

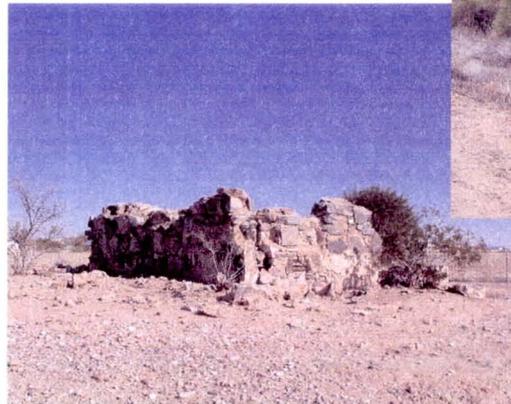
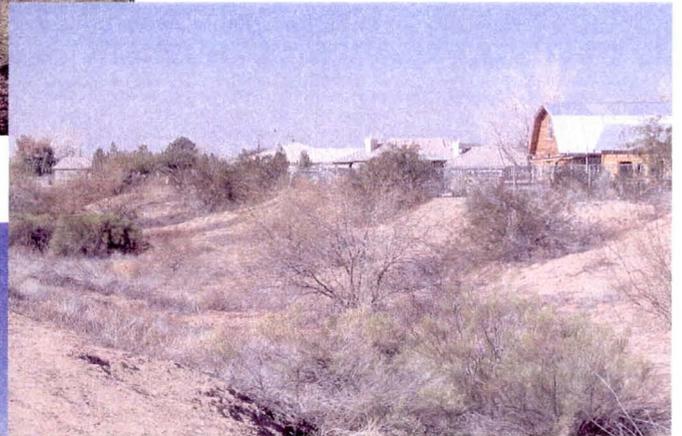
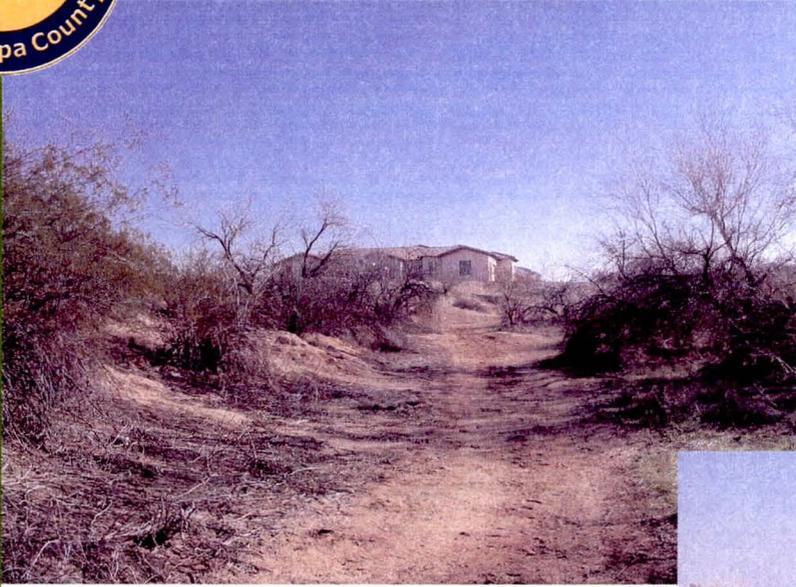
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SONOQUI WASH CHANNELIZATION

June 2004



S I T E A N A L Y S I S R E P O R T



Sonoqui Wash Channelization Project Site Analysis Report

Prepared for:
Flood Control District of Maricopa County



Prepared by:
Logan Simpson Design Inc.
51 West Third Street, Suite 450
Tempe, Arizona 85251

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INTRODUCTION and METHODOLOGY

The Sonoqui Wash Channelization Project Site Analysis includes the documentation of existing and planned land use, ownership, zoning, infrastructure, environmental considerations, scenery resources, and existing and planned recreation facilities for the project area. The purpose of the project site analysis is to identify and describe the physical and functional relationship of the project area to the physical surroundings within and adjacent to the project area and the opportunities and constraints that apply based on this existing data. The project area is defined as the area approximately 100 feet on either side of the centerline of Sonoqui Wash.

This Site Analysis Report is organized into the following sections.

- Existing and Planned Land Use/Ownership/Zoning
- Existing Infrastructure
- Environmental Considerations
- Scenery Resource Assessment
- Multi-Use/Aesthetic Improvement Opportunities

EXISTING AND PLANNED LAND USE/OWNERSHIP/ZONING

To understand the local context of the project area, the land use, ownership, and zoning within 0.25 mile of the project area were identified. The existing land use was based on the December 2003 aerial photography of the project area and field verified in February 2004. The source of the information for the planned land use and land ownership was taken from the *Town of Gilbert's 2003 General Plan*, the *Town of Queen Creek's 2002 General Plan and Open Space Plan*, the October 2003 Maricopa County Assessor's Map, and development plans provided by the Town of Gilbert, Town of Queen Creek, and the individual developers of Sossaman Estates, Sunridge Homes, Trilogy, Marbella Vineyards, and Shamrock Developments. This information was also verified by the Project Aesthetic Advisory Committee (PAAC) members at PAAC Meeting #2, on March 18, 2204.

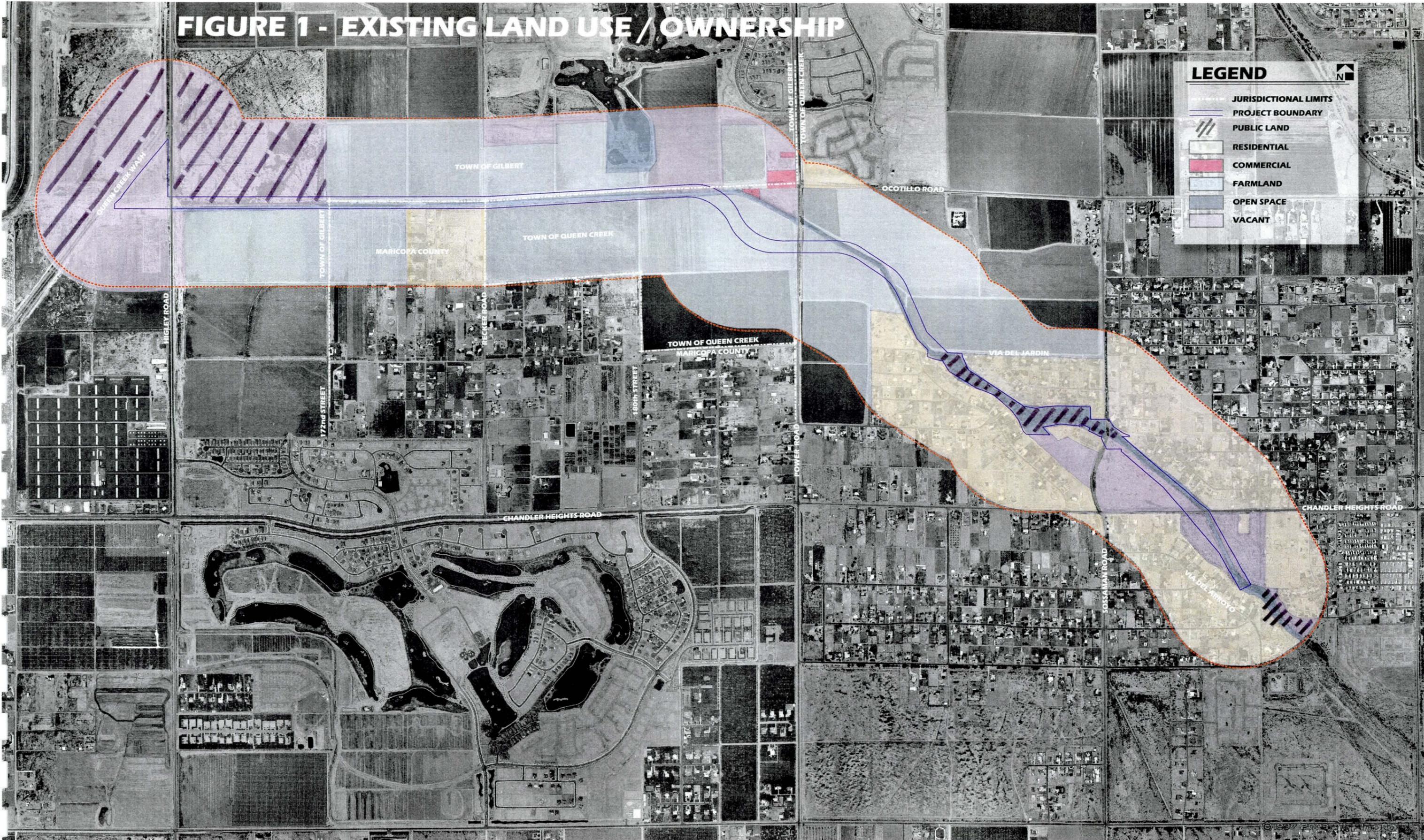
EXISTING LAND USE

The following existing land use and/or ownership were identified within the 0.25 mile area adjacent to the project area.

- Farmland
- Residential
- Commercial
- Open Space
- Vacant
- Undeveloped Public Land

Figure 1, Existing Land Use/Ownership, illustrates the existing land use and ownership for the project area and the lands within 0.25 mile of the Sonoqui Wash project area.

FIGURE 1 - EXISTING LAND USE / OWNERSHIP



Farmland

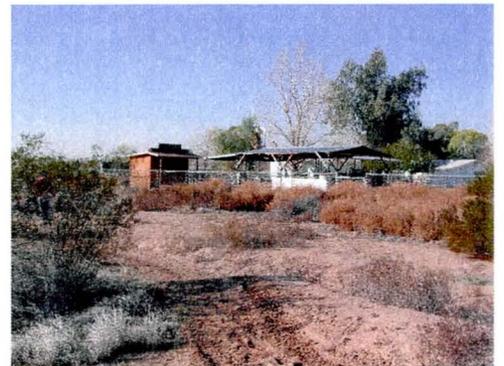
- Farmland is currently the most prominent land use within the project area and was uncultivated at the time of the site investigation. The farmland parcels or fields, adjacent to the wash corridor, are generally laid out in one-eighth and one-sixteenth section parcels with dirt roads providing access to each field. The majority of the farmland within the project area is located between Higley Road and Via Del Jardin. All fields are currently being flood irrigated.



Farmland

Residential

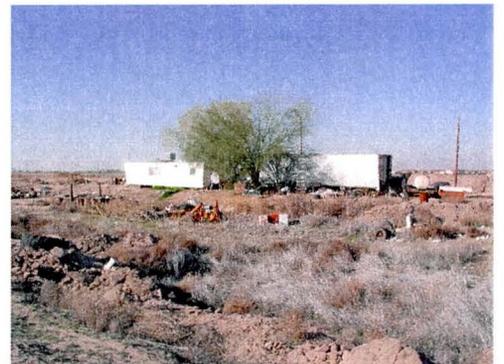
- Existing residential areas are located primarily between 186th Street and 197th Place and between Via Del Jardin and 197th Place and are currently zoned rural residential (R-43 and R1-43, respectively). These residential properties are generally located on 1-acre parcels and are identified as “horse properties” - properties that have the right to board horses and/or domestic farm animals. They typically consist of single-family residences, with the majority of properties directly adjacent to Sonoqui Wash having their own private access gates to the wash corridor. The Rancho Del Jardin subdivision, located west of Sossaman Road, is currently the most notable residential development within the project area.
- The existing subdivisions do not appear to have any Covenants, Conditions and Restrictions (CC&Rs) that would require a consistent aesthetic and/or requirements for architecture, outbuildings, fences, walls, or landscaping. Right-of-way fences, walls, and outbuildings along Sonoqui Wash vary in type and condition of materials and give a “hodge-podge” effect within these portions of the wash corridor identified above.



Residential

Commercial

- Existing commercial lands within the project area are located west of Power Road in close proximity to Sonoqui Wash. These properties are contractor construction areas associated with future housing developments that are being constructed and an adobe block manufacturer.



Commercial

Open Space

- Existing open space within the project area consists of Sonoqui Wash, the privately owned Trilogy Golf Course, and Queen Creek Wash. The Trilogy Golf Course is located within the Town of Gilbert, just north of Sonoqui Wash between Recker and Power Roads. The southern most portion of the golf course nearest the wash corridor provides a natural, drought-tolerant buffer with native plant materials. Queen Creek Wash is currently undeveloped open space.



Open Space

Vacant

- The existing vacant land consists of land that is currently not developed or being utilized for farmland. The majority of vacant land within the project area is located at the northwest, southwest, and northeast corners of Higley and Ocotillo Roads. Vacant land within the project area is also located between Recker and Power Roads north of Sonoqui Wash and between Sossaman Road and 196th Street adjacent to the wash corridor. A small parcel of vacant land exists west of Sossaman Road, south of Sonoqui Wash.



Vacant

Undeveloped Public Land

- The majority of the land within and immediately adjacent to Sonoqui Wash is under private ownership. The Town of Queen Creek owns the delineated open space area that is just south of Via Del Jardin and east of Via Del Arroyo, which reaches to just east of Sossaman Road. The other parcel of public land owned by Queen Creek is located just south of Via De Arboles. Future use of these parcels is currently identified as parkland.
- The Town of Gilbert owns the land just west of the Sonoqui Wash project boundary and has future plans to make this area into a regional park that also serves as a water retention basin. The other area that is publicly owned by the Town of Gilbert is located just east of Higley Road and will be a water recharge facility; the Town has future plans to develop this area as a riparian preserve.



Public Land

PLANNED LAND USE

The following planned land uses were identified within and/or immediately adjacent to the project area.

- Residential
- Commercial
- Business Park
- Park/Retention
- Golf Course
- Public

Figure 2, Planned Land Use/Zoning, illustrates the planned land use and zoning for the project area and the lands within 0.25 mile of the Sonoqui Wash project area.

Residential

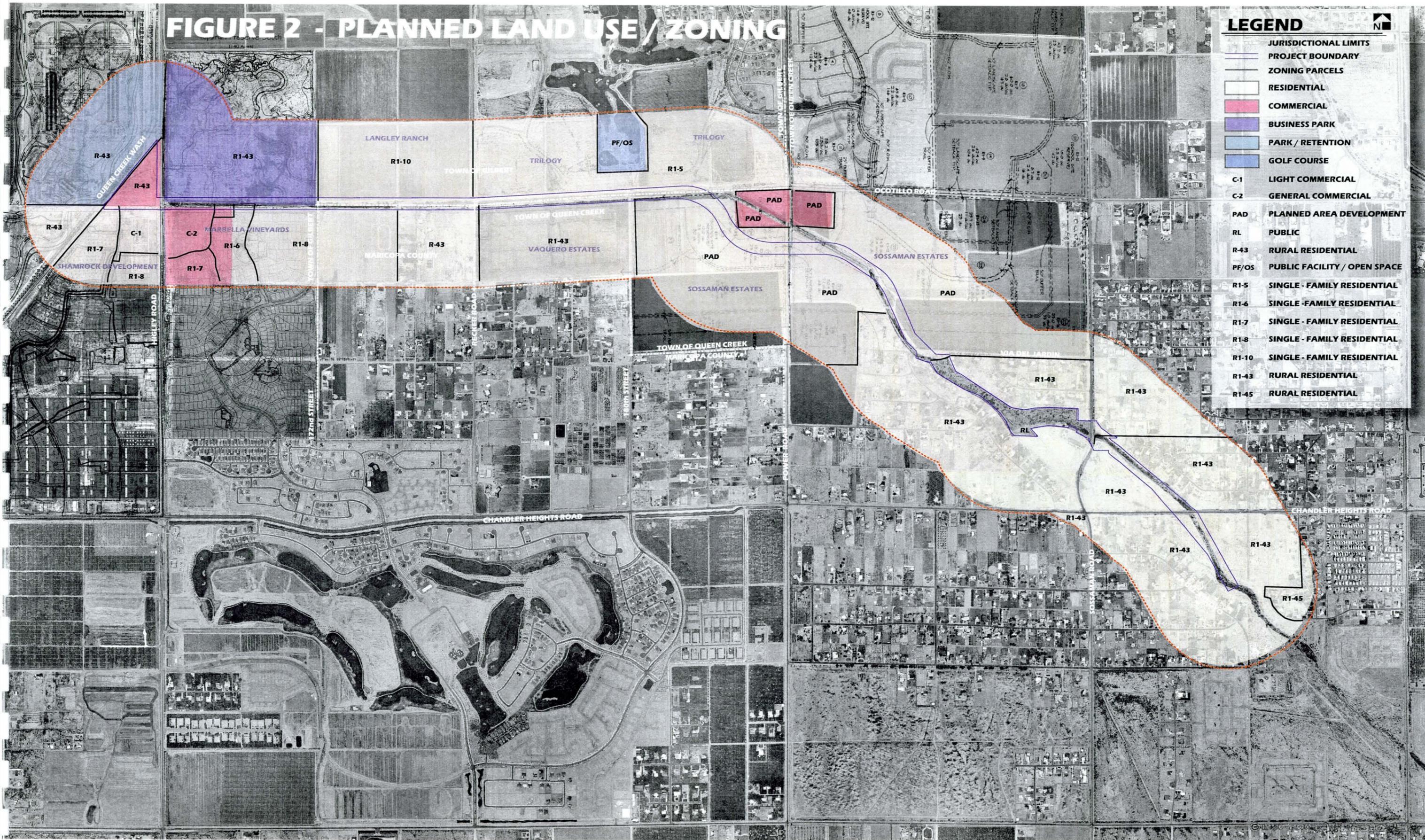
There are several planned residential developments adjacent to the project area. These include Sossaman Estates, Sunridge Homes, Trilogy, Marbella Vineyards, and Shamrock Development and are generally located between Power and Higley Roads. The following is a summary of the planned residential lands within the project area.

- In addition to the existing R-43 and R1-43 residential properties, the majority of the existing farmland and half of the vacant land is planned for residential development. The majority of the planned residential land is zoned R-43, R1-43, or R1-45, which are rural residential (one acre per dwelling unit). Areas of exception are:
 - R1-5 Single-Family Residential (5,000 sq. ft. per dwelling unit)
 - R1-6 Single-Family Residential (6,000 sq. ft. per dwelling unit)

FIGURE 2 - PLANNED LAND USE / ZONING

LEGEND

-  JURISDICTIONAL LIMITS
-  PROJECT BOUNDARY
-  ZONING PARCELS
-  RESIDENTIAL
-  COMMERCIAL
-  BUSINESS PARK
-  PARK / RETENTION
-  GOLF COURSE
-  C-1 LIGHT COMMERCIAL
-  C-2 GENERAL COMMERCIAL
-  PAD PLANNED AREA DEVELOPMENT
-  RL PUBLIC
-  R-43 RURAL RESIDENTIAL
-  PF/OS PUBLIC FACILITY / OPEN SPACE
-  R1-5 SINGLE - FAMILY RESIDENTIAL
-  R1-6 SINGLE - FAMILY RESIDENTIAL
-  R1-7 SINGLE - FAMILY RESIDENTIAL
-  R1-8 SINGLE - FAMILY RESIDENTIAL
-  R1-10 SINGLE - FAMILY RESIDENTIAL
-  R1-43 RURAL RESIDENTIAL
-  R1-45 RURAL RESIDENTIAL



- R1-7 Single-Family Residential (7,000 sq. ft. per dwelling unit)
- R1-8 Single-Family Residential (8,000 sq. ft. per dwelling unit)
- R1-10 Single-Family Residential (10,000 sq. ft. per dwelling unit)

R1-5 is located between Recker and Power Roads, north of Sonoqui Wash. R1-6, R1-7, and R1-8 lands are located between 172nd Street and Queen Creek Wash. R-10 is located between 172nd Street and Recker Road, north of Sonoqui Wash. A small parcel of planned residential land at the southwest corner of Higley and Ocotillo Roads is zoned Light Commercial District (C-1). The remaining planned residential land is zoned Planned Area Development (PAD) and located between 180th Street and Sossaman Road.

The overall planned residential land use within the project area increases in density from the eastern end (R1-43) to the western end (R1-6) of the wash corridor.

Commercial

- Planned commercial lands are proposed at two general locations; the southwest and southeast corners of Power and Ocotillo Roads, and at the southeast and northwest corners of Higley and Ocotillo Roads. The zoning for the commercial parcels at Higley and Ocotillo Roads is R-43, R1-6, R1-7, and C-2 (General Commercial District). It is anticipated that the commercial properties at these locations will be small retail indicative of Circle Ks, Walgreens, strip centers, etc.
- The zoning for the commercial parcels on the south side of Ocotillo Road at Power Road is PAD. It is anticipated that these parcels will also be small retail/restaurant type developments. The two parcels located on the west side of Power Road and directly adjacent to Sonoqui Wash lend the best opportunities for connection to the wash corridor.

Business Park

- A planned business park is located east of Higley Road and north of the wash corridor with a zoning of R1-43. Although it is planned Business Park, the Town of Gilbert anticipates utilizing this parcel for its water recharge site, which currently has isolated areas of moderate, well established vegetation.

Park/Retention

- A planned park/retention area is located west of Higley Road and the Queen Creek Wash, and is referred to as the Chandler Heights Basin. It is publicly owned by the Town of Gilbert and zoned R-43. This area has recently been designed through a Maricopa County Flood Control District project and will include native plantings and natural landforms.

Golf Course

- The existing Trilogy Golf Course located between Recker and Power Roads, north of Sonoqui Wash, is the only golf course land use within the project area. It is located within a gated community.

Public

- The area of Sonoqui Wash located between Via Del Jardin and Sossaman Road is planned Public Land (RL).

LAND USE OPPORTUNITIES AND CONSTRAINTS

The existing and planned land use, ownership, and zoning present both opportunities and constraints for meeting the project's goals and objectives.

- The rural character of the existing farmland and residential ranch developments reflect the history and values of the Towns of Queen Creek and Gilbert. Integrating architectural principles, materials, forms, and patterns indicative of this character into the wash corridor aesthetics would serve to provide a unifying element with the adjacent land uses and preserve and maintain both the Towns' images.

- New planned developments provide the opportunity to connect the Sonoqui Wash corridor to their multi-use path and open space systems. Open space areas located on the perimeter of the planned developments and adjacent to Sonoqui Wash would enhance the openness of the wash corridor and lessen the linear monotony of the channel.
- The transition of residential densities from the eastern to western end of the project will be reflected in the number and locations of site amenities, access points, and flood control facilities within the corridor.
- The proposed channel facilities may take advantage of the landscaping/aesthetic treatments/easements utilized by the new planned developments to create continuity throughout the project area.
- New commercial developments provide opportunities to front their facilities onto the wash corridor to take advantage of the public open space and provide amenities such as food, drinks, and rest for corridor users as well as the general public. Connectivity and linkages to commercial developments adjacent to the Sonoqui Wash corridor would be mutually beneficial by providing access to services from the corridor and/or by providing trailhead access.
- The Town of Gilbert's recharge facility and its Chandler Heights Basin recreation facilities will provide the opportunity for destination points along the project's planned multi-use path.

EXISTING INFRASTRUCTURE

This section describes the existing infrastructure within and immediately adjacent to the project area and the opportunities and constraints that apply based on this existing data. To understand the availability and convenience of access to the project area, the type and level of service of existing transportation and utility corridors within 0.25 mile of the project area were identified.

Sources for the base infrastructure information included the *Town of Gilbert's 2003 General Plan*, the *Town of Queen Creek's 2002 General Plan*, the *Maricopa Association of Governments (MAG) Regional Transportation Plan*, and field survey information. The existing infrastructure information was compiled and identified on the December 2003 aerial photography of the project area and verified in the field in February 2004.

The following existing infrastructure elements were identified within and/or immediately adjacent to the project area.

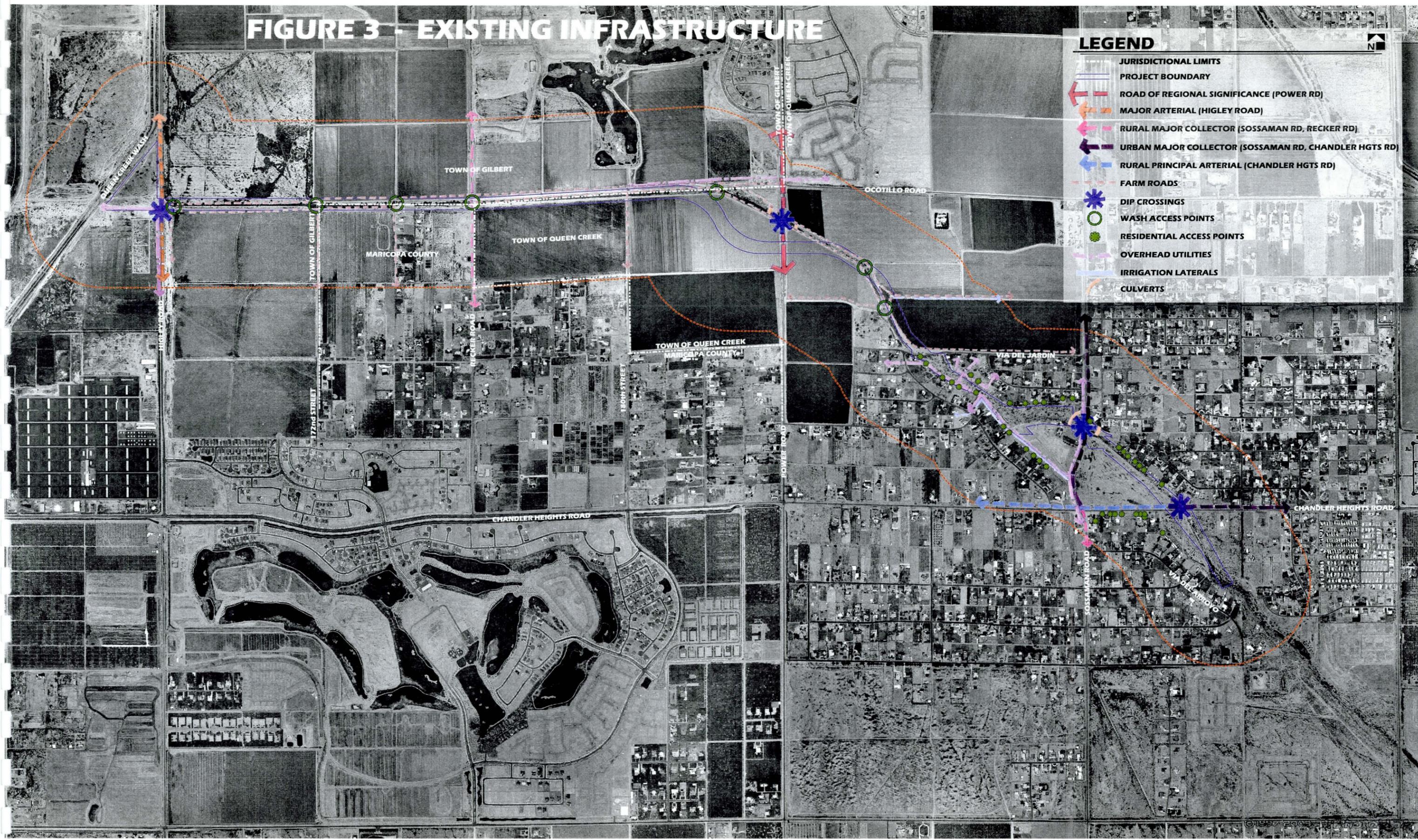
- Local and Regional Transportation Corridors
- Utilitarian Circulation and Access (for farming activities)
- Informal Connectivity and Access
- Surficial Utilities

Figure 3, Existing Infrastructure, illustrates the existing transportation and utility corridors for the project area and the lands within 0.25 mile of Sonoqui Wash.

LOCAL AND REGIONAL TRANSPORTATION CORRIDORS

- Power Road is the only road of regional significance within the project area classified by MAG and the Town of Gilbert. Currently developed as a rural two-lane paved roadway with dirt shoulders, future planned improvements to Power Road will include widening the road to six lanes with a median and bike lane to achieve the regional road service level.
- Higley Road, classified as a major arterial within the Town of Gilbert, is currently developed as a rural two-lane paved roadway with dirt shoulders. Future roadway plans will make Higley Road a four-lane paved roadway with paved shoulders.

FIGURE 3 - EXISTING INFRASTRUCTURE



LEGEND

- JURISDICTIONAL LIMITS
- PROJECT BOUNDARY
- ROAD OF REGIONAL SIGNIFICANCE (POWER RD)
- MAJOR ARTERIAL (HIGLEY ROAD)
- RURAL MAJOR COLLECTOR (SOSSAMAN RD, RECKER RD)
- URBAN MAJOR COLLECTOR (SOSSAMAN RD, CHANDLER HGTS RD)
- RURAL PRINCIPAL ARTERIAL (CHANDLER HGTS RD)
- FARM ROADS
- DIP CROSSINGS
- WASH ACCESS POINTS
- RESIDENTIAL ACCESS POINTS
- OVERHEAD UTILITIES
- IRRIGATION LATERALS
- CULVERTS

- Sossaman Road and Recker Road are both classified as rural major collectors. The existing stretch of Recker Road that is located south of the project area boundary is a rural two-lane paved roadway. The portion of Recker Road that is within the project area and north of the project boundary is an existing two-lane dirt road. Sossaman Road south of Chandler Heights Road is currently classified as a rural major collector consisting of a two-lane paved roadway with dirt shoulders. Future roadway improvements to Recker and Sossaman Roads, in these areas will consist of a two-lane paved roadway with a turn lane and paved shoulders.
- Sossaman Road and Chandler Heights Road are classified as urban major collectors. The section of Sossaman Road that is located north of Chandler Heights Road is classified as an urban major collector consisting of two-lane paved roadway with dirt shoulders. The section of Chandler Heights Road located east of Sonoqui Wash is classified as an urban major collector. Future roadway improvements to Sossaman and Chandler Heights Roads, in these areas will consist of a four-lane paved roadway with a turn lane and a bike lane.
- Chandler Heights Road is classified as a rural principal arterial west of Sonoqui Wash, and currently consists of a two-lane paved roadway with dirt shoulders. Future roadway improvements to this section of Chandler Heights Road will consist of a four-lane paved roadway with a turn lane and paved shoulders.
- There are currently three dip crossings located at Power, Sossaman, and Chandler Heights Roads. While the dip crossings allow for vehicular traffic to cross the wash, they provide unsafe crossings for Sonoqui Wash users who must cross with limited site visibility lines in both directions of oncoming traffic.
- Existing 18"-24" concrete culverts are located at the dip crossings of Power and Sossaman Roads. These culverts allow for through drainage of Sonoqui Wash's low flow events and provide a vegetative microclimate from the regular ponding of water at the culvert outlets.
- The future Ocotillo Road from Higley Road to Power Road will be developed as a minor arterial street with a right-of-way of 110'. It will consist of a four-lane paved roadway with a striped median, bike lanes, and detached sidewalks on both sides.

UTILITARIAN CIRCULATION AND ACCESS (for farming activities)

- Several dirt farm roads are located parallel to Sonoqui Wash along the edge of adjacent cultivated fields, while others actually cross the wash to provide access between fields. The farm road crossings of the wash are somewhat graded or cut into the slope to allow for access down the wash embankment.

INFORMAL CONNECTIVITY AND ACCESS

- Many informal dirt trails are located within and adjacent to the Sonoqui Wash corridor. The main recreational users of the corridor appear to be equestrians, hikers/walkers, mountain bikers, and/or motorized all terrain vehicle (ATV) users. Many of the trails have been cut into and/or across existing wash landforms, which has increased erosion and produced a potential dust control issue.
- There are many individual private access points/gates to single-family equestrian properties along the wash corridor from Via Del Jardin to 196th Street. Many of the private access points traverse the natural slope of the wash embankments, however some have built-up dirt ramps from the wash bottom to the residential gate, which may impede floodwater flows.

SURFICIAL UTILITIES

- Surficial utilities are those utilities that are on or near the surface. Existing utilities include overhead power lines and flood irrigation laterals. While many of the utilities are located within roadway rights-of-way, some run parallel and/or connect perpendicular to the wash corridor with an individual utility right-of-way. This occurs mostly within the Rancho Del Jardin subdivision between Sossaman Road and Via del Jardin, which also provides additional access points for the Sonoqui Wash users.

INFRASTRUCTURE OPPORTUNITIES AND CONSTRAINTS

The existing infrastructure and future planned improvements to the existing infrastructure present both opportunities and constraints for meeting the project's goals and objectives.

- Major roads of significance, arterials, and collectors can provide wash corridor access points by connecting on-street sidewalks, paths, and/or bike routes to the wash corridor multi-use path system.
- Safe roadway and wash corridor crossings can be addressed by providing vehicular bridges or at-grade crossings. Bridges will need to provide a minimum 10-foot clearance to allow equestrian users to pass under the bridge. Dip crossings will need to be evaluated for the most appropriate location to cross as well as providing pavement markings and signage for multi-use path crossings.
- Existing farm road wash crossings may identify logical access points for future path connections due to the fact that the majority are located at mile, half-mile, and quarter-mile locations which development has a tendency to adhere to.
- Existing dirt trail locations and usage provide an understanding of how the corridor is used today, to what extent, and by whom. Existing recreational usage and future trends need to be evaluated for overall compatibilities and/or conflicts in meeting the project's goals and objectives.
- The amount and frequency of individual residential access points may interfere with the safety and liability of the "through" wash corridor user, since the function of a regional trail is much like a "limited access" roadway. The physical constraints of the wash corridor may also preclude direct access of individual properties to the main multi-use path.
- Joint use of easements or rights-of-way for some utilities may provide additional opportunities for pathway access points, alignments, and/or amenities.

ENVIRONMENTAL CONSIDERATIONS

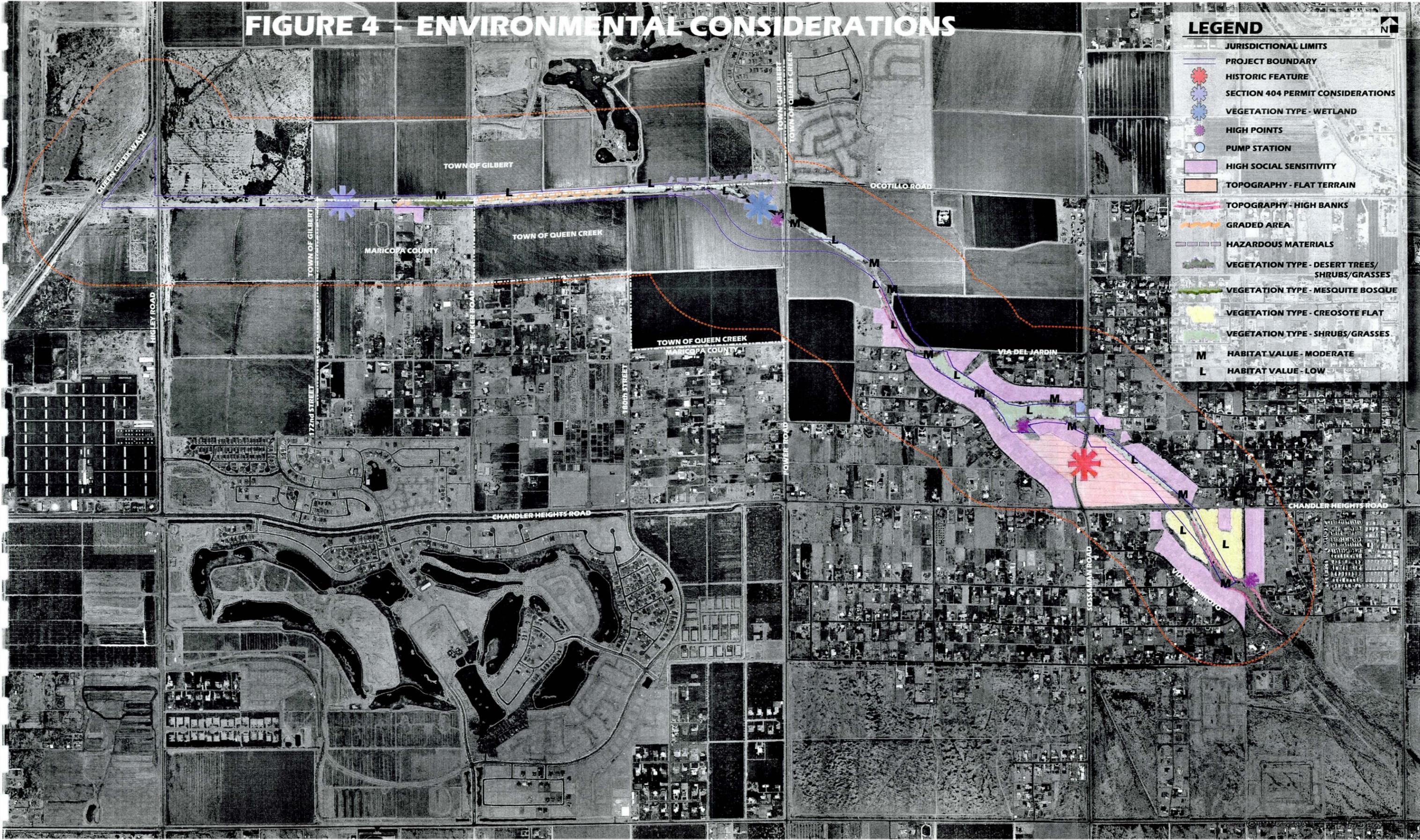
This section describes the existing environmental considerations within and immediately adjacent to the project area and the opportunities and constraints that apply based on this existing data. To understand the overall environmental considerations of the project area, the type and level of value of existing considerations within 0.25 mile of the project area were identified. The existing environmental considerations information was based on a site reconnaissance survey in February 2004 and from technical information provided by the Flood Control District of Maricopa County (District).

The following existing environmental considerations were identified within and/or immediately adjacent to the project area.

- Cultural Considerations
- Section 404 Considerations
- Topography Considerations
- Vegetation and Habitat Considerations
- Miscellaneous Considerations

Figure 4, Environmental Considerations, illustrates the existing natural, physical, and cultural considerations for the project area and the lands within 0.25 mile of the Sonoqui Wash project area.

FIGURE 4 - ENVIRONMENTAL CONSIDERATIONS



LEGEND

- JURISDICTIONAL LIMITS
- PROJECT BOUNDARY
- ✳ HISTORIC FEATURE
- ✳ SECTION 404 PERMIT CONSIDERATIONS
- ✳ VEGETATION TYPE - WETLAND
- ✳ HIGH POINTS
- PUMP STATION
- HIGH SOCIAL SENSITIVITY
- TOPOGRAPHY - FLAT TERRAIN
- TOPOGRAPHY - HIGH BANKS
- GRADED AREA
- HAZARDOUS MATERIALS
- VEGETATION TYPE - DESERT TREES/SHRUBS/GRASSES
- VEGETATION TYPE - MESQUITE BOSQUE
- VEGETATION TYPE - CREOSOTE FLAT
- VEGETATION TYPE - SHRUBS/GRASSES
- M HABITAT VALUE - MODERATE
- L HABITAT VALUE - LOW

CULTURAL CONSIDERATIONS

- The Desert Wells Stage Stop ruin is the only known culturally significant property located within the project area. The ruin is located east of Sossaman Road within a fenced area. An identification marker, sign, and hitching posts allow people to stop and look at what remains of the stone building. A Class III Intensive Pedestrian Survey was completed by the Scientific Archeological Services; no other significant cultural resources were identified within the project area.

SECTION 404 CONSIDERATIONS

- Sonoqui Wash falls under the jurisdiction of the US Army Corps of Engineers. Any modification to the channel will require a Section 404 permit. An individual permit is anticipated and will require mitigation as part of the permitting process.

TOPOGRAPHY CONSIDERATIONS

- The natural lay of the land was evaluated and placed into two categories, flat terrain and high banks.
- Three relative high points that allow unobstructed views of the wash corridor have been identified. The specific locations of each of these high points are identified in *Figure 6, Environmental Considerations*.

VEGETATION AND HABITAT CONSIDERATIONS

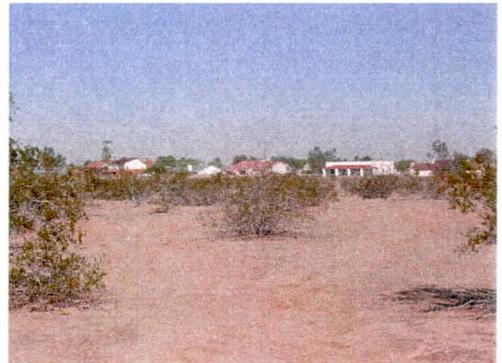
- Four categories of vegetation types indicative of the Sonoran Desert were identified within the project area and describe the natural plant associations found within each type. The “Desert Trees/Shrubs/Grasses” type indicates a higher diversification of individual plant species generally consisting of native mesquite, blue palo verde, tamarisk, parkinsonian palo verde, cat claw acacia, creosote, desert broom, triangle-leaf bursage, and a variety of grasses. The “Mesquite Bosque” type indicates a predominate monoculture of native mesquite trees that is commonly found in riparian areas. The “Creosote Flat” type indicates another type of predominate monoculture typically found on flat alluvial terrain adjacent to a main drainage corridor. The “Shrubs/Grasses” vegetation generally consists of creosote, desert broom, triangle-leaf bursage, and a variety of grasses. The “Shrubs/Grasses” vegetation type provides a median between the diversity of the “Desert Trees/Shrubs/Grasses” type and the monocultures of the “Mesquite Bosque” and “Creosote Flat” types.
- Wildlife habitat was also evaluated based on vegetation density, canopy cover, variety of plant species, amount of disturbance, and connectivity. There was no “high” habitat value found within the project area. “Moderate” and “low” habitat values were identified and directly related to the vegetation types and densities.



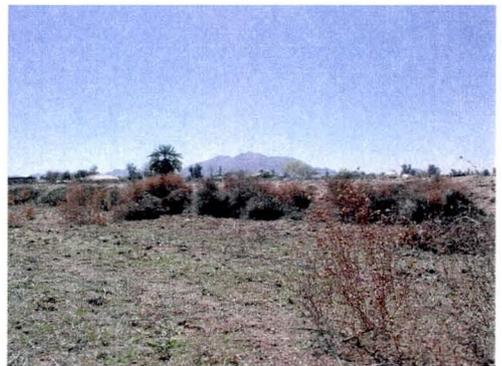
Desert Trees/Shrubs/Grasses



Mesquite Bosque



Creosote Flat



Shrubs/Grasses

MISCELLANEOUS CONSIDERATIONS

- Areas of High Social Sensitivity were identified where impacts to the wash corridor would directly affect existing adjacent residents. The majority of the social impacts would occur in the Rancho Del Jardin subdivision between Via Del Jardin and 196th Street, where the residents have direct visual and physical access to the wash.
- An existing pump station located south of Via del Verde may also be affected by modifications to the wash corridor.
- A section of the existing wash corridor has currently been cleared and rough graded for construction of an adjacent planned development between Recker Road and 180th Street. In addition, a small area between 172nd Street and Recker Road has been cleared.
- An area of the wash corridor west of Power Road, adjacent to an adobe brick manufacturing company, contains many steel barrel containers and other types of trash that have been dumped there over the years. The contents of the barrels may be a hazardous materials consideration. Sporadic wildcat dumping was also found along the wash corridor; specific locations of these areas are identified in *Figure 6, Environmental Considerations*.

ENVIRONMENTAL CONSIDERATION OPPORTUNITIES AND CONSTRAINTS

The existing environmental considerations present both opportunities and constraints for meeting the project's goals and objectives.

- The Desert Wells Stage Stop provides a historic feature that may be developed as an interpretive node with shade canopies, drinking water, signage, and/or benches, which Sonoqui Wash users could utilize for a respite. Providing a limited number of parking spaces could also serve as a trailhead for the wash corridor.
- The mitigation requirements for the Section 404 permit may provide a means to upgrade proposed revegetation types to a higher level than what currently exists in the wash and thereby enhance the wildlife habitat values for the project area.
- Utilizing the varying Sonoran Desert vegetation types similar to the existing range would allow the development of distinct and recognizable zones throughout the project area. A combination of plant species indicative of the riparian habitat of the channel and the upland habitat of the flood plain allow an opportunity to utilize plant species that provide a wide range of unique and distinct interest levels within the corridor and reflect the existing natural Sonoran Desert Character.
- The existing flat terrain topography may allow for open space amenities that would complement the channel development and provide a more spacious feeling and opportunity for Sonoqui Wash users to divert from the mainline corridor. Opportunities for rest nodes, trailheads, secondary interpretive trails, etc. would be more compatible with flat open space areas.
- The existing high points and banks of the wash corridor provide an opportunity to create "enclosure" for the users in the bottom of the wash, and an opportunity for viewpoints for users at the top of the wash.
- Channel improvements need to be evaluated for the impact they will have on the physical and visual aspects of the adjacent residents (e.g., maintaining view corridors, access points). In addition, staging and phasing of channel improvement activities should be organized in a way that minimizes the impact to the adjacent residents throughout construction.
- The disturbed areas of the wash corridor, where dumping of materials and clearing of vegetation has occurred, detract from the overall scenic quality of the corridor and will require varying efforts of reclamation. The miscellaneous trash and materials will need to be cleaned up prior to or during construction.

SCENERY RESOURCE ASSESSMENT

This section describes the scenery resources within and immediately adjacent to the project area and the opportunities and constraints that apply based on this assessment. To understand the overall visual considerations of the project area, the type and quality of existing scenic features within 0.25 mile of the wash were identified. The existing scenery resources information was based on a field survey of publicly accessible areas in the project area and was documented on the December 2003 aerial photography of the project area.

The following existing scenery resource elements were identified within and/or immediately adjacent to the project area.

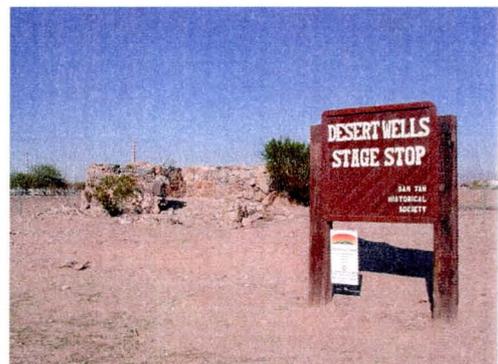
- Distinct Features
- Notable Forms
- Views and View Corridors (Visual Sensitivity)
- Manmade Visual Concerns (Scenic Integrity)

Figure 5, Scenery Resource Assessment, illustrates the existing scenery resources for the project area and the lands within 0.25 mile of Sonoqui Wash.

DISTINCT FEATURES

There are four natural and built elements within the project area that are identified as “Distinct Features” (landscape elements and patterns that make a memorable impression).

- The historic Desert Wells Stage Stop is a rustic stone built feature located on the east side of Sossaman Road south of Sonoqui Wash.
- Three areas within the wash corridor itself have good quality mesquite bosques. These areas of distinct vegetation are located at the east end of the project area near 196th Street, west of 172nd Street, and west of Recker Road.
- Water dependent reeds are regionally scarce and are distinct elements in the landscape. Two areas containing these special aquatic vegetations are along the dip crossing areas on Sossaman Road and west of Power Road. These areas consist of tall grasses and/or reeds.
- Both Sonoqui and Queen Creek Washes are distinct linear watercourse features, creating notable visual forms in the rural agricultural landscape.

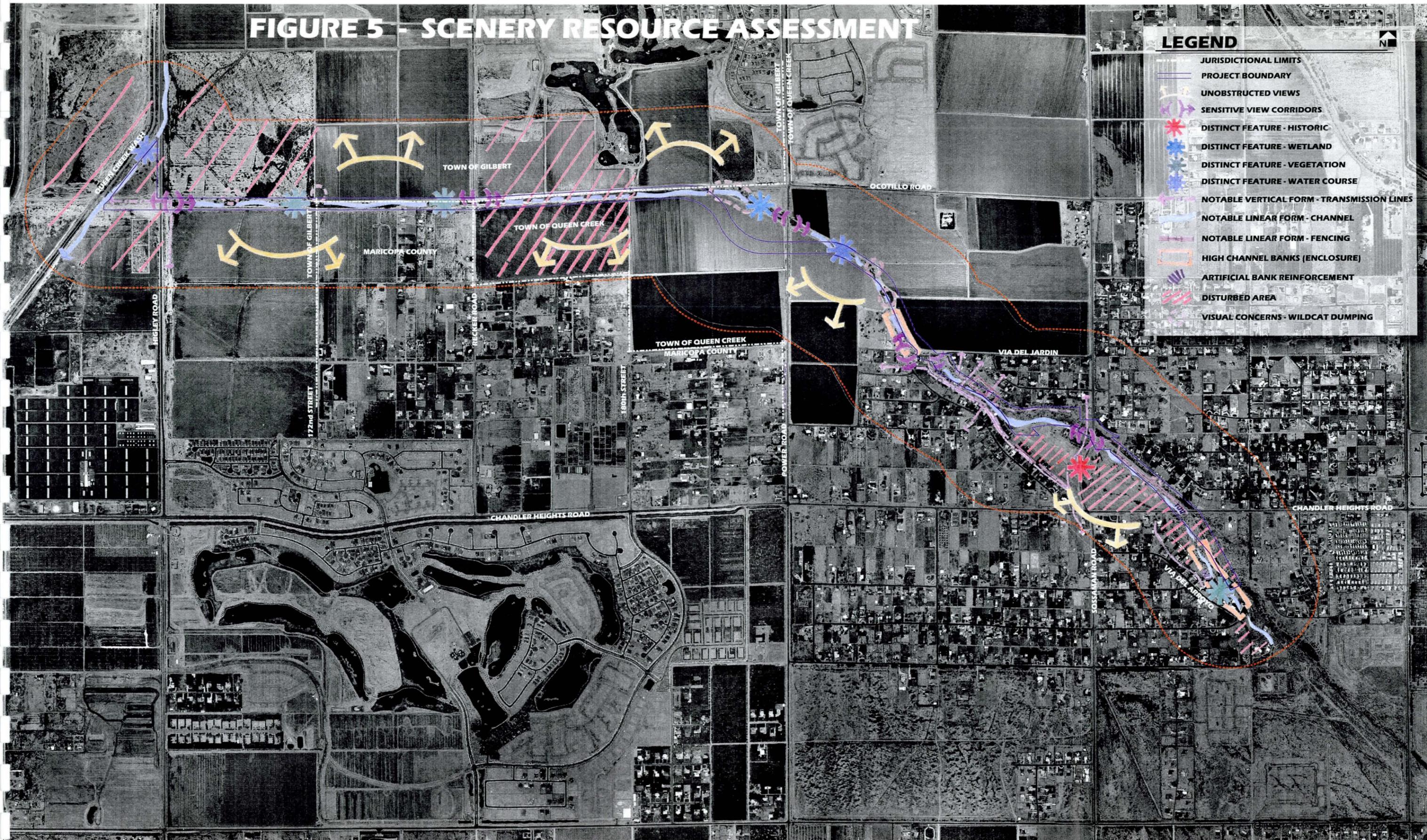


Desert Wells Stage Stop



Sonoqui Wash

FIGURE 5 – SCENERY RESOURCE ASSESSMENT



LEGEND

- JURISDICTIONAL LIMITS
- PROJECT BOUNDARY
- UNOBSTRUCTED VIEWS
- SENSITIVE VIEW CORRIDORS
- DISTINCT FEATURE - HISTORIC
- DISTINCT FEATURE - WETLAND
- DISTINCT FEATURE - VEGETATION
- DISTINCT FEATURE - WATER COURSE
- NOTABLE VERTICAL FORM - TRANSMISSION LINES
- NOTABLE LINEAR FORM - CHANNEL
- NOTABLE LINEAR FORM - FENCING
- HIGH CHANNEL BANKS (ENCLOSURE)
- ARTIFICIAL BANK REINFORCEMENT
- DISTURBED AREA
- VISUAL CONCERNS - WILDCAT DUMPING

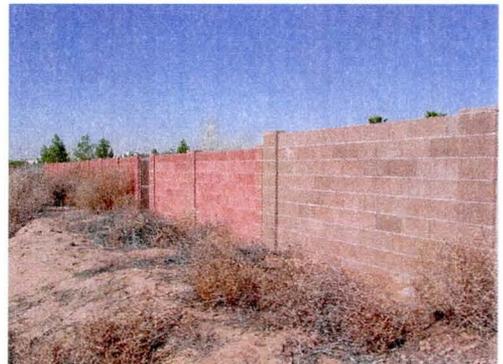
NOTABLE FORMS

Notable forms are identified as linear or vertical elements within the landscape and can be either natural or manmade features.

- The notable natural forms within the project area consist of the wash's channel, which is linear in nature, and the high channel banks at the east end of the project area, which creates a sense of enclosure for the users of the Sonoqui Wash bottom. While some areas of the channel reinforce the natural linear character of the corridor and provide a sense of enclosure, others portions of the wash are characterized by low banks or banks that have been graded and unobstructed views of the surrounding landscape.
- The notable manmade forms consist of existing fencing and/or walls that are primarily located on the channel's right-of-way line and are linear in nature, and the existing transmission lines located mostly between Via del Jardin and 196th Street that are vertical in form. The existing fencing and/or walls vary in types of materials, heights, and physical condition, which detract from the visual character of the corridor. The existing overhead transmission lines interrupt and detract from the distant mountain views.



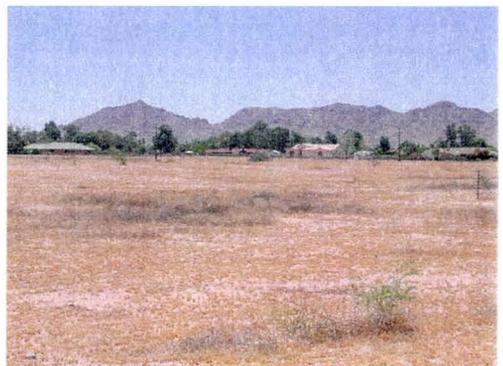
Low Bank Area of Sonoqui Wash



Residential Fencing

VIEWS AND VIEW CORRIDORS (VISUAL SENSITIVITY)

- With the exception of the built areas adjacent to the wash corridor, existing farmland provides unobstructed views of the mountain ranges to the north and northeast (McDowell and Superstition Mountain ranges), and to the south (San Tan Mountain range), from the top of channel embankments. Views from the bottom of the wash vary from the east end of the project area to the west end as the depth of the channel diminishes from east to west. Existing views to the San Tan Mountains appear to be more dramatic at the western end of the project area where the tallest peak is in more direct view and the wash channel has marginally low banks.
- Sensitive view corridors were identified at Higley, Recker, Power, Via Del Jardin, and Sossaman Roads where they cross the wash corridor. Channel improvements in these areas would be highly visible both up and down stream of these roadway crossings.



San Tan Mountains

MANMADE VISUAL CONCERNS (VISUAL INTEGRITY)

There are three types of manmade elements within the wash corridor that impact the visual integrity of the natural riparian corridor.

- Artificial bank reinforcement in the form of 6”–12” river run rock is located on the south bank west of 196th Street. Since Sonoqui Wash has very little rock material of any sort, the river run rock is very apparent and unnatural looking in the “sandy” wash landscape.
- Several areas have been identified as “Disturbed”, which consists of lands that are not in their natural state or are not being farmed. Having been cleared and graded at some time, they have varying degrees and densities of voluntary vegetation from mesquite trees to weeds. Most of the disturbed areas are slated for planned residential developments or open space.
- “Wildcat” dumping occurs throughout the project and consists of abandoned furniture, car parts, construction materials, full garbage bags, horse manure and/or stable waste, glass bottles, cans, etc. While some areas are truly “wildcat” dump-and-run activities, many areas appear to be littered from the adjacent properties. This is an activity that occurs in many unused and unprogrammed open space areas surrounded by or adjacent to urban areas today.



Disturbed Areas



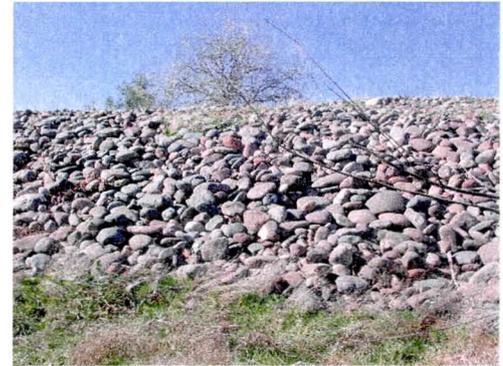
“Wildcat” Dumping

SCENERY RESOURCE OPPORTUNITIES AND CONSTRAINTS

The existing scenery resources present both opportunities and constraints for meeting the project’s goals and objectives.

- The Desert Wells Stage Stop provides a visually distinct historic feature that may be developed as an interpretive node with shade canopies, drinking water, signage, and/or benches, which Sonoqui Wash users could utilize for a respite. The rustic architectural character and/or materials are complementary to the surrounding rural environment and may provide a basis for developing theming for the wash corridor aesthetics. Providing a limited number of parking spaces at this location could also serve as a trailhead for the wash corridor.
- Building on distinctive features such as the mesquite bosques provides the opportunity to develop recognizable reaches throughout the project area with vegetative zones that may be used for respite and/or interpretive areas or areas of interest for corridor users. Mesquite bosques are a natural predominant recognizable element in Sonoran Desert riparian areas, which may provide the primary landscape theme and unity for the wash corridor character.
- The linear form of the channel will need to be evaluated for the opportunities to create meandering interest and vertical interjections at a pedestrian scale, to break the monotonous aspect of a long linear form.
- The existing linear form of the property fences/walls magnifies the channel’s linear form and depth. A visually unifying theme to integrate these elements and create an aesthetic continuity within the channel would provide visual harmony within the corridor. Techniques to provide a comfortable, safe environment for Sonoqui Wash users would also need to be developed and evaluated. A balance between creating a sense of enclosure versus isolation for users would need to be achieved.

- Anticipating future view corridors through planned residential development would assist in maintaining some of the currently unobstructed views. Existing view corridors within the developed portions of the wash corridor will be maintained through the appropriate types and locations of channel improvements.
- Proposed channel improvements within the sensitive view corridors provide an opportunity to create a visually pleasing aesthetic that would be viewed by both the roadway and wash corridor users.
- The manmade visual concerns would be addressed as the wash corridor is developed into a public open space.



River Rock Bank Reinforcement

MULTI-USE/AESTHETIC IMPROVEMENT OPPORTUNITIES

This section describes the multi-use and aesthetic opportunities within and/or immediately adjacent to the project area based on existing and planned informational data related to recreational facilities and all the previous site analysis sections.

To understand the potential multi-use and aesthetic opportunities within the project area, the types and locations of these elements within 0.25 mile of the wash were identified. Sources for developing the multi-use and aesthetic opportunities information included the *Town of Gilbert's 2003 General Plan*, the *Town of Queen Creek's 2002 General Plan*, the *MAG Regional Transportation and Bikeways Plans*, *Maricopa County Regional Trail System Plan*, *City of Mesa's 2025 General Plan*, *City of Chandler's General Plan*, planned private development plans, and field survey information. The existing and planned source information was compiled and documented on the December 2003 aerial photography of the project area.

The following existing and planned multi-use elements were identified within and/or immediately adjacent to the project area.

- Local and Regional Multi-Use Corridors
- Existing and Planned Private Development Facilities
- Existing and Planned Infrastructure Opportunities
- Cultural and Environmental Opportunities
- Land Use Opportunities
- Aesthetic Improvement Opportunities

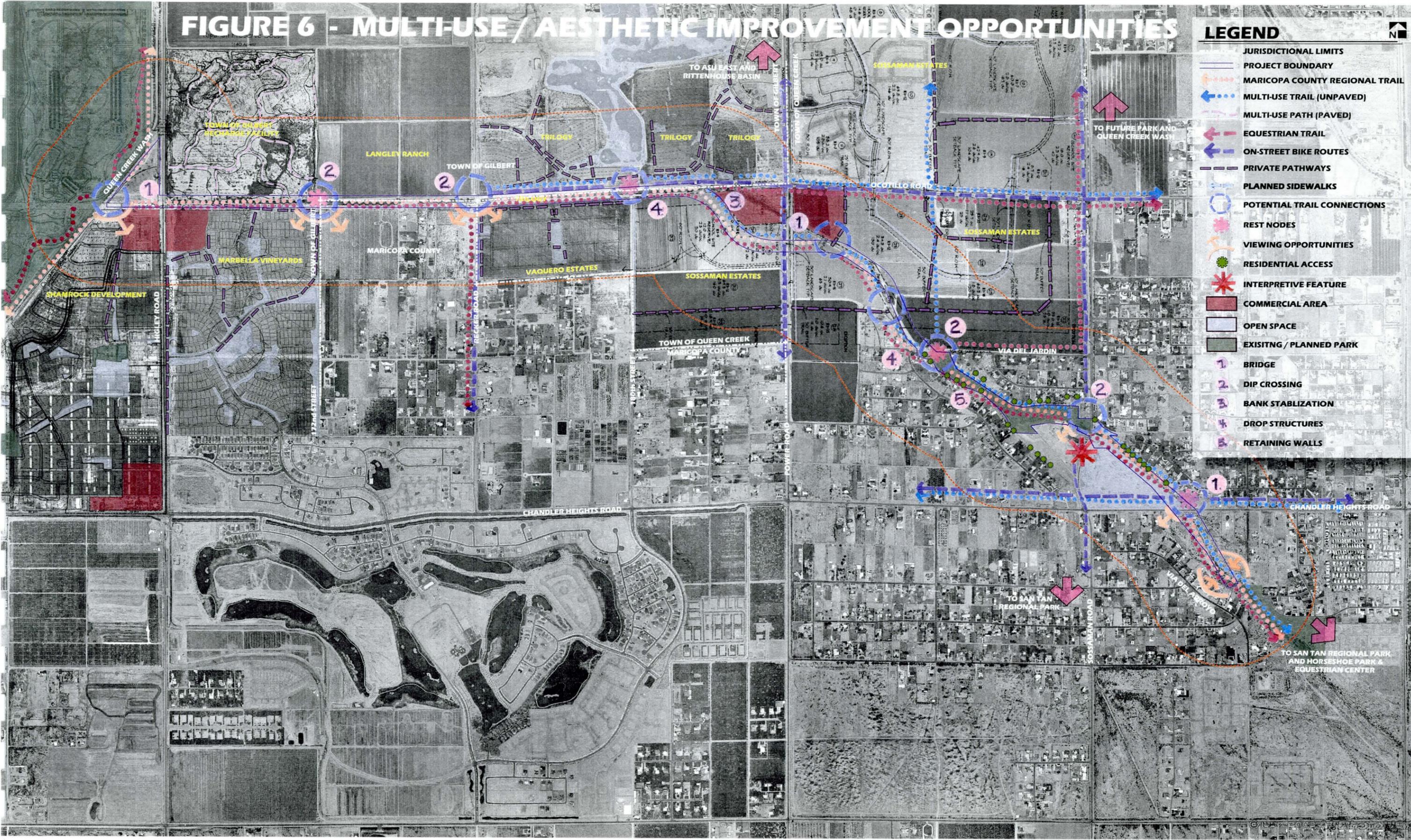
Figure 6, Multi-Use/Aesthetic Improvement Opportunities, illustrates the multi-use and aesthetic improvement opportunities for the project area and the lands within 0.25 mile of Sonoqui Wash.

LOCAL AND REGIONAL MULTI-USE CORRIDORS

Figure 7, Multi-Use Regional Context, illustrates the following corridors.

- The Phase One Maricopa County Regional Trail System Plan identifies Sonoqui Wash as a regional trail corridor from the San Tan Mountain Regional Park to the East Maricopa Floodway (EMF). The Phase Two Maricopa County Regional Trail System Plan identifies Queen Creek Wash as a regional trail corridor from the EMF to the Central Arizona Project (CAP) Canal, which connects to other Phase Two trails that eventually connect to the Arizona Trail through Tonto National Forest.

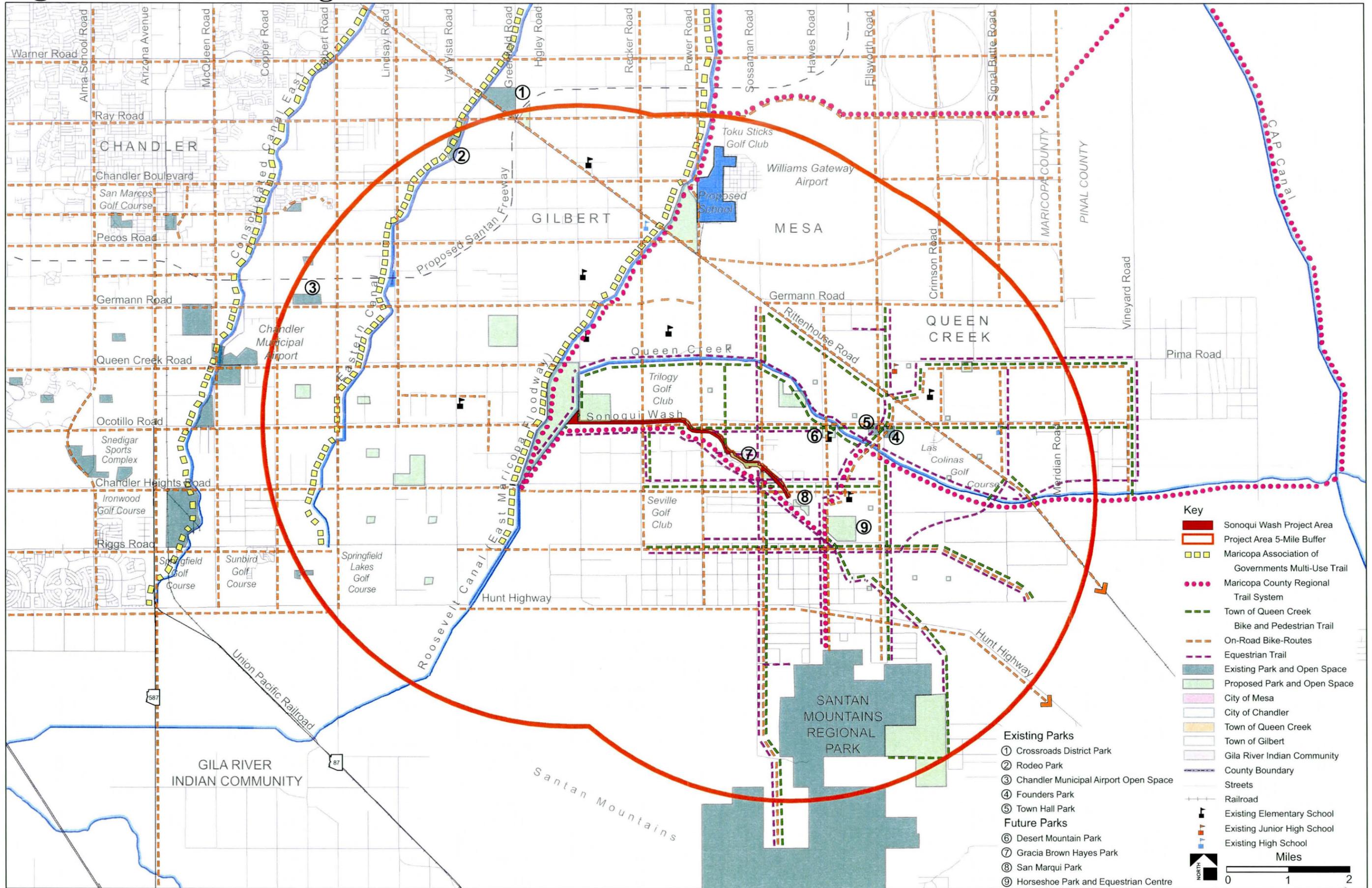
FIGURE 6 - MULTI-USE / AESTHETIC IMPROVEMENT OPPORTUNITIES



LEGEND

- JURISDICTIONAL LIMITS
- PROJECT BOUNDARY
- MARICOPA COUNTY REGIONAL TRAIL
- MULTI-USE TRAIL (UNPAVED)
- MULTI-USE PATH (PAVED)
- EQUESTRIAN TRAIL
- ON-STREET BIKE ROUTES
- PRIVATE PATHWAYS
- PLANNED SIDEWALKS
- POTENTIAL TRAIL CONNECTIONS
- REST NODES
- VIEWING OPPORTUNITIES
- RESIDENTIAL ACCESS
- * INTERPRETIVE FEATURE
- COMMERCIAL AREA
- OPEN SPACE
- EXISTING / PLANNED PARK
- 1 BRIDGE
- 2 DIP CROSSING
- 3 BANK STABILIZATION
- 4 DROP STRUCTURES
- 5 RETAINING WALLS

Figure 7. Multi-Use Regional Context



- The *MAG Bikeways Plan* identifies the EMF, Eastern Canal, and the Consolidated Canal East as regional multi-use trail corridors.
- The *Town of Gilbert's 2003 General Plan* and the *Town of Queen Creek's 2002 General Plan* identified bike and pedestrian trails, on-road bike routes, and equestrian trails predominantly located along arterial roadways. These plans also identified existing and planned park and recreation facilities as well as educational facilities within the regional context area.
- The *City of Mesa's 2025 General Plan* and *City of Chandler's General Plan, 2001*, identified on-road bike routes and park and recreation facilities within the regional context area.

EXISTING AND PLANNED PRIVATE DEVELOPMENT FACILITIES

- Existing residential development plans have identified equestrian trail, landscape, and/or utility easements within the project area. These easements may provide additional opportunities to provide access to Sonoqui Wash.
- Existing private residential access gates to Sonoqui Wash were identified in the field survey. The existing access points will be maintained where physically possible. A secondary trail to connect private access to the main path will minimize through traffic conflicts.
- Planned private development plans for Sossaman Estates, Sunridge Homes, Trilogy, Marbella Vineyards, and Shamrock have all identified multi-use paths, pathways, trails, sidewalks, landscape buffers, easements, and/or open space corridors adjacent to Sonoqui Wash and within the project area. This information assists in identifying key linkages and access to Sonoqui Wash from each respective development.

EXISTING AND PLANNED INFRASTRUCTURE OPPORTUNITIES

- Existing and planned infrastructure and infrastructure improvements-as discussed in the *Existing Infrastructure Analysis*-identified bike lanes, on-street bike routes, paved shoulders, sidewalks, and easements that may provide additional linkages and connections to Sonoqui Wash. Sossaman, Power, and Recker Roads are key linkages and connectors to Sonoqui Wash that provide a potential user volume at an arterial level. Sossaman Road also provides a direct multi-modal connection to the San Tan Mountain Regional Park.

CULTURAL AND ENVIRONMENTAL OPPORTUNITIES

- The Desert Wells Stage Stop provides an opportunity to develop an interpretive/rest node for Sonoqui Wash users.
- Unobstructed views and view corridors located at north-south roadway corridors provide an opportunity to develop scenic/rest nodes for Sonoqui Wash users when the adjacent land use becomes fully developed.

LAND USE OPPORTUNITIES

- Commercial land use identified in the *Existing and Planned Land Use/Ownership/Zoning Analysis*, provides natural "crossroad" connections for the multiple recreational paths and trails that cross at Higley and Power Roads as illustrated on *Figure 8, Multi-Use Regional Context*. These locations are key as potential trailheads and/or destination points for Sonoqui Wash corridor users, which would warrant two- to three-sided development to capture both roadway and Sonoqui Wash markets.
- Similar to the commercial lands listed above, the planned park facilities located at Hawes, Sossaman, and Higley Roads also provide natural "crossroad" connections for the multiple recreational paths and trails that cross at each respective location. Each of these park facilities also function as destination points at community and regional levels that would be compatible to providing a level of trailhead amenities that are not normally possible when private development is the adjacent land use.

- Open space land use identified in the *Existing Land Use/Ownership Analysis* and on *Figure 7, Multi-Use/Aesthetic Improvement Opportunities*, provides local and regional linkages between neighborhoods, communities, community nodes, and regional destinations. Sonoqui Wash provides a critical linkage and “collector” for the entire service area bounded by the physical barriers of the San Tan Mountains, EMF, and the Union Pacific Railroad.

AESTHETIC IMPROVEMENT OPPORTUNITIES

The following existing and planned aesthetic improvement elements were identified within and/or immediately adjacent to the project area.

- Viewing Opportunities
- Flood Control Features
- Infrastructure Facilities
- Grading and Landscape Aesthetic Opportunities

Viewing Opportunities

- Viewing opportunities at high points and view corridors will be integrated into the overall project aesthetic and combined with trail rest nodes, trailheads, and/or destination points where possible. Viewing opportunities will also take into consideration the adjacent land use/owners.

Flood Control Features

- Dip crossings at Sossaman and Recker Roads, Via Del Jardin, and 172nd Street will be integrated into the actual roadway structure itself, or be developed in a manner upstream or downstream from the actual road crossing to create a natural wash feature with interest.
- Drop structures, potentially located between Via Del Jardin and 180th Street, to make up the vertical grade change within the wash corridor may be developed in a manner that provides natural wash features at several locations (independently or sequentially). Some may be in conjunction with roadway crossings or bridge structures.
- Retaining walls located at the most constrained areas within the wash corridor, potentially within the Rancho del Jardin area, will potentially be developed to meet flood control capacity clearances and to provide a terrace to maintain the ability to access the existing private residential gates. The retaining walls may be developed to reflect the natural character of the wash embankments or integrate the overall architectural aesthetic for the channel.

Architectural styles, materials, or colors of the Rancho Del Jardin character may provide the basis for the architectural features in this reach of the wash corridor, in order to maintain the continuity of the rustic “ranch” theme reflective of the existing development.

- Bank stabilization may be required at locations where the channel alignment makes abrupt turns to minimize cutting and erosion of the channel. The type of stabilization will reflect the natural wash character indicative of the specific types and colors of materials found in this area of the native Sonora Desert. Since Sonoqui Wash is predominantly a sandy loam wash with minimal naturally occurring rock and boulder material, techniques to maintain a natural looking embankment that blends with the adjacent embankment material would provide continuity and visual intactness throughout the wash corridor. Bank stabilization will strive to provide the color, form, and texture of materials that is consistent with the overall project aesthetic of a natural Sonoran wash corridor.

Infrastructure Facilities

- Potential bridge locations at Chandler Heights, Power, and Higley Roads may be developed to provide a consistent aesthetic throughout the wash corridor. The bridge form, structure, and abutments create the largest architectural feature the Sonoqui Wash users will interact with. While they are utilitarian in nature, they also provide the opportunity to develop shaded rest areas and areas of interest if aesthetics and/or educational elements are integrated into the design.

- Suggested theming for these types of facilities would reflect the color, materials, and textures of the native Sonoran Desert as well as incorporate the rural, agricultural character of the immediate area's architecture. Architectural elements may also incorporate materials and/or details from the facilities within the Queen Creek Wash corridor improvements to provide a visual cue or linkage between the two main open space corridors within the community.
- Neutral or earth tone colors are indicative of the native Sonoran Desert inert materials as well as the rustic, rural character of the adjacent ranch developments and could be integrated into the wash corridor aesthetics by choice of materials.
- The bridge structure will need to provide vertical and horizontal clearances to address all types of path users, as well as provide a safe, user-friendly environment.

Grading and Landscape Aesthetic Opportunities

- The contouring of the channel bottom, sides, and top will be developed in a manner to soften the harsh lines and monotony of the channel's linear form. The varying of slopes and additional landforms at the top, where possible, will serve to integrate adjacent buffer and open space areas.
- Landscape character will be developed to provide an overall continuity within the corridor while utilizing types of plant materials and densities that emphasize the distinct use areas and functions within and adjacent to the channel. Developing slightly different types of character zones at rest nodes, path connections, physically constrained areas, destination points, etc. will provide a variety of interest for Sonoqui Wash users as they move through the corridor.
- The canopies of specific tree types; seasonal interest of specific shrubs and perennials; scale and type of land forms; and the colors, textures, and materials of architectural elements that reflect the native Sonoran Desert and the rural character of the adjacent area will provide the overall visual unity of the wash corridor.
- Adjacent developments may provide the opportunity for convenient entry points and resting or meeting places for wash corridor users. Aesthetic integration and compatibility with the adjacent developments will also be key to providing consistency in the overall aesthetic and character of the wash corridor.