



TOWN OF CLIFTON GENERAL PLAN

Background & Current Conditions



Where the Trail Begins!



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August 15, 2019

Town of Clifton General Plan Background and Current Conditions

Prepared for:

Town of Clifton
Mayor and Council
510 N Coronado Boulevard
Clifton, Arizona 85533

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This Technical Report is prepared based on best available data

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Town of Clifton General Plan Background and Current Conditions

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Introduction and Overview

General Plan Purpose

The Town of Clifton General Plan (General Plan) serves as the blueprint managing growth through its ten-year horizon within the Town's corporate boundary in a manner consistent with the community's vision. It guides future decisions about growth and annexation while balancing economic development and conservation of resources. The General Plan provides the basis for development while supporting the quality of life desired by its constituents. The plan includes the vision, goals and policy framework identified during the community outreach process. It addresses specific issues of great importance to the community. Under State law many actions on private land development, such as Specific Plans, Area Plans, zonings, subdivisions, public agency projects and other decisions must be consistent with the General Plan. The Goals and Policies set forth in the General Plan will be applied in a manner to insure their constitutionality.

General Plan Organization

The General Plan includes the following volumes:

1. **Executive Summary** summarizes the General Plan planning process and serves as a marketing tool for the Town of Clifton.
2. **The Public Participation Plan** adopted by the Mayor and Council at early stages of the General Plan process, this plan outlines the community engagement and outreach program that guided the planning process in compliance with the State of Arizona Revised Statutes.
3. **The Community Vision Report** summarizes the input received at the various community meetings, workshops and visioning efforts.
4. **The Background and Current Conditions Report** contains all pertinent analyses supporting the General Plan policies. In compliance with all applicable Revised Arizona Statutes, this document assesses background and conditions and identifies the physical, regulatory, demographic, socioeconomic and fiscal opportunities and challenges impacting development within the Town of Clifton. This technical report and the public input gathered during the community engagement process serve as the foundation to the goals and policy framework in the General Plan. The General Plan Map Atlas includes all the maps prepared during the general plan process as part of the Background and Current Conditions Report.
5. **The General Plan Policy Plan** is the road map or policy document guiding development, redevelopment, infrastructure, economic development, historic preservation, and resource conservation efforts within the Town of Clifton. This plan includes the community vision and plan elements in compliance with all applicable Arizona Revised Statutes. Each element includes goals, policies. This volume also includes the administrative tools to manage, monitor, amend and implement the General Plan.

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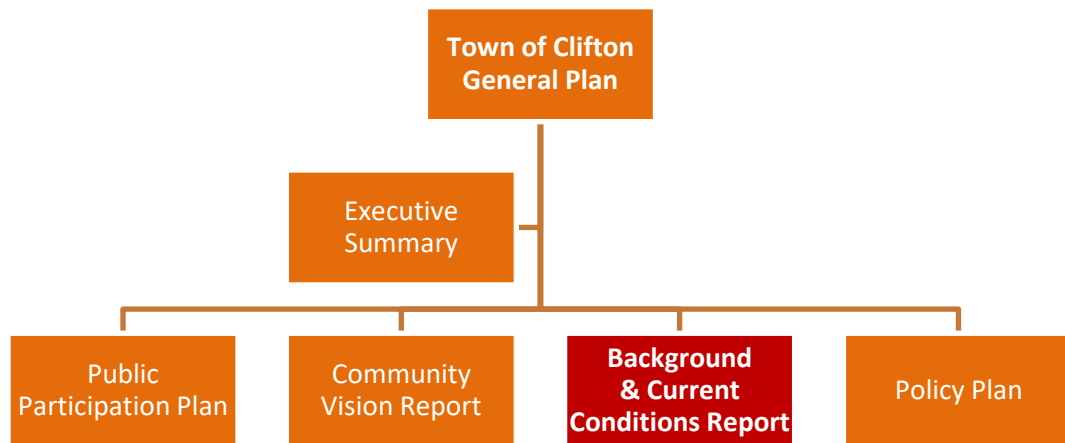


Figure 1: General Plan Organization

Clifton Historical Context

Historical Context

Since its inception in the early 1870's, Clifton has been inextricably linked to the copper industry. Historically a mining town where miners settled in the canyon near the confluence of the San Francisco River and Chase Creek, Clifton grew with the expansion of mining and smelting operations. In 1874 the Longfellow Copper Mining Company built a larger and more efficient smelter at the point where Chase Creek emptied into the San Francisco River. Known originally as Goulding's Camp, named after one of the early miners, and founded in 1873, Clifton incorporated in 1909. ¹

Historic Attractions

At the heart of the Clifton Townsite Historic District is Chase Creek with some of the best-preserved examples of Arizona Territorial architecture. This area offers opportunities for redevelopment, revitalization and historic preservation. In its heyday, Chase Creek's numerous saloons and gambling halls gave Clifton a reputation as the "town tougher than Tombstone." The museum and walking tour allows visitors to appreciate the spirit of those days. Town is recognized as the "gateway to the Coronado Trail" or "where the trail begins"

Physical & Physiographic Characteristics

Geographical Setting

Location and Regional Context

The Town of Clifton (Town) is located in southeast Arizona in a deep narrow canyon divided by the San Francisco River within Greenlee County. The Town is approximately 15 miles west of the Arizona/New Mexico border and 120 miles north of the U.S./Mexico border. The nearest metropolitan area is Tucson which is approximately 110 miles southwest of Clifton. Prior to 1984, the Town covered an area of seven and one-half square miles surrounded by public or corporately-owned lands. Its corporate limits have since been expanded to 15 and one-half square miles. Clifton serves as the seat of Greenlee County. Exhibit 1, included in the General Plan Map Series Atlas shows location and regional context. Exhibit 2 shows the Study Area.



Physical & Physiographic Opportunities and Constraints

Topography, Hydrology and Environmental Resources

Topography

Elevations range from about 3,500 feet near Clifton to over 10,000 feet at the headwaters of the San Francisco River. The average stream gradient for the San Francisco River is 49 feet per mile; the average gradient through Clifton is 24 feet per mile. Elevations range from 3,464 feet in Clifton to 4,838 feet in Morenci. Exhibits 3.a and 3.b included in the General Plan Map Series Atlas show topography.

Major Watersheds

The U.S. Geological Survey (USGS) divides and subdivides the United States into successively smaller hydrologic units based on hydrologic features. The state of Arizona is primarily within the Lower Basin of the Colorado River, except for a small portion on the northeast corner of the state which is inside the Upper Basin of the Colorado River. According to the Arizona Department of Water Resources (ADWR) Water Atlas, the Town of Clifton is within the Southeastern Arizona Planning Area. The Southeastern Arizona Planning Area includes five watersheds. The Upper Gila Watershed drains about 7,400 square miles in the planning area above Coolidge Dam and contains the Bonita Creek, Duncan Valley, Safford and Morenci basins. Major tributaries include the San Francisco River, Eagle Creek, Bonita Creek, San Simon Creek and the San Carlos River. The portion of the watershed above Clifton encompasses an area of approximately 2,750 square miles and is bounded by the Tularosa and Mogollon Mountains on the east, the Gallo Mountains on the north and numerous other mountains on the west.

About 160,000 Acre-feet Average (AFA) of Gila River water flows into Arizona from New Mexico and over 40% of this flow typically occurs in the winter. Tributary inflows from the San Francisco River are significant, typically over 150,000 AFA. The San Francisco River is perennial with several hot springs located above Clifton.

Annual precipitation in the Southeastern Arizona Planning Area is 14.7 inches, with over 52% coming in July, August, and September. The Southeastern Arizona Planning Area receives the highest percentage of precipitation in the state of Arizona because of its proximity to the core monsoon region in Mexico.

Water Basins and Groundwater Resources

The Southeastern Arizona Planning Area includes 14 groundwater basins that vary significantly in size. The Town of Clifton is in the Morenci Water Basin. The Morenci Basin is characterized by steep canyons, mesas and mountains with numerous streams and washes. The basin consists mainly of volcanic rocks. Groundwater is found primarily in alluvial deposits along major water courses and groundwater flow is to the south along the San Francisco River drainage. Groundwater recharge has been estimated at 15,000 AFA and groundwater in storage at 3 million-acre feet (maf).

Water level change data in the Morenci Basin are available only for the area near Alpine where the measure depth to water is less than 80 feet and water levels rose over 15 feet in one well from 1990-1991 to 2003-2004.

The San Francisco River

Clifton is settled in a beautiful canyon with a year-round river, the San Francisco River, running through its heart. Although the river offers the scenic qualities that may support opportunities such as the development of local, community, and regional recreational amenities, it also presents challenges including potential for dual flooding as waters rushing down from the canyons join a rising floodplain. Over the years, Clifton has experienced major flood events. The San Francisco River presents the

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greatest impact on environmental resources. To mitigate flood events, the Town has partnered with state and federal agencies to construct flood walls, levees, gates and more to keep waters at bay. In addition, emergency plans are detailed and regularly revisited with trainings and exercises. Exhibit 4 shows hydrology and Exhibit 5 summarizes physical opportunities and constraints. Both exhibits are included in the General Plan Map Series Atlas.

With origins in the San Francisco Mountains in Apache County, Arizona, the San Francisco River flows east to Catron County, New Mexico where it is joined by the Tularosa River. From there, it flows south to the Grant County-New Mexico border; west into Greenlee County, Arizona; and then directly south through the Town of Clifton to its confluence with the Gila River.

Drainage

The Town of Clifton is within the San Francisco River Basin which extends from western New Mexico to its confluence with the Gila River less than 15 miles downstream of Clifton. The drainage area is characterized by steep canyons, which feed the tributary streams.

Within the Town of Clifton, local drainage is provided primarily by the streets and in some instances natural washes or man-made storm drains. Storm runoff drains directly, or through tributary washes, into the San Francisco River, Chase Creek and Ward Canyon. Culverts through the railroad embankment in south Clifton allow storm water to drain into natural ditches which empty into the San Francisco River.

Flooding occurs often as a result of high flows in the San Francisco River. The Arizona Eastern Railroad (AZER) bridge presents an impediment to the high flows since it can only pass a 16-year flood without impeding flows. Floods greater than the 16-year frequency discharge cause damage to areas upstream of the AZER Bridge. When flows exceed the 25-year frequency, water is diverted down Coronado Boulevard or Park Avenue through the downtown area of South Clifton. These floods caused damage or destruction of numerous buildings and civic facilities until the Clifton levee was built.

The Clifton Levee

A major piece of Clifton's flood risk management is the Clifton Levee. Constructed in 1994, the levee is designed to protect the area of South Clifton from flood events. The most visible part of the levee is the large gate that crosses US 191 near the San Francisco River. These gates are tested yearly to make sure they're operational during flood events. While the levee lowers risk to the people and properties, it doesn't eliminate it. Flooding can happen at any time. With the San Francisco River flowing from New Mexico, there can be blue skies in Clifton but the river can be rising. The Town's flood prevention education program provides continuous education on flood preparation plans for homes and businesses.

Climate and Runoff

Climate: The climatic conditions in Clifton are sub-tropical and semi-arid with short and mild winters and relatively cool summers. In January, temperatures vary from 31 F to 61 F while July temperatures vary from 71 F to 101 F. Average annual precipitation is 10.0 inches with an average annual snowfall, sleet or hail to 2.0 inches. At an altitude of about 3,400 feet above mean sea level, Clifton offers a pleasant year-round climate.

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Runoff: The San Francisco River Flows perennially through Clifton, with an average discharge of about 200 cubic feet per second (cfs). General summer storms during the months of July, August and September produce the greatest runoff peaks. Snowmelt is a significant contributor to runoff from general winter storms. High runoff from the mountains in the northern and western part of the watershed result in the largest contribution to major floods on the river. A significant portion of this runoff enters the San Francisco River at its confluence with the Blue River, 12 miles northeast of Clifton.

Throughout its history, the Town of Clifton has been impacted by severe floods on the San Francisco River, and to a lesser extent, Chase Creek. Since the stream gage was established in Clifton in 1911, significant flows were recorded in 1916, 1917, 1949, 1965, 1967, 1972, 1975, 1978, 1979, 1983 and 1984. The most disastrous flood, in terms of physical and economic losses during this period, was that of October 1983. This flood produced the highest recorded peak discharge of 90,900 ft. s/s and resulted in damages and emergency-cleanup costs totaling nearly \$20 million. The levee constructed in 1994, protects the area of South Clifton from flood events.

Soils

The United States Department of Agriculture (USDA) Natural Resources Conservation Service Soils (NRCSS) maintains and updates the official soils database. According to this source, the soils found in the Clifton area consist of several types: (a) Drumps, (b) Torrifluents-River Wash Complex and (c) Tres Hermanos-Continental.

Drumps: This soil type is found in south Clifton west of Hill Street, in Riverside Addition and in old south Clifton. Its composition is almost 50 percent extremely stony, unprocessed overburden, almost 50 percent chemically treated mine tailings and a small percentage slag dumps. Limited available water capacity and presence of toxic chemicals are the main limitation for these areas. Mine tailings are suitable sites for community development if measures are taken to reduce the effects on buildings and humans.

Torrifluents-River Wash Complex: This deep, well-drained soil is found in east Clifton, north Clifton, Patterson's Addition and in the San Francisco River channel. Slopes range from 1 to 5 percent. Soils in these areas consist of both Torrifluents and River Wash. Torrifluents consist of moderately coarse- to coarse textured soils with an average depth of more than 40 inches. River wash consists of stratified layers of sand, cobbles and gravel. These soils are suitable for use as rangeland, wildlife habitat, recreation and home site development.

If used for home site development or recreation the main limitation is flooding. Permeability is rapid. Available water capacity is very low-to-low. Effective rooting depth is 40 inches or more.

Tres Hermanos: This soil is found in the moderately sloping areas (2 to 45 percent) of south Clifton east of Hill Avenue, Shannon Hill and Tabletop Mesa. It is deep and well drained. Typically, in undeveloped area, 20 to 50 percent of the surface is covered with gravel and a few cobbles. The surface layer and subsoil is moderately alkaline, gravelly sandy clay and gravelly clay loam to a depth of 27 inches. The substratum to a depth of 60 inches or more is sandy and gravelly sandy loam with some very gravelly or very cobbly strata. Permeability of the Tres Hermanos soil is moderately slow. Available depth is 60 inches or more. Observed rooting depth is 15 to 20 inches. Runoff is medium and the hazard of water

erosion is moderate. Some soil properties are not favorable for certain uses but can be overcome with special planning, design or maintenance.

Continental. This soil is found in the less sloping area of south Clifton east of Hill Avenue, Shannon Hill and Tabletop Mesa. It is deep and well drained. Typically, in undeveloped areas, 20 to 60 percent of the surface is covered with gravel and cobbles. The surface layer is moderately alkaline, very gravelly sandy clay loam about 2 inches thick. The subsoil, about 30 inches thick, is moderately alkaline gravelly clay. Below that to a depth of 60 inches or more, it is moderately alkaline gravelly loamy sand. Permeability is slow. Available water capacity is high. Water supplying capacity is 4 to 6 inches. Effective rooting depth is 60 inches or more. Observed rotting depth is 15 to 20 inches. Runoff is slow to medium and the hazard of water erosion is slight. Limiting factors for residential and small commercial site development are moderate to severe. This means that soil properties and site characteristics are not favorable for the indicated use and at least some special planning, design or maintenance is needed to overcome or minimize the limitations, resulting in possible increases in construction costs. Much of developed south Clifton and Shannon Hill are representative of this type of soil.

Raw Material Resources. Mineral resources have always been important to Greenlee County and to Clifton. The largest open-pit copper mine is located just 6 miles away in Morenci. Since the beginning of its operation, more than a billion tons of rock and ore have been removed from the pit. The largest source of employment in the area is mining or related activities.

Several geothermal sites near Clifton have the potential for development. Other resources which can be found in the Clifton area include gold, silver, lead, zinc, tungsten, manganese and beryllium. Gemstones such as peridot and fire agate are also located there. Industrial rock resources include deposits of diatomite, zeolite, asbestos and gypsum.

Environmental Conditions and Natural Resources

Environmental conditions reflect the impact of geography, climate and cultural activities and may be a critical consideration in water resource management and supply development within the Southeastern Arizona Planning Area. The sky island ecosystems of the planning area are relatively isolated from each other, and as a result there are large numbers of endemic species in mountain ranges. These ecosystems are of major interest to resource managers due to their biological diversity and distinct biogeography. They also often offer opportunities for geo-tourism and eco-tourism.

Vegetation: Three plant communities, Chihuahuan desert scrub, riparian woodland and juniper-pinyon Woodland, exist in and around Clifton. The Chihuahuan desert scrub habitat covers rolling hills south of Clifton and the steep canyons and cliffs in and slightly north of Clifton. Common shrubs in this community include creosote bush, Chihuahuan Whitehorn, mesquite and ocotillo, while common forbs and grasses include the California poppy, threeawn grass and sideoats grama grass.

The riparian woodland habitat is located along the San Francisco River. Dominant plant species are the Fremont cottonwood, Goodding willow and mulefat. Ground cover, consisting of forbs and grasses are extremely sparse in the riparian habitat through Clifton.

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The juniper-pinyon woodland habitat occurs about two miles north of Clifton and is generally found upland of the Chihuahuan desert scrub and riparian communities. Common plants include the oneseed juniper, opuntia, yucca and occasionally the Mexican pinyon. Ground cover is sparse due to the steep, rock substrate.

In general, high elevation subalpine and montane conifer forests, consistent of dense stands of fir, spruce, aspen trees, are found at the highest elevation in the Southeastern Arizona Planning Area, primarily in the Morenci Basin. These areas receive most of the annual precipitation from snow, because of the forest density, sunlight reaches the ground and snow melts slowly, releasing snowmelt gradually to streams. Annual precipitation amounts are about 25 to over 30 inches a year for these areas.

Wildlife: Commonly found birds include the Golden Eagle, Sparrow Hawk, Gambel Quail, Turkey Bangtailed Pigeon, Mourning Dove, Cassin Kingbird, Wied Flycatcher, Black Phoebe, Cliff Swallow, Violetgreen Swallow, Bridled Titmouse, Crow, Mexican Jay, Canyon Wren, Lucy Warbler, Yellow Warbler, yellow-breasted Chat, Hooded Oriole, Bullock Oriole, Summer Tanager, Cardinal, Blue Grosbeak, Rufous-crowned Sparrow and House Finch. Many other species of birds including the osprey, black hawk and zone-tailed hawk are believed to be in the Clifton area at least part of the year but are generally rare or uncommon.

Mammals found in the Clifton area include bats, cottontails, squirrels, ground squirrel, chipmunks, pocket gophers, beaver, mice, pack rats, mountain lions, bobcats, coyotes, fox, raccoons, skunks, deer, mountain sheep (introduced), cattle and horses.

The San Francisco River supports warm water fisheries of Flathead catfish, carp, minnows and suckers. Frogs and lizards (including the Gila monster, Arizona listed threatened species) javalina and coatimundi are also found in the area.

Riparian National Conservation Areas: The Gila Box Riparian National Conservation Area, one of the two areas designated riparian national conservation areas in the nation, encompasses 22,000 acres and includes the Bonita Creek, Duncan Valley, Safford and Morenci basins. Portions of four perennial waterways, the Gila River, Bonita Creek, Eagles Creek and the San Francisco River are contained in this conservation area located few miles away from Clifton.

Wildlife and Designated Critical Habitats: The San Francisco River includes riverine and forested wetlands and includes Designated Critical Habitat areas for the Spikedace and the Loach Minnow, which are listed as Endangered Species by the U.S. Fish and Wildlife Service (FWS). According to investigations conducted by Tierra Right of Way, the Spikedace is not known to occur in the San Francisco River.

Air and Water Resources

The federal Environmental Protection Agency (EPA) oversees that nation's efforts to regulate air quality. In Arizona, the Arizona Department of Environmental Quality (ADEQ) is tasked with regulating air quality. However, in many cases the task is delegated to the county level. Under the Environmental Quality Act of 1986, the Arizona State Legislature created the Arizona Department of Environmental Quality (ADEQ) in 1987 as the state's cabinet-level environmental agency. ADEQ is composed of three environmental programs: Air Quality, Water Quality and Waste, with functional units responsible for

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technical, operational and policy support. ADEQ works with cities, towns and special districts with limited resources and populations of 10,000 or less to help them comply with environmental laws. ADEQ's voluntary Small Communities Environmental Compliance Assistance Program offers resources for maintaining and documenting compliance efforts.

Air Quality

The U.S. Environmental Protection Agency (EPA) established the National Air Toxics Assessment (NATA) in 2011 and completed five assessments that characterize the nationwide chronic cancer risk estimates and noncancer hazards from inhaling air toxics. The latest, the 2011 NATA, was made available to the public in late 2015. Based on its measures of hazardous air pollutants, Clifton, Arizona, is 82 on a scale to 100 (higher is better). This analysis models respiratory illness and cancer risk down to the zip code level, providing better detail and insight than the previous analysis based solely on results from air monitoring stations.

Water Quality

To improve water quality, ADEQ Water Quality Division (WQD) implements the Arizona Pollutant Discharge Elimination System (AZPDES) program. This program requires all facilities that discharge pollutants into streams and lakes to obtain a permit. Regulated discharges include sewage treatment facilities, construction sites larger than one-acre, municipal storm water systems and a variety of industrial facilities. An AZPDES permit includes discharge limits, monitoring and reporting requirements and other conditions necessary to protect human health and the environment.

The WQD's Water Quality Improvement Grant (WQIG) program works with local government, citizens and industry to develop and fund restoration projects and educational opportunities to protect and restore water quality that is threatened by nonpoint pollution sources, such as channelization, some agricultural practices and septic systems. The Water Quality Division (WQD) of ADEQ protects and enhances public health and the environment by ensuring healthy drinking water is provided by public water systems and by controlling current and future sources of surface and ground water pollution. WQD:

- Regulating the treatment and discharge of wastewater.
- Monitors and assesses the quality of surface and groundwater throughout the state.
- Identifies water pollution problems and developing on-the-ground solutions and facilitates their implementation.
- Issues permits to protect Arizona waters from point sources of pollution.
- Investigates complaints and violations of Arizona's water quality laws.

At federal level, the EPA measures water quality to ensure healthy watersheds and drinking water quality. The EPA has a complex method of measuring watershed quality using 15 indicators such as pH, chemicals, metals, and bacteria. Water quality in Clifton, Arizona is 60 on a scale to 100 (higher is better). Note that this is a measure of Watershed quality only.

Safe Drinking Water Act: Under the Safe Drinking Water Act, protection of drinking water quality starts with an assessment of the quality of all public water sources and continues through regulations that govern water system design and construction. Drinking water quality is further assured through

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scheduled tests for a wide variety of potential contaminants. The results of these tests are reported to the WQD and a summary is delivered to customers once a year. Because of these regulations and continued testing, drinking water supplies in the United States are among the cleanest and safest in the world. Arizona is no exception. The water company supplying water to Clifton is Morenci Water and Electric. The company is required to provide a water quality summary report to customers on an annual basis.

Groundwater Protection: ADEQ issues Aquifer Protection Permits (APP) to safeguard Arizona's groundwater. This program controls the discharge of pollutants from sewage treatment facilities, septic tanks, mining operations and other industrial facilities. It also regulates the direct reuse of reclaimed water. APPs establish specific discharge limits and monitoring and reporting requirements. They may also require facilities to undertake special measures to protect human health and the environment from harmful pollutants. ADEQ's Pesticide Contamination Prevention Program prevents groundwater contamination from routine agricultural pesticide use. The program regulates agricultural use of pesticides and includes the creation of the Groundwater Protection List, publishing an annual report of the use of pesticides with the potential to reach and impact groundwater. Freeport-McMoRan maintains an APP with ADEQ.

Surface Water: The WQD implements many Clean Water Act (CWA) programs including:

- Developing surface water quality standards to protect human health and the environment.
- Monitoring the water quality of streams and lakes throughout the state.
- Assessing whether surface waters are meeting water quality standards.
- Developing a Total Maximum Daily Load (TMDL) plan with a goal to reduce pollutants and restore water quality, if standards are not being met.

San Francisco-Blue Rivers Watershed Improvement Plan: The Gila Watershed Partnership completed the San Francisco-Blue Rivers Watershed Improvement Plan, June 2012. The Plan summarizes efforts to reduce pollutant loading through Water Quality Improvement Projects and outline community river clean-ups along the San Francisco River. Under the Targeted Watershed grant, four community river clean-up events on the San Francisco River took place 2010-2012 in Clifton and Morenci. Each of these has had a structured component of outreach to people camping or otherwise recreating on the river. Since the first clean-up event in October of 2010, Clean-up teams observed a steady increase in well-groomed campsites in the Clifton and Morenci areas. The Improvement Plan included the construction of public restroom facilities.

User Guide to San Francisco River of Southeastern Arizona: In June of 2011, the Gila Watershed Partnership published and began distributing a guidebook it created with help from BLM and Forest Service personnel and other local experts funded through the Targeted Watershed grant. This user guide was distributed to the public at no charge. The guidebook covers every important aspect of recreation on the San Francisco: property ownership, wildlife, hiking, camping, swimming, boating, OHV use, fishing and hunting and more. It highlights responsible habits while recreating to avoid contamination and detailing why such contamination is potentially hazardous to health. Copies of the user guide were available at Clifton Town Hall, the Chambers of Commerce, the Clifton Ranger District Station, and the Chase Creek Marketplace in Clifton.

Master Watershed Steward (MWS) Course for the San Francisco and Blue Rivers: In February of 2012, the Gila Watershed Partnership launched a Clifton-based MWS course specific to the sub-watershed, tapping lecturers from the University of Arizona, BLM, U.S. Fish & Wildlife Service, and the Greenlee and Graham County agricultural and environmental communities. The course includes two day-long field trips. The response to this MWS course is an indicator of rising public interest in surface water quality issues of the San Francisco-Blue watershed communities.

Energy

Off-Riparian Solar Wells

In 2011, the Kaler Ranch on the San Francisco River above Clifton, a combination of deeded land and adjacent lands leased for grazing from Freeport McMoRan, Arizona State Lands and the BLM, was selected as the site of an ambitious, multi-stage project to create solar-powered wells and watering tanks outside the riparian area. Cattle on the Kaler Ranch have been removed from the stream except when crossing to a different grazing area.

Parks, Recreation, Trails and Open Space

Scenic Attractions

Clifton's unique setting in a canyon surrounding a year-round river provides prime habitat for a wide variety of birds. From northern cardinals and red-tailed hawks to cliff wrens and great blue herons, Clifton is one of the finest areas for seeing a wide diversity of birds. Three new easy-to-access riverside nature trails provide ample opportunities for bird watching.

The San Francisco River flows through Clifton while the Gila River runs south through the grass-covered meadows of the Gila and Duncan valleys. Eagle Creek and the Blue and Black Rivers offer recreation sites. Popular activities are hunting, fishing, birding, and rock climbing and rockhounding.



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The Coronado Trail and Scenic Byway: The Coronado Trail cuts a path north through the Apache Sitgreaves National Forest which rises to 9,000 feet at the Mogollon Rim. Designated a National Scenic Byway, the Coronado Trail winds for more than a hundred miles from the twin cities of Eagar and Springerville in the north to the Town of Clifton and Morenci Townsite in the south. In between, the four-hour route follows the trail used in 1540 by Spanish explorer Francisco Vasquez de Coronado as he searched for the fabled “Seven Cities of Cibola.”

Connecting Clifton to Alpine, the Coronado Trail is one of the great classic rides in the nation. The spectacular roadway retraces the steps of the Spanish Conquistadores of the 1500s, offering some of the most breathtaking scenery in the Southwest. Cool in the summer, delightful in the winter, the curves, vistas and wildlife of the Coronado Trail attract hikers, nature lovers and rock climbers. The trail offers opportunities for fishing, hunting, hiking, camping, cross-country skiing and many other outdoor activities.

Black Hill Back Country Byway: Clifton is located at the northern entrance to the Black Hills Back Country Byway, In the past, this unpaved 21-mile scenic drive was the only road from Safford to the mines at Clifton. It connects Clifton to Solomon via US Highway 70 near Safford. The Byway crosses the Gila River several times and offers travelers many campsites and picnic areas.

Parks and Recreation

The Town of Clifton includes 6 public parks: Al Fernandez Park; Veterans’ Park; Sidebotham Park; the Splash Pad Park; Flag Park; and RV Park Ballfields and Pavilion.

North Clifton RV Park: Located right on the San Francisco River in the heart of Clifton includes full RV hook up with all utilities, camping areas and tent spaces, laundry facilities, restrooms and showers, clubhouse, Wi-Fi and Dish satellite TV, and it offers Passport America Members 50% discounts.

The Clifton Splash Pad Park, developed with funding from the Freeport-McMoRan Community Investment Fund program, the Splash Pad Park is open from May to September and offers a variety of amenities.

Apache-Sitgreaves National Forest: The Apache-Sitgreaves National Forests run along the Mogollon Rim and the White Mountains in east-central Arizona and into the U.S. state of New Mexico. Apache-Sitgreaves has over 400 species of wildlife. With its high elevation and cool summer breezes it is a popular weekend destination. Portions of the national forest are located north of Clifton. It is a leading big game area in Arizona for Rocky Mountain Mule and White-tail deer. The area also offers opportunities for bird watching, sightseeing, nature study, hiking, horseback riding, rock climbing, and fishing on the upper lower San Francisco River.

Transportation/Circulation

Clifton is located on U.S. Highway 191 (U.S. Route 666), 30 miles off transcontinental U.S. Route 70, and 70 miles off Interstate Highway 10. Clifton is 169 miles from Tucson, 207 miles from Phoenix and 230 miles from El Paso. U.S. Highway 191 crosses the San Francisco River in Clifton. The bridge was overtopped during the October 1983 flood and subsequently reconstructed.

Town of Clifton General Plan Background and Current Conditions

Local transportation is provided by an adequate system of streets. Senior citizens' bus service is available within the community and provides weekly transportation to Safford, the Graham County Seat.

Clifton is also serviced by truck service (4-5 carriers), AZER rail services and express mail service (1 daily, 1 with 2-day service).

The Greenlee County Airport is 9 miles southeast of town.

Major Roads

US Highway 191 (U.S. Route 666) is the major highway traversing the Town. It runs parallel to railroad tracks along portions of the Town. US Highway 191 is a major scenic corridor offering access to Clifton's Town Hall, historic downtown, visitors center and historic main street, services, commerce, recreation, and residential areas. It also provides connectivity to two major recreational scenic byways, the Coronado Trail Scenic Byway and the Black Hills Black Country Byway. US 191 is managed and maintained by Arizona Department of Transportation (ADOT).

Road Maintenance and Road Improvement

In terms of road maintenance, the Town of Clifton Public Works department manages, maintains, and improves the Town streets.

Arizona Department of Transportation (ADOT) Southeast District manages and maintains US 191 that runs through the center of the Town of Clifton.

Arizona Eastern Railway (AZER)

AZER was originally chartered in 1895 as the Gila Valley, Globe & Northern, with 133 route-miles between Bowie and Miami, Arizona. Purchased in 2011 by G&W, AZER also includes a 70-mile line between Clifton, Arizona, and Lordsburg, New Mexico, that connects to the original Bowie line via trackage rights.

AZER, is a Class III railroad that operates 265 miles (426 km) of railroad between Clifton, Arizona, and Miami, Arizona, in the United States. This includes trackage rights over the Union Pacific Railroad between Lordsburg, New Mexico, and Bowie, Arizona. The railroad serves the copper mining region of southeastern Arizona, and the agricultural Gila River Valley.

In September 2011, AZER was purchased by G&W. AZER also invested heavily in its infrastructure by replacing inadequate bridges, upgrading track and standardizing equipment. Primary commodities are sulfuric acid, copper concentrate, copper anode and cathode, and copper rod and other copper processing materials. AZER also transports minerals, chemicals, building supplies and lumber. The railroad offers a transload location for lumber, building materials and other consumer commodities at Globe, Arizona.

Greenlee County Airport

The Greenlee County Airport is in Greenlee County, 9 miles southeast of Clifton and Morenci, Arizona. The FAA's National Plan of Integrated Airport Systems for 2011-2015 categorized it as a general aviation facility. The airport may open economic development opportunities for both Clifton and Morenci. An Airport Master Plan prepared in 2010, evaluates the airport capabilities and roles. It also recognizes the importance of air transportation in the region and the associated challenges inherent in providing for its unique operating and improvement needs.

Public Facilities & Infrastructure

Wastewater Collection System and Wastewater Treatment Plant (WWTP)

Wastewater Collection System

The Town of Clifton's wastewater collection system is located entirely within the Town's corporate limits. The wastewater collection system consists of:

- Approximately 59,200 linear feet of gravity sewer main
- Approximately 370 manholes
- 3 lifts stations, including two active and one inactive
- Approximately 3,100 linear feet of force mains
- 2 inverted siphons

All wastewater from the collection system reports to the Town's WWTP. Specific detailed information can be found in *Town of Clifton Sewer Collection & Waste Water Treatment Plant Preliminary Engineering Report (WWTP Report)* dated December 13, 2017. Gravity sewer mains, manholes, lift station, and force main associated with the Patterson Addition, are no longer in operation as the result of a previous flood event causing relocation of residents. The Patterson Addition sewer pipe and lift station are not included in the above sewer component numbers.

History of the Wastewater Collection System

The Town of Clifton Sewer Collection & Waste Water Treatment Plant Preliminary Engineering Report submitted to the Town on December 13, 2017, reports that the age of the wastewater collection system is unknown. However, construction plans found indicate portions of the collection system are older than 1955. Therefore, it is assumed the Town's wastewater collection system was constructed during various timeframes predating 1955 through 2016, with major system upgrades occurring during the years immediately following 1955.

Please refer to the Town of Clifton Sewer Collection & Waste Water Treatment Plan Preliminary Engineering Report (PER) for condition of existing wastewater collection system.

Gravity Wastewater Collection Pipe: According to the WWTP Report the condition of the majority of the Town's sewer collection system mains are unknown. However, in recent years, roughly 12,180 feet of the sewer main has been inspected by video camera.

Manholes: The manholes within the Town are in varying condition. Many manholes in the Town's collection system are buried beneath the roadways or shoulders. Covers on subsurface manholes within the Town are generally square plates without a surrounding metal frame. Within the Town there are a number of manholes which are in good condition with standard manhole frames and covers.

Town of Clifton General Plan Background and Current Conditions

Inverted Siphons: The Town's wastewater collection system also consists of two inverted siphons. The inverted siphons are known as the Shannon Hill Siphon and the Frisco Bridge Siphon. Both inverted siphons cross beneath the San Francisco River.

The Shannon Hill Siphon was constructed between 1993 and 1994. The age of the Frisco Bridge Siphon is unknown. Both siphons are currently functioning as designed.

Lift Stations: The Town has two operating lift stations known as the Paradise and Ward Canyon lift stations. Lift stations are used to pump wastewater in situations where gravity flow cannot be achieved due to elevations. Lift stations operate by accumulating sewage in a sump by gravity. Once the sewage reaches a set level, the lift station pump turns on, pumping the sewage out of the sump through a small diameter pressurized pipe. The small diameter pressurized pipe typically terminates at a gravity sewer manhole. Since lift stations require electricity to operate lift stations are generally equipped with a standby generator.

Capital Improvements (CI): CI planned for the wastewater collection system include a new WWTP and collection system. Additional CI projects include rehabilitation of the Zorilla St. Bridge and Chase Creek Bridge and San Francisco River flood gates upgrade

Existing Debt: The Town of Clifton does not have any existing debt.

Water/Energy/Waste Audits - Wastewater Collection System: There have been no water, energy, nor waste audits for the collection system.

Summary of Wastewater Collection System Needs

Health, Sanitation, Security: According to the *WWTP Report*, much of the Town's wastewater collection system is in need of attention. The Town has two lift stations, the Ward Canyon lift station and the Paradise lift station. The Ward Canyon lift station is located approximately 150 feet from the San Francisco River. In addition, the Ward Canyon lift station is located just above the Ward Canyon Wash.

The Town's wastewater collection system has two inverted siphons which cross underneath the San Francisco River. The Shannon Hill Siphon was constructed circa 1993, the Frisco Bridge Siphon was constructed prior to 1993 and the exact age of the Frisco Bridge Siphon is unknown.

Aging Infrastructure: The Town's wastewater collection system has approximately 62,600 feet of sewer pipe and approximately 300 manholes. Of the 62,600 feet of sewer pipe and 300 manholes, approximately 70% were installed between 1919 and 1954. The existing sewer pipe and manhole's condition for most of the system is unknown.

In recent years, roughly 12,000 feet of sewer pipe has been inspected by video camera. The majority of the Town's wastewater collection system which has been inspected by camera or other means needs repair or replacement. In addition, many manholes within the collection system are not to industry standards and are not accessible without removing roadway paving material.

Wastewater Treatment Plant

According to the *WWTP Report*, the existing WWTP is currently meeting the treatment requirements of its Aquifer Protection Permit (APP). However, the existing WWTP is over 60 years old and in need of repair and upgrade. The existing WWTP is classified as a trickling filter WWTP.

The Town's WWTP is located entirely within the Town's corporate limits in one location. The WWTP is south of the HWY 191 Ward Canyon Bridge and immediately west of the Greenlee County Jail; positioned between the jail and the San Francisco River.

Please refer to the Town of Clifton Sewer Collection & Waste Water Treatment Plant Preliminary Engineering Report for condition of existing wastewater details on the wastewater treatment plant.

Primary effluent from the clarifier flows by gravity to the trickling filter where the momentum of the wastewater causes the distributor arms of the trickling filter to rotate, distributing wastewater across the surface on the filter. The filter media used in the Clifton WWTP is rock. The rock provides a surface on which a biofilm grows under aerobic conditions. Wastewater treatment is accomplished within the biofilm by biochemical oxidation processes. As the biofilm grows in thickness it eventually becomes too heavy to support its own weight, sloughs off, and is recycled to the wet well. Effluent from the trickling filter is conveyed by gravity to the effluent pond from which it is ultimately pumped to the Morenci Wastewater Treatment Facility.

History of the Wastewater Treatment Plant

A partial set of construction plans for the Town's WWTP were found which indicate the construction plans were completed in 1955. Assuming construction of the WWTP was completed within a few years of completion of the construction plans, it is assumed the WWTP was completed sometime between 1955 and 1960. These dates indicate the Town's existing WWTP has been in service for approximately 60 years. The construction plans indicate the WWTP originally included a chlorine disinfection channel after the trickling filter and discharged the effluent to the San Francisco River.

On October 1, 1979, the Town of Clifton and FMI entered into an agreement in which the treated wastewater, or effluent, from the Town's WWTP is pumped to the Morenci WWTP by two existing vertical turbine pumps through a pipeline beneath the San Francisco River. Morenci is an unincorporated mining camp owned and operated by FMI. A copy of the full agreement, as recorded in the Greenlee County Recorder's Office, is included in Appendix A. FMI was previously Phelps Dodge as identified in the agreement.

Following the 1979 agreement between the Town of Clifton and FMI, the effluent began to be pumped to the Morenci mine for mine use rather than discharging to the San Francisco River. As a result of this agreement, the chlorine disinfection channel was demolished and the effluent pond was constructed where it exists today. This is the only known major renovation or alteration to the WWTP since construction.

There are no known applicable violations of regulatory requirements.

Condition of the Existing Wastewater Treatment Plant

The Town's WWTP treats wastewater to a "Class C" standard in accordance with Title 18 of the Arizona Administrative Code and as required by the WWTP's APP. The APP File number is P- 100973. An agreement dating back to 1979 between the Town of Clifton and the Morenci Copper Mine states the Town of Clifton will provide its WWTP effluent for mine use.

Effluent from the Town's WWTP effluent pond is currently pumped to the Morenci WWTP via two existing vertical turbine pumps and a pipeline beneath the San Francisco River. Because of the effluent being sent to the Morenci WWTP, the Clifton WWTP is a zero-discharge treatment facility. Since the Clifton WWTP does not discharge to waters of the United States, the WWTP does not have a National Pollution Discharge Elimination System (NPDES) number.

Both the pumps and pipeline from the Clifton WWTP to the Morenci WWTP are owned and operated by FMI owner of the Morenci Copper Mine. The treated class of wastewater and the discharge arrangement with the Morenci Copper Mine are adequate for the Town WWTP's application.

There are currently 594 active sewer services which contribute raw wastewater to the WWTP. Of the active sewer services approximately 100 are commercial and approximately 494 are residential. The APP dated January 11, 2000 states the WWTP is designed to treat 0.175 million gallons per day (mgd) of domestic sewage.

The Town's WWTP has experienced degradation due to the effects of treating wastewater and age. The treatment plant's components condition is described in the *PER*.

Current Energy Consumption of the WWTP: The total energy consumption for the WWTP in 2016 was 600 kW/hr.

Asset Management Plan: There is no formal asset management plan for the WWTP. Facilities and equipment are maintained and repaired as needed.

Summary of Wastewater Treatment Plant Needs

Health, Sanitation, Security: According to the *WWTP Report*, given the age and condition of the Town's WWTP, the potential of a sewage spill is increased. At the southern side of the WWTP the San Francisco River is located approximately 150 feet from the WWTP. The San Francisco River is approximately 15 feet lower in elevation than the WWTP. Given proximity to the river and the elevation differential of the WWTP to the San Francisco River there is a major concern that a raw sewage spill could result in river contamination. WWTP failure could result in River contamination potential impacts listed under the Wastewater Collection System section included in the previous page.

Aging Infrastructure: The Town's WWTP is an antiquated treatment plant consisting of a clarigester and trickling filter. Clarigester wastewater treatment technology was first introduced in the 1930s. Today this technology is obsolete and has been replaced with extended aeration wastewater treatment technology.

Due to the age of the WWTP, finding replacement parts for existing equipment is difficult at best and at times impossible. In addition, since the WWTP has only one treatment train, it is impossible to shut down the WWTP for major repairs.

Water Supply

Morenci Water and Electrical Company

According to the Arizona Department of Water Resources (ADWR), Morenci Water & Electric Company produces electrical power and supplies water. Based in Morenci, Arizona, Morenci Water & Electric Company operates as a subsidiary of Freeport-McMoRan Inc. Morenci Water and Electric Company water supply service area includes Clifton and Morenci.

According to the 2000 Census, Clifton and Morenci reported a combined population of 4,475 in that year. The population living within the water company service area experienced a decline showing a combined Morenci/Clifton population of 3,314 people during the 2010 Census due to a decrease in mining activity at that time. The estimated population of the service area as of July 1, 2016 was 4,491 as a direct result of increase mining activity in the area.

According to ADWR report on municipal water demand in the Southeastern Arizona Planning Area, in 2006, Morenci Water and Electric Company withdrew 274 acre-feet of groundwater and diverted 519 acre-feet of surface water from Eagle Creek. About three-quarters of its deliveries (559 acre-feet) were to residential customers. Based on population figures above, it is anticipated that the water plant capacity is sufficient to address the existing and projected population. Table 7, included in the Demographic and Households Characteristics section, shows population projections for the planning horizon (2020-2050).

Other Public Facilities and Services

Clifton Town Hall

Located on Coronado Boulevard across from the Chase Creek Historic District, the Clifton Town Hall building houses the Clifton Police Department and the Clifton Fire Department and the Clifton Magistrate Court. Although the portion of the building including the Council Chambers have been renovated, according to staff reports the Clifton Police Department, the Clifton Fire Department, and the Magistrate Court are operating in outdated facilities presenting challenges to the day-to-day operation of their respective safety, emergency management and magistrate functions. The solution could involve construction of a new municipal complex housing all these functions, or the adaptive reuse of existing facilities such as the Train Station or BPOE/Elks Lodge.

Town of Clifton General Plan Background and Current Conditions

Clifton Police Department

The Clifton Police Department enhances the quality of life for the community by protecting and preventing crime. The Department takes an active role in creating a positive image, while encouraging and supporting one another. The current police department facilities are outdated and need expansion for proper function.

Magistrate Court

The Clifton Magistrate Court is a fully functional, and full-time limited jurisdiction court which handles criminal and criminal traffic misdemeanors, as well as civil traffic cases within its jurisdiction. The magistrate also presides over civil injunctions. The court handles approximately 100-150 criminal cases, and approximately 500 civil traffic cases a year. The Clifton magistrate court facilities are in need of upgrades.

The Clifton Fire Department

The Clifton Fire Department has been an active part of the Town of Clifton since 1909. The Fire Department is made up of 21 volunteer Firemen who reside in town limits. Clifton Fire Station is located alongside Highway 191 N. Coronado Boulevard next to Town Hall. Clifton Fire is responsible for the 4,000 residents in Clifton and are often found lending a helping hand to nearby neighbors Verde Lee, Loma Linda and Morenci. The Clifton fire department facilities are in need of upgrades.

The Clifton Public Library

The Clifton Public Library provides free library service to Clifton and Morenci and support informational, cultural, recreational, art, and educational programs that serve library users' needs.

Electrical Utilities and Cable Providers

The Morenci Electrical & Water Company supplies electricity to the Town of Clifton. Clifton has two minor TV providers including Cable ONE and Valley Telecom Group. DIRECTV offers satellite service to residential and business areas of Clifton.

Socioeconomic Background

Economic Development

Primarily dependent on the copper industry, Clifton's economy has experienced the same fluctuations as the copper market. An ongoing low in the copper market, a general strike in July 1983, technological change and seven major floods including emergency clean-up costs totaling nearly \$20 million contributed to the Town's depressed economic conditions.

Concerned about the lack of developable land, the Town annexed an additional 8 square miles (approximately 5,000 acres) of land to the southeast outside of the floodplain. This area includes a 120-acre site, Table Top Mesa, which is owned by the Town and offers opportunities for residential development.

In recent years, the demand for copper has grown rapidly, particularly in China, where today more than 40 percent of the world's copper is consumed. To help meet this demand, Freeport-McMoRan invested almost \$2 billion into an expansion of their Morenci operations. One of the company's largest priorities was improving the first step of the supply chain: carrying copper products from the Arizona mines to a transfer facility in Lordsburg, New Mexico.

Traditionally, Freeport-McMoRan had relied upon AZER, a small short line railroad, for this leg of the journey. However, over the years, underinvestment in the rail line led to regular service interruptions as infrastructure fell into disrepair. In September 2011, AZER was purchased by G&W and immediately sat down with Freeport to discuss what the company needed from a freight rail partner.

Among the changes, the short line railroad reached out to others involved in Freeport-McMoRan's supply chain, including Union Pacific. Together, the two companies collaborated to improve service schedules to address the mining company's needs. AZER also invested heavily in its infrastructure by replacing inadequate bridges, upgrading track and standardizing equipment, and replaced a mix-and-match fleet of aging locomotives with a uniform fleet of modern engines.

Before the change, Freeport-McMoRan struggled to plan their shipments since some locomotives could pull more than others, and packing the same commodity into different car types would add time and expense to the loading and unloading process. A uniform fleet has helped to streamline the loading and unloading process, reduce delivery times, increase efficiency, and increase safety throughout the network. Thanks to this collaborative economic development effort and partnership, Freeport-McMoRan has the safe, reliable and cost-effective rail service it needs to succeed. Today, the company is delivering American copper throughout the world, from Shanghai to Connecticut to Spain, while also delivering local economic benefits to communities in the state of Arizona.

The resurgence of the copper industry presents the opportunity to support the revitalization and economic diversification needed to strengthen the Clifton's economy.

Town of Clifton General Plan Background and Current Conditions

Economic Indicators and Economic Activity

Mining and mineral processing dominate the economy in the Clifton-Morenci area, employing about two-thirds of the workforce. Morenci boasts the largest open pit copper mine in the United States.

The government and education sectors are also major employers with approximately 200 employees. Clifton and Morenci are trade centers for tourists driving the popular Coronado Trail or touring the historic Chase Creek business district. There are few retail and service firms.

TABLE 1: LABOR FORCE

	2000	2010	2016
Civilian Labor Force	1,155	1,350	1,545
Unemployed	72	170	112
Unemployment Rate	6.2	12.6	7.2

Source: Arizona Employment Statistics, Arizona Office of Economic Opportunity, 2017

As provided on Table 1, while the civilian labor force showed a steady increase during 2000, 2010 and 2016, unemployment and unemployment rate doubled in 2010 during the recent recession. While the number of unemployed people has decreased slowly, the unemployment rate has been reduced almost by half.

Table 2 shows workforce education attainment. While approximately 72 percent of the Clifton population either completed high school or equivalent (no college) or earned some college or associate degree, only 10.4 percent has a bachelor's degree or advance degree, and only 17.7 percent has less than high school. These workforce education attainment figures indicate the presence of a skill labor force.

TABLE 2: WORKFORCE EDUCATION ATTAINMENT

	Count	Share
Less Than High School	347	17.7%
High School or Equivalent, No College	700	35.8%
Some College or Associate Degree	707	36.1%
Bachelor's Degree or Advance Degree	203	10.4%

Source: US Census Bureau, American Community Survey, 2017

Town of Clifton General Plan Background and Current Conditions

According to Table 3, while property tax streaming from elementary/high school dropped significantly from 2000-to 2016, Fire District taxes increased. Overall Greenlee County property taxes decreased from 2000 to 2010 and showed a slight increase from 2010 to 2016. Road construction and maintenance and local government staff salaries within the community are paid for with tax dollars. Any municipal employees, such as police, fire fighters, and the local public works department are also paid through property taxes.

TABLE 3: PROPERTY TAX			
	2000	2010	2016
Elementary/High School	8.42	2.93	2.41
City/Fire District	0.00	2.23	3.49
Greenlee County	0.91	1.39	1.48
Totals (Greenlee County)	9.43	6.55	7.38

Source: Arizona Department of Revenue and Arizona Tax Research Foundation, 2017

Table 4 shows sales taxes for the year 2000, the only year found. Compared to the State, both Clifton and the Greenlee County have a lower sales tax with Clifton having a higher tax than the County. Sales taxes generate revenues for municipalities to support a variety of needed programs. However, a higher sales tax does not go far. Sales tax revenues are directly related to amount of revenue generating uses such as retail. Considering the opportunities for eco-tourism, geo-tourism, and heritage-tourism within and surrounding the Town an increase in revenue-generating uses could strengthen the economic vitality and long-range fiscal viability of the Town.

TABLE 4: SALES TAX	
	2000
Clifton	3.00%
Greenlee County	0.50%
State of Arizona	5.60%

Source: Arizona Department of Revenue and Arizona Tax Research Foundation, 2017



Town of Clifton General Plan Background and Current Conditions

Table 5 shows Clifton's industry ranked by employment. The industry sector ranked as the top employer is mining, followed by public services (education, health care and social assistance), construction and amenities such as arts, entertainment, food and recreation services.

TABLE 5: INDUSTRY (RANKED BY EMPLOYMENT)		
	Count	Share
Agriculture, Forestry, Fishing, Hunting, Mining	620	46.6%
Education, Health Care & Social Assistance	180	13.5%
Construction	128	9.6%
Arts, Entertainment, Food & Recreation Services	104	7.8%
Public Administration	76	5.7%
Professional, Scientific, & Administrative Services	63	4.7%
Retail Trade	51	3.8%
Manufacturing	41	3.1%
Other Services, Except Public Administration	30	2.3%
Transportation, Warehousing, & Utilities	25	1.9%
Wholesale Trade	7	0.5%
Finance, Insurance, & Real Estate	4	0.3%
Information	2	0.2%

Source: US Census Bureau, American Community Survey, 2017

Clifton Historic Chase Creek Street

Much happened in Clifton since the Spanish explorer Coronado visited the area back in colonial times. At the beginning of the 20th century, the Clifton/Morenci area was home to more people than Phoenix. And at the center of the area's activity was Chase Creek Street. The memory of that bygone era lives on in the historic storefronts and small businesses that still line this famous Arizona street.



The National Historic Registrar lists the Union Hall built in 1916 as a unique example of Territorial style architecture mixing Pueblo and Victorian styles. The Greenlee Historical Museum occupied by the Clifton Historical Society was built in 1913 by the Spezia Brothers. The Sanctuary of the San Francisco, a large stone church showcasing Mission Revival architectural style and the Chase Creek Marketplace

Town of Clifton General Plan Background and Current Conditions

are few of many fine examples of local architecture. Clifton offers visitors great opportunities for heritage tourism. Revitalization and historic preservation of the Chase Creek Street can increase Town revenues, lure visitors to extend their stay, and provide amenities and services to locals.

Façade Renovations Chase Creek Street

Regional efforts to reinvigorate economic development include fixing run-down building façades in the business districts of Clifton and Duncan while developing support for small businesses. The Freeport-McMoRan Community Investment Fund model awarded grants for this collaborative effort to take place. The Business Association of Chase Creek Arizona is a collaborative effort of the Town of Clifton, the Eastern Arizona College Small Business Development Center, the Duncan and Clifton Farmers' Markets, the Gila Watershed Partnership, and individual entrepreneurs in Greenlee County. With a \$30,000 grant from Freeport-McMoRan and additional funds from the Arizona Commerce Authority and a facility on historic Chase Creek donated by the Town of Clifton, the Chase Creek Center opened in late 2011. The façade improvement program is designed to serve new entrepreneurs, existing small business owners, and farm and ranch operators of any scale.

The Business Association of Chase Creek Street

The Business Association of Chase Creek Arizona is actively involved promoting businesses in the historic core of Clifton and has been identified as a partner in the General Plan outreach process.

The Clifton Historic Preservation Commission

The Commission promotes historic districts and landmarks for the educational, cultural, economic and general welfare of the public through the preservation, protection of historic buildings, landmarks and sites within the Town. The Commission plays a strong role in the economic development of the Town.

The Clifton Visitors Centers, The Clifton Library and Local Arts

Collaborative efforts from the Clifton Visitors Center and the Clifton Library support mural, as well as other art and storytelling programs at these facilities. Such programs are vital to economic development.



Town of Clifton Visitor Center

Demographics and Household Characteristics

Demographics

This section addresses population growth from 2000 to 2016 based on available data and population projections 2020-2050 calculated for Clifton based on current trends. It also addresses household characteristics based on US Census Bureau data and other sources.

Population Trends

Table 6 shows the population based on 2000 and 2010 Census counts and 2016 population estimates. The 2016 population estimates indicate an increase in population at place, county and state level.

TABLE 6: POPULATION			
	2000	2010	2016
Clifton	2,538	3,311	4,491
Clifton/Morenci	4,475	3,314	4,491
Greenlee County	8,547	8,440	10,433
State of Arizona	5,130,632	6,401,569	6,835,518

Source: US Census Bureau 2000 and 2010 Census and Arizona Population Statistics, Arizona Office of Economic Opportunity, July 1, 2016 Population Estimates.

Population Projections

The Arizona Population Statistics, Arizona Office of Economic Opportunity, prepares the accepted population projections for counties and municipalities within the state of Arizona. Such data is not available for smaller communities experiencing small growth such as the Town of Clifton.

Table 7 shows 2020-2050 population projections for Clifton calculated by The Planning Center. The methodology used is the percent of County share, a reliable forecasting method for small areas experiencing low growth. Such percent is calculated for the base years 2000, 2010 and 2016. The resulting percent share for 2000, 2010 and 2016 is averaged to yield the average percent share. The average percent share is applied to the Medium Series Greenlee County Population Projections prepared by the Arizona Office of Economic Opportunity to obtain Clifton's projection based on the 2000-2016 share of the County population. This forecasting method provides a general reference that satisfies the scope of a general plan. A more thorough demographic study is recommended to arrive at a more viable forecast to more accurately reflect current growth experienced in the Clifton-Morenci area.

Greenlee County population projections prepared by the Arizona Office of Economic Opportunity take into consideration number of births and number of deaths as well as in and out migration. Due to the high population 65 or older, the number of deaths in the 2020-2050 projections is anticipated to be disproportionately higher than the number of births. As a result, a slight decrease in population is anticipated during the 2035-2050 period of the projections. This pattern may change by creating the amenities and encouraging economic development strategies that retains the area's youth and attracts younger families to the area.

Town of Clifton General Plan Background and Current Conditions

TABLE 7: POPULATION PROJECTIONS

Year	Greenlee County Medium Projection	Clifton Percent of County Share
2020	10,694	4802
2021	10,714	4811
2022	10,733	4819
2023	10,752	4828
2024	10,770	4836
2025	10,787	4843
2026	10,803	4851
2027	10,817	4857
2028	10,830	4863
2029	10,841	4868
2030	10,850	4872
2031	10,857	4875
2032	10,862	4877
2033	10,864	4878
2034	10,863	4877
2035	10,859	4876
2036	10,852	4873
2037	10,843	4869
2038	10,832	4864
2039	10,818	4857
2040	10,802	4850
2041	10,783	4842
2042	10,762	4832
2043	10,740	4822
2044	10,716	4811
2045	10,691	4800
2046	10,665	4789
2047	10,637	4776
2048	10,610	4764
2049	10,581	4751
2050	10,553	4738

Sources: 2015-2050 State and County Population Projections, Greenlee County Medium Series, Arizona Population Statistics, Arizona Office of Economic Opportunity, 2015; Arizona Department of Administration, Office of Employment & Population Statistics, 2015; Percent Share of the County Population, The Planning Center, 2018
Source: 2015-2050 State and County Population Projections, Greenlee County Medium Series, Arizona Population Statistics, Arizona Office of Economic Opportunity, 2015; Arizona Department of Administration, Office of Employment & Population Statistics, 2015; Percent Share of the County Population, The Planning Center, 2018.

Town of Clifton General Plan Background and Current Conditions

Population Distribution

Table 8 shows Clifton population counts and percentages by race and ethnicity for the 2000 and 2010 Census population counts. As per the 2000 Census, of the total 2,538 people living in Clifton, 1,691, or 66.63 percent, reported being White alone and a total of 847, or 33.37 percent of the population, were distributed among other race categories. As per 2010 Census, of the total 3,311 people living in Clifton, 2,342, or 70.73 percent, reported being White alone and a total of 969 people or 29.27 percent were distributed among other race categories, showing a total increase in the White alone population of 651 people or a 38.50 percent change for the 2000-2010 period.

According to the 2000 Census, of the total 2,538 people living in Clifton, a total of 1,417, or 55.83 percent, reported Hispanic or Latino Origin. As shown by the 2010 Census counts, of the total 3,311 people living in Clifton, a total of 1,991, or 60.13 percent, reported Hispanic or Latino Origin, showing a total increase of 574 people or a 40.51 percent change for the 2000-2010 period.

TABLE 8: POPULATION BY RACE AND ETHNICITY				
	2000	Percentages	2010	Percentages
Population by Race				
American Indian and Alaska native alone	59	2.32%	109	3.29%
Asian alone	1	0.04%	23	0.69%
Black or African American alone	25	0.99%	28	0.85%
Native Hawaiian and Other Pacific native alone	0	0%	3	0.09%
Some other race alone	687	27.07%	635	19.18%
Two or more races	75	2.96%	171	5.16%
White alone	1,691	66.63%	2,342	70.73%
Total Population	2,538	100%	3,311	100%
Population by Hispanic or Latino Origin				
Persons not of Hispanic or Latino Origin	1,121	44.17%	1,320	39.87%
Persons of Hispanic or Latino Origin	1,417	55.83%	1,991	60.13%

Source: US Census Bureau, 2000 and 2010 Census, Clifton, Arizona, Population by Race.

Table 9 shows Clifton population by gender based on 2000 and 2010 Census counts.

TABLE 9: POPULATION BY GENDER				
	2000	Percentages	2010	Percentages
Female	1,216	47.91%	1,614	48.75%
Male	1,322	52.09%	1,697	51.25%
Total Population	2,538	100%	3,311	100%

Source: US Census Bureau, 2000 and 2010 Census, Clifton, Arizona, Population by Gender.

Town of Clifton General Plan Background and Current Conditions

Table 10 shows the 2010 Census Clifton population by age. The median age in 2010 was 30.2 years and the total population 65 and over included 314 individuals, or 9.5 percent of the total population.

TABLE 10: POPULATION BY AGE		
	2010	Percentages
Under 5 years	317	9.6
5 to 9 years	275	8.3
10 to 14 years	304	9.2
15 to 19 years	248	7.5
20 to 24 years	236	7.1
25 to 29 years	276	8.3
30 to 34 years	246	7.4
35 to 39 years	210	6.3
40 to 44 years	197	5.9
45 to 49 years	220	6.6
50 to 54 years	175	5.3
55 to 59 years	168	5.1
60 to 64 years	125	3.8
65 to 69 years	77	2.3
70 to 74 years	54	1.6
75 to 79 years	76	2.3
80 to 84 years	52	1.6
85 years and over	55	1.0
Total Population	3,311	100

Source: US Census Bureau, 2010 Census.



Town of Clifton Splash Pad Park the Town's favorite spot for its young population.

Household Characteristics

Households by Type

Table 11 shows Clifton households by type based on 2010 Census counts. Table 10 shows households by type based on 2010 Census. As shown on Table 11, of the total 1,185 households counted in the 2010 Census, 808 households, or 88.2 percent, were family households and 377, or 31.8 percent were nonfamily households.

TABLE 11: HOUSEHOLDS BY TYPE		
	2010	Percentages
Family Households [1]	808	88.2%
Male Householder	600	50.6%
Female Householder	208	17.6%
Nonfamily Households [2]	377	31.8%
Male Householder	225	19.0%
Living alone	179	15.1%
Female Householder	152	12.8%
Living alone	137	11.6%
Total Households	1,185	100%

Source: US Census Bureau, 2010 Census, Summary File 1.

Notes:

[1] A household that has at least one member of the household related to the householder by birth, marriage, or adoption is a "Family household." Same-sex couple households are included in the Family Household's category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

[2] "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

Of the total 1,185 households reported in the 2010 Census, a total of 519 households, or 43.8 percent, include individuals under 18 years and a total of 231 households, or 19.5 percent, include individuals 65 years and over.

Of the total 179 nonfamily households reporting male householders living alone, a total of 26 households, or 14.5 percent, included males 65 years and over. And of the total 137 nonfamily households reporting female householders living alone, 71 households, or 51.1 percent, included females 65 years and over.

Town of Clifton General Plan Background and Current Conditions

As shown on Table 12, of the total 1,185 households reported by the 2010 Census, a total of 853 households, or 70.4 percent, are 1- to 3-person households. Respectively, the average household size in Clifton for that year was 2.77 persons and the average family size was 3.33. Average household size is used to determine housing needs.

TABLE 12: HOUSEHOLDS SIZE		
	2010	Percentages
1-person household	316	26.7%
2-person household	297	25.1%
3-person household	220	18.6%
4-person household	173	14.6%
5-person household	107	9.0%
6-person household	41	3.5%
7-or-more-person household	31	2.6%
Total Households	1,185	100%

Source: US Census Bureau, 2010 Census, Summary File 1.

As shown on Table 13, of the total 808 family households reported in the 2010 Census, 512 family households, or 63.4 percent, include related children under 18; 448, or 55.4 percent, include own children under 18; and 121 households, or 15.0 percent, includes own children under 6 years only.

TABLE 13: FAMILY TYPE AND PRESENCE OF CHILDREN		
	2010	Percentages
With related children under 18 years	512	63.4%
With own children under 18 years	448	55.4%
Under 6 years only	121	15.0%
Under 6 and 6 to 17 years	101	12.5%
6 to 17 years only	226	28.0%
Total Family Households [3]	808	100%

Source: US Census Bureau, 2010 Census, Summary File 1.

Notes:

[3] "Family Households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couples are included in the Family Household's category if there is at least one additional person related to the householder by birth or adoption. Responses of "same-sex spouse" were edited during processing to "unmarried partner." Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households.

Town of Clifton General Plan Background and Current Conditions

The 2010 Census reports a total of 541 households under the Husband-wife Families category. Of that total, 309 households, or 57.1 percent, include related children under 18 years and a total of 276 households, or 51.0 percent, include owned children under 18 years.

In addition, the 2010 Census reports a total of 143 households under the Female Householder, No Husband Present Families category. Of that total, 106 households, or 74.1 percent, include related children under 18 years, and 86 households, or 60.1 percent include own children under 18 years.



Town of Clifton Coronado Boulevard/U.S. Highway 191 (Historic Route 666)

Housing Characteristics

Housing by Type and Tenure

Housing Occupancy

This section addresses housing occupancy based on 2010 Census data. As provided in Table 14, of the total 1580 housing units, 1,185 units, or 75 percent, are occupied, and 395, or 25 percent are vacant. A housing study to determine quality of housing stock has not been conducted by the Town.

TABLE 14: FAMILY TYPE AND PRESENCE OF CHILDREN		
	2010	Percentages
Occupied housing units	1,185	75.0
Vacant housing units	395	25.0
For rent	158	10.0
Rented, not occupied	13	0.8
For sale only	13	0.8
Sold, not occupied	40	2.5
For seasonal, recreational, or occasional use	63	4.0
All other vacant	108	6.8
Total Housing Units	1580	100

Source: US Census Bureau, 2010 Census.

The 2010 Census reports a homeowner vacancy rate of 2.8 percent. The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant "for sale." It is computed by dividing the total number of vacant units "for sale only" by the sum of owner-occupied units, vacant units that are "for sale only," and vacant units that have been sold but not yet occupied; and then multiplying by 100.

The rental vacancy reported by the 2010 Census is 16.7 percent. The rental vacancy rate is the proportion of the rental inventory that is vacant "for rent." It is computed by dividing the total number of vacant units "for rent" by the sum of the renter-occupied units, vacant units that are "for rent," and vacant units that have been rented but not yet occupied; and then multiplying by 100.

Town of Clifton General Plan Background and Current Conditions

Housing Tenure

This section addresses housing tenure based on 2010 Census data. As provided in Table 15, of the total 1,185 housing units, 410 units, or 34.6 percent, are owner-occupied, and 775 units, or 65.4 percent are renter-occupied.

TABLE 15: HOUSING TENURE		
	2010	Percentages
Owner-occupied housing units	410	34.6
Renter-occupied housing units	775	65.4
Total Occupied Housing Units	1,185	100

Source: US Census Bureau, 2010 Census.

According to 2010 Census, the population in owner-occupied units is 980. The average household size of owner-occupied units is 2.39 persons per unit. The same source reports a total population of 2,298 living in renter-occupied housing units. The average household size of renter-occupied units is 2.97 persons per unit.



Existing Land Use and Major Land Owners

Existing Land Use and Undeveloped Land

Existing Land Use

Utilizing GIS mapping and analysis tools, generalized existing land uses were identified within the Clifton General Plan Study Area. Table 16 shows generalized existing land uses within the Clifton General Plan Study Area. The General Plan Study Area encompasses a total of 39,667.9 acres. Of this total, 9,920 acres are within the Town's corporate boundary. Exhibits 6.a and 6.b located in the General Plan Map Series Atlas depict generalized existing land uses.

TABLE 16: GENERALIZED EXISTING LAND USE	
	Acres
Residential	714.94
Commercial	90.40
Parks and Recreation	26.98
Aggregate Extraction	4128.14
Developed Master Planned Community (Morenci)	567.88
Institutional Public Use	105.15
Existing Public Lands	7.4
Undeveloped	34,027
Total Study Area	39,667.9

Sources: Arizona State Land Department, 2017; Arizona Department of Transportation, 2018; and Arizona Land Resources Information Services, 2013.

Undeveloped Land

Most lands within the Clifton corporate boundary consist of disturbed undeveloped land primarily used for grazing purposes. And most of the undeveloped land within Town corporate boundaries and within the Clifton General Plan Study Area is either federal or state owned, or is land owned by Freeport McMoRan for aggregate/extraction purposes. Extremely severe slopes render most of these lands unsuitable for other land uses. The main areas suitable for development are in the southern portion of the Town and consists primarily of lands owned by Freeport McMoRan, the Bureau of Land Management, and the Arizona State Land Department. See Exhibit 6.b Existing Land Use and Exhibit 7 Land Owners included in General Plan Map Series Atlas.

Developed Land

A relatively small portion of the total 9,920 acres of land within the Town's corporate limits includes development. Large expanses of land within the Town are owned by Freeport McMoRan, Bureau of Land Management (BLM) and Arizona State Land Department (ASLD). In addition to land ownership, topography and other physical constraints restrain growth. The following existing land uses were identified within Clifton:

Town of Clifton General Plan Background and Current Conditions

Residential: While the 1980 Census reported a total of 1508 housing units, the 2010 Census reported a total of 1580 units within the Town, yielding a total of 72 additional units in a 30-year period, or an additional 2.4 houses per year. Of the total 1508 housing units reported in the 1980 Census, 310 were located within the 100-year floodplain. Of these, 60 were damaged more than 50 percent while 250 were less severely damaged during the October 1983 flood. The remaining housing units are located outside of the 100-year floodplain in South Clifton, Shannon Hill, Chase Creek and east Clifton and North Clifton.

Commercial: The main business district of Clifton is located along Coronado Boulevard (U.S. Highway 191 or historic Route 666) which passes through south Clifton and continues along Chase Creek. Additional commercial activity takes place in old-south Clifton and in east Clifton.

Industrial: A large portion of the floodplain in old-south Clifton is managed by AZER (under Genesee & Wyoming (G&W) ownership since 2011 and formerly Southern Pacific), for rail freight and associated activities serving Freeport-McMoRan mining operations in the area. Other industrial land uses include the Morenci Water and Electric switchyard and pumping station located in the mouth of Chase Creek.

Institutional/Public Use: Public uses in Clifton include public facilities like the County Courthouse complex, the Clifton Public Library, the Greenlee County Sheriff's Station, the Town Hall, the U.S. Post office and the U.S. Forest Service Ranger Station and warehouse. The Town Hall, library, and Ranger Station all sustained major damages by the 1983 flood and have since relocated. The Town Hall is now located on Coronado Boulevard near Chase Creek, the Ranger Station is located at 397240 AZ Hwy 75 Duncan, AZ 85534 or locally known as 3-Way Junction

There were 7 churches in Clifton at the time of preparation of the previous general plan. Of these, two were severely damaged during the October 1983 flood, one was destroyed and one sustained minor damages. The Clifton School District included facilities for elementary and high school education. These facilities were damaged by the flood of October 1983.

Aggregate/Extraction: There are aggregate extraction land uses within the Town owned by Freeport-McMoRan.

Agriculture: Although some of the undeveloped land may have grazing permits, there are no existing agricultural land uses within the Town.

Vacant/Other: There is little significant land within the earlier Clifton Town site which is undeveloped and suitable for development. However, following the flood of October 1983, the Town of Clifton annexed eight additional sections of land for future expansion. Most of this land is undeveloped and is owned by the U.S. Bureau of Land Management (BLM) or by the State of Arizona. Of these lands, 120 acres were purchased from the BLM by the Arizona Division of Emergency Services as a potential relocation site for Clifton residents.

Planned and Proposed Development

There were no planned or proposed developments at the time of preparation of this report.

Major Land Owners

Table 17 shows major land owners within the Clifton General Plan Study Area. As provided in Table 17 and as shown in Exhibit 7 included in the General Plan Map Series Atlas, BLM, ASLD and Freeport-McMoRan own most of the undeveloped areas within the General Plan Study Area and inside the Town of Clifton corporate limits. Of the total 39,667.9 acres encompassing the General Plan Study Area, 28,744 acres, or 72.5 percent are lands owned by BLM, ASLD and Freeport-McMoRan. Given flood prone areas and areas with slopes higher than 15% within the remaining undeveloped areas, this presents a major challenge impeding growth. In terms of land ownership, the Town is landlocked.

TABLE 17: MAJOR LAND OWNERS		
Owner	Acres	Percent
Private	7,971.6	20.1
BLM	14,793.0	37.3
ASLD	9,270.0	23.4
Town of Clifton	258.7	0.7
Greenlee County	34.6	0.1
Freeport-McMoRan	4,681.0	11.8
National Forest	2,659.0	6.7
Total Study Area	39,667.9	100

Sources: Arizona State Land Department, 2017; Arizona Department of Transportation, 2018; and Arizona Land Resources Information Services, 2013.



Current Zoning

Clifton Zoning Districts and Study Area Zoning Districts

Table 18 shows zoning districts within the Town of Clifton. Exhibit 8 included in the General Plan Map Series Atlas, shows current zoning within the Town's corporate boundary and within the General Plan Study Area.

TABLE 18: CURRENT ZONING		
Zoning District Town of Clifton	Acres	Percent
CC-1	1333.4	14.1
GC-1	295.5	3.1
HP-1	40.5	0.4
I-2	961.0	10.1
R-1	1490.6	15.7
R-2	2365.5	24.9
R-3	2144.8	22.6
R-3M	18.6	0.2
R-4	226.9	2.4
R-5	473.3	5.0
RR-1	157.2	1.7
Total Town of Clifton	9,484.80	100
Greenlee County Zoning Districts within the General Plan Study Area		
GB	556.3	1.4
HI	7726.9	19.5
MR	1407.2	3.5
RU 36	19325.4	48.7
Total Study Area	39667.9	100

Sources: Arizona State Land Department, 2017; Arizona Department of Transportation, 2018; and Arizona Land Resources Information Services, 2013; The Planning Center 2018.

Note:

There were no existing GIS shape files for the Town of Clifton Current Zoning. As a result, zoning districts were digitized by The Planning Center based on a photograph of the Town. Therefore, totals shown on Table 18 are approximate.

Background and Current Conditions Summary

Settled in Southeast Arizona in a deep narrow canyon divided by the San Francisco River within Greenlee County, Clifton is approximately 15 miles west of the Arizona/New Mexico border and 120 miles north of the U.S./Mexico border. The nearest metropolitan area is Tucson which is approximately 110 miles southwest of Clifton. In addition to physical (topography and hydrology) and physiographic (environmental resources and the Santa Cruz River riparian corridor) constraints, most of the undeveloped developable land is owned by BLM, ASL and Freeport-McMoRan.

Given past population trends, it is anticipated that water supply will be sufficient to support the needs of the current and forecasted population throughout the planning horizon. Water is supplied by Morenci Water and Electrical Company.

The *Town of Clifton Sewer Collection System & Waste Water Treatment Plant Preliminary Engineering Report* prepared in 2017 outlines special considerations related to the Town's owned and operated aging wastewater collection system and wastewater treatment plant. Tierra Right of Way identified the San Francisco River as the location for a new water treatment facility with the greatest potential for impact on environmental resources. The riverine and forested wetlands are critical habitat for several species, six of which have been designated as threatened or endangered. Since the San Francisco River is perennial, it will be necessary to employ special construction techniques. Due to the sensitive nature of the river and the complex construction required, the report recommends that a special study be undertaken to determine the best course of action.

Another wastewater collection system consideration is the potential replacement of Paradise Lift Station. Prior to construction of this lift station, wastewater was conveyed downstream by gravity. The Paradise Lift Station was constructed in response to the ruptured and ultimate abandonment of the downstream gravity sewer. According to the 2017 report, it seems likely that the lift station could be taken out of service and that gravity flow could be restored. That would result in a more reliable and cost economical conveyance system.

Because of the potential benefits to the Town of Clifton, the report recommends that replacement of the Paradise Lift Station and force main be investigated under a special study. The final wastewater collection system consideration is whether the manholes ought to be repaired or replaced. All manholes within the collection system have not been inspected at the time of the preparation of the report. To determine which manholes are to be replaced, lined, or undergo other type of repair will require a complete manhole survey.

A single drive across town reveals many dilapidated homes on mountain slopes. A housing study to determine the condition of the housing stock could assist the Town in determining which units are salvageable, which need repair, and which are beyond repair and need to be demolished. Such study could provide direction and identify funding for needed run-down housing clean-up endeavors that will improve the character, identity and sense of place of the Town.

A relatively small portion of the total 9,920 acres of land within the Town's corporate limits includes development. The main business district of Clifton is located along Coronado Boulevard which passes through south Clifton and continues along Chase Creek. Additional commercial activity takes place in old-south Clifton and in east Clifton.

Town of Clifton General Plan Background and Current Conditions

Clifton offers visitors great opportunities for heritage tourism. Revitalization and historic preservation of the Chase Creek Street can increase Town revenues, lure visitors to extend their stay, and provide amenities and services to locals and visitors. Regional efforts to reinvigorate economic development include façade improvements in the business districts of Clifton developing support for small businesses.

The Freeport-McMoRan Community Investment Fund is at the center of this collaborative effort. The collaborative effort including the Town of Clifton, the Eastern Arizona College Small Business Development Center, the Duncan and Clifton Farmers' Markets, the Gila Watershed Partnership, and individual entrepreneurs in Greenlee County is vital to recruiting new entrepreneurs while supporting existing small business owners, and farm and ranch operators of any scale. The Business Association of Chase Creek Street plays an active role in promoting businesses in the historic core of Clifton.

The Southeastern Arizona Government Organization (SEAGO) is the regional agency overseeing regional transportation and economic development. It provides transportation planning, grants, and other services for communities within Cochise, Graham, Greenlee and Santa Cruz counties. It also outlines the economic development strategy for the region. SEAGO is a vital partner in the economic development of the region.

Clifton also offers opportunities for eco-tourism and geo-tourism. The Town's unique setting in a canyon surrounding a year-round river provides prime habitat for a wide variety of birds and other wildlife. Three new easy-to-access riverside nature trails, provide ample opportunities for bird watching. The San Francisco River flows through Clifton offering recreation sites. Popular activities in the Town and its surrounding region include hunting, fishing, birding, rock climbing and rockhounding.

In sum, although numerous challenges are identified in this background and current conditions technical report, many opportunities exist to make Clifton a heritage-tourism, eco-tourism, and geo-tourism destination. If property addressed, such opportunities will support needed beautification and infrastructure improvements while strengthening ongoing economic development partnerships among the different entities mentioned in this report. A vital strategy to support these efforts and the long-term fiscal viability of the Town is the creation of additional revenue-generating development.

The information included in this report informs the public participation program, community visioning process, goals, policy framework, and implementation measures included in the Clifton General Plan Policy Volume.

References

1. Chilicky, Robert A. and Hunt, Gerald D. (2015) *Clifton and Morenci Mining District*. Arcadia Publishing, Charleston, South Carolina.
2. American Fact Finder, U.S. Census Bureau, 2000 Census General Demographic Characteristics.
3. American Fact Finder, U.S. Census Bureau, 2010 Census General Population and Housing Characteristics.
4. American Fact Finder, U.S. Census Bureau, 2016 American Community Survey Demographic and Housing estimates.
5. Arizona State Land Department, State Cartographers Office, AZGEO Clearinghouse, GIS Data Sources, 2018.
6. Arizona Water Atlas, Volume 3, Southeastern Arizona Planning Area, Arizona Department of Water Resources, June 2009.
7. Arizona's Key Commerce Corridors, Arizona Department of Transportation, Multimodal Planning Division, March 2014.
8. Comprehensive Economic Development Strategy (CEDS) 2016-2020, Southeastern Arizona Governments Organization, 2015.
9. Southeastern Arizona Governments Organization Transportation Data Management System.
10. State of Arizona Aquifer Protection Permit No. P-100193 authorizing Freeport-McMoRan Morenci Inc. to operate the discharging facilities located at the Morenci copper mine near Morenci, Arizona, Greenlee County.
11. Town of Clifton General Plan, 1983
12. Town of Clifton Sewer Collection System & Waste Water Treatment Plant Preliminary Engineering Report, Bowman Consulting, December 13, 2017.
13. Town of Clifton Website 2018.
14. Town of Clifton Zoning District Map.
15. Watershed Improvement Plan San Francisco and Blue Rivers, Gila Watershed Partnership of Arizona, June 2012.