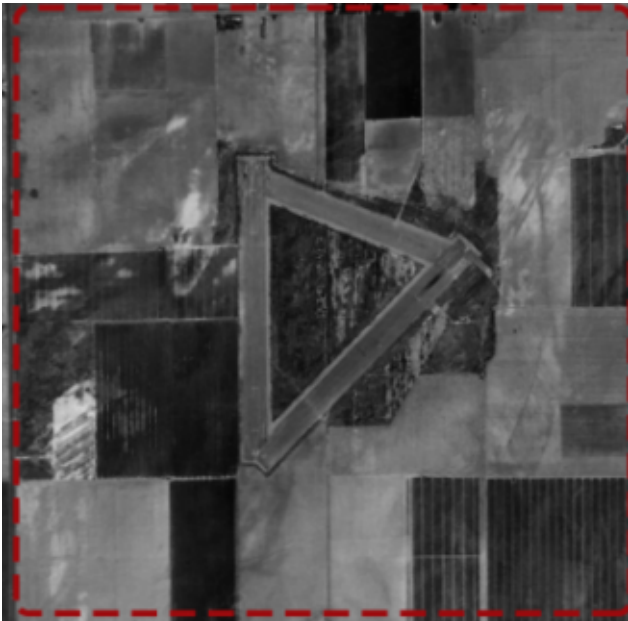
During the American Civil War, the land was sold to Abel Sterns, a businessman who had arrived in California from Massachusetts. One namesake for the area was Gospel Swamps, an evangelical community that congregated on the islands of the floodplain (Dick, 2004). However, this changed in the late 1870s when water levels dropped and exposed the potential for rich agriculture (Dick, 1982). Following the gold rush, the cultivation of citrus fruit trees became the mainstay of the economy of the lower Santa Ana River area (Asbury, 2008). Through the late 19th century, citrus fields covered much of the coastal plain and led to the naming of Orange County (City of Santa Ana, n.d.). Moreover, there were also natural springs and artesian wells that provided opportunity to supplement irrigation. During this time, large crops of wheat, barley, sugar beets, and beans flourished under Sterns's ownership of the land until the 1930s when the land was broken up into smaller parcels (Dick, Orange Countiana, 1982).

### Twentieth Century Development

Seasonal flooding continued to create regular challenges for agriculture until 1903, when Tim Talbert, an early settler, founded the Talbert Drainage District channeling system (Dick, 2004). The turn of the century saw more growth, and in the 1920s two additional communities, Colonia Juarez and the Helm Tract, joined the existing farming settlements (Dick, 1982). The Colonia Juarez consisted of Mexican-American farmers who purchased land and resided within the vicinity of Ward Street and Warner Avenue (Dick, 1982). The Helm Tract was also comprised of farmers and were located near Talbert Avenue and Magnolia Street (Dick, 2004). With the planning of the San Diego freeway underway in the late 1950s, it became clear that changes in the County would continue. In 1955-1956, an integrated community was established, and in June 1957, Fountain Valley officially became the twenty-first city in Orange County. The city was prominently named after the artesian wells that allowed the farming community to flourish. Agriculture remained as the primary industry in the area until local residential development soared in 1962.

### Federal Use and Subsequent Acquisition

With the intention to develop a landing field for El Toro Marine Corps Air Station and Santa Ana Marine Corps Air Base, the US Navy purchased a square mile of agricultural land in the early onset of World War II. Three landing fields totaling over a mile in length were constructed to form a triangular shape (Orange County Parks, 2018) (**Exhibit 1.3**). After the war, the landing fields subsequently served as the primary touch down base for the Santa Ana Marine Corps Air Station (Orange County Parks, 2018).

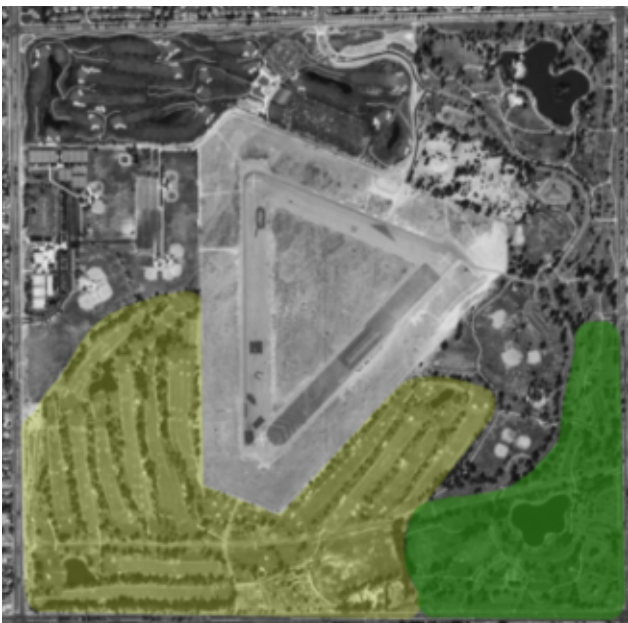


1963  
- Master Plan for County Regional Parks  
- Mile Square Identified as Priority Group

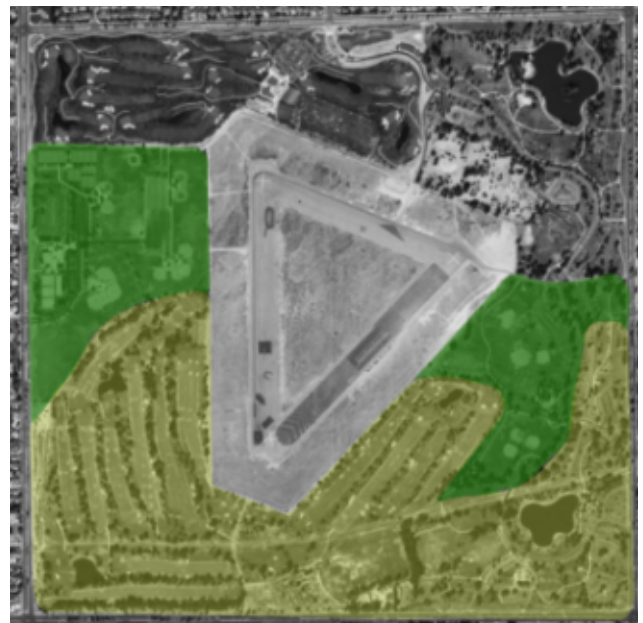


1969  
- Mile Square Golf Course completed 18-hole course

1967  
- County leased 459 acres from Federal Government to create Mile Square Regional Park



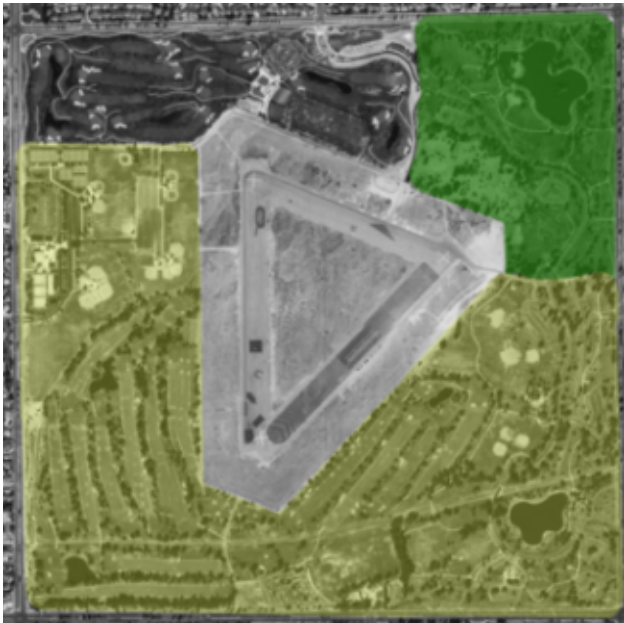
1970  
- Mile Square Regional Park Phase I construction complete



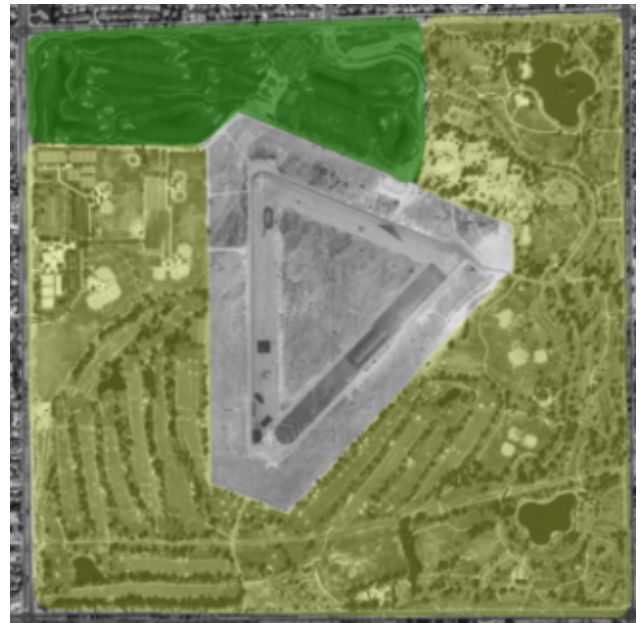
1973  
- Mile Square Regional Park Phase II complete  
- County owns the land, no longer leasing from Federal Government  
- County leases 60 acres to City of Fountain Valley

### Exhibit 1.3 - Historic Aerial Images

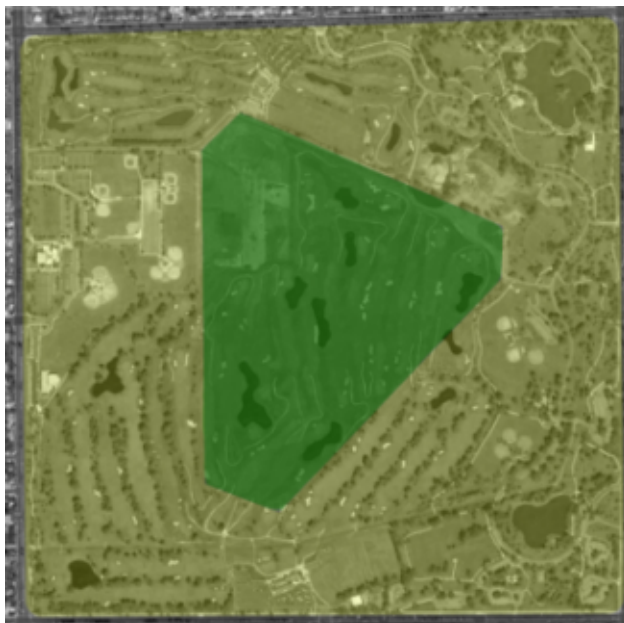




1976  
- Mile Square Regional Park Phase III complete

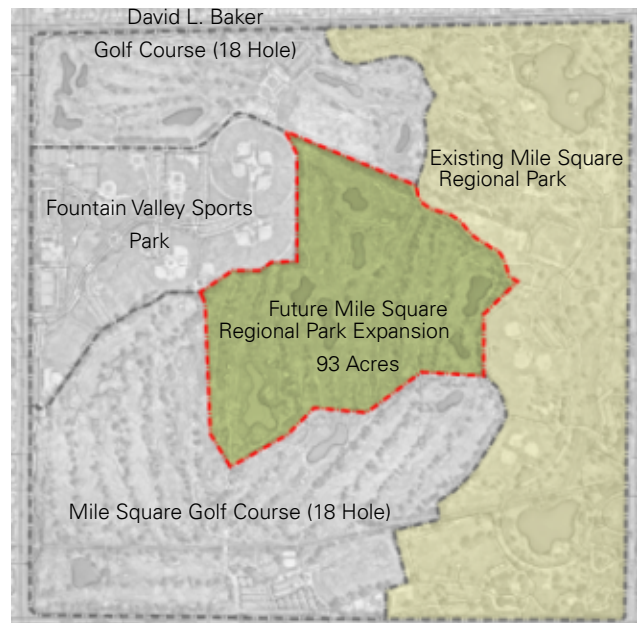


1989  
- Mile Square Regional Park Phase IV complete



1992  
- County purchases triangle from Federal Government

1999  
- Mile Square Golf Course and Fountain Valley Sport Park Expanded



2018  
- Mile Square Golf Course lease amended, transferring 93 acres to Mile Square Regional Park

In 1963, the U.S. Navy negotiated three-quarters of the site to Orange County in completion of a Master Plan for County Regional Parks. Mile Square became identified as a Priority 1 location for park development and was approved by the County Supervisor in 1964 (LA Times, 1966). The immediate priority was to construct a swale across the regional park to alleviate future drainage issues in residential areas (LA Times, 1966). In 1967, the County ultimately received a 100-year lease for Mile Square, and by 1974, all military operations in the center airfield ceased (Wood, 2011). Under the Federal Legacy Parks Program, the title to the remaining 160 acres of the site was officially given to Orange County at no cost (Orange County Parks, 2018).

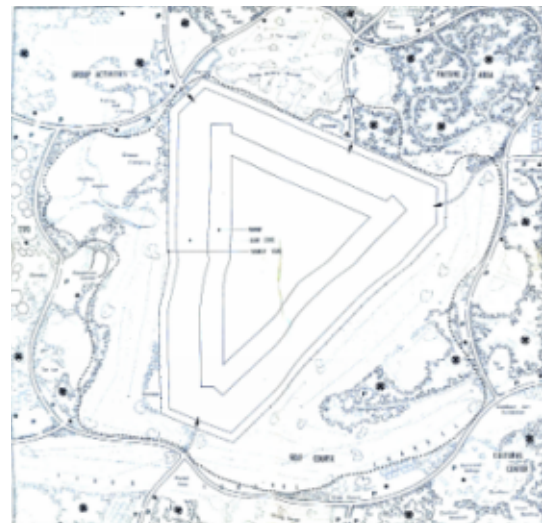


*Santa Ana River 1974*

### **Master Plan/Phased Development- 1970, 1973, 1976, 1987**

A master plan effort for the county's regional parks took place in the 1960s, which resulted in a four-phase development of the site.

- Phase 1 (1970) - opened the park with 85 acres
- Phase 2 (1973) - added a baseball diamond and a children's play area
- Phase 3 (1976) - expanded with more useable park area to the north up to Edinger Avenue
- Phase 4 (1987) - accommodated an 18-hole golf course on the northwest corner with a club house, a banquet facility, and a driving range (**Exhibit 1.4**)



*1960s Master Plan*

## Notable Historical Events

Due to its size, location, and historical significance, the park has hosted numerous large events and rallies. Most notably, Ronald Reagan held his campaign kickoff at Mile Square in 1984, with an estimated attendance of over 50,000 people (LA Times, 2015). This impacted future events where the convenience of activities in the park were complemented by the site's central location within the county.

From 1980 to 1982, Fountain Valley hosted the Gordon Bennett Cup Hot Air Balloon race. A Los Angeles physicist, Tom Heinsheimer had revived the race in 1979. The winner of the race was awarded \$1 million dollars. The event drew many paying visitors to spectate the event, triple the size of the best-attended summer concert at the park to date (Orange County Register, 2007). In April of 1981, the international event saw 11 balloons launch from the center of the park. (UPI, 1981)



*Ronald Reagan and Nancy Reagan began national re-election campaign rally at Mile Square on September 3, 1984.*



*Ronald Reagan speaking to large audience at his campaign rally at Mile Square in 1984.*



*The Gordon Bennett Balloon Race with music bands at Mile Square.*



*The Gordon Bennett Balloon Race launched at Mile Square in 1980.*

## 1.7 Contemporary Context

### Park Events

In addition to daily use, the park is activated by a variety of community events that take place annually and seasonally. Some of seasonal events that occur at the park include the Monarch Butterfly Day event that engages local communities with the seasonal migration of the insects. Other yearly events celebrate traditional holidays including the Tet Festival that celebrates the Lunar New Year and the yearly Easter gathering. Another popular event that attracts local youth is the Children’s Fishing Derby. The park has a calendar of events that attract summer crowds such as the summer concert series, movie nights, and evening nature walks.

### Cultural Resources

The park is host to historical statues commemorating individuals that have had an impact on the local community. In June of 2015, a statue of former President Ronald Regan was dedicated. Then, in February of 2016, the 13th century Vietnamese hero General Tran Hung Dao’s statue was unveiled at the annual Tet Festival. Later in 2016, a statue of Reverend Miguel Hidalgo was also erected in the park. The statues are all placed within the Freedom Field area of the park.

### Daily Activities

The park attracts a multitude of daily visitors seeking both active and passive activities. Many of these visitors will walk to the park from nearby neighborhoods or drive and park on the perimeter streets. Activities include walking and jogging in and around the park, visiting the 15-acre natural area, fishing in the parks two lakes, and shooting at the large 24-target outdoor archery range complex. Other group oriented activities include birthday celebrations, picnics, dancing, cross country meets, 5k fundraiser walks, and family events. Additionally, sports leagues use the soccer and baseball/softball fields for practices and games. These types of activities keep the park active and constantly used.



*Monarch Butterfly Event, Mile Square Regional Park*



*Tet Festival, Mile Square Regional Park*

## 1.8 Contemporary Demographics

MISQ park is located in one of the most racially diverse areas of Orange County. MISQ is located within the boundaries of the City of Fountain Valley, but is surrounded by the Cities of Santa Ana, Westminster and Garden Grove. Also, closely located to MISQ is Costa Mesa, Orange, Huntington Beach, and Stanton. Supported by the 2010 Census data, the ethnic communities surrounding MISQ are predominantly Hispanic, Asian, and White. Although MISQ is considered a regional park that will draw from a broader range of Orange and Los Angeles communities, MISQ location provides a major local park resource for neighborhoods within two to five miles. **Exhibit 1.4** illustrates the community demographics within a five-mile radius of the Park.

### Fountain Valley

According to statistics from the 2010 census, among the 55,313 people living in Fountain Valley, the racial demographics is mostly divided among White, Asian, and Latino races. The population density of Fountain Valley is 6,133 people per square mile.

### Huntington Beach

According to statistics from the 2010 census, among the 189,992 people living in Huntington Beach, the racial demographics is mostly divided among White, Latino, and Asian races. The population density of Huntington Beach is 7,103 people per square mile.

### Santa Ana

According to statistics from the 2010 census, among the 324,528 people living in Santa Ana, the racial demographics is predominantly Latino and divided among White and other races. The population density of Santa Ana is 11,900 people per square mile.

### Westminster

According to statistics from the 2010 census, among the 89,701 people living in Westminster, the racial demographics is mostly divided among Asian, White, and Latino races. The population density of Westminster is 8,926 people per square mile.

### Costa Mesa

According to statistics from the 2010 census, among the 109,960 people living in Costa Mesa, the racial demographics is predominantly White and divided between Latino races and other races. The population density of Costa Mesa is 7,024 people per square mile.

### Garden Grove

According to statistics from the 2010 census, among the 170,883 people living in Garden Grove, the racial demographics is mostly divided among White, Asian, and Latino races. The population density of Garden Grove is 9,524 people per square mile.

### Orange

According to statistics from the 2010 census, among the 136,416 people living in Orange, the racial demographics is mostly divided among White and Latino races. The population density of Orange is 5,501 people per square mile.

## Stanton

According to statistics from the 2010 census, among the 38,186 people living in Stanton, the racial demographics is mostly divided among Latino, Asian, and White races. The population density of Stanton is 12,122 people per square mile.

As the population data suggest, the surrounding communities are very mixed and evenly divided between White, Latino, and Asian races. Population density also shows that the communities of Santa Ana, Westminster, Garden Grove, and especially Stanton, have higher densities than the other adjacent suburban communities that surround MISQ park.

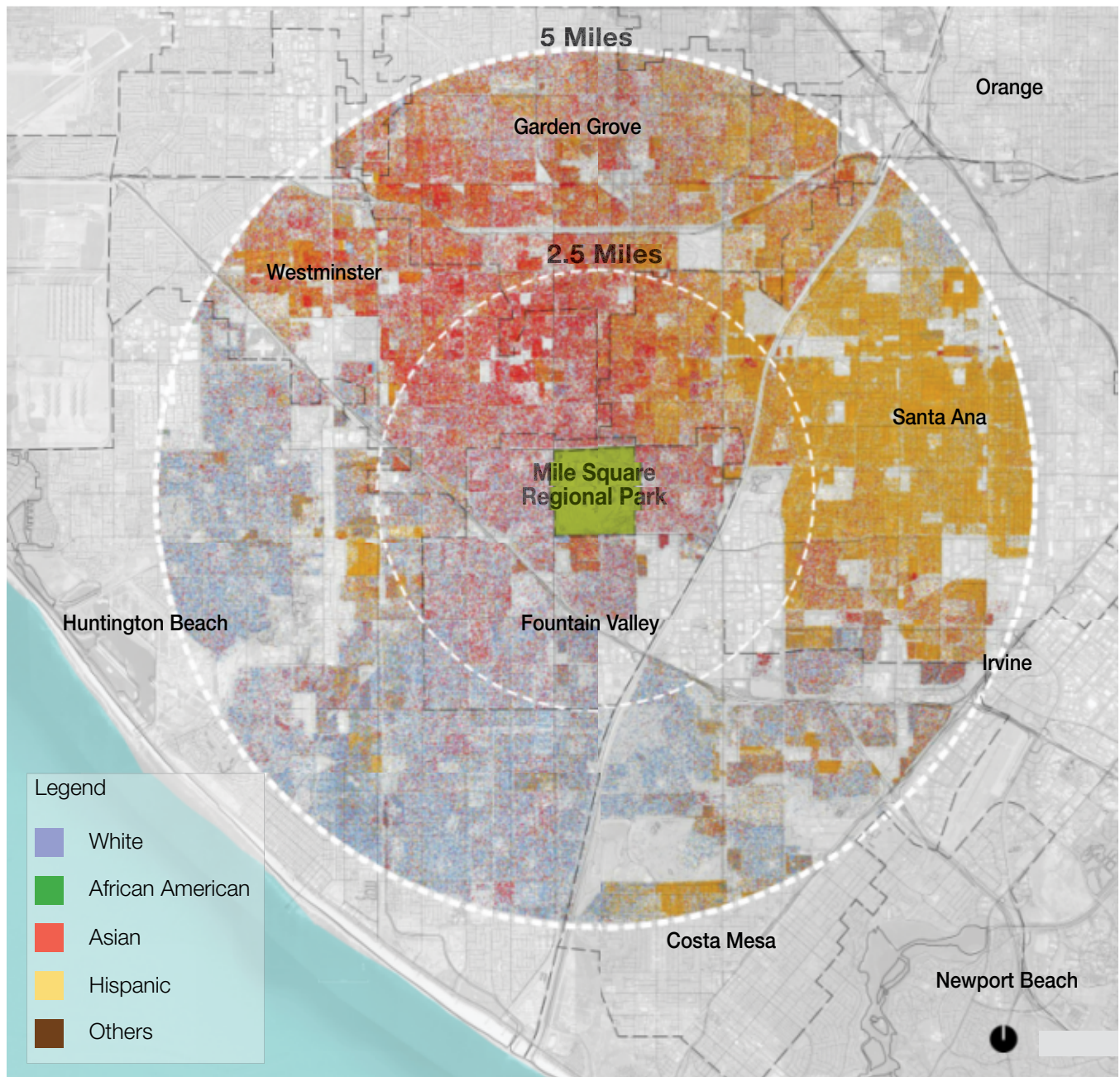


Exhibit 1.4 -GIS Demographic Map

## 1.9 Relationship to Other Plans


Planning and policy documents were taken into consideration during the creation of the Master Plan. Comprehensive planning requires the integration of research and public outreach processes, which is accomplished by acknowledging the surrounding context, potential opportunities, and constraints. **Exhibit 1.5** list and describes the significant documents that are relevant to MISQ.

Document	Description	Relevance
OC Parks Strategic Plan (2018)	Describes the vision, mission, values, and goals for OC Parks for 2018 - 2028.	Provides overall background and overarching strategy for ensuring high quality experience for park users during continued growth.
City of Fountain Valley General Plan Update (2019)	Describes market trends and high-level assessment of socioeconomic patterns pertaining to market demand for real estate development.	Information on local demographic trends and population growth that can provide a better understanding how proposed park improvements may be utilized.
Integrated Feasibility Report Environmental Impact Statement for Westminster & East Garden Grove, CA (2019)	A study about an 87-square mile watershed project and its existing drainage infrastructure during five- and ten-year storm events.	One focus of the study was on the flood risk of the Ocean View channel that flows through Mile Square.

**Exhibit 1.5 - Table: Relevant Planning Documents**





An aerial photograph of a golf course. A large, irregularly shaped pond is the central feature, surrounded by green grass and several sand traps. A winding path or road curves through the course. In the background, more of the golf course is visible, including trees and a smaller pond. The text 'CHAPTER 2' is positioned above 'EXISTING CONDITIONS', separated by a dotted line.

CHAPTER 2  
.....  
EXISTING CONDITIONS



*Baseball Fields and Playground, Fountain Valley Sports Park*

## 2.1 Introduction

This chapter details the existing conditions at Mile Square Regional Park (MISQ), which include current programmed elements, physical resources (drainage, soil, topography and vegetation), circulation, visual character, and built structures. The analysis of the site is fundamental for understanding context and the current operations that will support proposed park improvements.

## 2.2 Adjacent Site Amenities and Activities

As a 607-acre site, Mile Square is unique for its vast open space surrounded by suburban development. Currently, the county leases portions of Mile Square to three operators: Mile Square Golf Course, David L. Baker Golf Course, and Fountain Valley Sports Park. Fountain Valley subleases a portion of their property to the Boys & Girls Club of Huntington Valley. **Exhibit 2.1** illustrates the existing amenities within the three adjacent land uses.

### Mile Square Golf Course

The Mile Square Golf Course was established in 1969 by architect, David Rainville (Chaffin, n.d.). This 36-hole public course includes a driving range, eleven ponds, a golf shop, a clubhouse, and a banquet center. In 2018, the lease for Mile Square Golf Course was amended to reduce the property by 93 acres, and convert two 18-hole courses to one 18-hole course, which will be transferred to MISQ in 2021.

### David Baker Executive Golf Course

The David L. Baker Executive Golf Course is located in the northwest quadrant of Mile Square. Built in 1989, the 18-hole, par-62 course contains six lakes, a driving range, a golf shop, a clubhouse facility, and a banquet center.

### Fountain Valley Recreation Center and Sports Park

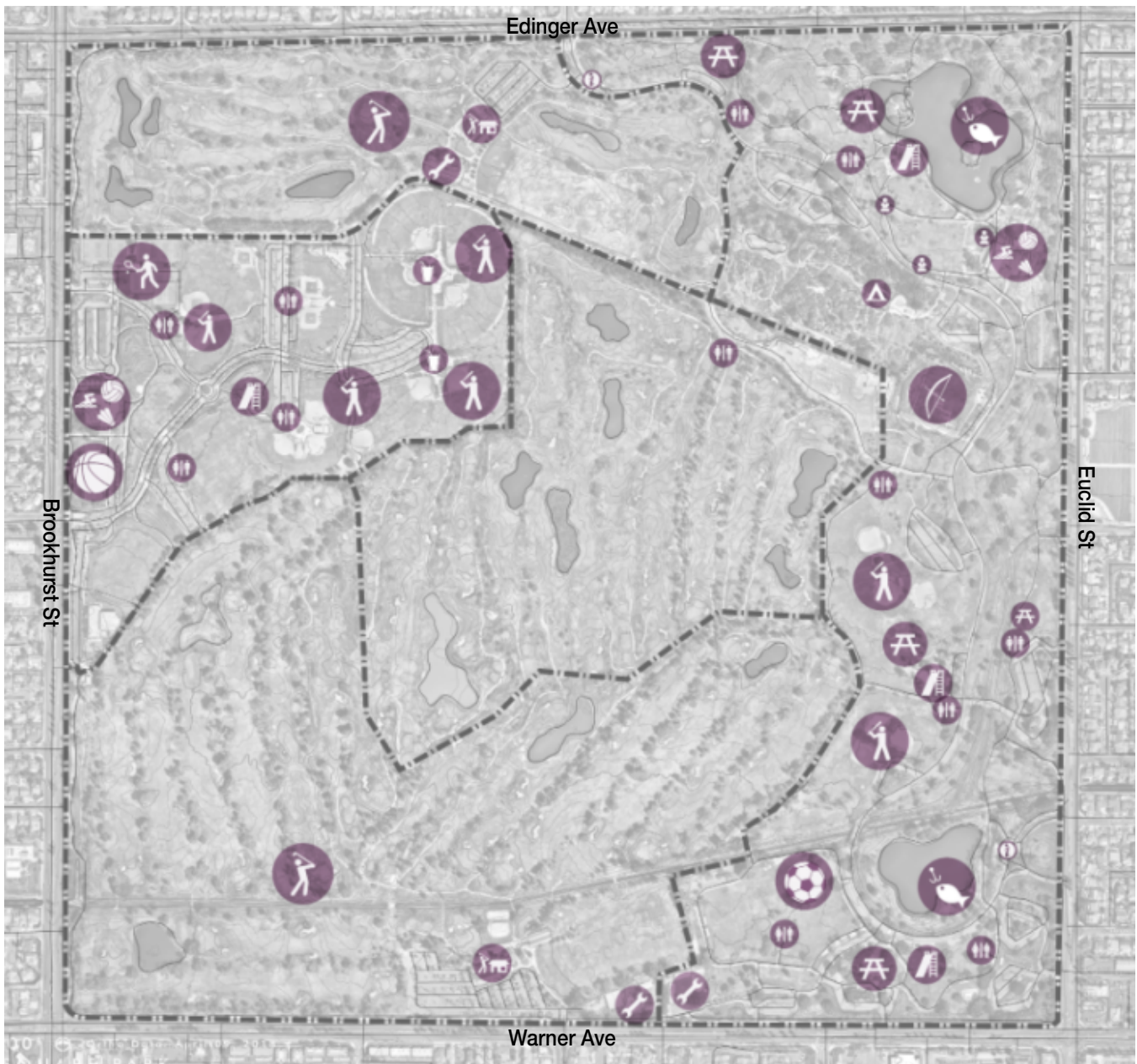
Mile Square is home to the Fountain Valley Sports Park. It is a multipurpose recreational facility that is managed by the City of Fountain Valley Recreation and Community Services Division. The Recreation Center and Sports Park has served Fountain Valley residents and neighboring communities since 1974. Located in the western portion of Mile Square, it contains a multitude of functions including six softball fields, nine youth baseball fields, three soccer fields, twelve tennis courts, five racquetball courts (two indoor, three outdoor), three handball courts, six outdoor basketball courts, a playground, a gymnasium, and six restroom buildings (City of Fountain Valley, n.d). The Sports Park hosts multiple club adult and youth sports leagues for regular games and tournaments throughout the year. These leagues include AYSO Soccer Leagues, Fountain Valley Girls Fastpitch Softball, Fountain Valley Little League, Fountain Valley Pony Baseball, as well as, adult soccer, volleyball, softball, and baseball leagues. The Park also organizes events throughout the year such as summer concerts in the park, movies in the park, the Great Fountain Valley Camp Out, and Summerfest.

### Regional Park Amenities

Currently, MISQ has nearly 186 acres for recreational use and offers a variety of amenities for park users. These amenities include an archery range, six baseball/softball fields, three soccer fields, one sand volleyball court, bike rentals, boat rentals, youth group camping, picnic areas for dining and barbecues, two fishing lakes, one-and-a-half-mile fitness trail with 12 Vita-Course fitness stations, three playground/tot lots, eight restroom buildings, and a 15-acre nature area.

**Legend**

- |   |   |  |
|---|---|--|
|  Recreational Center |  Soccer            |  Maintenance                     |
|  Playground          |  Golf              |  Fishing                         |
|  Baseball / Softball |  Archery Range     |  Picnic Area                     |
|  Basketball          |  Boys & Girls Club |  Nature Center Campground        |
|  Tennis Court        |  Club House        |  Park Entry & Information Center |
|  Restroom            |  Food/Concessions  |  Sculpture                       |



**Exhibit 2.1 - Existing Amenities Plan**



Amenity Image - Playground



Amenity Image - Volleyball



Amenity Image - Archery Range



Amenity Image - Baseball/Softball

## 2.3 Circulation

### Park Access

Mile Square is located in northern Orange County, situated to the west of the Santa Ana River, north of the I-405 Freeway. It is surrounded by four arterial roadways: Brookhurst Street, Warner Avenue, Euclid Street, and Edinger Avenue. Brookhurst Street and Warner Avenue are major arterial streets. Euclid Street is an augmented arterial street and Edinger Avenue is a primary arterial street (City of Fountain Valley, 1995). There are two primary vehicular entrances to MISQ: one on Euclid Street, and the other on Edinger Avenue at Ward Street. The Edinger Avenue entrance is signalized. Public transportation routes run along all four roadways around the park with a total of approximately 14 bus stops on the perimeter streets. Bicycle access to park is from bicycle lanes off the intersections of Heil and Brookhurst and Ward and Edinger.

The entrance access fee is currently \$3 per vehicle Monday thru Friday, \$5 per vehicle on Saturday and Sunday, \$7 per vehicle on certain holidays, \$10 per vehicle for Special Events, and \$30 for buses or oversized vehicles. An annual County Regional and Wilderness parking pass is available for purchase, and a reduced-fee annual pass is available for seniors or Distinguished Veterans.

### Parking and Vehicular Circulation

Existing on-site parking provides access to nine separate paved parking lots that can hold approximately 1,000 vehicles, and an unpaved Overflow Parking Lot that can accommodate upwards of 250 vehicles. Visitors also commonly parallel park along the margins of the site, which has approximately 350 additional parking spots. During weekends or peak usage of the park (roughly 30,000 visitors), on-site parking can overflow when full capacity is reached. **Exhibit 2.2** illustrates a breakdown of existing parking supply on and near the site. **Exhibit 2.3** displays where these parking lots are located inside the Park.

Area	Regular	Handicapped	Total
Roadway	109	6	115
Lot A	184	4	188
Lot B	167	9	176
Softball	36	4	40
Lot C	145	2	147
Forest	19	2	21
Lot D	82	4	86
Lot E	86	6	92
Lot F	83	6	89
Lot G	37	5	42
Subtotal	948	48	996
Overflow	250	2	252
Total	1,198	50	1,248

**Exhibit 2.2 Table: Existing Parking Supply**

Legend	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Surface Parking (Total Existing Parking 1,468)</b></p> <p>On-Site - Existing Park Area</p> <p>Parking Lots.....881</p> <p>Roadside.....115</p> <p>Overflow.....250</p> <p><b>Total On-Site.....1,246</b></p> </div> <div style="width: 45%;"> <p>On-Street (Park side only)</p> <p>Edinger.....67</p> <p>Euclid.....90</p> <p>Warner.....65</p> <p><b>Total Street.....222</b></p> </div> </div>	



Exhibit 2.3 - Existing Parking Plan

## Bicycle Circulation

Bicycle connections to MISQ run on Ward Street and Heil Avenue, which contain Class 2 bike paths through signalized intersections. Bicyclists can travel around the park by sharing the road with vehicles and within the park on non-contiguous paved paths and the vehicular road.

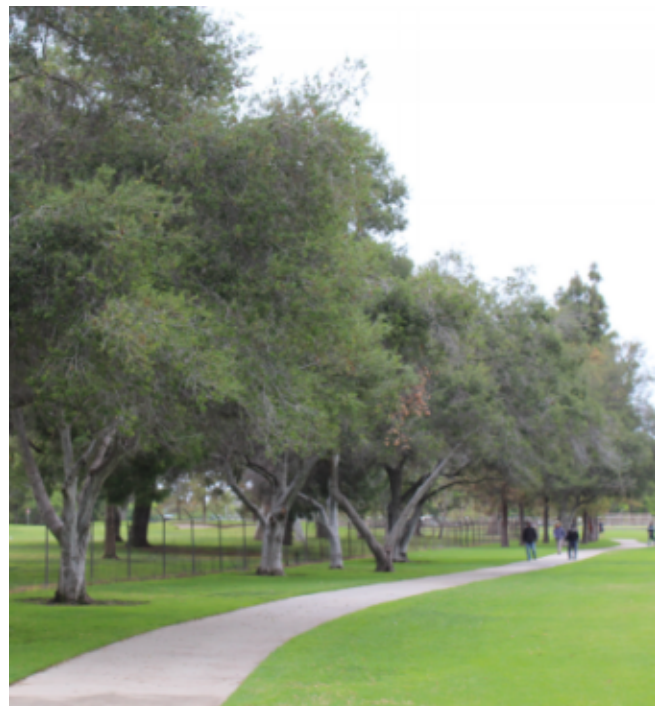
## Pedestrian Circulation

Pedestrians can enter the park from the four surrounding streets: Edinger Avenue, Brookhurst Street, Euclid Street, and Warner Avenue. **Exhibit 2.4** highlights the Existing Site Circulation for traffic and pedestrian access points into the park. In general, there are limited legal crosswalks from the adjacent streets, which may discourage pedestrians to follow traffic laws and safety precautions. The nine signalized crossings along the perimeter of MISQ provide the best opportunities for pedestrians to access the park safely from the surrounding area. Physical connections from sidewalks into the park occur at random locations, depending on the internal pedestrian pathway alignment.

Pedestrian circulation commonly occurs on the meandering paths within the perimeter of the park. While the path system provides space for pedestrians and bicyclists alike, some segments are fragmented and do not provide a direct route for visitors to travel around the perimeter. Some areas like the 12-station Vita Course locations, are interrupted by vehicular crossings that can impact the steady flow of pedestrian circulation throughout the site. However, there is a signaled and painted crosswalk at each location where a park walkway crossed the interior loop road.



*Existing Park Pedestrian Sidewalk and Crossing*



*Existing Park Trail*



**Legend**










 Primary Vehicular	 Trail Loop	 Signalized Intersection with Crosswalk
 Second Vehicular	 Dirt Trail on Turf	 Bus Stop
 Perimeter Pedestrian	 Park Entry	
 Internal Pedestrian		



Exhibit 2.4 - Existing Site Circulation Plan

## 2.4 Physical Resources

MISQ is a fully developed, mixed-use facility with many existing resources. The park is mostly flat in grade with the highest point located northeast of the site and slopes downward towards the southwest. Relatively few trees were present prior to the development of the park, however, many plants have been introduced by the County or during the construction of the golf courses, including turfgrass.

### Drainage

MISQ contains two lakes that collect runoff and feed into a drainage system (**Exhibit 2.5**). The expansion area from Mile Square Golf Course includes multiple ponds and open turf irrigated with reclaimed and well water. Overflow from the ponds on Mile Square Golf Course is discharged through pipes into the open-swale Ocean View Channel that exits the park at the southwest corner under Brookhurst Avenue. Other portions of the Ocean View Channel use swales to carry stormwater from on and off-site .

### Water Table Depth

A geotechnical exploration was conducted on the 93-acre expansion area. Groundwater was encountered in seven of the eight borings drilled at depths ranging from 3.2 to 7.5 feet below ground surface (bgs). The variability in depth to groundwater was largely a function of the existing topography (highs/lows) related to its current use as a golf course (NMG Geotechnical, 2020).

Mapping by the California Geological Survey (Formerly California Division of Mines and Geology) indicates that historic high groundwater levels are five feet bgs (CDMG, 1997). Boring data from other prior improvement projects at MISQ also indicated that groundwater has been encountered between four to 15 feet bgs. (Geo-Etka, 2007, Geotechnical Professionals, 2011, and GeoTek, 2016).



*Mile Square Regional Park - North Pond, 2021*



*Mile Square Regional Park - South Storm Drain, 2019*

**Legend**

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- ..... Runoff
- Drainage Pipe
- - - Water Channel
- Collection Basin
- Street Runoff Intake

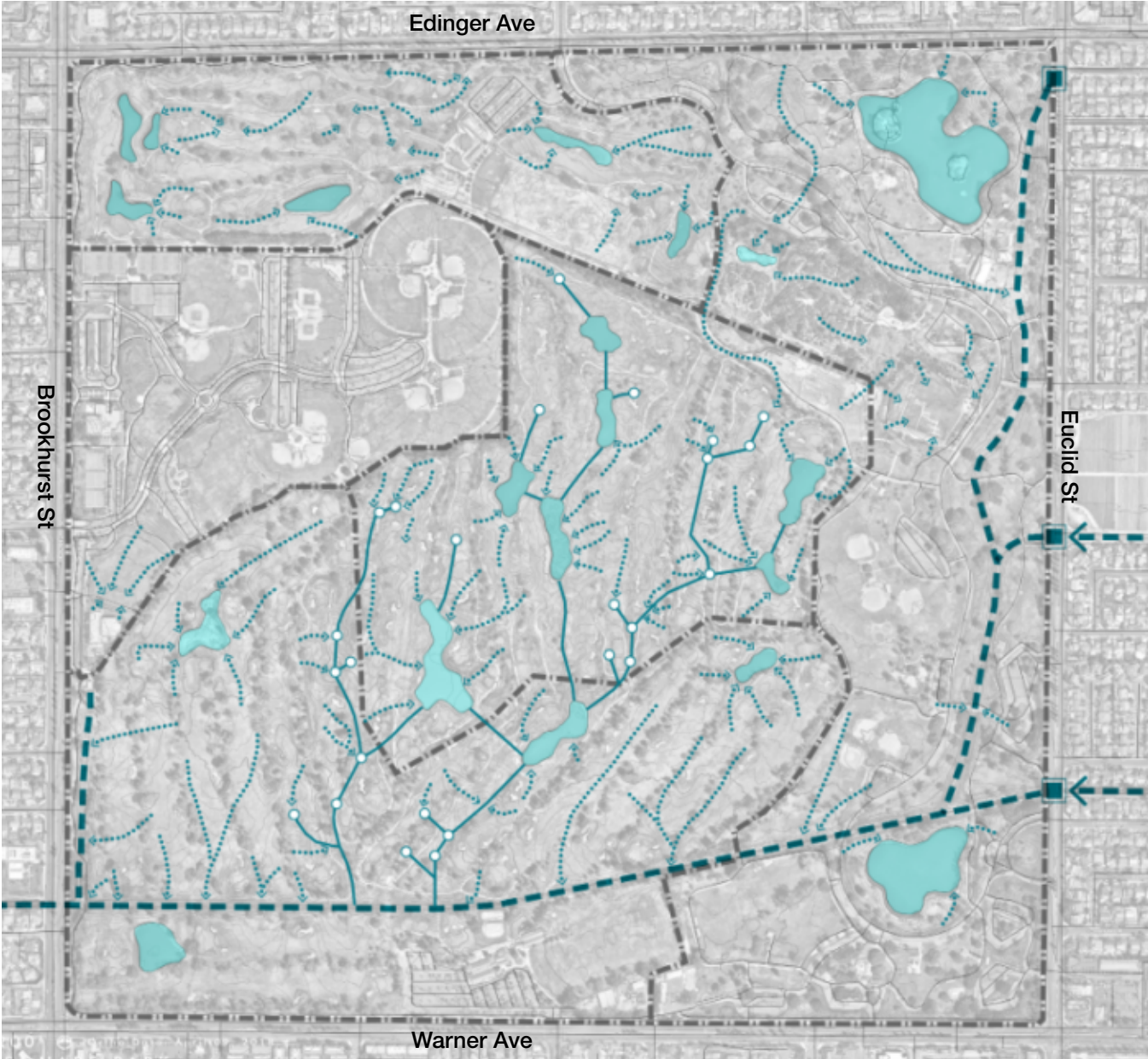


Exhibit 2.5 - Existing Drainage Infrastructure Plan

## Topography

The park is historically flat in grade with a +/- 2% slope (**Exhibit 2.8**). Natural rainfall flows southwest from the northeast corner of the site. There are gentle, man-made berms designed for both MISQ and the golf course that create a functional and aesthetic appeal to the landscape. The largest man-made topographic elements are the mound in the center of the nature area and the berm at the archery range, which serves to prevent stray arrows from endangering the safety of park visitors as well as vehicles in Parking Lot E.



**Exhibit 2.6 - Existing Topography Map**

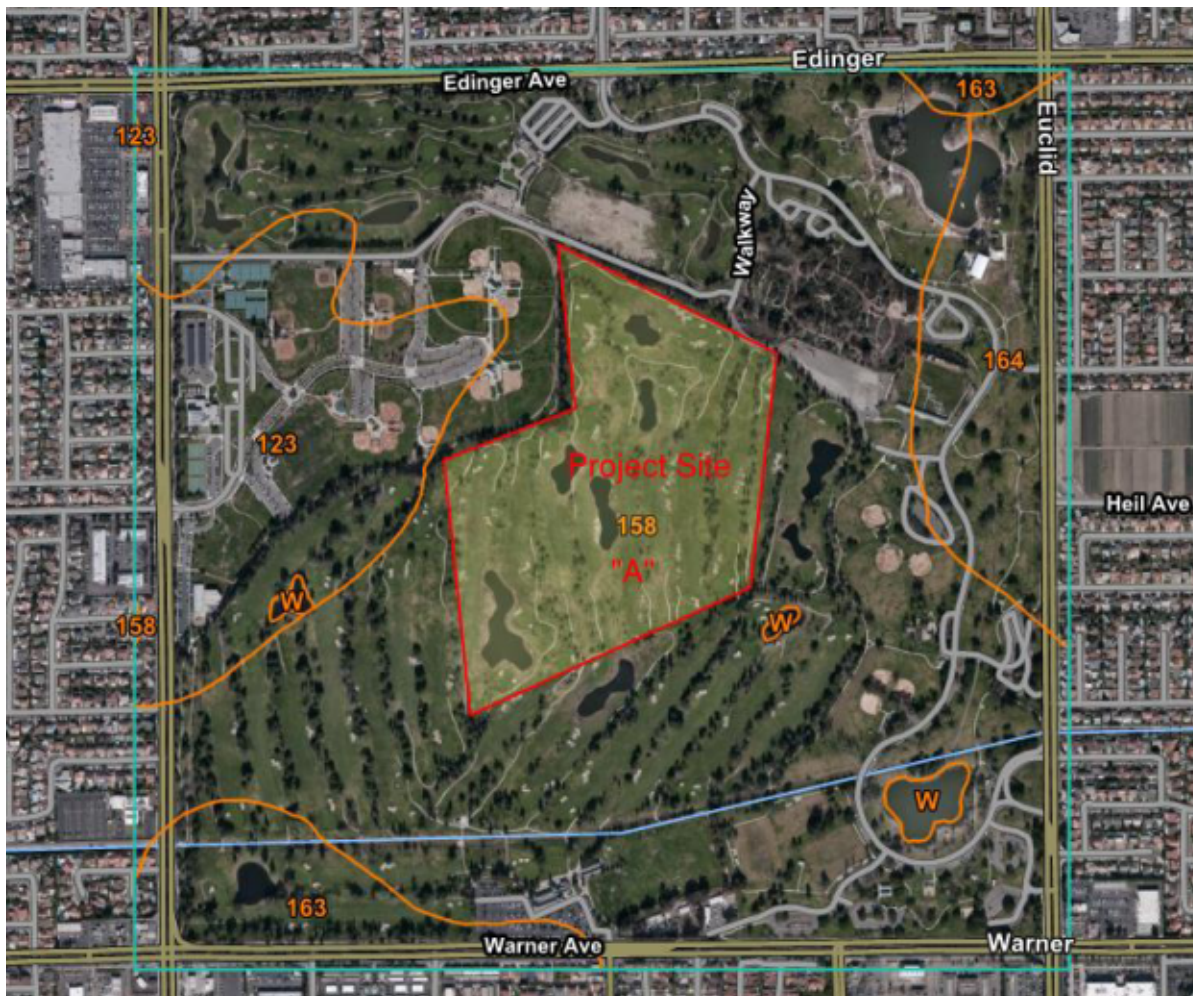
### Soil

MISQ is within Soil Type 'A', based on the USDA Web Soil Survey, (Fusco Engineering, 2020), (**Exhibit 2.9**). Soil Type 'A' is the most stable soil for excavation and is cohesive with a high unconfined compressive strength. Based on the geotechnical exploration conducted for the 93-acre expansion area, the upper 3.5 to 6.5 feet consists of undocumented artificial fill overlying native alluvial soils. The artificial fill materials consisted of light yellowish-brown to gray clean sand and silty sands that are moist to wet and loose to medium dense. The native alluvial soils encountered below the artificial fill consisted of interlayered light yellowish-brown, brown, gray, and dark gray silty fine sand and silt that was wet to saturated. The expansion potential of the soil was very low with expansion indices of 1 and 15. The Soil Corrosivity was classified as "S0" (negligible) per Table 19.3.1.1 pf ACI -318-14 (NMG Geotechnical, 2020).

**Legend**

---

- Area of Interest (AOI)
- Project Site
- Soil Map Unit Polygons



**Exhibit 2.7 - Site Soils Map**

## 2.5 Vegetation

The park is predominantly composed of turfgrass, interspersed with trees, shrubs and groundcover. Most plants are of non-native species but are suitable for the climate in Southern California. With current irrigation methods, these plants provide a cohesive habitat for both people and animals. **Exhibit 2.8** lists the types of existing vegetation within the Nature Center area of the park.

Vegetation Type	Species Name	Common Name
	Acacia saligna	Golden Wreath Wattle
	Araujia sericifera	White Bladderflower
	Artemisia californica	California sagebrush
	Atriplex prostrata	Creeping Saltbush
	Cenchrus longisetus	Feathertop
	Cylindropuntia prolifera	Coast Cholla
	Funaria hygrometrica	Bonfire Moss
	Opuntia engelmannii	Engelmann's Prickly Pear
	Phacelia-campanularia	Desert Bluebells
	Rhus ovata	Sugar Bush
	Romneya coulteri	Coulter's Matilija Poppy
	Salvia apiana	White Sagebrush
	Sambucus-cerulea	Blue Elder
	Trifolium repens	White Clover
	Vachellia farnesiana	Sweet Acacia
	Gazania rigens	Beach Gazanias

**Exhibit 2.8 - Table: Existing Vegetation**

**Legend**

---

- Tree
- Non-Turf



Exhibit 2.9 - Existing Landscape Plan



*Eucalyptus spp.*, Mile Square Regional Park



*Cinnamomum camphora*, Mile Square Regional Park



*Tipuana tipu*, Mile Square Regional Park



*Pinus halepensis*, Mile Square Regional Park



## Trees

MISQ and the area to be expanded from Mile Square Golf Course contain a range of tree species from varying generations. Older trees tend to be on the perimeter of the site and within the adjacent land use boundaries. **The Existing Landscape Plan (Exhibit 2.9)** shows a large portion of trees planted in tight groupings along the northwestern corner of the expansion area. These species include drooping she-oaks (*Casuarina stricta*), Eucalyptus species, Aleppo pines (*Pinus halepensis*), and Canary Island Pines (*Pinus canariensis*).

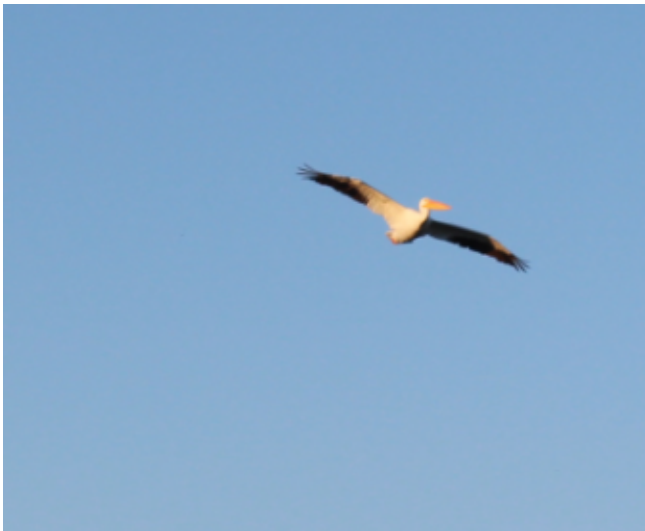
In addition, there is a significant number of California Pepper trees (*Schinus molle*) that are dispersed throughout the 93-acre expansion area. This tree type is noted as doing well in their current conditions due to well-draining soil despite “regular aggressive pruning” (Borer, 2018). One preliminary recommendation is that these trees may be good candidates for conservation if they are placed in areas that receive species-appropriate irrigation where they can dry out between watering cycles. Maintaining the current irrigation practice is not recommended for the long-term preservation of these trees.

According to a preliminary arborist report, one-half of these trees are favorable candidates for long-term conservation if their root zones are strategically preserved. However, some trees are currently experiencing a decline in numbers. There is an absence of foliage along the inner and lower portions of the canopy believed to be caused by the distribution of saline from reclaimed water. There is also structural degradation within the primary branches that have been intensified by persistent defects and subsequent decay in those areas.

The fairways of the golf course are lined with a diverse group of species that contribute to the site’s ecological diversity including: White Alder (*Alnus rhombifolia*), Koelreuteria, Honey locust (*Gleditsia*), Canary Island pine (*Pinus canariensis*), and Black locust (*Robinia pseudoacacia*). However, some trees are described as “immature and underperforming” because of the lack of maintenance that causes “systemic and structural decline.” For example, many Canary Island Pines (*Pinus canariensis*) trees have not responded well to the reclaimed water used for irrigation. Providing structural pruning early in their development can potentially reduce or eliminate these developmental defects. Some issues can be attributed to inappropriate application of irrigation, improper care, poor suitability, or ill-informed pruning practices. Conservation provisions are recommended to ensure that root zones are properly conserved and receive appropriate watering needs.

## Challenges of Shot Hole Borer

Polyphagous shot hole borer (PSHB), *Euwallacea* sp. is an invasive beetle that attacks dozens of common native and landscape trees. The tiny beetle tunnels into host trees and spreads *Fusarium dieback* (FD), a disease known to infect over 110 tree species. FD is caused by *Fusarium euwallaceae*, a fungus that disrupts the transport of water and nutrients in the tree, leading to branch dieback and overall decline (University of California, n.d.). Relatively unknown until the early 2000s, early discovery of infestation existed primarily in fruit orchards. In 2010, PSHB was the presumptive cause of the death of a large number of Box Elder street trees in Long Beach (University of California, n.d.). The PSHB has infected many of the trees in Mile Square and has been difficult to control. It has done the most damage to California Sycamore trees within the Park. The County continues to manage the infestation as it is a major concern for the long-term health of all the trees.



*American White Pelican*



*Fox Squirrel, Park Trail*



*Egyptian Goose and Canada Goose, North Lake*



*American Coot, North Lake*

## Wildlife

Mile Square is home to many different species of wildlife, some migratory and some permanent. The vibrant community of urban wildlife includes a variety of insects, birds, water fowl and mammals. Proportionally, there are more birds than any other animal type in the park. The website “iNaturalist.org” is an observation and tracking resource that uses crowdsourcing-style input to track animals. It has been observed and documented that 42 species of birds have been recorded at the park. It is unclear how many of those are migratory or residents, however, a large percentage of birds are waterfowl due to habitats created by pond infrastructure. Common bird species in the park are the Egyptian Goose, Canada Goose, Mallards, American Coot, Cackling Goose, and the American Wigeon. There have been species sighted in the Park that are protected under the U.S. Migratory Bird Act, such as the Double-crested Cormorant and the Black-crowned Night Heron (U.S. Fish and Wildlife Service, 2020).

Other species in the park include squirrels, the Western Pond Turtle and the Red Eared Slider. Coyotes have been regularly spotted, with at least one den site located inside the Nature Area, with other packs likely entering the park from the Santa Ana River or other open spaces. In 1993, the California Department of Fish and Game published a study about the Red Fox population that were introduced into certain research sites in Orange County, with Mile Square as one of the areas. Approximately 10 fox were tagged for monitoring at Mile Square (Cal Fish and Wildlife, 1993). The presence of food remnants at the fox dens is evidence of an abundance of food for the fox at Mile Square. It is uncertain if the Red Fox remains at the park.

## 2.7 Visual Character

Set within a suburban context, Mile Square is a verdant, picturesque landscape with natural curves despite its rectilinear context. Known for its wide-open acreage, the site is unencumbered by large landforms, which allow for scenic views of the San Gabriel and Santa Ana Mountains. The vehicular road that begins on Euclid Street meanders through the park, and provides a panoramic view of the park before exiting at Ward Street.

One of the most striking features of the park is the abundance of trees in both MISQ and the golf course (see section 2.5 Vegetation for additional tree information). Uniformly spaced between the park’s flat topography, the trees offer visual transparency throughout the park while enclosed by the towering height of their canopies.

## Architectural and Artistic Elements

MISQ has a number of unique and notable features in the park. In addition to the various buildings and utility structures in the park, there are also sculptures, bridges, a tunnel, and gazebos.

**Cultural Elements** - Typical of other public parks, MISQ has public art reflecting the community it serves. In the Freedom Field area of MISQ, there are 3 statues that were added to the park between 2015 and 2018. A bronze statue of Ronald Reagan was unveiled and dedicated on June 12, 2015 (LA Times, 2015). Following the Reagan statue, another bronze statue of 13th century Vietnamese General Tran Hung Dao was placed in the field. The statue was dedicated on January 19, 2016 (Voice of OC, 2015). The third statue that rings Freedom Field is a bronze statue of Mexican revolutionary, Reverend Miguel Hidalgo. The last of the trio of sculptures was dedicated on July 8, 2016 (New Santa Ana, 2016). The three statues, all located within Freedom Field, create the most civic of spaces in the park. Freedom Field, Freedom Hall and Freedom Lake are the central amenities used during the Tet Festival every year.

**Bridges** - When the park was expanded in 1976, the north lake was completed, and Palm Island, located in the lake, was created as a destination. Linking the island to the lake perimeter are two bridges made of metal and wood. In addition to providing access to the island, the bridges provide pedestrians with an experience close to the water. One bridge is approximately 60' long and the other is approximately 20' long. There are several more wooden pedestrian bridges throughout the park which span across the drainage channels. These pedestrian bridges allow pedestrians to circulate throughout MISQ utilizing interior walkways.

**Palm Island Gazebo** - Palm Island features a traditional gazebo that is approximately 16' across and is octagonal shaped. The structure is made from wood and has a weatherproof roof. Small groups can use the structure for gatherings, and the gazebo can be rented for wedding ceremonies.

**Tunnels** - In the northern part of the park, the vehicular road rises up to create a pedestrian tunnel allowing safe and free movement under the park road. The structure is steel and concrete and approximately 8' tall and 20' wide. The road slowly rises over the tunnel and the side slopes are planted with mature trees and grasses, creating a nice feature for the tunnel to pass through. The tunnel allows for surface drainage to pass through to the south.



Ronald Reagan Statue, Unveiled 2015



General Tran Hung Doa Statue, Unveiled 2016



Miguel Hidalgo Statue, Unveiled 2017



Mile Square Golf Course - North Pond Bridge, 2021



Mile Square Regional Park - Pedestrian Bridge, 2019

## 2.8 Built Structures and Recreational Facilities

MISQ has recreational and personnel facilities dispersed throughout the park. There are numerous picnic areas, including four large group picnic shelters each with a capacity for 500 people. A multi-use facility (Freedom Hall), is an approximately 10,000 square foot structure that can be used for meetings, gatherings, and indoor sports/recreation. This building opens onto a west facing concrete patio, which connects directly to Freedom Field. The informal field has meandering sidewalks that connect the statues of Ronald Reagan, General Tran Hung Dao, and Reverend Miguel Hidalgo. This space creates a civic quality in an informal fashion. Additional small structures scattered throughout the park, include eight public restrooms (each with 10 individual restroom stalls). A gazebo on Palm Island the northern lake has been used for weddings, gatherings and is popular for photographs. Active amenities include a world-class public archery range, 12 fitness Vita-Course stations, six baseball/softball fields, three soccer fields, a sand volleyball court, bicycle and paddle boat rental concession stands, and a splash fountain. For personnel use, there is a Ranger Station and a maintenance facility that assists park regulation and operations.



*Mile Square Regional Park - Park Gazebo, 2019*



*Mile Square Regional Park - Freedom Hall, 2021*



*Mile Square Regional Park - Restroom Structure, 2019*



*Mile Square Regional Park - Picnic Shade Structure, 2019*

## 2.9 Utilities

Park operations are dependent upon a consistent supply of water and electric utilities. Like any other public space, potable water is needed for drinking and cleaning, as well as sewage for water and waste disposal. Lakes, ponds, and stormwater runoff rely on an underground piping system that drains, stores, filters, and pumps water for irrigation. The drainage infrastructure conveys storm water run off into the Ocean View Channel. **Exhibit 2.12** illustrates a list of utility services and providers within the park. The presence of multiple utility suppliers ultimately requires full collaboration for existing or proposed park improvements. Any utility providers are encouraged to propose more efficient techniques to further improve existing park utilities.

Utility Provider	Utility Service
Southern California Edison	Electricity
City of Fountain Valley	Water
OC Public Works	Sewer
OC Flood District	Stormwater Drains and Stormwater Channels
OC Water District	Green Acres Program Recycled Water

**Exhibit 2.10 - Table: Utility Providers**

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*Existing Drainage Channel and Circulation Bridge*



An aerial photograph of a park area. The park features large green grassy fields, several winding paved paths, and scattered trees. To the left, there is a parking lot with several spaces. In the background, a residential neighborhood with houses and streets is visible. The text 'CHAPTER 3' is positioned above 'OPPORTUNITIES & CONSTRAINTS', with a dotted line separating the two lines of text.

**CHAPTER 3**  
.....  
**OPPORTUNITIES & CONSTRAINTS**



*Mile Square Golf Course - Border Planting, 2019*

## 3.1 Introduction

This chapter examines the potential opportunities and constraints attained by the new development of Mile Square Regional Park (MISQ). Building on the existing conditions described in the previous chapter, this will allow OC Parks to establish new connections, amenities, and programs that will cater to the public.

## 3.2 Regional Agency Partnerships

MISQ is a part of a network with 25 other regional, historic, and wilderness parks and beaches in Orange County. Established in 2008 and housed within the Orange County Community Resources agency, OC Parks is well positioned to take on the challenges and opportunities of the present and to be “champions of the land for a thriving community” (OC Parks, 2018).









### Water

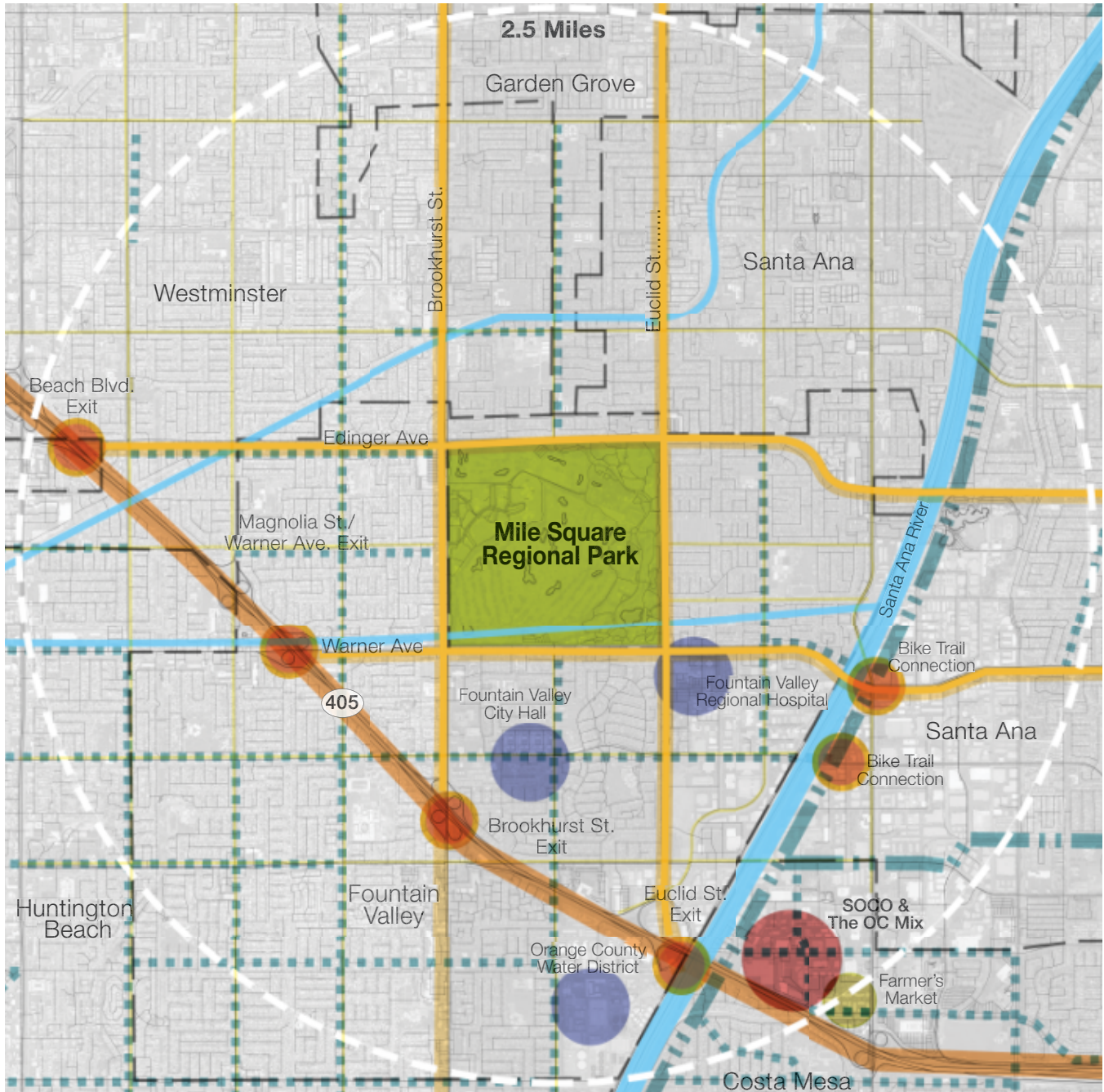
Because MISQ is a county park, it is well-suited for collaborative partnerships with other local and regional agencies. The park is among 100 other sites and facilities in the county that has partnered with the OC Water District for the Green Acres Program (GAP). GAP is a “water-reuse program that provides recycled water for landscape irrigation at parks, schools and golf courses,” and has been servicing the cities of Costa Mesa, Fountain Valley, Huntington Beach, Newport Beach, and Santa Ana since 1991 (Orange County Water District, n.d.).

MISQ is also host to and in proximity of critical drainage infrastructure that either falls within municipal or other government jurisdiction (**Exhibit 3.1**). The drainage channel C06 (the Ocean View Channel) that runs east to west within the park is overseen by OC Flood Control. Located southwest of the park are two drainage outfalls that are operated by the City of Fountain Valley.

The Green Acres Program and the stormwater channel are two pieces of drainage infrastructure that can provide valuable collaborative opportunities to address drainage and stormwater runoff in the Master Plan and future expansion area within the park.

**Legend**













 Government	 Natural Reserves	 Major Access Points
 Shopping/Entertainment	 Water Drainage	 Class I Bike Trail
 Farmer's Market		 Class II Bike Trail



**Exhibit 3.1 - Neighborhood Context Map**

### **Local Municipalities**

MISQ serves as a vast green space among other neighborhood pocket parks. It is also accompanied by two other significant municipal open spaces that are located within 10 miles of the site. Newport Upper Bay Nature Preserve, a 1,000-acre ecological preserve that consists of coastal wetlands, is eight miles away. Huntington Beach Central Park, a municipal park, is six miles away. There is also an extensive ecological preserve called Bolsa Chica wetlands, located within the City of Huntington Beach. These nearby natural areas help provide context of nearby surrounding open spaces in North Orange County.

Legend					
	Government		Natural Reserves		Orange County Line
	Education/Institutional		Water Drainage		Inland Empire Line
	Shopping/Entertainment		Transportation		Class I Bike Trail
	Farmer's Market		Major Access Points		Class II Bike Trail

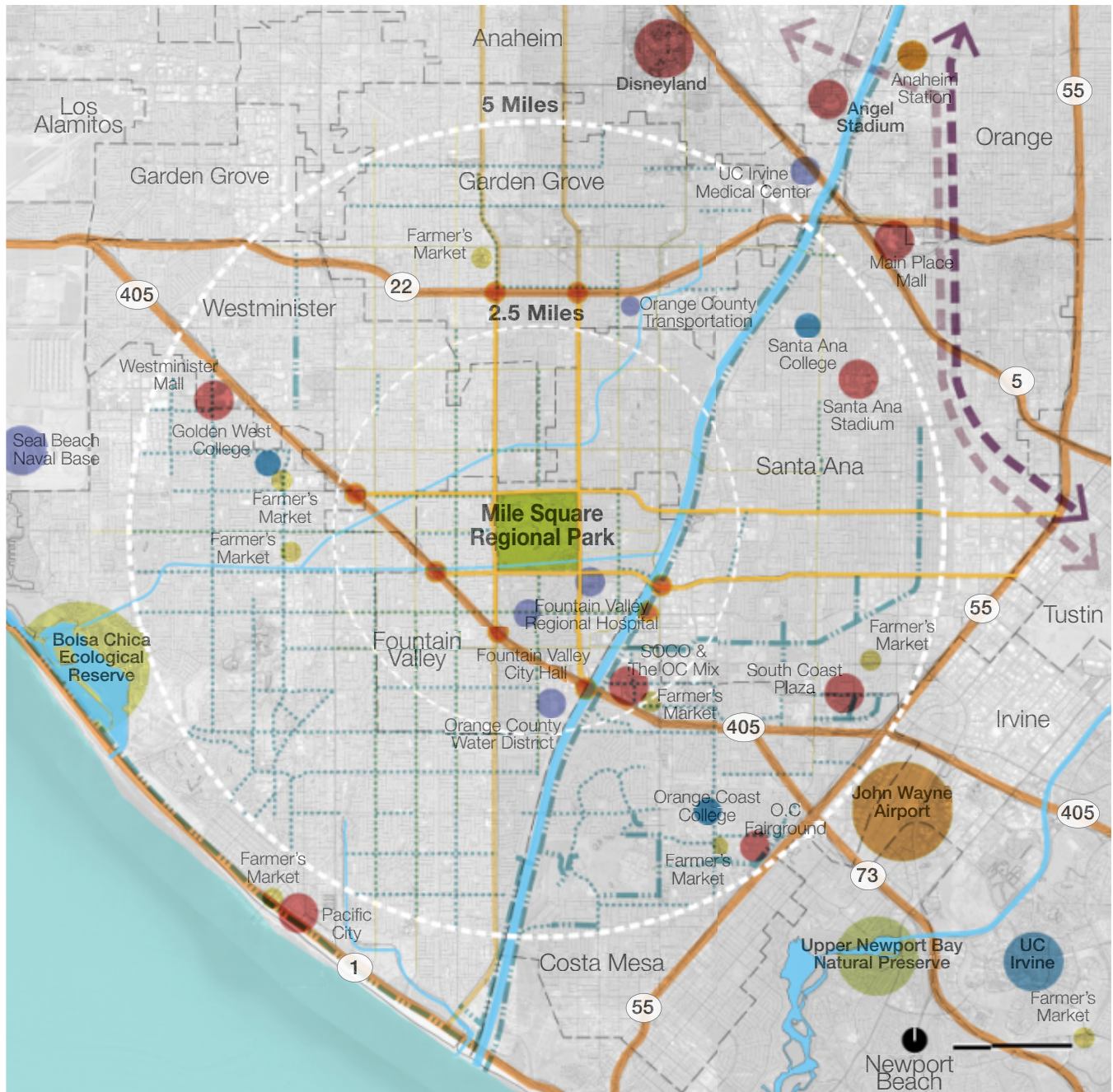


Exhibit 3.2 - Regional Context Map



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## 3.3 Connections

### Social/Community

Since MISQ is one of the few urban regional parks in northwest Orange County, it serves many neighborhoods in multiple cities (**Exhibit 3.3**). The park is noteworthy of its physical transparency, providing usable space easily accessible for community events such as cultural celebrations and nature walks.

### Bicycle

There is a visible presence of bicyclists at MISQ, who share the road with pedestrians and vehicles. The expansion will provide more diverse routes for cyclists to explore the park. MISQ is near the Santa Ana River West Trail, stretching 22.8 miles of protected bike path that currently spans from Yorba Linda to Huntington Beach (**Exhibit 3.2**). This corridor serves as both a bicycle and pedestrian trail that ultimately aims to connect Orange County to Riverside County. Understanding the surrounding networks beyond the regional park is an important facet to planning and urban design that will contribute to the overall success of the park.

### Pedestrian







A cohesive pedestrian system is fundamental for an enjoyable visitor experience in the regional park. By creating new paths for pedestrians in the expansion area, the goal is to broaden walkability opportunities that builds on an established infrastructure in the park.



*Mile Square Regional Park, 2019*

**Legend**

---

 Primary Arterial	 Secondary Neighborhood Street
 Secondary Arterial	 Residential Area
 Primary Neighborhood	 Signalized Intersection with Crosswalk

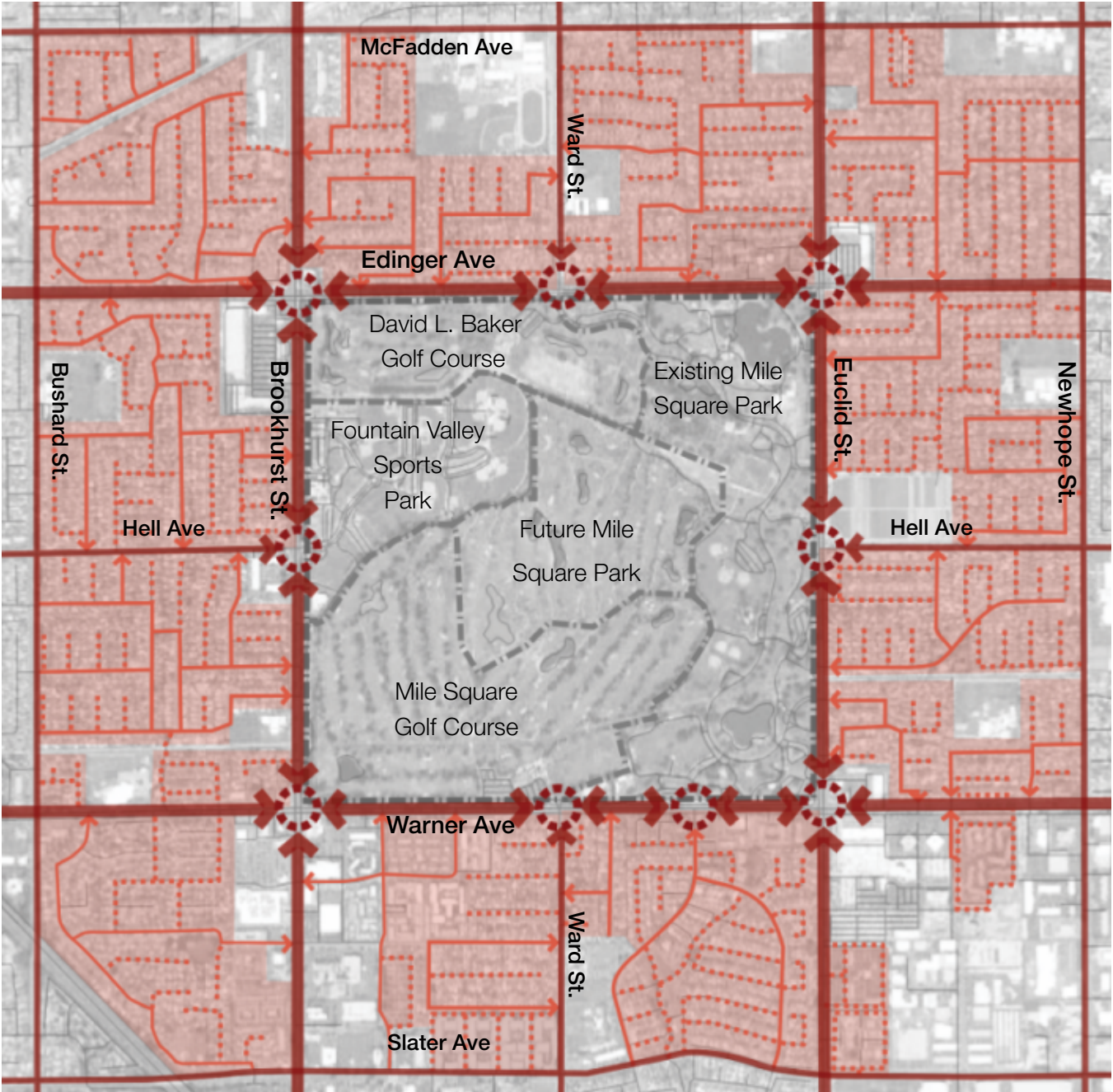


















Exhibit 3.3- Neighborhood Circulation

## 3.4 Opportunities and Constraints

In summary, the strengths in MISQ are in its inherent qualities, where existing elements can be improved or enhanced. **Exhibit 3.5** illustrates the locations of opportunity enhancements within Mile Square, and **Exhibit 3.6** presents a table of the opportunity and constraints of these items broken down per improvement type.

**Legend**

	Naturalize channel		Buffer (golf activity)		Expand existing nature center
	Utilize existing ponds		Entry infrastructure		Enhance perimeter edges
	New park entry point		Add Parking		Enhance trail
	Enhanced pedestrian connection		Connection to new park		Expand sport/athletic fields
	Relocating maintenance area		Nurture existing heritage		
	Update circulation/pedestrian paths		Great views/lookout point		

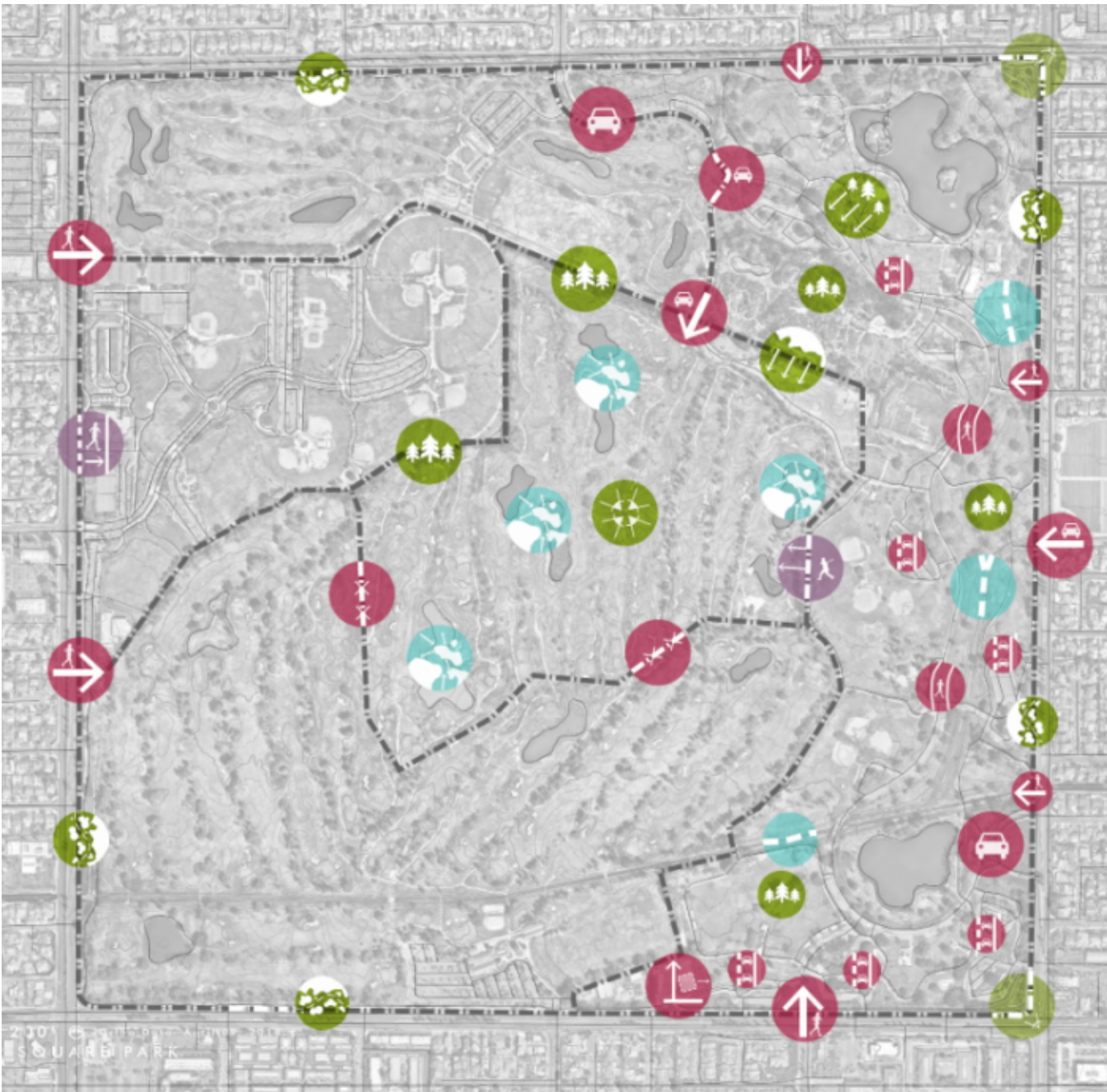


Exhibit 3.4- Site Opportunities Diagram

Type	Opportunity	Constraint
Circulation	<ul style="list-style-type: none"> <li>• Create pedestrian connections to planned program elements form existing park circulation</li> <li>• Develop and promote bike connections to existing bike path networks (OC Loop, Santa Ana River trail</li> <li>• Improve pedestrian circulation around the perimeter of the existing park, and integrate continuity throughout the 93-acre expansion</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnected pathway system throughout park</li> <li>• Pedestrian access to site is limited due to all four sides by major collector roads that are heavily trafficked by automobiles</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Provide more space for OC Parks educational and interpretive programs</li> </ul>	
Grading and Drainage	<ul style="list-style-type: none"> <li>• Create and enhance a visually dynamic landscape from existing golf landforms</li> <li>• Modify existing lake(s) or drainage channels to promote green stormwater infrastructure</li> <li>• Availability for the park to service the regional drainage system infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Existing pond volumes and infrastructure</li> <li>• Existing high water table</li> <li>• Flat site</li> </ul>
Historic	<ul style="list-style-type: none"> <li>• Celebrate historical footprint of airfields</li> </ul>	
OC Parks Mission & Values	<ul style="list-style-type: none"> <li>• Advocate for key values and stakeholder input from OC Parks Strategic Plan (environmental restoration, open space, new trails/ bikeways) (refer to Chapter 4)</li> </ul>	

**Exhibit 3.5 - Table: Opportunities and Constraints**

Type	Opportunity	Constraint
Recreation	<ul style="list-style-type: none"> <li>• Increase space for flexible events and programming</li> <li>• Promote connections to existing Nature Area</li> <li>• Improve aesthetic around the park to further invite a variety of users</li> </ul>	
Sustainability & Habitat / Restoration	<ul style="list-style-type: none"> <li>• Address sustainable measures at OC Parks through reduction in turf maintenance and selection of salvaged or sustainable materials</li> <li>• Connect to new ground water well on-site for use of landscape irrigation at MISQ through Orange County Water District's Green Acres Program (GAP)</li> </ul>	
Vehicular Circulation/ Parking	<ul style="list-style-type: none"> <li>• Opportunity to add or make existing parking more efficient</li> <li>• Opportunity for new park entry point</li> </ul>	
Arboriculture	<ul style="list-style-type: none"> <li>• Opportunity to provide park with a tree reforestation program that will be regionally appropriate</li> </ul>	<ul style="list-style-type: none"> <li>• A disarray of tree species that will require different needs</li> <li>• Existing infestation of Polyphagus Shot Hole Borer insect</li> <li>• Existing irrigation contains high levels of salts (reclaimed water)</li> </ul>
Operations	<ul style="list-style-type: none"> <li>• Create space for overflow parking during large community events</li> <li>• Expand critical OC Park facilities and infrastructure</li> <li>• Provide a new maintenance yard</li> <li>• Provide a new park office</li> </ul>	<ul style="list-style-type: none"> <li>• Building multimodal connections requires multiagency support and broad community support and coalition</li> </ul>

Exhibit 3.5 - Table: Opportunities and Constraints (Continued)

## 3.5 Conclusion


Opportunities and constraints will affect the phasing and timing of improvements for the MISQ expansion. Regardless of either, many factors rely on existing elements of the park. For example, the park's history as an airbase physically shaped the layout of the expansion design. Transforming the existing pedestrian network will provide opportunities for a more comprehensive plan, but may be limited based on the existing system. The current programs have offered a variety of activities for the public to enjoy, and the additional 93 acres will allow the accommodation for larger events to occur at the park. The constraints facing the expansion area will provide some challenges for new development, especially during peak demands that attract large crowds. However, the overall prospect of the expansion area will create many more exciting experiences for visitors and surrounding communities.





*Existing Mile Square Regional Park Urban Nature Area*





# CHAPTER 4

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# PLANNING PROCESS



*Mile Square Regional Park - Freedom Hall and South Lake, 2021*

*Mile Square Golf Course, 2019 (previous page)*

## 4.1 Introduction

As part of the planning process for the Master Plan, the design team participated in three public meetings and three tabling events, which included paper surveys, written responses, and public concept sketches. Comments and suggestions were also accepted through email and the survey was available online. For nearly two years, the design team developed Master Plan alternatives that were presented at the first and second public workshops. These workshops were intended to share proposed design concepts for additional park facilities and receive input about current and desired elements of the park.

The public survey asked for feedback on different components of the existing park area and future uses for the 93-acre expansion. As a result of the outreach, the collective responses from neighbors and frequent users created a set of instrumental goals that guided design objectives. (See Appendices for additional data collected on public engagement.)

## 4.2 Public Meeting #1

The first community meeting for MISQ took place on the evening of January 16, 2019 at Freedom Hall. Participants were invited to the meeting through postcards mailed to surrounding neighborhoods, flyers distributed at the park, and social media outlets of OC Parks. Flyers and banners were also posted at nearby retail stores and restaurants, at the community center in Fountain Valley, and at major intersections near MISQ.

The meeting drew more than 250 participants, all of whom were greeted with a formal presentation about the research, goals, and the design concepts. The presentation focused on three main topics: park history, existing conditions, and general concept design goals. The site analysis and inventory included a “parks needs assessment” within a five-mile radius of the park (**Exhibit 4.1, 4.2, 4.3**) to highlight the need for certain types of programming within the community. Attendees were encouraged to send feedback via paper survey and were given drawing materials to sketch their ideas on a blank site plan. As a result, the data collected from this meeting and through online surveys prompted two planning design concepts, which were presented at the second public meeting.



*Public Meeting #1, 2019*



*Public Meeting #1, 2019*

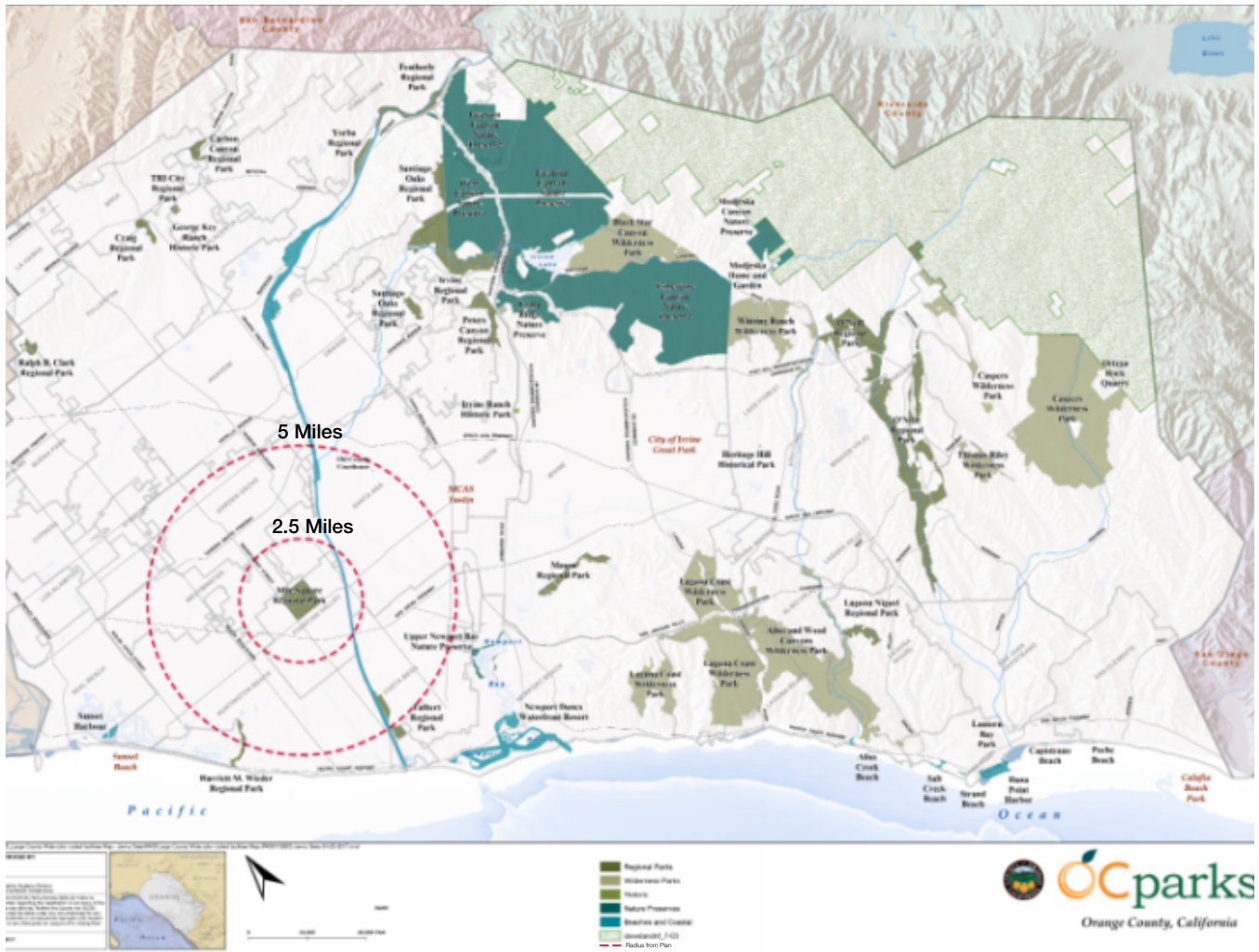


Exhibit 4.1- Regional Park Assessment

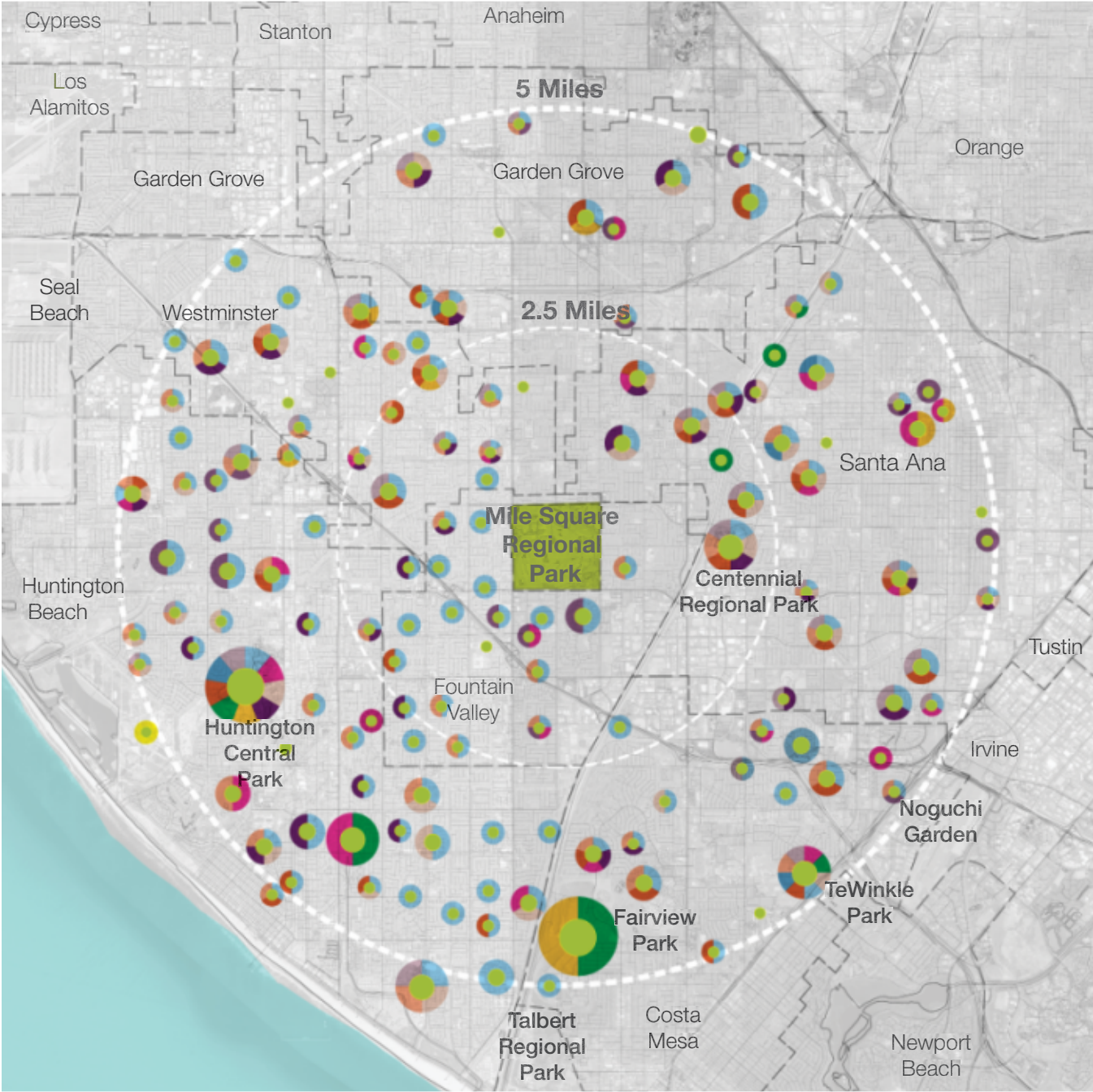
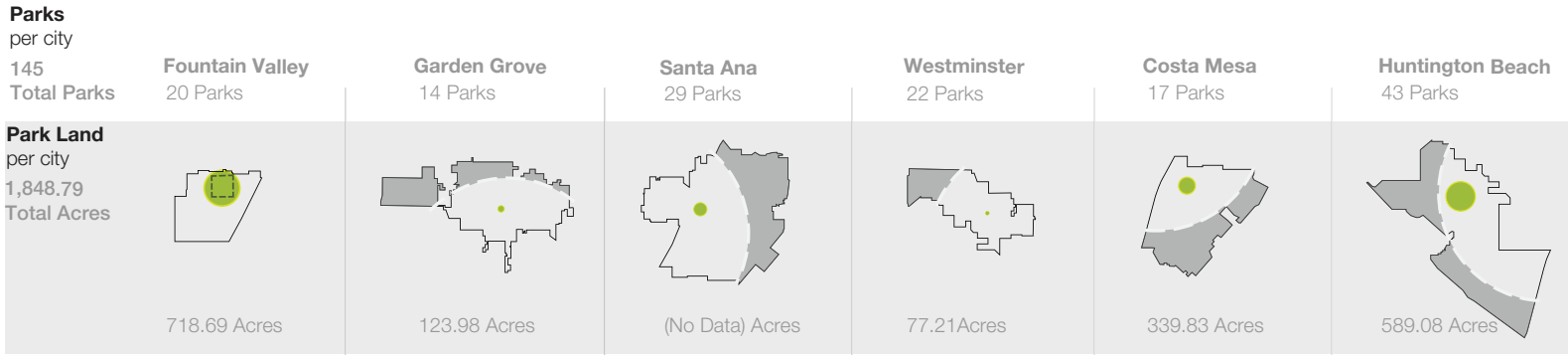


Exhibit 4.2 - Amenities Assessment by City

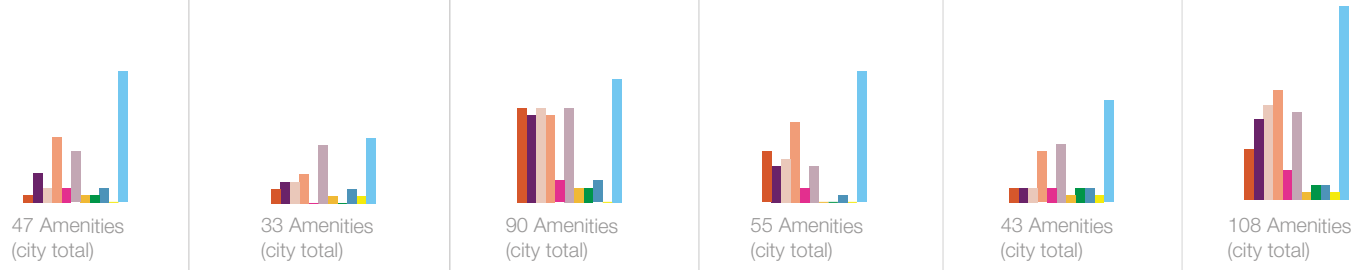
**Legend**

Playground	Event Venue	Dog Park
Natural	Tennis Court	Basketball Court
Baseball Field	Culture	Multiuse Field
Soccer Field	Special Feature	

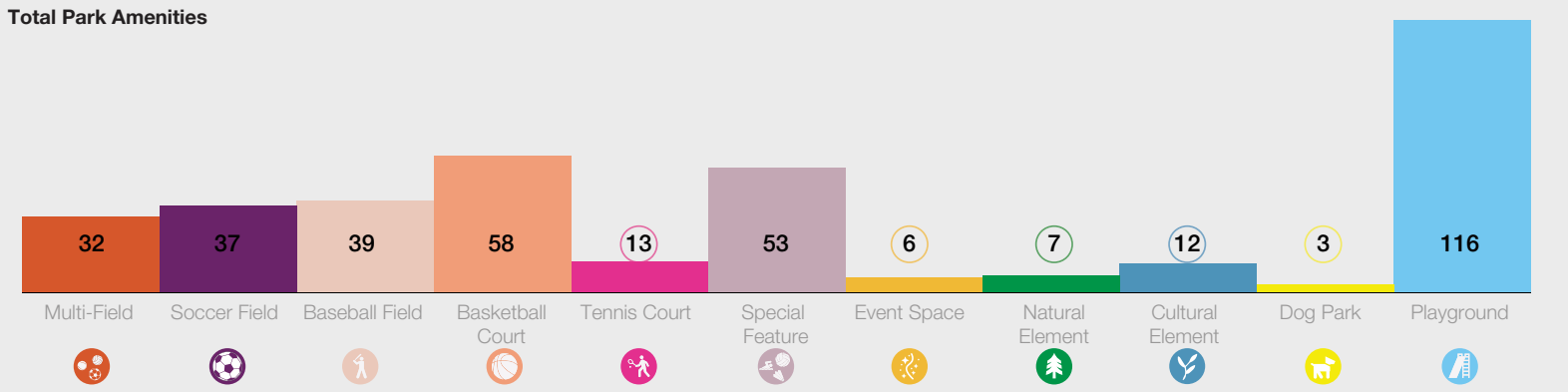
**Exhibit 4.3 - Parks Assessment by City**



**Park Amenities per city**



**Total Park Amenities**





# Mile Square Regional Park Expansion



The County of Orange, OC Parks is in the process of planning and designing a 93-acre expansion to the regional park. This process will provide opportunities for public input during several phases of design and development.

The process is currently in **Phase 2**, which included a public engagement event on **August 15**. The next step will be to finalize the design with consideration of the feedback from the public. A final design and Master Plan for Mile Square Regional Park will be released in spring of 2020.

## Open House August 15, 2019

The second public engagement event was held in conjunction with the OC Parks Summer Concert Series. The County of Orange, OC Parks presented design options for public feedback on the 93-acre expansion to the regional park. Over 150 people attended the Open House visiting interactive stations to review proposed park improvements.

## Community Meeting January 16, 2019

[View Presentation](#)

### Postcard Invitation

**Date:** Wednesday, January 16, 2019

**Time:** 6:30 pm – 8:30 pm

**Location:** Freedom Hall, Mile Square Regional Park

For more information, please email [milesquareexpansion@ocparks.com](mailto:milesquareexpansion@ocparks.com), or call (714) 973-6865.

*OC Parks Website with Public Meetings Post*



## 4.3 Public Meeting #2

The feedback from the first public meeting resulted in two concept plans that were presented to the public on August 15, 2019 in an open house-format meeting. The programming for these two plans are consistent with each other, and include an open lawn, an amphitheater, a mixed-use field, an adventure playground, a botanical garden, and a relocated youth group campground. Option 1 preserved the triangular imprint of the historic airfield, to reflect the delineation of the landing strips. Option 2 included organic forms to create a natural experience that is common in regional and wilderness parks in Orange County.

Design elements proposed in both Option 1 and Option 2 include:

- Fitness/passive garden
- Reforestation of the park boundary
- Pavilion
- Picnic areas
- Plaza
- Historical timeline promenade (Option 1 only)

The following existing elements are to remain:

- Ponds/water elements
- Trees
- Nature Center



*Public Meeting # 2, 2019*



Public Meeting # 2, 2019



Public Meeting # 2, 2019

## 4.4 Public Surveys

Community input was gathered at multiple events during the planning process: the first community meeting, on the OC Parks project webpage, on Monarch Butterfly Day, during the Fountain Valley Summerfest, and at an OC Parks Outdoor Summer Concert. Paper surveys were available to public meeting attendees for written feedback. Online surveys were available until June 17, 2019 to those who were unable to attend the public meeting. Additional public outreach occurred on Monarch Butterfly Day (May 25, 2019) at MISQ, during the City of Fountain Valley's Summerfest (June 21-23, 2019), and at the OC Parks sponsored Summer Concert (August 8, 2019) at MISQ. OC Parks' kiosks were present to answer questions regarding the expansion of MISQ and provided paper surveys for input on future design of the space. A total of 1,621 public surveys were collected and analyzed.

## 4.5 Workshop Summaries and Participant Feedback

The following is a summary of key design issues and concept alternatives from the park expansion planning process. Four main design goals emerged from the public meetings and community stakeholder surveys:



1

Connect with Nature



2

Create a Multiuse Open Space



3

Improve Circulation and Hierarchy



4

Promote Education & Engagement

### Exhibit 4.4- Design Goals

## Participant Feedback

The survey had four introductory questions that solicited participants to identify the distance from their place of residence, the age group of their household, the frequency of their visits, and their mode of transportation. The survey also asked participants to rank their top three current park activities, park amenities, and events/programs. Finally, participants were asked to select their three preferred activities, amenities, and programs for the expansion area at MISQ.

During the planning process, participants also noted that golf was a desired activity that should remain at Mile Square Golf Course. While golf is not currently an activity within the existing boundary of MISQ, many stakeholders indicated golf as an essential component, with some expressing its affordability compared to other courses in the area. This feedback was provided in the “Other” category of the survey.



# MILE SQUARE REGIONAL PARK

## Activities & Amenities Survey

### Introductory Questions:

1. How far do you live from Mile Square Regional Park?

- .25 Mile (1 Min. Drive or 5 Min. Walk)       1 Mile (5 Min. Drive or 20 Min. Walk)   
 .5 Mile (3 Min. Drive or 10 Min. Walk)       1.5 Miles (8 Min. Drive or 30 Min. Walk)       Other

2. How often do you come to the park?

- Daily       Weekly       Monthly       Occasionally       Never

3. Which age groups reside in your household? (Mark all that apply.)

- 0 - 6       7 - 12       13 - 18       19 - 30       31 - 50       50 - 65       65 +

4. How do you get to the Park?

- Walk       Bike       Drive       Public Transportation

### What current activities and amenities do you like at Mile Square Regional Park?

#### PARK ACTIVITIES:

Select Your Top Three

- Picnics
- Walking
- Running
- Bicycling
- Relaxing
- Badminton
- Team Sports
- Tai Chi
- Fishing
- Archery
- \_\_\_\_\_
- \_\_\_\_\_

#### PARK AMENITIES:

Select Your Top Three

- Picnic Tables
- Benches
- Drinking Fountains
- Volleyball Courts
- Sports Fields
- Lakes
- Walking Paths
- Exercise Stations
- Playgrounds/ Tot Lots
- Restrooms
- Archery Range
- \_\_\_\_\_
- \_\_\_\_\_

#### EVENTS & PROGRAMS:

Select Your Top Three

- Tet Festival
- Athletic Events
- Outdoor Concerts
- Art Exhibitions
- Holiday Celebrations
- Nature Walks
- School Field Trips
- Camping
- Corporate Picnics
- Family Celebrations
- \_\_\_\_\_
- \_\_\_\_\_







# MILE SQUARE REGIONAL PARK

## Activities & Amenities Survey

What future activities and amenities would you like to have in the Mile Square Regional Park expansion area?

**PARK ACTIVITIES:**  
Select Your Top Three

- Picnics
- Walking
- Running
- Bicycling
- Relaxing
- Tai Chi
- Team Sports
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**PARK AMENITIES:**  
Select Your Top Three

- Picnic Tables / Benches
- Drinking Fountains
- Volleyball Courts
- Soccer Fields
- Baseball / Softball Fields
- Nature Center
- Walking Paths
- Exercise Stations
- Playgrounds/ Tot Lots
- Amphitheater
- Botanic Garden
- Art
- Open Lawn
- Interpretive Center
- Lakes
- \_\_\_\_\_

**EVENTS & PROGRAMS:**  
Select Your Top Three

- Farmers Market
- Outdoor Films
- Outdoor Concerts
- Art Exhibitions
- Holiday Celebrations
- Nature Walks
- School Field Trips
- Camping
- Corporate Picnics
- Family Celebrations
- Athletic Events
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**QUESTIONS:**

1. Do you have any additional comments or feedback on the proposed park expansion?  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for participating!



## Survey Results

Total Number of Surveys: 1,621

### Preferred Current Activities and Amenities with tallied votes

#### Activities

\*Running and Walking: 218

\*\*Bicycling: 185

Relaxing: 185

Picnics: 137

Team Sports: 86

#### Amenities

Walking Paths: 325

Picnic Tables: 176

Lakes: 218

Sports Fields: 171

Restrooms: 19

### Preferred Future Activities and Amenities with tallied votes

#### Activities

\*Running and Walking: 748

\*\*Bicycling: 338

Relaxing: 378

Picnics: 404

Team Sports: 206

#### Amenities

Picnic Benches: 303

Walking Paths: 391

Lakes: 325

Botanic Garden: 286

Nature Center: 333

### "Other" / Written Comments

#### Activities / Amenities

Golf

Model RC Aircraft field/space

Birding

Pickleball

Dog park

Large trees/forest

Swimming pool/splash pad

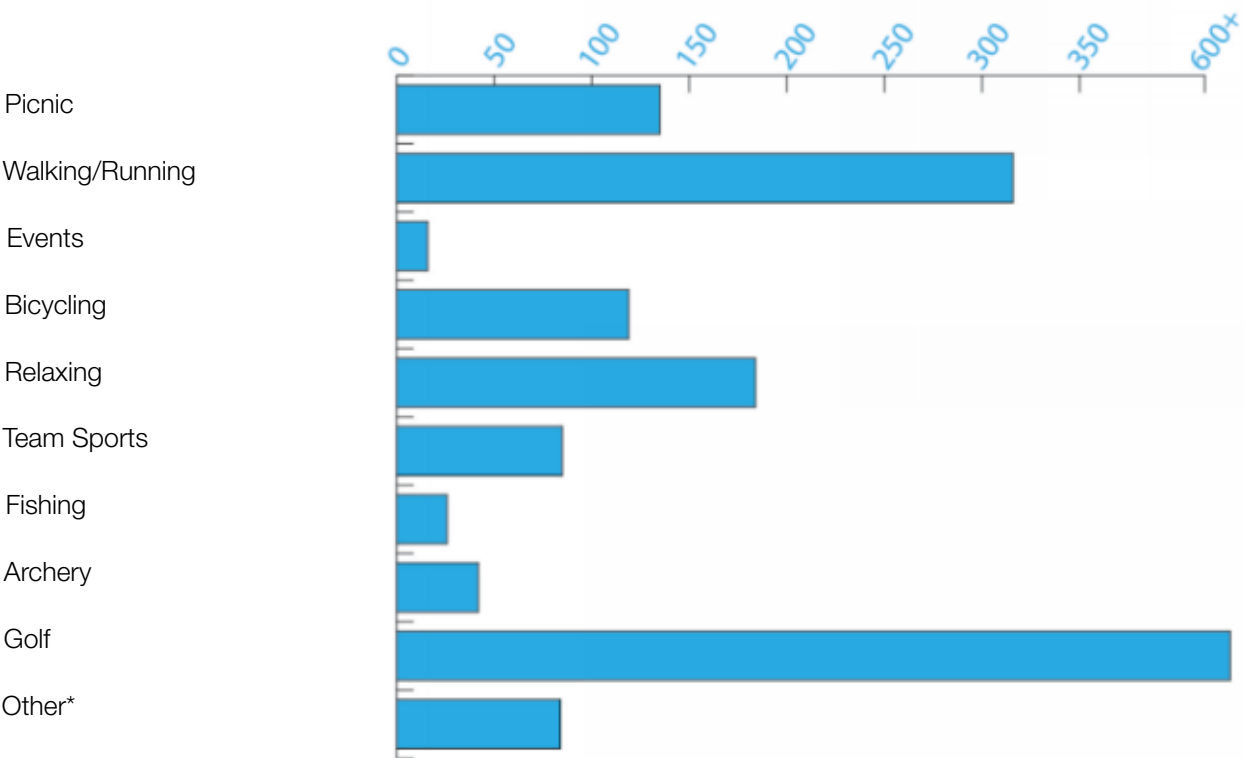
Skate Park

Natural preserve/native habitat planting

Lawn bowling

## Exhibit 4.5- Table: Tabulated Survey Results

What current activities do you like at Mile Square Regional Park?



What future activities would you like at Mile Square Regional Park?

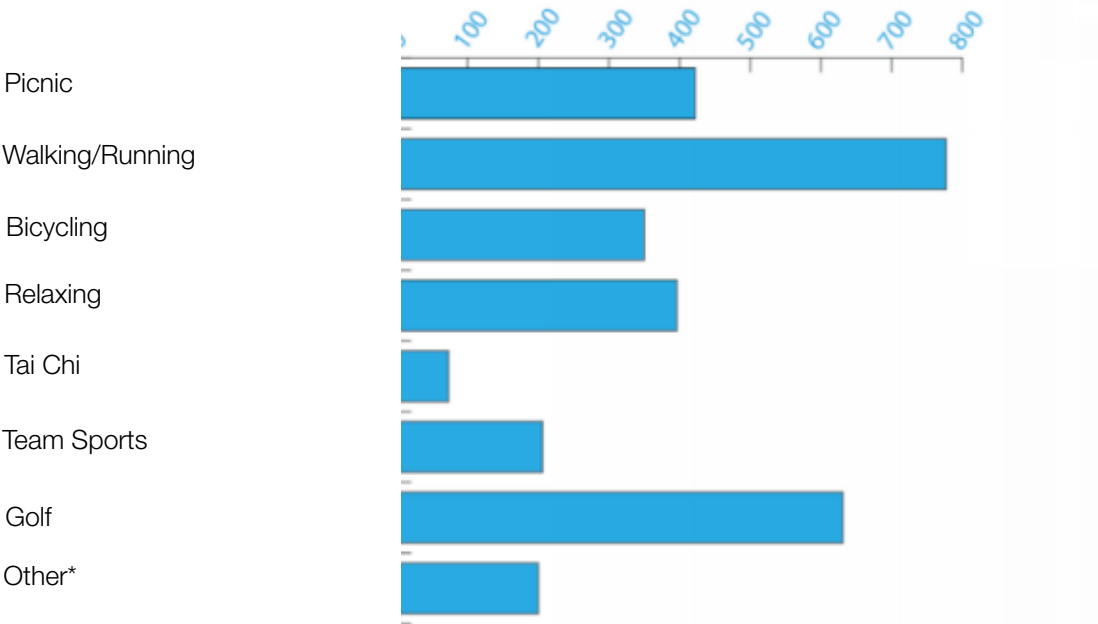
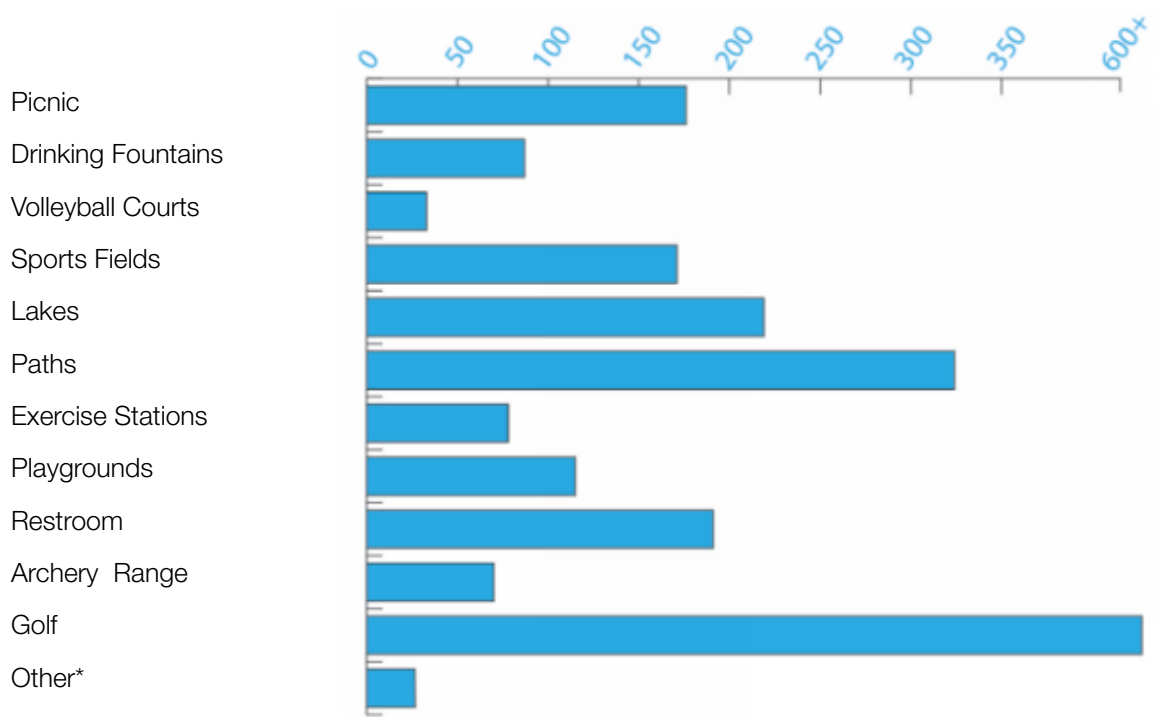


Exhibit 4.6.1 - Survey (Activities) Graph Results

**What current amenities do you like at Mile Square Regional Park?**



**Exhibit 4.6.2 - Survey (Amenities) Graph Results**

What future amenities would you like at Mile Square Regional Park?

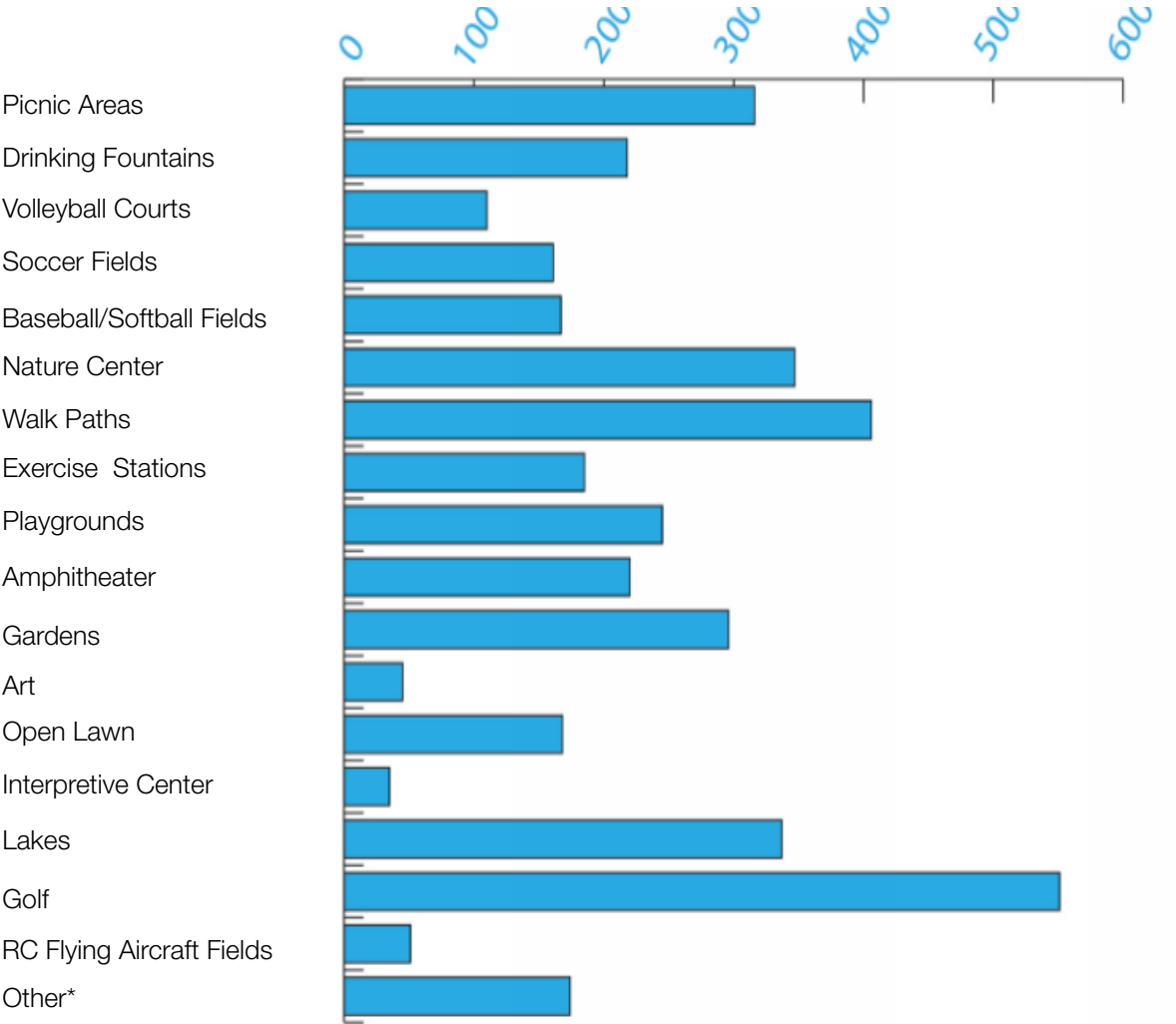


Exhibit 4.6.2 - Survey (Amenities) Graph Results

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# OC PARKS | STRATEGIC PLAN OVERVIEW

2018 

## OUR VISION

CHAMPIONS OF THE LAND FOR A THRIVING COMMUNITY

## OUR MISSION

WE PRESERVE AND ENHANCE OC PARKS' NATURAL AND CULTURAL RESOURCES FOR RECREATION, EDUCATION AND EXPLORATION

## OUR VALUES

### COMMUNITY

Actively bring park users together to share the natural and cultural benefits of our parks. Understanding that every OC Parks employee plays an essential role in meeting our mission.

### COMMITMENT TO EXCELLENCE

Delivering quality service for our parks. Learning from both success and challenges to continually improve.

### SERVICE

Meeting the expectations of our community with innovative solutions and high standards of customer service.

### STEWARDSHIP

Protecting and improving the parks, wilderness and natural and cultural heritage sites entrusted to our care as irreplaceable and invaluable assets.

## GOALS AND OBJECTIVES

### UNDERSTAND OUR PARK VISITORS' NEEDS

- Understand user groups and help them participate and feel connected to OC Parks
- Provide high-quality programming and services to diverse audiences
- Provide the kinds of facilities, amenities and infrastructure to meet our users' needs
- Adapt to the community we serve

### PROMOTE OC PARKS

- Increase our education, marketing, and outreach efforts
- Promote a consistent identity and cohesive message
- Connect people with diverse places, spaces and experiences in OC Parks so they will return and spread the word

### PROTECT OUR PARKS IN PERPETUITY, TOGETHER

- Adaptively manage park use to protect natural and developed resources while preserving exceptional park experiences
- Inspire responsible park behavior
- Build public appreciation and connection to protect our park resources

### SERVE AS STEWARDS OF OC PARKS' ASSETS

- Maintain safe, attractive, and enjoyable parks
- Develop systems for evaluating and prioritizing maintenance needs
- Restore, enhance, and sustain our entrusted properties and parks
- Be an industry leader and collaborative partner to share and implement new initiatives

### PRACTICE SUSTAINABLE FINANCIAL MANAGEMENT

- Fund core services today
- Invest in priority restoration and park enhancement projects
- Ensure sufficient reserves for the future

### ENSURE RESPONSIBLE PARK DEVELOPMENT AND EXPANSION

- Prepare or update plans for OC Parks overall and specific park sites
- Develop and implement criteria for acquisition and reallocation of park assets

### IMPLEMENT THRIVING, RESILIENT ECOSYSTEMS FOR EMERGENCY MANAGEMENT

- Sustain and create alliances to address emergency incidents and safety concerns
- Maintain a responsive posture to natural disasters or potential damage
- Always be prepared for emergencies or disasters

### CULTIVATE AN EFFECTIVE, DYNAMIC WORKFORCE

- Develop our people
- Implement effective recruitment and retention strategies
- Build meaningful working relationships

**OC PARKS.  
YOUR BACKYARD  
ADVENTURE.**

OC PARKS.COM

## OC Parks 2018 Strategic Plan

In the summer of 2017, OC Parks conducted a community survey for their new Strategic Plan as an outreach effort inclusive to all residents of Orange County. The survey was available at the locations and digital platforms of OC Parks, translated in English, Spanish, and Vietnamese. A total of 4,607 responses were collected. For the next 10 years, five priorities were identified with a percentage of respondents (OC Parks, 2018):

- Invest in habitat restoration/environmental sustainability (66%)
- Purchase or acquire more parks and open space (55%)
- Build new trails/bikeways within and between parks (41%)
- Renovate or build new park amenities (32%)
- Invest in preservation/curation of cultural artifacts (25%)

## 4.6 Conclusion

The priorities listed under the 2018 Strategic Plan will guide the design goals in the new development of MISQ. With community feedback, new additions and improvements will cater to public needs and provide more opportunities for a growing population.





*Mile Square Regional Park - South Lake, 2021*



An aerial photograph of a sports complex. In the center, there is a large baseball field with a brown infield and green outfield, surrounded by a chain-link fence. To the right, another smaller baseball field is visible. The complex is surrounded by lush green grass, numerous trees, and winding paved paths. In the upper portion of the image, there are several parking lots with cars parked. The background shows a residential neighborhood with houses and streets. The text 'CHAPTER 5' is positioned above 'KEY IMPROVEMENT AREAS', with a dotted line separating the two lines of text.

**CHAPTER 5**  
.....  
**KEY IMPROVEMENT AREAS**



*Mile Square Regional Park - Trail Along West Perimeter, 2019*

## 5.1 Introduction

This chapter recognizes the public stakeholder conclusions and summarizes the key improvement areas on both existing and future amenities in MISQ. See **Exhibit 5.1** for the existing designated districts of Mile Square, including the area dedicated to the proposed 93-acre park expansion. The proposed expansion area provides the space and infrastructure needed to increase the amenities offered by MISQ. The following acknowledges the major improvement areas for the Master Plan:

- Park Access, Circulation and Parking Improvements
- Environmental and Habitat Improvements
- Proposed Park Components
- Proposed Park Core Districts

## 5.2 Park Access, Circulation, and Parking Improvements

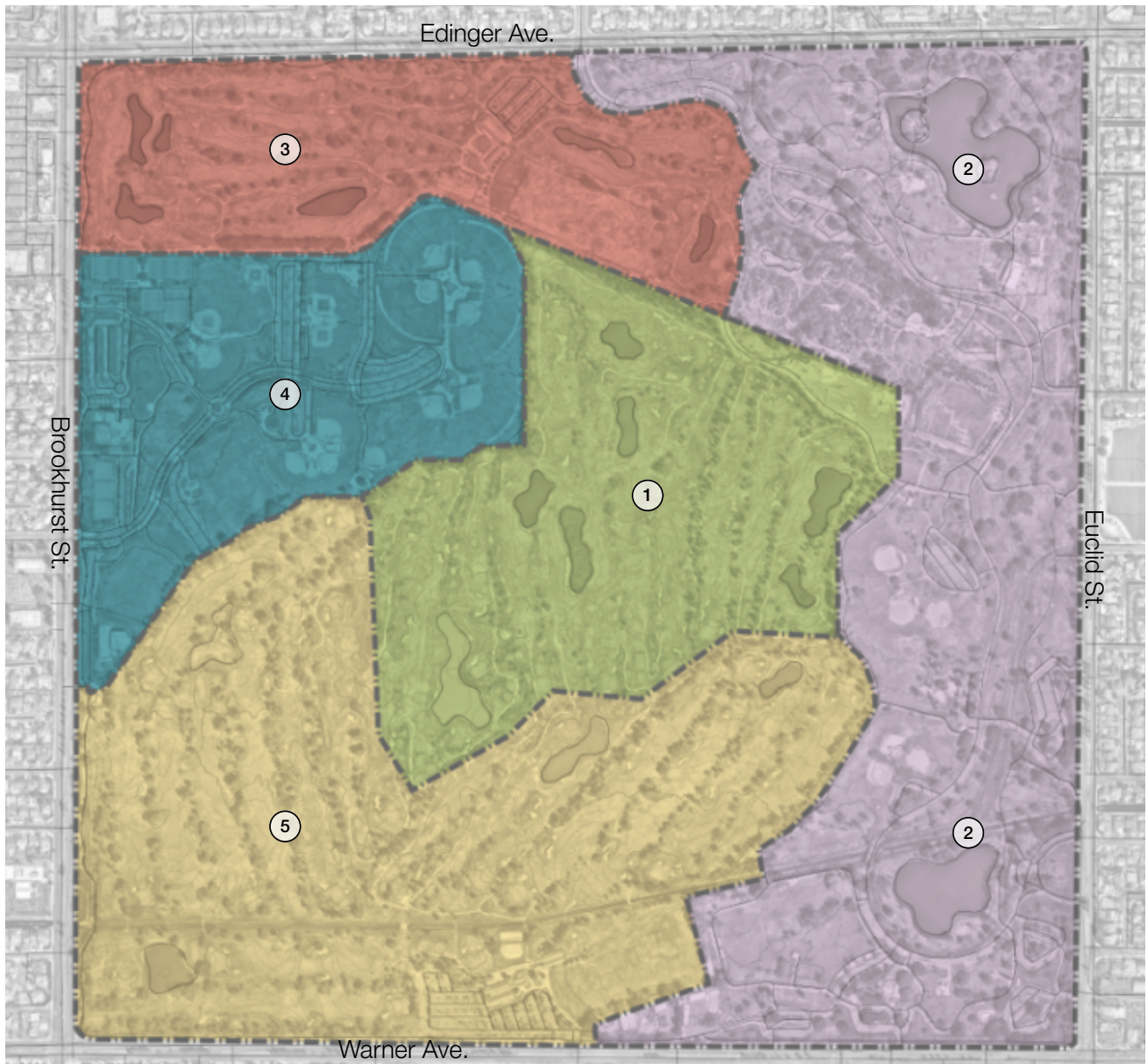
The intent of the Master Plan is to renovate existing features of MISQ and propose new amenities in the expansion area. Existing entrances will be improved and a new signalized entrance will be established at Euclid Street and Heil Avenue to accommodate the increase in park visitors.

### Proposed New Park Access

An increase in amenities and programming will necessitate additional parking on site. To accommodate more users, the new vehicular entrance at Heil Avenue will create a connection to the existing road within the park. The access road will also provide an efficient connection towards newly proposed amenities, parking, and operations.

### Increased Parking Capacity and Distribution

The addition of new parking spaces will allow OC Parks to hold larger organized events with convenient accessibility. By upgrading all entrances and increasing the amount of parking within the expansion area, the park fulfills one of its four goals to improve circulation and hierarchy.



**Exhibit 5.1 - District Zone Map**

**Legend**

- |                                     |                               |
|-------------------------------------|-------------------------------|
| ① Proposed Park Expansion- 93 Acres | ④ Fountain Valley Sports Park |
| ② Mile Square Regional Park         | ⑤ Mile Square Golf Course     |
| ③ David L. Baker Golf Course        |                               |

## Improved Pedestrian Experience

One major component to a quality pedestrian experience at MISQ is the walking path system. In the stakeholder survey, walking was a preferred activity and highly rated as an important element. The result of this feedback prompted a discussion that emphasized circulation and the experience of MISQ as one of the park goals. The new vehicular access at Heil Avenue, as well as the proposed improvements to the stormwater channels, will require some modifications to existing walking paths. Additionally, the integration of new paths will also require updates to the existing path network. An important concept of the 93-acre expansion is the awareness of general circulation throughout the park. The new path system should reflect the needs that will accommodate multiple users.

## Multimodal Circulation

Currently, bicycle users in the park either use the vehicular road as a bike path or the designated walking paths. The surveys showed that biking was a desired activity and was the second highest form of transit to the park. The feedback on circulation also revealed the need to expand the path network, and the renovation of this system may provide a dual service for bicyclists in the park.

## Historical Integration

While new and improved developments are key to the success of MISQ, its historic character is valuable to its urban integrity. The spatial outline of the airfield layout will be referenced in the form of the Grand Promenade which will be flanked by rows of trees providing a main spine of circulation throughout the expansion area. Historical narratives integrated into the paving system of the Promenade will create a rich and unique pedestrian experience.



*Multimodal Circulation - Katy Trail, Dallas, TX*



*Multimodal Circulation - Brooklyn Bridge Park, New York, NY*

## 5.3 Aesthetic, Environmental, and Habitat Improvements

Throughout the public engagement process, the connection to nature remained a consistent theme in the user experience of the park. Chapter 2 addressed some of the existing conditions within MISQ, including the expansive turf areas, water features, the Nature Area and the deterioration of the existing trees. As mentioned in Chapter 4, a stakeholder survey suggested that environmental restoration and sustainability was a top priority for the 2018 OC Parks Strategic Plan (OC Parks, 2018).

### Proposed Improvements to Existing Mile Square Park

An important goal of the Master Plan is to create a more natural environment throughout the park, which will be implemented in multiple phases. The most notable environmental features at MISQ include the canopies of trees near the existing lakes and the expansive open areas of turf. To improve the environmental and aesthetic quality, the park will address the poor tree conditions in a cohesive plan that may require fortifications or replacements. Other plants such as shrubs and California natives will be introduced as appropriate. Additionally, modifications of the Ocean View Channel will provide opportunities to create suitable plant habitats within the existing park framework.



## Existing 93-acre Expansion Features

During the Master Plan design process, the public engagement events revealed that lakes and ponds are enjoyable aesthetics of the existing park. The 93-acre expansion area currently contains seven ponds. These landscape features can continue to be useful for the park expansion that will provide interest and quality to the visitor experience.

In addition, many of the existing trees in the expansion area suffer from inadequate growing conditions and/or pests. Introducing appropriate plant communities into the expansion area is one of the key landscape improvements that should be implemented. Since nearly all groundcover from the golf course is turf grass, there is a strong opportunity to add adaptive and native plant material to the landscape.

## 93-acre Expansion Improvements

The 93-acre expansion will take full advantage of the open space and existing infrastructure to create diverse habitats. The building blocks for a thriving habitat include trees, accessibility of existing water features, and the introduction of a diverse plant palette. During the Master Plan design process, the public confirmed the lakes are an enjoyed component of the existing park. With over 90 acres of additional open space, the Master Plan retains the strength of the current tree canopy. Since trees are an integral feature at MISQ, expanding tree plantings into the new area will help improve the visual continuity of a natural environment. Another goal is to enhance plant diversity to create thriving habitats for wildlife. In addition, integrating native species will assist in the efforts of establishing native plant habitats for the surrounding urban wildlife. Implementation strategies will utilize resources from OC Parks, outside consultants, and community partners that will support the success of this rehabilitation.



*Pedestrian Trail Set Within Naturalistic Planting -  
Jeffery Open Space Trail, Irvine, CA*



*Nature Boardwalk - Lincoln Park Zoo, Chicago, IL*

## 5.4 Proposed Park Components

The Master Plan process has defined a number of components and strategies based on research and survey responses. In aligning with the goals for the park, the Master Plan has established five key components that respond to the goals and input in the design process:

- Historic Acknowledgement
- Educational Features
- Mixed-Use Open Space
- Nature Facilities
- Civic Space



*Discovery Green - Houston, TX*



*Millennium Park - Chicago, IL*

## Historic Acknowledgment

A key design concept to the Master Plan is the reintroduction of the site's historical imprint as an airbase into a Grand Promenade intended to embellish the alignment of the airfield runway. Proposed features of the Promenade will acknowledge other historic treasures that are unique to the MISQ character. The linear design of the Promenade recalls the history of the runways and can be powerful opportunities to reinforce an educational narrative. The context of the topics may range from prehistoric, recent, and current events.

## Educational Features

One of the core goals for MISQ is to promote education and engagement through programs and/or passive narratives throughout the park.

**Programs:** The park expansion will offer opportunities for educational activities. Programs focusing on nature, music, archeology and other organized events by park rangers, local clubs, and hobbyists, will attract groups to the park.

**Passive Narratives:** There are a number of opportunities to establish an educational narrative within the park expansion, extending the program to the existing park. The park is already home to a 15-acre Nature Area, and the expansion will include a botanical garden that will be ideal for interpretive signs and graphics explaining the context of plants. This botanic garden area will provide a resource to both children and adults to educate park visitors about the native environment. Signs identifying plant material, plant communities, ecology, and Native American/the historic indigenous population's uses of plants are all potential themes for this narrative.

## Mixed-Use Open Space

MISQ is established as a regional park with vast and open spaces. A primary goal of the 93-acre expansion is to combine both active and passive recreational areas with a variety of functions. However, it is important to consider that active and passive spaces should be designed to not interfere with each other. Sports will be planned adjacent to other existing active areas in the park, and social areas will be grouped with other passive programs.

## Nature Facilities

One of the most enjoyed and popular attractions of MISQ is the existing 15-acre Nature Area. Many users expressed that this feature is a necessary component that should be incorporated into the expansion. A primary goal for the Master Plan is for visitors to reconnect with nature by opening more spaces for public-nature interaction. The goals for this component are further defined and identified in the Core Program Districts below.

## Civic Space

The expansion of MISQ intends to add multifunctional civic spaces for public use with gatherings or in other organized events. There will be an abundance of these spaces that are anticipated to be successful and popular.

## 5.6 Proposed Core Program Districts

Proposed design concepts for the Master Plan largely resulted from the collaborative process between the county, public engagement efforts, and subsequent feedback from surrounding communities. The four design goals for the Master Plan were also considered as a guide to reflect coherence and transparency into the planning process. The districts below began as concepts and were ultimately designed to work with the surrounding context of the site. See **Exhibit 5.2** for the expansion area Core Program Districts.

- Great Meadow
- Civic Plaza
- Botanical Garden
- Adventure / Camp
- Mixed-Use Open Space

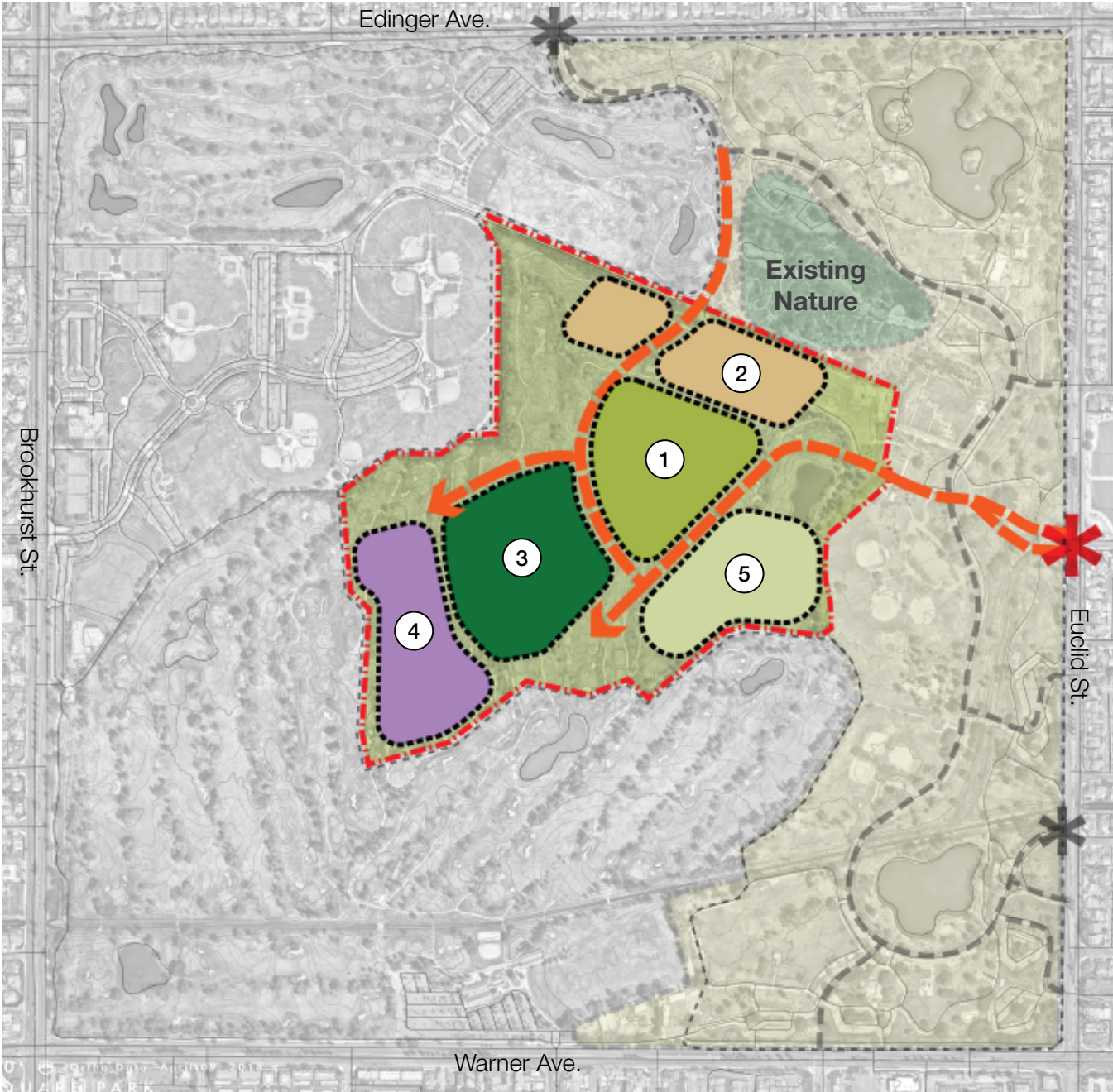


Exhibit 5.2 - 93-Acre Expansion Area - Core Program Districts

**Legend**

1 Great Meadow	4 Adventure Play / Camp
2 Civic Plaza	5 Mixed-Used Open Space
3 Botanical Garden	

## Great Meadow

The Great Meadow is proposed as the central feature of the MISQ expansion and is also located in the center of the 93-acre space. As an open field of eight acres, the meadow is intended to be a reflection of the park's existing function—a flexible space for large events or gatherings, including public concerts and holiday celebrations.

## Grand Promenade

The Great Meadow will be outlined by the Grand Promenade built on the location of the park's historic runways. The Promenade will be flanked on two sides by rows of trees. The tree canopies will ultimately provide shade to the adjacent walkways, while adding structure to the space of the meadow. The Promenade will provide a new experience for park users that will enable pedestrians to take in views of the Great Meadow and its surrounding programs. This area will be ideal for community events such as farmers markets and other pop-up fairs that host temporary installations and civic gatherings.

## Civic Plaza

The Civic Plaza, at approximately five acres in size, is located directly north of the Great Meadow, and will be developed to showcase a variety of garden exhibits and open paved space for gatherings or dining. This area will be flexible and setup as either formal or informal occasions that can be segmented for multiple adaptations. The gardens within the Civic Plaza will be adjacent to the paved plaza where visitors can stroll through a variety of manicured landscapes. The two spaces can share similar programming events that provide entertainment for a variety of users and age groups. Potential programmed events include temporary outdoor art or educational exhibits, yoga or tai chi classes, food festivals, small concerts, live entertainment, health expos, farmers markets, community ceremonies such as graduations, or other smaller scale gatherings. This space provides a new opportunity to create a sense of imagination for all park users.

The Civic Plaza may also be a transitional space for visitors to congregate before they move to other sites in the regional park. It will provide markers at the entrances, and park staff can utilize this area as an information hub to educate and engage users with community-led events.

## Botanical Garden

The popular Nature Area is a significant feature at MISQ. The new natural area will be an opportunity for native plant habitats and will include a botanical garden, wetlands garden, and a nature walk. The concept for the Botanical Garden stems from survey responses where “nature center” was a future desired amenity. Currently, the existing 15-acre Nature Area at MISQ contains a thriving collection of native plants that provide passive and peaceful spaces, as well as educational opportunities for visitors of all ages. The 13.5 acre Botanical Garden will be a distinct program area in the park, designed to be open and informal. The goal is to immerse visitors in a naturalized setting that reintroduces parts of the California native landscape and its biodiversity. The concept also aligns with the design goal to Connect with Nature. In addition, existing ponds also provide an ideal opportunity to develop wetland gardens adaptable to marshland environments, setting an example of the native environment that was part of the area before ranching, agriculture, and subsequent suburban development. Furthermore, a nature walk will be designed as a thread that connects the existing Nature Area outside the expansion with the proposed Botanical Garden.

## Adventure / Camp

In the public survey, childhood space was expressed as a highly desired future amenity. OC Parks’ regional parks typically include age-segregated playgrounds with amenities such as swings, slides, and climbing apparatuses. However, the concept that fosters the idea of “adventure”, concentrates on tactile engagement, fine and gross motor skills development and creativity. Adventure Playgrounds are typically comprised of raw materials such as mud, sand, wood, and tools that enable children to “construct” or “engineer” an object, thus providing many tangible benefits to children.

The existing campground (Camp Sycamore) is proposed to be relocated to a quiet and remote area of the expansion that will further support the intention of a nature experience. Organized youth group camping events will continue to be offered, and due to a larger two-acre availability, expanded. The decision to join the Adventure Play and the Campground areas together in the design is intended to enhance accessibility between youth activities. While the campground will be secured with fencing for security and privacy, camp participants would have direct access to the Adventure Play area.

## Mixed-Use Open Space

Mixed-use fields provide large, open flexible spaces that can accommodate different activities. This area is intended to be used for active and semi-active uses such as overflow parking, passive gatherings, event spillover, and special programming such as remote-controlled model airplanes and drone flying. The primary focus in this area is to provide opportunities for park users by maintaining multifunctional flexibility that can adapt to future recreational needs. Future parking areas are planned to cater to a larger capacity as an extension of the existing parking availability.

## 5.7 Conclusion

The key improvement areas defined in this section provide a framework that will allow OC Parks to carefully examine the physical details and amenities planned for the MISQ expansion.





*Mile Square Regional Park - North Lake, 2021*



An aerial photograph of a large sports complex. In the center, there are two baseball fields with brown dirt bases and green grass. To the left, there are tennis courts. The entire area is surrounded by lush green grass, numerous trees, and winding paths. In the background, a golf course with several ponds is visible. The sky is clear and blue.

# CHAPTER 6

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# PLAN FRAMEWORK



*Mile Square Regional Park- Drainage Channel, 2019*

## 6.1 Introduction

In consideration of the four design goals, this chapter discusses the improvements to the existing regional park, and the added amenities for the 93-acre expansion. These improvements will provide additional opportunities for service and increased learning experiences to MISQ visitors. With the expansion of land area and an increase in amenities, the park improvements will include relocation and updates to some county facilities, such as the maintenance yard and park ranger office. This will lead to more efficient support by staff as the increase in park capacity is realized.

Adding facilities such as the mixed-use perimeter trail, tree reforestation, and new programs will actively engage park visitors. As discussed in Chapter 5, the key improvement areas led to a sum of physical amenities for the Master Plan. Both physical and programmed amenities will be discussed in the sections below.

## 6.2 Park Improvements Within the Existing Park Boundary

### New Vehicular Entry at Heil Avenue / Euclid Street

A new signalized vehicular entry at Euclid Street and Heil Avenue, will ultimately replace the current unsignalized entrance at Euclid and Mt. Whitney Street. This new entry will provide additional capacity for vehicles entering MISQ, and will accommodate more vehicles during large events. It will also provide a more direct route to the 93-acre expansion area. The current entrance will be redesigned as a right-turn exit-only onto southbound Euclid.

### Enhanced Entry at North Gate

The intersection along the North Entry Gate is another improvement for modification aimed to address increased vehicular traffic on park roads. This entry update is open to opportunity for a modified gate location based on future queuing capacity during large events. The planting along this entry area will also be updated to align with the modifications occurring at the proposed Euclid Street and Heil Avenue park entry.

### Stormwater Channel Improvements

The existing stormwater channel (Ocean View Channel) is another improvement to the regional park. Scope of work will include re-grading the concrete channel with a more gradual slope, which will be covered with vegetation. This improvement will reduce turf areas and facilitate a better approach to highlight natural and aesthetic elements in the park, creating a creek-like feature in the landscape that will draw interest to park visitors. It will also restore environmental resources in MISQ.

### **Tree Maintenance and Succession Plan**

Environmental and habitat improvements are important components to the Master Plan that will provide an integrated approach with a variety of benefits to the park. The addition of trees will increase tree canopy and shaded areas and will mitigate for trees that are in ill-health. The Master Plan intends to incorporate a similar tree palette from the existing park into the expansion area. Through a cohesive planting strategy, reforestation efforts can also provide numerous environmental education opportunities for park visitors by building community partnerships and volunteers.

### **Pedestrian Pathway Modification**

Some existing pathways at MISQ will be impacted by infrastructural changes in the vicinity of the expansion area. The future pathway system will need to connect with existing pathways in order to create a unified network.

### **Signage and Wayfinding**

Some of the existing signage at MISQ are currently inconsistent with the OC Parks Master Signage program, and will be updated to be consistent with the appropriate design standards.

### **Operations Facilities**

Park office, maintenance yard buildings, and equipment storage are outdated and need to be modified. The completion of the expansion project will include updates to the operation facilities.

### **Lighting**

Security lighting is a critical component for the updated Master Plan. Security lighting is to be installed throughout all phases, which is further described in Chapter 7. Landscape lighting will also be upgraded in order to accommodate evening community events. All proposed lighting equipment will follow appropriate OC Parks lighting design standards and will comply with local agency and state requirements.

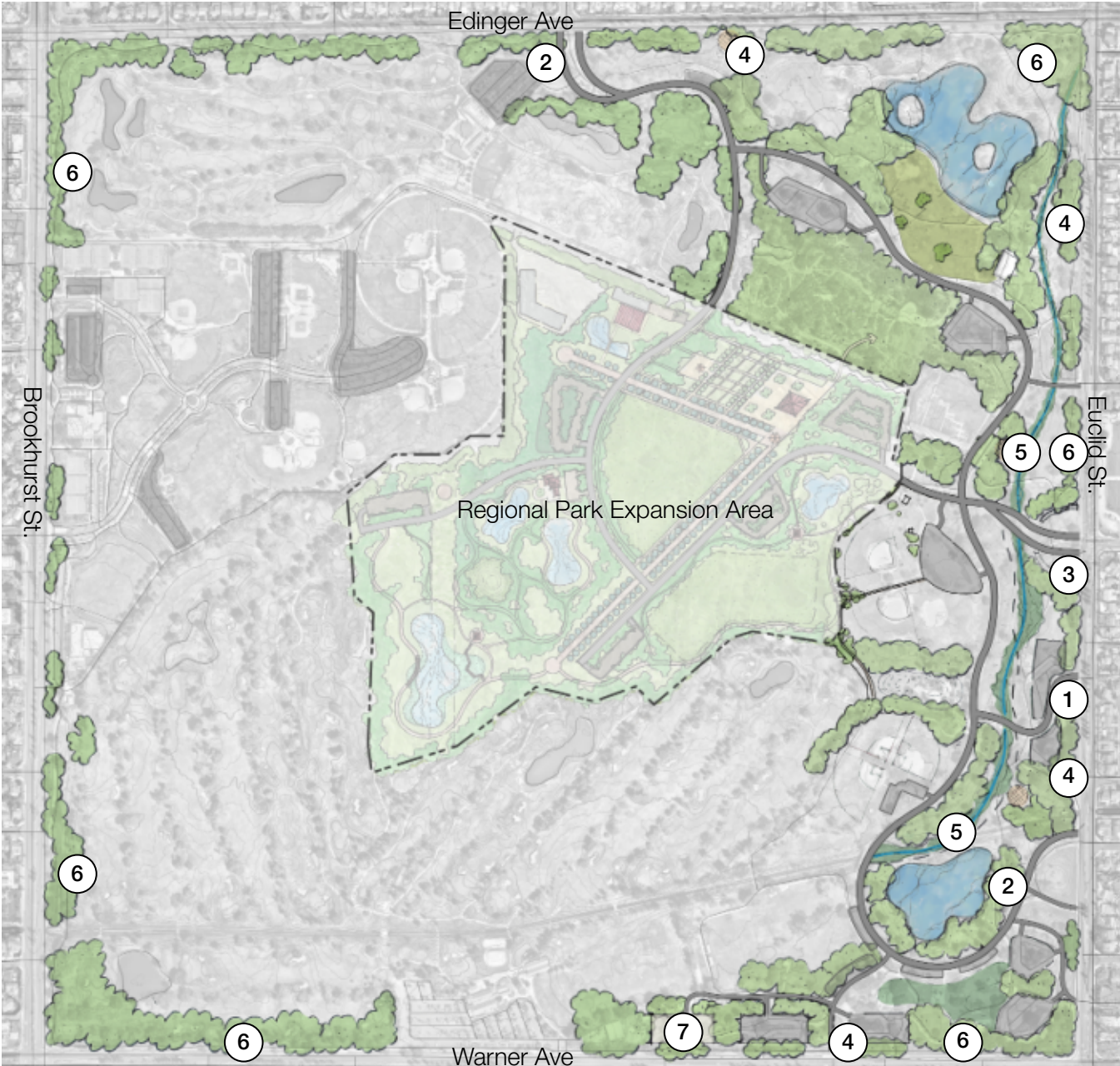


Exhibit 6.1 - Existing Regional Park Master Plan Improvements

**Legend**

1 Proposed Egress Modifications	5 Enhanced Drainage Channel
2 Enhanced Entry at North Gate	6 Enhanced Perimeter Edge and Existing Trees
3 Proposed Entry at Heil and Euclid	7 Maintenance Storage
4 Enhanced Pedestrian Access	

## 6.3 Proposed Circulation Within 93-Acre Expansion

A significant portion of the user experience at MISQ is the walking paths within and around the park. As discussed in Chapter 5, feedback from the community reaffirmed that walking and the current path system are desirable amenities for inclusion into the expansion area. Based on this input, improvements to the park's circulation hierarchy became a necessary design goal for the Master Plan. Multiple walking pathways are proposed within the expansion area to allow efficient pedestrian circulation. Improvements include a 20-foot wide path that meanders along the perimeter of the expansion area; an 8-foot wide secondary path; and a 30-foot wide Grand Promenade.

### New Vehicular Road

The 93-acre expansion will require vehicular access to new park amenities. A new road will connect the entry from Heil Avenue to the existing park road and will loop around to connect back to the North Access Road. The new road will be similar in size and function to the existing road.

### Mixed-Use Trail

The proposed 20-foot trail, comprised of eight-foot wide decomposed granite and 12-foot width of asphalt, will enable park visitors to circulate through the site, and will be strategically designed to be in proximity to other proposed amenities. The increased width will accommodate pedestrians and bicyclists passing through the park.

### Secondary Paths

The eight-foot walking paths are intended to serve as secondary pedestrian pathways that circulate throughout the interior of the expansion area. As a complement to the primary walkways, the secondary paths will enable visitors to engage with proposed amenities and programs in the expansion area.

### Historic Timeline Walk

The expansion design is based on the historic layout from a former military airbase. This component is a 30-foot wide promenade strategically designed to acknowledge the history of the site, while also enriching the visitor experience. Lining each side of the promenade will be rows of trees framing the pathway. This layout promotes a more linear experience of the park and serves as a flexible space during public events.

### Wetlands Boardwalk

The Master Plan will maintain most of the ponds from the golf course provide storm drain infrastructure. One pond will be modified into a wetland habitat to provide an educational experience for visitors. Pedestrians will be able to interact with the surrounding habitat on an elevated boardwalk that crosses over the water.



## 6.4 Proposed Landscape Concept

Habitat restoration was another design guiding principle to ‘Connect with Nature.’ As described in Chapter 4, the 2018 OC Parks Strategic Plan articulated one of the top priorities in the next decade is to “invest in habitat restoration/ environmental sustainability” (OC Parks, 2018). The value of environmental restoration helps establish county-wide goals that can be realized on a site-specific level. Depending on the different rates of plant maturation, restoration efforts will require a systematic approach that will be implemented in various stages of development.

At MISQ, restoration practices will include:

- Tree Reforestation
- Plant California Natives and Adaptive Species
- Installation and Monitoring of Constructed Wetland Vegetation
- Improve Water Quality

### Tree Reforestation

Tree reforestation plays a significant role in the Master Plan. Trees provide numerous benefits to the ecosystem and enrich the composition of public spaces. Planting trees in early development phases will assist in acclimation and response to urban forestry challenges that cause poor health. Some trees that have remained resistant to pests such as the Polyphagous Shot Hole Borer, are *Pinus Halepensis* (Aleppo Pine), *Corymbia Citriodora* (Lemon-Scented Gum), and *Arbutus unedo* (Strawberry Tree) (OC Parks, 2018).

### Plant California Natives and Adaptive Species

California native and adaptive plants in the 93-acre expansion area will be implemented in multiple phases. The existing landscape within the expansion area is composed almost entirely of turfgrasses and trees. The expansion aims to salvage some turf, especially in areas that involve mixed-use activities. Other areas will be converted to a diverse mixture of plants that will include trees, grasses, perennials, annuals, groundcovers, and shrubs. This conversion will include a major tree planting campaign, and the use of non-turf plants must be compatible with tree care requirements. A transition strategy will include fast-establishing native plants, such as grasses and wildflowers, that have historically grown within the Santa Ana River flood basin.

Riparian woodland habitats may be successful by improving topographic grading to simulate the native landscape. Trees such as *Salix Lasiolepis* (Arroyo Willow), may be helpful for short-term restoration due to their ability to establish rapidly. Coastal sage scrub and other drought-tolerant species will be considered. The integration of California native and adaptive species may help reduce the long-term reliance on current irrigation practices.

### **Installation and Monitoring of Constructed Wetland Vegetation**

Converting the pond into a constructed wetland at the southwesterly quadrant will necessitate appropriate plantings that thrive in this type of ecosystem. The success of this effort will require the collaboration of interdisciplinary experts throughout the various stages of plant development. The construction of this landscape feature is to not only promote restoration and sustainability, but will engage visitors in environmental education and stewardship as well.

### **Improve Water Quality**

As part of the development of the Master Plan, a Master Water Quality Management Plan (WQMP) will be developed to cover all water quality improvements related to the Park. The WQMP will include pre-treatment measures, storm water collection within the lakes, treatment of the water through the lakes and constructed wetland edges, and reuse throughout the park via irrigation. Flows up to the design capture volume (DCV) of approximately 2.2 ac-ft will be collected into the lakes while larger storm events will bypass. In addition, bioretention BMPs will potentially be incorporated associated with larger impervious areas for enhanced treatment prior to discharging into the multi-functional lakes. The estimated total SF associated water quality BMPs is approximately 217,800 SF based on the square footage of the proposed lake system and may increase dependent on high impervious areas that incorporate bioretention. In addition, the use of the lakes for stormwater capture presents an opportunity for the creation of regional stormwater BMPs to provide treatment of runoff significantly larger than the project's DCV by directing dry weather and low flows from regional storm drain lines that pass near the site. Although the lakes are not currently designed to accept additional flows from off-site for treatment, the opportunity exists dependent upon funding from stormwater grants and funds from other departments within the County (ex. H2OC Stormwater Program).



Exhibit 6.2 - Master Plan

Legend					
1	The Great Meadow	6	100 ft. Min. Tree Buffer	11	Restrooms
2	Multiuse Playfield	7	Botanic Garden Pavilion	12	Modified Pond
3	Civic Garden and Plaza	8	Botanic Garden	13	Visitor Center
4	Adventure Play Area	9	Grand Promenade	14	Parking
5	Nature Camp	10	Perimeter Trail	15	Maintenance Yard

## 6.5 Park Amenities to Expand or Maintain

The community survey results confirmed which existing amenities were deemed as successful and will be utilized in the expansion area. It is important that these amenities be integrated with the existing conditions and in proximity to other programmed elements to improve visitor access and experience of the site. The top responses for current and future amenities were ranked high in the survey and are further described below.

### Parking

More parking will be integrated into the design of the 93-acre expansion area (**Exhibit 6.3**). The additional parking will accommodate visitors to the site during a variety of events and at peak hours, while also allowing for flexibility to accommodate large crowds during special events. As described in the previous chapter, seven additional parking lots and two roadside parking areas will be strategically located near the main program areas:

- Lot 1 will be located in the northwest near the Grand Promenade and opposite the Great Meadow. It will include 191 stalls.
- Lot 2 will be located near the south end of the expansion area near the Grand Promenade and mixed-use fields and will include 50 stalls.
- Lot 3 will be located adjacent to the augmented road in the easterly portion of the site near the mixed-use fields and will include 98 stalls.
- Lot 4 will be located near the northeast end of the expansion area, close to the existing Archery Range and Civic Plaza. It will include 176 stalls.
- Lot 5 will be a centrally located parking lot situated directly adjacent to the Botanical Garden and will accommodate approximately 24 stalls.
- Lot 6 will be located in the westerly most corner of the expansion boundary near the Youth Camp and Adventure Play Area. It will accommodate 56 parking stalls.
- Lot 7 will be located outside the Visitors Center and will accommodate 15 parking stalls.
- Proposed roadside parking A is located along the main augmented road near the Visitor Center and will accommodate 20 parking stalls.
- Proposed Roadside Parking B is located on the secondary road heading west toward the Youth Camp and Adventure Play Area and will accommodate 45 parking stalls.



Exhibit 6.3 - Vehicular Circulation and Parking Diagram

**Legend**

Primary Vehicular	New Entry
Secondary Vehicular	Existing Parking Lots
Vehicular Exit Only	Proposed Parking Lots (1-7)
Vehicular and Pedestrian Entry/Exit	Proposed Roadside Parking Lots (A & B)
Enhanced Vehicular and Pedestrian Entry/Exit	Proposed Overflow Parking

## Maintain/Increase Access to Ponds

MISQ has two existing lakes that provide a variety of recreational activities including fishing at both lakes and paddle boat rentals at the North Lake. The ponds are an iconic fixture to the park's character. The ponds are an invaluable resource to the park, both as a recreational element and habitat for the park's many bird species. Park visitors have stated that the ponds are a popular feature of the park, and were highly ranked as both a current and future amenity in the community survey. The survey supported the need to preserve the golf course ponds for the future extension plan. However, the existing pond depth and edges are inappropriate for interactive use, and are better suited as visual elements.

As a result of this feedback, the golf course ponds will be reconstructed as a part of the Master Plan in order to provide environmental and habitat improvements within the park. These updated ponds will be utilized as habitat for plants and animals and act as a stormwater management system for the park, as well as offer opportunities to be tied into the regional infrastructure system in the future. With these modified pond layouts there will be walkways, boardwalks, and picnic areas incorporated within the pond edges that will offer park users a more immersive experience with these critical components of the park's identity. Moreover, interpretive signs will be included along the walks to provide an educational component to these areas as well.

## Maintain/Increase Recreational Fields

As a desired destination for recreational activities, MISQ has a number of fields that support organized sports. The park currently has three soccer fields and six softball/baseball fields. The stakeholder survey, ranked the sports fields very high. As a result of this feedback, a mixed-use field will be located in the east edge of the expansion area, beyond ballfields five and six. The location is aimed to address the transitional boundary of the park by placing it near adjacent sports fields. This space is approximately six acres in area that could support sports such as cricket, lacrosse, ultimate frisbee, and other youth activities. It is also intended to be a flexible space used to accommodate overflow parking during peak hours and specific scheduled events.

## Restrooms

Restrooms are mandatory amenities that are among the improvements within the expansion area. There are currently eight public restroom buildings with a total of 80 individual restroom stalls disbursed throughout MISQ. The survey indicated that MISQ currently contains a suitable number of restrooms. One new restroom building with 10 individual stalls is proposed in the southwest section of the expansion area near the nature camp and adventure play area. A second restroom building will be incorporated with the Visitor Center. Trees and shrubs will help blend the structures to their immediate surrounding environment.

## Walking Paths

According to the survey results, the most sought-after activities voted by the public were running, walking, and bicycling. MISQ currently has a developed network of paths, but the vehicular road is also used for walking, running and bicycling. A top priority is to continue paths into the expansion area, which will support a multi-modal circulation. Expanding the path network may mitigate the number of pedestrians using the vehicular road as a pedestrian path. The new network of paths in the expansion area will significantly increase the flow throughout the park.

## **Benches and Picnic Tables**

Public comments revealed that picnics are universally enjoyable at MISQ, promoting both formal and informal gatherings for park visitors. The provision of benches and picnic tables will greatly enhance the visitor experience and will be evenly distributed throughout the expansion area.

## **Maintenance Yard**

The maintenance yard will be relocated and expanded to nearly four acres for better operational efficiency. Among other functions, the maintenance yard will contain equipment and storage, as well as office space and locker room facilities for park staff.

## **Signage**

MISQ contains a variety of sign types and design styles. The current signs have been installed at different times throughout the development of the park, leading a veritable plethora of styles. Implementation of a cohesive and comprehensive sign design will be necessary to ensure proper wayfinding, education, and interpretation throughout the expansion area. Any new signage will be consistent with the OC Parks Master Signage and Graphics Plan.

## 6.6 New Park Amenities to Develop

### Botanical Garden

Many survey respondents expressed a desire for more passive activities in a natural environment. The botanical garden will be an additional area for native plants and ecology. The space will be conceived as more informal and inclusive to the local habitat, using native plants that are suitable for the climate.

### Nature Camp

MISQ currently has a youth group camping facility (Camp Sycamore) for children, typically between ages six to 12, as a first outdoor camping experience in a controlled and safe environment. Equipped with restrooms, Camp Sycamore is approximately three acres that allows for group activities, including campfires, picnics, barbeques and educational programs. Camp Sycamore will be relocated into the expansion area and coexist with the Adventure Play Area.

### Adventure Play Area

In the public survey, a play space for children was a highly desired amenity for the expansion area. Adventure Play Areas are typically composed of open spaces that allow users to create their own play experience. This concept for “adventure” essentially deconstructs the standard playground. These types of play spaces provide many tangible benefits for children, providing opportunities for tactile engagement, fine and gross motor skill development, and creativity. At approximately two acres in size, the Adventure Play Area will be located near the new Botanical Garden and youth camping area.







Exhibit 6.4 - Botanical Garden, Camp, and Adventure Play Enlargement Plan

**Legend**

<p>■ ■ ■ Botanical Garden</p> <p>Potential Programs:</p> <ul style="list-style-type: none"> <li>- Garden Tours</li> <li>- Educational Planting Workshops</li> <li>- Native Planting Events</li> <li>- Monarch Butterfly Event</li> <li>- Lookout Knoll at Center of Park</li> </ul>	<p>■ ■ ■ Adventure Play and Nature Camp</p> <p>Potential Programs:</p> <ul style="list-style-type: none"> <li>- Summer Camp</li> <li>- Walking Trails Through Nature Areas</li> <li>- Marsh/Lake Education Area</li> <li>- Picnic Areas</li> <li>- Playground with Opportunities for Creative Exploration and Connection to Nature</li> <li>- Group Campground</li> </ul>
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## Great Meadow

As the premier feature of the expansion area, the Great Meadow is located at the heart of the 93-acre site. Functioning as a mixed-use space, the Great Meadow is intended to support special events such as car shows, fairs, community events, concerts, and weekly farmer's markets. The Great Meadow will also serve as a passive recreation area that will provide space for activities that merit large expansive open space, such as free-play sports and kite flying.

## Amphitheater

As an anchor and central focal point to the Great Meadow, the amphitheater will provide a stage area with necessary equipment for concerts and live performances. The elevated stage will be placed at the convergence between the two Grand Promenade walkways, and will serve as an ideal focal point that overlooks the large crowds across the Great Meadow. The stage will be a flexible space to host a wide array of special events.




## Grand Promenade

As mentioned in Chapter 5, the historic runways are being honored in the expansion area. Two sides of the triangular layout will be recreated for the Grand Promenade, flanking the north and east edges of the Great Meadow. The Grand Promenade will be designed as a more formal space, with large trees that frame two pathways at nearly a quarter mile long, thereby affording expansive views into the Great Meadow. Decorated by seating, lighting and other amenities, pedestrians will be able to stroll along the Grand Promenade, and view markers that display a timeline of the park's history.





Exhibit 6.5 - Great Meadow, Amphitheater, Grand Promenade Enlargement Plan

Legend		
 Great Meadow	 Amphitheater	 Grand Promenade
Potential Programs:	Potential Programs:	Potential Programs:
<ul style="list-style-type: none"> <li>- Large Concerts, Summer Concerts or Events</li> <li>- Car or Dog Show</li> <li>- Drone Flying</li> <li>- Model Airplane Flying</li> <li>- Lawn Games</li> </ul>	<ul style="list-style-type: none"> <li>- Smaller Concerts/Educational/Community Events</li> <li>- Graduation/Public Ceremonies</li> <li>- Corporate Events</li> </ul>	<ul style="list-style-type: none"> <li>- Historical Elements/Plaques to Commemorate the History of Mile Square Park</li> <li>- Farmers Markets</li> <li>- Charity Walk/Events</li> </ul>

## Civic Plaza

The Civic Plaza will be an important place for community interaction, which will showcase art and manicured garden exhibits ideal for activities and events such as art fairs, Tai Chi, or yoga. The Civic Plaza will contain tactile rooms for art or seasonal plant displays, or simply for meditation, introspection, or contemplation. Intentionally located adjacent to the Grand Promenade, the Great Meadow, and Amphitheater, large events will be able to spillover onto the Civic Plaza.

## Visitor Center

The Visitor Center will be an approximately 35,000 square-foot facility with storage and spaces for the public and park staff. Public spaces include approximately 5,5000 square feet for reception, information, and exhibits and roughly 2,300 square feet for multi-purpose and conference rooms. Approximately 16,000 square feet will be for storage with the remaining square footage for staff, facility maintenance, and restrooms. Space for this new building will be incorporated into the Master Plan, but its development will be independent from the design phases.





Exhibit 6.6 Civic Plaza and Visitor Center Enlargement Plan

<p><b>Legend</b></p> <p>■ ■ ■ Civic Plaza</p> <p>Potential Programs:</p> <ul style="list-style-type: none"> <li>- Farmers Market</li> <li>- Graduation/Other Ceremonies</li> <li>- Food Trucks</li> <li>- Outdoor Dining</li> <li>- Shade Pavillion</li> <li>- Festivals and Expos</li> </ul>	<p>■ ■ ■ Visitor Center</p> <p>Potential Programs:</p> <ul style="list-style-type: none"> <li>- Restrooms</li> <li>- Park Information</li> <li>- Educational Exhibits</li> <li>- Seating</li> </ul>
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Exhibit 6.7 - Nature Camp and Adventure Play Area Rendering



Exhibit 6.8 - Civic Plaza Rendering



Exhibit 6.9- Grand Promenade Rendering

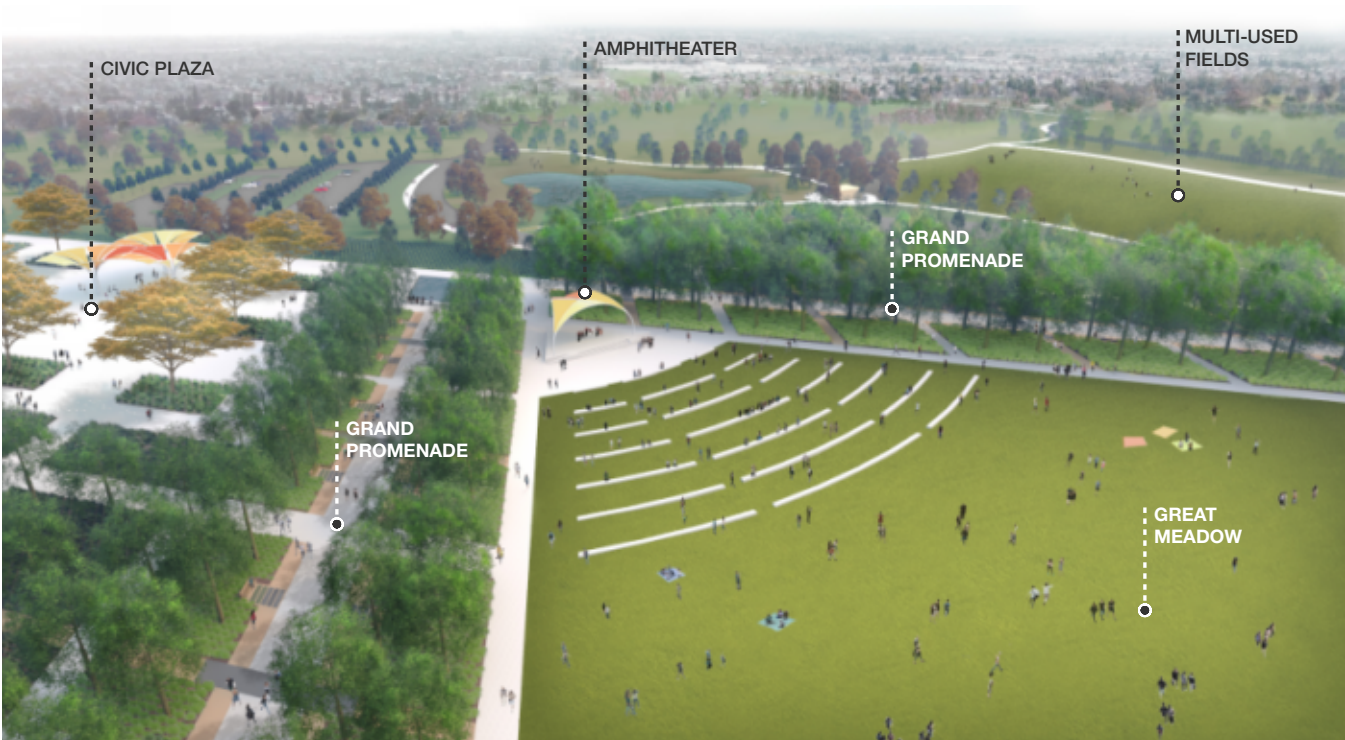


Exhibit 6.10- Great Meadow Rendering

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## 6.8 Conclusion

Chapter 6 described the framework for the existing and proposed amenities in MISQ, and how they will be integrated into the design of the expansion area.



*Mile Square Regional Park - Nature Center , 2019*



An aerial photograph of a sports complex. In the center, there are three baseball fields with brown dirt infields and green grass outfields, each enclosed by a chain-link fence. The fields are arranged in a roughly triangular pattern. Surrounding the fields are various green spaces, trees, and paved walkways. In the background, there are residential houses and a road with parked cars. The overall scene is bright and clear, suggesting a sunny day.

# CHAPTER 7

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## PHASING AND IMPLEMENTATION



*Mile Square Golf Course Boundary, 2019*

## 7.1 Introduction

Chapter 7 outlines a comprehensive plan for the implementation of the 93-acre expansion area. This area will present new and exciting challenges for OC Parks that would be cost prohibitive and infeasible to implement the Master Plan in a single phase. Therefore, development of the Master Plan will be organized into manageable phases allowing for appropriate investment and sustainable operations of MISQ.

## 7.2 Master Plan Phasing

The Master Plan is envisioned to be implemented in six phases as shown in **Exhibit 7.1**. Logical sequence and implementation of proposed improvements are depicted in **Exhibit 7.2**. The listed components of each phase reflect current park prioritization. However, the sequence of phase implementation may be altered based on changing needs, available grants, and/or alternative financing opportunities.

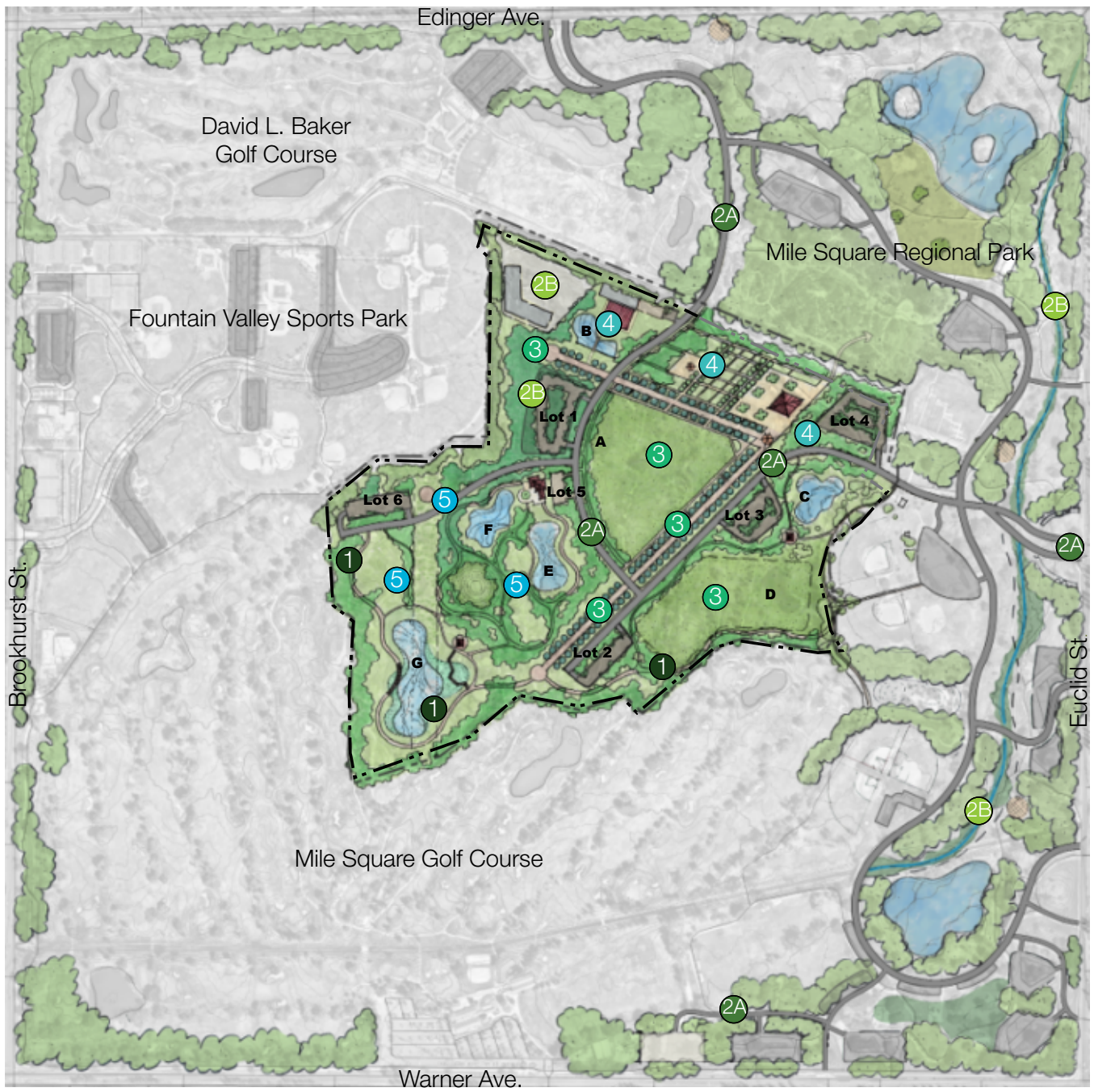


Exhibit 7.1 - Phasing Plan Diagram

	Component	Description of Improvements
Phase 1	Facility/Amenity	Install (2) New Portable Restrooms Update Existing Restroom as Needed Install Picnic Areas Install New 20 Ft. Security Access Trail Install 8 Ft. Secondary Trail Connecting to Existing Cart Paths Demolition Existing Trails That Are Disconnected From Existing Mile Square Park Golf Course
	Ponds	Pond 'A'-'F' Protect In Place Pond 'G' Modify to Master Plan Shape
Phase 2A	Roads	Install Main Vehicular Road New Vehicular Entry at Heil Street Modify Existing Road Alignment within Existing Regional Park
	Ponds	Remove Pond 'A' Pond 'B' - 'G' Protect in Place
	Habitat Restoration	Hydroseed Additional Key Areas Tree Reforestation
Phase 2B	Facility/Amenity	Maintenance Yard
	Parking Lots	Install Lot 1
	Habitat Restoration	Stormwater Channel Improvement
Phase 3	Facility/Amenity	Multi-Use Play Sport Field Grand Promenade Tree Allee along Promenade Great Meadow
	Roads	Install Secondary Vehicular Road to Parking Lot 2
	Parking Lots	Install Lot 2 & 3 Remove Temporary Parking
	Habitat Restoration	Establish Additional Trees
	Ponds	Remove Pond 'D' Modify Pond 'C'
	Facility/Amenity	Civic Plaza Visitor Center Install (1) New Restroom
Phase 4	Habitat Restoration	Establish Additional Trees
	Ponds	Modify Pond 'B' to Master Plan Shape
	Parking Lots	Install Lot 4
	Facility/Amenity	Nature Camp / Adventure Play Area Botanical Garden Install (1) New Restroom
Phase 5	Habitat Restoration	Install Wetland Planting at Pond 'G' Establish Additional Trees
	Ponds	Modify Pond 'E' & 'F' Install Wetland at Pond 'G'
	Roads	Install Secondary Vehicular Road to Parking Lot 6
	Parking Lots	Install Lot 5 & 6

Exhibit 7.2- Phasing Sequence Legend

## 7.3 Phase 1 Implementation

Phase 1 will focus on connecting the expansion area to MISQ. The current landscape of this area includes turf, sand-filled bunkers, trees, cart paths, a restroom building, and numerous ponds. This phase will be focused on the separation of the expansion area from Mile Square Golf Course, which will include modification to the existing infrastructure, pond reconstruction, pedestrian circulation improvements, and the incorporation of facility/amenities.

All existing ponds, with the exception of Pond G, will be preserved in their current locations and form. Pond G will be modified to accommodate the new walking path. Portions of the existing cart paths will remain in place and will connect to wider eight foot walking paths, creating a secondary circulatory network. These pathways will remain intact until future phases require the realignment and development of the area. The primary pedestrian path will loop around the perimeter with a width of 20 feet, in which 12 feet will be paved, and eight feet will remain a natural trail. This will allow Park Rangers to patrol the expansion area, and park staff and contractors to access the site for maintenance. The loop path will align with the overall Master Plan by allowing pedestrian circulation in the expansion area to connect with the existing MISQ network.

Moreover, amenity improvements within this phase will include updating the existing restroom building, placement of two new portable restrooms, six new picnic areas that will overlook two existing ponds, and installation of several new benches throughout the area.

## 7.4 Phase 2A and 2B Implementation

Phase 2 will consist of two sub-phases (Phases 2A and 2B), which will form and connect the core structure of the expansion area to MISQ. This phase will provide the foundational elements for the remaining phases.

Phase 2A will include a new vehicular entrance at the signalized intersection of Euclid Street and Heil Avenue. This will become the new main entrance to MISQ, which will include updated MISQ signage, decorative paving, entry gate, entry gate booth, Park Ranger office building, and new landscaping. This design will help define the entrance by making it easily identifiable for approaching visitors. The current main entrance off Euclid Street will be repurposed as an exit only.

Phase 2A also includes the construction of the main road, which will provide the primary circulation through the expansion area. The road will connect the existing park roadway at the westerly side of the current Overflow Parking Lot by meandering into the central core of the expansion area. The road will then continue east and converge with the existing connection adjacent to the Archery Range. In order to construct the new road, Pond A will need to be removed and disconnected from the drainage system. Ponds B and G will remain in place and their drainage systems will be retrofitted to operate without Pond A.

Phase 2B includes a new maintenance yard that will expand the maintenance and operation facilities for the park. The existing location of the maintenance yard at Warner Avenue will be relocated to a new site, approximately four-acres adjacent to the Fountain Valley Sports Park. Parking Lot 1, the first of six new parking lots in the expansion area, will be conveniently located near the future Great Meadow.

Other modifications to drainage infrastructure and existing pedestrian pathways will be modified during this phase of construction. To facilitate the new vehicular road into the expansion area, portions of the existing park road will have to be realigned and reconfigured to connect the new road.





*Restroom Building - Mile Square Regional Park, 2019*

## 7.5 Phase 3 Implementation

Phase 3 will begin to implement the details and features of the expansion area that will ultimately transform the park. With construction of the mixed-use sports field, Pond D will be removed and disconnected from the other ponds in the drainage network. Parking Lots 2 and 3 will be adjacent to the mixed-use sports field and new vehicular road. The parking lots will provide a significant number of new parking spaces that will accommodate more people. Pond C will need to be reconfigured and reshaped in order to manage construction of the parking lots. More importantly, Pond C will be one of the first visual features that will be observed as visitors enter the eastern edge of the expansion area from MISQ.

The Great Meadow, at the center of the expansion area, will also be graded and installed in this phase. Once the Great Meadow has been completed, it will be open for large events and performances. Flanking the Great Meadow will be the two Grand Promenades that will pay homage to the runway patterns of the former military air base. The Grand Promenades will celebrate and highlight the history of the site, regional events, and the Orange County community. Improvements such as new tree plantings, special paving, benches and other amenities will be installed for the Grand Promenades. The first major habitat restoration and tree planting will also take place in this phase. The installation of trees will frame the western edge of the expansion area, along with the perimeter of the golf course, and throughout other areas of the park.

## 7.6 Phase 4 Implementation

Phase 4 will include significant architectural projects for the expansion area. The Visitor Center and restroom facilities will be built adjacent to the maintenance yard and Pond B. The habitat restoration and tree planting campaign will continue in Phase 4 by furnishing MISQ with more native and existing tree species. Pond B will be modified to fit within the new design of the Visitor Center, and new tree planting will occur along the Grand Promenade. Across from the Visitor Center, the Civic Plaza will be constructed, which will serve as the primary civic heart of the expansion area, located adjacent to the amphitheater and Great Meadow. Parking Lot 4 will be constructed between the Civic Plaza and the Archery Range and will replace the existing Overflow Lot.



*Mile Square Regional Park, 2019*

## 7.7 Phase 5 Implementation

Phase 5 will complete the park expansion by constructing the botanical garden that will cover a large part of the park expansion. The 15-acre botanical garden will stretch from the Loop Road south westerly to Pond G, and will include Parking Lot 5, an outdoor plaza, as well as pathways that will meander through the garden. Phase 5 will also complete the master plan tree installations.

The Botanical Garden will feature a wide variety of California native and adaptive plants. One of the most critical projects within the expansion area will be the conversion of Pond G into a self-sustaining wetland to provide appropriate and thriving habitat for plants and animals native to southern California. Elevated boardwalks will be built along the edge and over portions of Pond D, which will lead visitors to educational and interpretive signs and kiosks. Final shaping and modifications to Ponds E and F will occur during Phase 5 as part of the Botanical Garden implementation that will create new paths for pedestrians.

The final amenity to be constructed will be the Nature Camp and Adventure Play Area. This facility will be designed for children to use for daily play, and as a venue for youth groups to camp overnight with prior reservation. Part of the Camp and Wilderness Area will include a new restroom building near Pond G, which will provide an amenity to the westerly portion of MISQ. Parking Lot 6, the final parking lot in the expansion area, will be constructed to primarily serve the Camp and Wilderness Area, as well as provide parking for buses during group events. A secondary vehicular road will be constructed to link Parking Lot 6 to the loop road. The Nature Camp and Adventure Play Area will be located adjacent to the Botanical Garden, and will be a critical extension of the informal, natural aesthetic of the western end of the expansion area.

## 7.8 Conclusion

This chapter has described the various stages of implementation that will ultimately culminate in the final construction of the Master Plan.



*Mile Square Regional Park North Lake, 2021*



An aerial photograph of a golf course. In the center, there is a large, irregularly shaped pond with a light greenish-blue hue. Surrounding the pond are lush green fairways, numerous trees, and winding paths. To the right of the pond, there is a clubhouse building with a blue roof and a large parking lot. In the foreground, a multi-lane road with traffic lights and a few cars is visible. The background shows a residential neighborhood with houses and trees under a clear sky.

# CHAPTER 8

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# OPERATIONS AND MAINTENANCE



*Nature Area, Mile Square Regional Park, 2020*

## 8.1 Park Administration & Management

### Operating Structure

OC Parks will prepare a detailed operations plan, which will outline how the agency will operate, maintain, and manage the additional park space. This plan will evolve over time as the project builds-out and will follow a phased approach in tandem with project development. With the addition of the 93-acre expansion, the park will grow to 280 contiguous acres under the management and operation of OC Parks.

### Management Structure

The operation and management of the park will be provided through a combination of OC Parks staff and contracted resources. Onsite supervisory Park Ranger and Maintenance positions will provide oversight of staff, lessees, and contracted services.

### Existing Facilities and Operations

There are two controlled access entrance booths, one park office, one maintenance facility with offices, an Archery Range, three soccer fields, six combination baseball/softball fields, four large group picnic shelters, eight public restroom buildings (totaling 80 individual restroom stalls), a youth group campground (Camp Sycamore), an 18-acre Nature Area, two pump houses, one storage building, and Freedom Hall (a 10,000 square foot multi-purpose building) located in the park. There are two fishing lakes and one stormwater channel (the Ocean View Channel) that runs north to south through much of the park until the exit near Mile Square Golf Course, where it then flows under Brookhurst Street.

Several agencies have public utility lines running through the park with recorded easements. They include but are not limited to:

- City of Fountain Valley Water District (domestic water)
- Orange County Water District (reclaimed irrigation water)
- City of Fountain Valley/OC Public Works (storm water and public utilities)
- Southern California Edison Company (electricity)
- Southern California Gas Company (natural gas)
- AT&T (telephone)

### Proposed Facilities and Operations

Proposed new facilities will include a new approximately four-acre maintenance yard located adjacent to the Fountain Valley Sports Park, and a new 4,000 square foot park office located at Euclid Street and Heil Avenue. The current maintenance yard and park offices will be in use during the interim phases of development until the new facilities are constructed. The preferred phasing order for facility construction includes the park offices to be built first, and the maintenance yard subsequently. The existing maintenance yard can be repurposed to house contracted services and provide additional storage space for materials and equipment. The current park office will be converted into a small conference facility for county use.

## Park Maintenance

Maintenance efforts strive to keep the park safe, functional, and attractive for residents and visitors. Stewardship and ongoing maintenance include, but are not limited to, the following:

- Facility patrol, inspection, and vandalism repair
- Natural habitat maintenance (vegetation brushing, erosion and sediment control, tree maintenance, and signage)
- Structures and facilities (restrooms, park office, archery range, Freedom Hall, lake cleaning, sports fields, signage, bridge repair and maintenance, fencing, kiosks, and maintenance yard)
- Amenities (benches, trash receptacles, signage, playgrounds, splash pad, doggie bag dispensers, drinking, fountains, parking lots, gates, lighting, Vita-Course stations, barbeques, picnic tables, benches and trash cans)
- Landscape maintenance and repair



## 8.2 Operations and Maintenance

### Hours of Operation

The hours of operation will continue to be 7:00 a.m. to 6:00 p.m. during Fall and Winter (Standard Time), and 7:00 a.m. to 9:00 p.m. during Spring and Summer (Daylight Savings Time).

The park will not be enclosed by a fence yet will have security lighting on certain buildings and street lighting throughout the park. After-hours visitation and use of the park will not be permitted.

### Staffing

Staffing level models outlined below indicate the current park operations, interim-expansion operations, and final expansion operations. The Interim phase staffing level reflects the recommended staffing level needed to manage the park expansion as a passive open recreation space while the expansion area is being built out. The full staffing level model displays the recommended staffing needed to manage the comprehensive Master Plan.

Current staffing level: 19 staff

- (1) Supervising Park Ranger II - weekdays
- (2) Park Ranger II – weekdays and weekends on rotation
- (1) Park Maintenance Supervisor II – weekdays
- (1) Park Maintenance Supervisor I – weekdays
- (3) Park Maintenance Worker II – weekdays (one position currently vacant)
- (7) Park Maintenance Worker I – weekdays and weekends on rotation
- (2) Part-Time Park Maintenance Worker I (one position currently vacant) - weekends
- (1) Staff Specialist – weekdays and Saturdays
- (1) Office Technician – weekdays

Interim expansion staffing level: 24 staff

- (1) Supervising Park Ranger II – weekdays
- (2) Park Ranger II – weekdays and weekends on rotation
- (1) Park Maintenance Supervisor II – weekdays
- (2) Park Maintenance Supervisor I – weekdays and weekends on rotation (1 additional)
- (4) Maintenance Worker II – weekdays (1 additional)
- (8) Park Maintenance Worker I – weekdays and weekends (1 additional)
- (4) Part-Time Park Maintenance Worker I – weekends (2 additional)
- (1) Staff Specialist – weekdays and Saturdays
- (1) Office Technician – weekdays

Full staffing level: 31 staff

- (1) Supervising Park Ranger II - weekdays
- (3) Three Park Ranger II – weekdays and weekends on rotation (1 additional)
- (1) One Park Maintenance Supervisor II – weekdays
- (2) Park Maintenance Supervisor I – weekdays and weekends on rotation
- (4) Maintenance Worker II – weekdays (1 additional)
- (12) Park Maintenance Worker I – weekdays and weekends (4 additional)
- (4) Part-Time Park Maintenance Worker I – weekends
- (1) Staff Specialist – weekdays and Saturdays
- (1) Office Technician – weekdays
- (1) Part-Time Office Technician – weekends (1 additional)

## Vehicles and Heavy Equipment

This section includes vehicle and equipment inventories that indicate the current park operations, interim-expansion operations, and final expansion operations. The Interim phase inventory level reflects the recommended vehicles and equipment needed to manage the park expansion as a passive open recreation space while the expansion is being developed. The full development model displays the recommended vehicles and equipment needed to manage the comprehensive Master Plan.

Current on-site vehicles and equipment for maintenance and operations: 19 vehicles

- (2) full-size Park Ranger patrol vehicles
- (1) mid-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance pickup truck with hydraulic lift-gate
- (1) mid-sized Staff Specialist pickup truck
- (2) full-sized maintenance pickup trucks
- (3) full-sized stake-bed trucks, two with hydraulic lift-gate
- (6) utility vehicles
- (1) tractor
- (1) 50-foot boom lift

Interim expansion vehicles and heavy equipment for maintenance and operations: 23 vehicles

- (2) full-size Park Ranger patrol vehicles
- (1) mid-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance pickup truck with hydraulic lift-gate
- (1) mid-sized Staff Specialist pickup truck
- (2) full-sized maintenance pickup trucks (1 additional)
- (1) mid-sized maintenance pickup truck (1 additional)
- (3) full-sized stake-bed trucks, two with hydraulic lift-gate
- (8) utility vehicles (2 additional)
- (1) tractor
- (1) 50-foot boom lift
- (1) track loader (1 additional) \* used for small narrow paths

Fully developed expansion vehicles and equipment for maintenance and operations: 28 vehicles

- (3) full-size Park Ranger patrol vehicles (1 additional)(1) mid-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance Supervisor pickup truck
- (1) full-sized Park Maintenance pickup truck with hydraulic lift-gate
- (1) mid-sized Staff Specialist pickup truck
- (4) full-sized maintenance pickup trucks (1 additional)
- (1) mid-sized maintenance pickup truck (1 additional)
- (3) full-sized stake-bed trucks, three with hydraulic lift-gate (1 additional)
- (9) utility vehicles (1 additional)
- (1) Kubota tractor
- (1) 50-foot boom lift
- (1) track loader \* used for small narrow paths

## Equipment Needs

The importance of having the correct equipment to perform maintenance tasks cannot be overstated. Identifying new equipment, upkeeping inventory, and scheduling replacements are necessary requirements for park maintenance. Even in cases of an established fleet with proper equipment, the need to continually plan and prepare for replacements is ongoing.

## Contract Services

Many of the required operating and maintenance activities in the park will be provided under contract.

These may include:

- Habitat restoration—mitigation to restore native habitat and manage vegetation
- Landscape maintenance – mowing, trimming, edging of turf areas throughout the park, doggie bag dispensers, and trash collection
- Certified irrigation technicians
- Hardscape maintenance
- Lake water quality monitoring and maintenance
- Graffiti abatement
- Trash disposal
- Asphalt/concrete maintenance and repair
- Sports field and open lawn/amphitheater maintenance
- Pest control
- Street sweeping
- Tree maintenance—tree pruning along trails, large tree and stump removal, trimming, and arborist services
- Invasive plant management—removal of invasive or diseased vegetation from natural areas
- Parking—vehicle gate attendants and the collection of parking fees through controlled access gates located on-site
- Drainage maintenance—clear debris and vegetation from drains and outlets
- Utilities—accounts with typical service providers for electric, gas, sewer, potable water, reclaimed water (for irrigation), telephone, and telecommunications

## Safety and Security

Visitor safety and security are provided through collaboration between OC Parks staff, the Orange County Sheriff's Department, Fountain Valley Police Department, and local emergency service providers. Orange County Park Rangers are sworn peace officers, trained to encourage voluntary compliance with the Orange County Codified Ordinances through progressive enforcement measures. They have authority to issue civil citations for ordinance violations such as off leash dogs, alcohol possession and/or consumption, and parking violations. Criminal activity within the regional parks is addressed by the Orange County Sheriff's Department and local agencies such as the Fountain Valley Police Department. Security for park office buildings, Freedom Hall, the Archery Range, and maintenance yards may include security lighting and surveillance cameras. Specific locations will be addressed during the design development phase.

Medical emergencies are addressed by Park Rangers and other staff trained as first-responders, and by various fire agencies such as the Fountain Valley Fire Department and the Orange County Fire Authority. OC Parks participates in a sophisticated dispatch network, which ensures a timely response to both public safety and health incidents in the park.



*Overflow Lot, Mile Square Regional Park, 2021*



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### **General Development Plan Framework**

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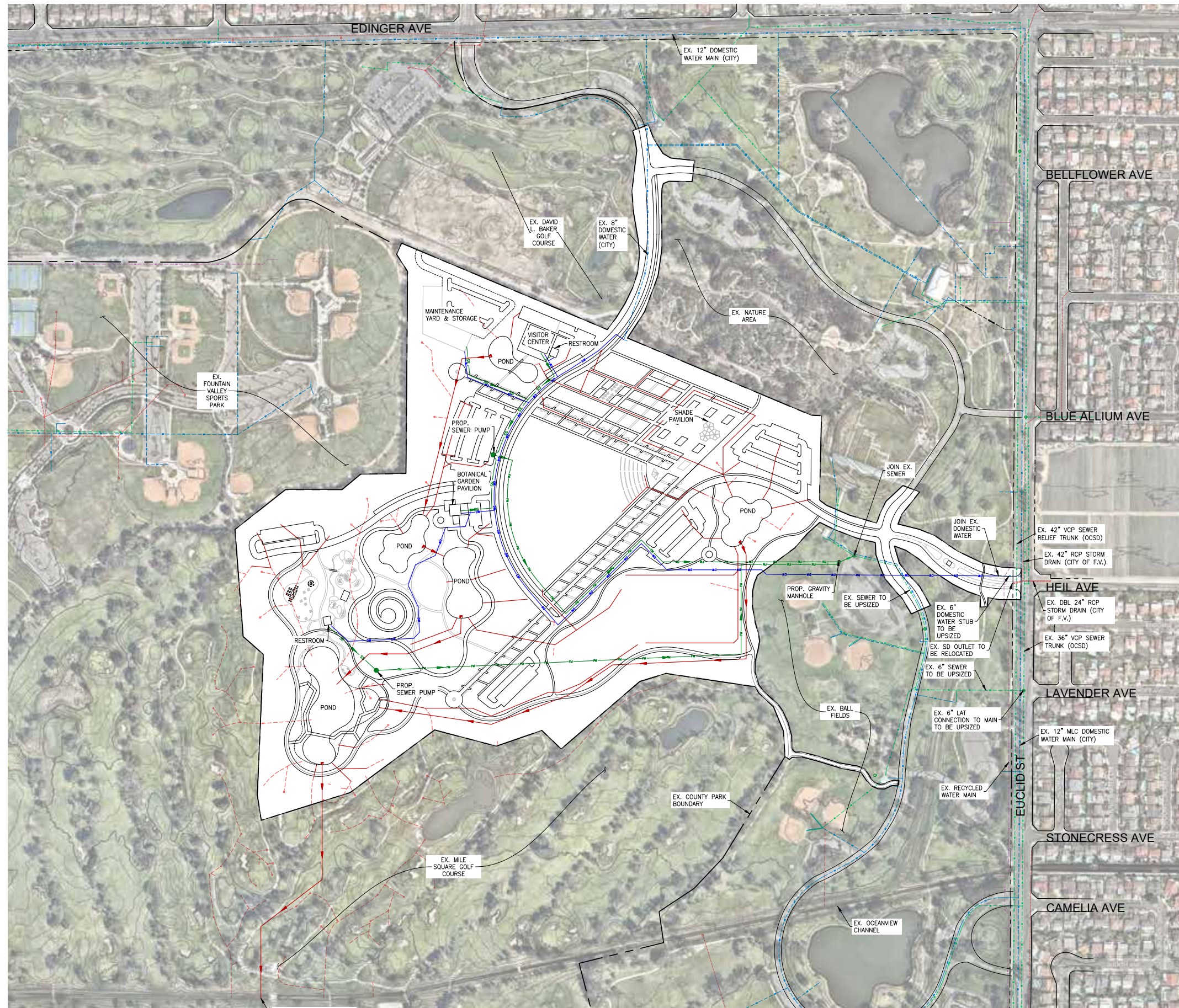
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# APPENDICES

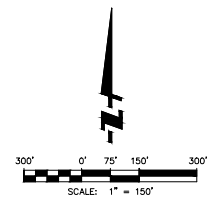
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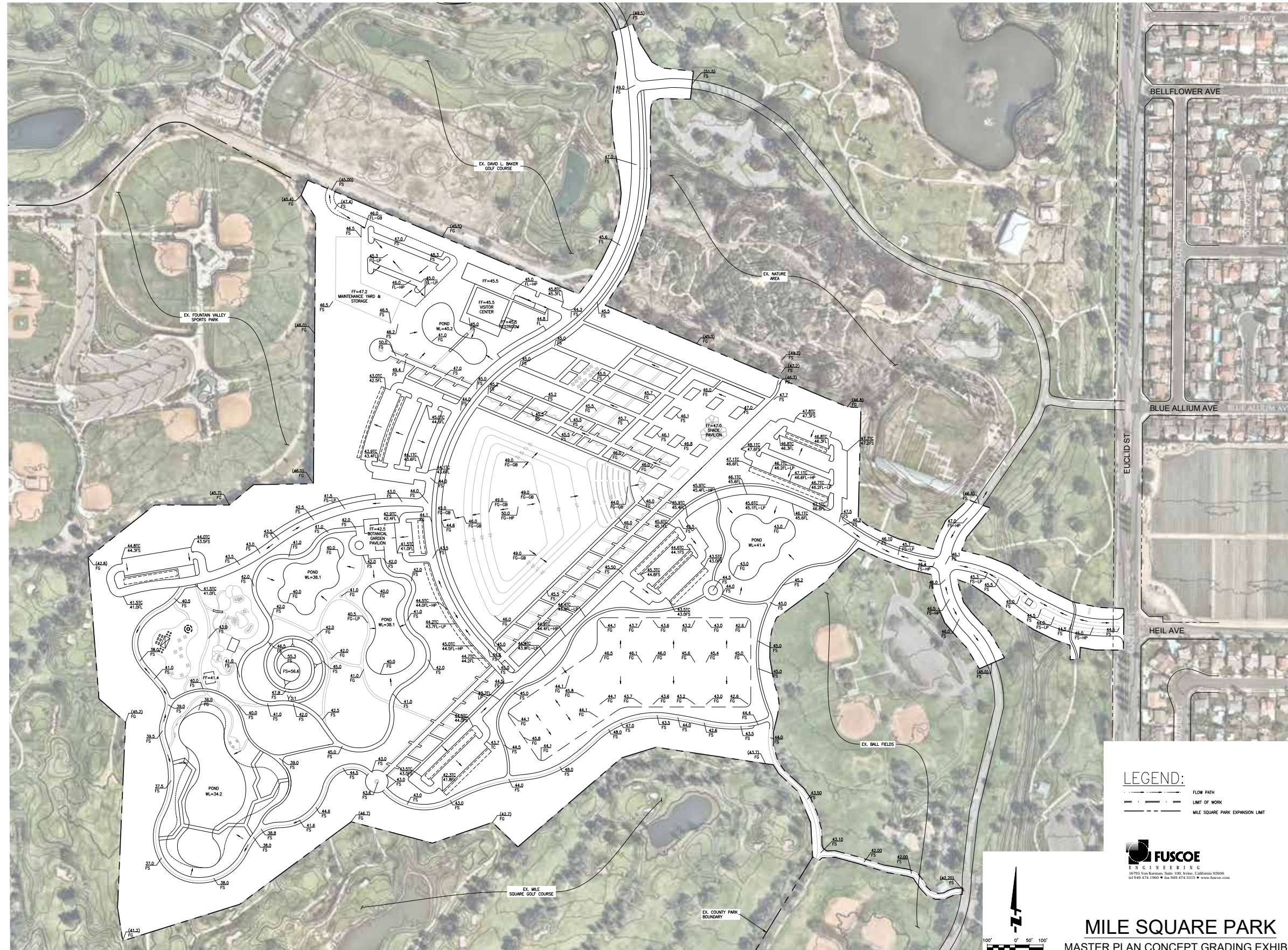
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- PROP. SEWER MAIN
- ↑ PROP. SEWER FORCE MAIN
- ↑ PROP. SEWER PUMP
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- EXIST. DOMESTIC WATER MAIN
- EXIST. STORM/AREA DRAIN
- EXIST. RECYCLED WATER MAIN



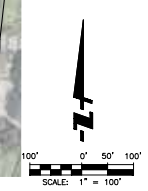
**MILE SQUARE PARK**  
 MASTER PLAN CONCEPT UTILITIES EXHIBIT

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**LEGEND:**  
 - - - - - FLOW PATH  
 - - - - - LIMIT OF WORK  
 - - - - - MILE SQUARE PARK EXPANSION LIMIT



**MILE SQUARE PARK**  
 MASTER PLAN CONCEPT GRADING EXHIBIT