BORREGO SPRINGS–TOWARDS AN INTEGRATED WATERSHED SCALE MASTER COMMUNITY PLAN AND RESILIENT COMMUNITY (A WHITE PAPER)

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EXECUTIVE SUMMARY
Towards an Integrated Watershed-Scale Master Community Plan and Resilient Community

This white paper, funded by Proposition 68 and the Sustainable Groundwater Management Act (SGMA) Implementation Grant, explores the challenges and opportunities for Borrego Springs as it updates its community plan. The primary objective is to create a sustainable and resilient framework for future development, addressing critical environmental, socioeconomic, and infrastructure concerns.

Key Findings and Themes:

1. **Water Sustainability and Climate Change:**
   - Borrego Springs depends entirely on a single aquifer that has been severely overdrafted since the 1990s.
   - The community must reduce groundwater use by approximately 70% by 2040 to comply with SGMA regulations.
   - Climate change is worsening water scarcity, increasing risks from extreme heat, floods, and air pollution.
2. **Environmental Challenges:**
   - The local ecosystem, including Mesquite Bosque and Ocotillo Forest, is under threat due to declining water levels.
   - Dust storms, worsened by fallowed agricultural land, pose serious air quality risks.
   - The region's biodiversity, including endangered species like the Peninsular bighorn sheep, is at risk.
3. **Community Planning and Socioeconomic Factors:**
   - Borrego Springs is an aging, predominantly white community with economic dependence on tourism and seasonal residents.
   - Affordable housing and access to healthcare are major concerns.
   - Public engagement through surveys has identified sustainability and water conservation as top priorities.
4. **Infrastructure and Public Facilities:**
   - Energy reliability improvements, such as microgrids and battery storage, are essential due to frequent power shutoffs.
   - Flood risks are significant due to alluvial fan flooding, requiring updated drainage measures.
   - The community aims to enhance dark sky conservation and quiet park initiatives.
5. **Proposed Solutions and Recommendations:**
   - Implementing a **Resilient Watershed-Scale Master Plan** to integrate land use, water conservation, and environmental protection.
   - Supporting sustainable agriculture and ecological restoration of fallowed lands.
   - Strengthening governance and community engagement for long-term resilience.
   - Expanding local renewable energy infrastructure to reduce dependency on external power grids.

Conclusion:
Borrego Springs faces critical challenges related to water scarcity, climate change, and infrastructure resilience. However, with strategic planning, sustainable development, and community engagement, it can serve as a model for other arid regions facing similar threats. The white paper provides a roadmap for an integrated, science-driven, and community-supported plan to ensure Borrego Spring's long-term viability.

BACKGROUND SUMMARY
This white paper is a product of funding from Proposition 68, Sustainable Groundwater Management Act (SGMA) Implementation Grant funding provided by the State of California Department of Water Resources (DWR) and the Borrego Water District (BWD) as part of an application to support the discovery of the elements necessary to aid the community of Borrego Springs in resiliency planning as it undergoes meeting the implementation and requirements of a Groundwater Sustainability Plan. This paper is intended to be a resource to both the community and any other governing bodies to help them better understand the unique qualities and characteristics of Borrego Springs, as well as be a supporting document for the development of an updated Community Plan. This paper includes a review of key elements of the basin, its community fabric, and natural resources; as well as results from scientific resources, community surveys, and firsthand anecdotal information gathered over the course of the grant project period.

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THE WHITE PAPER

PROBLEM STATEMENT

The challenges, issues, and needs of Borrego Springs addressed by this white paper are as follows:

What are the Challenge and Issues? Borrego Spring's Community Plan (BSCP) is 11 years out of date and many advances in knowledge and data are available to utilize. On the other hand, as data and knowledge has improved, climate change has substantially worsened and temperature goals for the planet of 1.5 degrees Celsius or 3 degrees Fahrenheit are no longer look so achievable or sustainable. Additionally, Borrego Springs (BS) is served by a sole source aquifer which is currently at an extreme overdraft will serving the hottest and most arid climate and ecosystem in San Diego County. To survive and thrive into the next century, BS needs an updated BSCP with a clear path towards ecological and social and sustainability.

What is the scope of the problem? The direness of the problem of arid heat, and dependency on a rapidly depleted water supply, is unique to Borrego within San Diego County. But Borrego also serves as microcosm glimpse into the future as all Californians, US Citizens and the World are poised to face increasing stochastic weather extremes and global temperature rise. Watching Borrego further increase their resiliency can serve as a hopeful model community.

What is the present market need and relevant market research and statistics?
In Borrego, its water is its life blood and (eco)tourism is its heartbeat as further defined in the Background Section of this paper. Related data is also presented in "Towards a Sustainable Future" in the paragraphs below and the "Socioeconomics" section of this white paper

Why does this problem require attention?
After having an unstainable yield taken from its aquifer since around 1994 (Figure see graph) under "Environmental Setting", "Groundwater"; Borrego has finally completed a sustainable groundwater management plan for the community that is long overdue. Borrego Springs has literally been witnessed to their life blood draining away. They are surrounded by abandoned and fallowed agricultural fields, dead and dying native habitats (mesquite bosque which has recently been proven to still be reaching for and accessing the depleted aquifer – source: UCI Technical Memorandum 3/25/23), brown golf courses, and face increasing water supply pollution and decreasing air pollution (via air borne sediment; This nightmare scenario is now coupled with state and local support in the form of grant money, and willing constituents working towards a more resilient community by contributing to a Groundwater Management Plan effort. This GMP plan is, however, ambitious, and needs all hands-on deck. It requires a sustainable yield drawdown from the high/GMP starting use in 2020 of approximately 26,000 A, to approximately 6,000 to 8,000 AF by 2040, which is a quite drastic reduction of about 70%. Using the momentum of the grant to fulfill annual, and 5-year reporting; to particularly guide these early years of the 2021 program; will help lead Borrego to success with water management and community livability. In other words, Borrego's life blood is being restored in this historic era.

Towards a Sustainable Future
In 2011 the County of San Diego adopted their updated general plan that had been last updated in 1978. The county's General Plan contains seven (7) state required elements and appendices

(Figure 1 – County of San Diego General Plan).

The basic elements in 1978 and 2011 included only land use, mobility, conservation, and open space, , safety, noise; with housing, environmental justice element and climate vulnerability and the CAP being added after 2016 as required by state mandate, the Land Use Map Appendix being added in 2020, the Mobility Element Network Appendix being added in 2018, and Housing Element Appendices generally being added during or after 2021. In 2022 the County began a "Sustainable Land Use Framework" or SLUF (see VTM related discussion under X).

Socioeconomics Analysis and Solutions: For further details on how the SLUF came to be as a "holistic policy approach intended to balance community priorities, guide future policymaking, and meet the goals of the County's Board, the governing body for the unincorporated area." Additionally, in 2024, the County adopted their final Climate Action Plan or CAP. With the adoption of the CAP, one might wonder why the SLUF is needed, however it is intended to gather community input and develop a more adaptable, inclusive and "holistic approach to sustainable planning and development to ensure that ALL unincorporated communities (which includes Borrego Springs), regardless of their proximity to transit, services, and amenities can live, evolve, and thrive in an equitable and sustainable way." The Framework, will then be integrated into the next General Plan(s) to address any sustainable gaps and to help the County's General Plan evolve with and incorporate "new State legislation and adjacent planning efforts."

Why is there Need for the Sustainable Land Use Framework (SLUF)?
As the SLUF evolves through 2025, the goal of this white paper is to engage in the process, and to update and provide new information with a sustainability mindset and best available science to updating the existing Borrego Springs Community Plan (BSCP). Community interests within the unincorporated County are represented by Community Planning Groups (CPG) and Community Sponsor Groups (CSG). CPG members are elected while CSG members are appointed. The purpose of these groups is to advise County Planning & Development Services, Planning Commission, and Board of Supervisors on land use-related issues. There are 26 CPG/CSGs representing a broad cross section of the community, of which Borrego Springs (a CSG and considered one of only four "backcountry communities" per the 2011 GP) is one. Due to their size, these 26 communities do not benefit from a County sponsored community plan process and CEQA public review and instead they must advocate on their own. Thus, we undertake this effort, in the hopes it will result in a plan that can serve as, or inform an updated BSCP, which can meet and address the current and anticipated needs and conditions in Borrego Springs for many years. This process is being guided by the purpose of Proposition 68 (California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018), its grant-funding process and), and the 2020 outline/ Scoping Proposal for an "Integrated Watershed-Scale Master Planning Process, and the subsequent 2021 grant and grant agreement (2021)." Additionally, this process is informed by national and international best available science, best management practices, and sustainability guidelines and goals including the UN's 17 Sustainability goals adopted in 2016 and utilized within SANDAG's regional planning framework.

(Figure 2 – United Nations 17 Sustainability Goals)

In the context of discussing conservation and restoration of biologic resources in Borrego the state (October 2020), nation (2021) and the international community (30x30 is Target 3 of the Kunming-Montreal Global Biodiversity Framework, adopted by over 190 countries in December 2022) has adopted 30x30 for species and ecosystem resilience in the face of climate change

and increasing levels of global land modification. Although, the concept was initially discussed in various sectors as 50% for Nature, Nature needs ½, and Half Earth Day (2019 and prior) the new idea is to reach preservation of 30% of nature for by 2030 and perhaps reach for 50% by 2050 in order for the ecosystem services of nature to continue to function to support humanities development sectors (i.e., agricultural output, water recharge), and biodiversity

Addressing Limited Water & Facing Climate Change

The heritage, identity, and economy of Borrego Springs is tied to its unique, beautiful, wide-open vistas spaces, and fragile desert landscapes. For this reason, all planning for Health, Education, and Economic Development in this community must occur with an ecological lens.

Recognizing that land use and land use change accounts for 23% of GHG emissions globally, and that biodiversity loss is accelerating at alarming rates, the important ecological characteristics of Borrego's connection to water, species, and soil and their interplay with land use patterns (including existing local, state, and federal guiding plans and policies), and weather conditions (including climate change), must be considered. (https://fableconsortium.org/about/#:~:text=The%20Food%2C%20Agriculture%2C%20Biodiversity%2C,the%20Paris%20Climate%20Agreement%20targets)

Figure 3 – Scotland Biodiversity illustrates that without water, none of the benefits would materialize. Borrego Springs, perhaps more lucidly than other places, understands the direct connection of the health of the community with natural resources and the balance that is needed. The water supply of Borrego Springs is both its lifeblood and its limiting factor. It is clear to its residents that the treatment of water can create positive or negative domino effects on other natural resource provisioning, regulating, cultural, and supporting functions.

(Figure 3 – Scotland Biodiversity)

For eons, the Borrego Springs subbasin aquifer provided high quality, potable water, but with the advent of agriculture; by the 1950s, this sole source of water for Borrego began to be overdrafted. With keen forethought and insight, Borrego Springs documented their knowledge that their sole water supply was in trouble, and put their vision and commitment to saving it, within the 2011 BSCP:

(Figure 4 - Overdraft Chart History with Sustainable Use Brightline)

The 2011 BSCP has, however, not been updated substantially, particularly since a sustainability oriented "draft Final Groundwater Management Plan (GMP 2020) was completed (discussed in more detail below under groundwater). In 2014 the Borrego Water District (BWD) and County started the plan process because Borrego's water supply met criteria as a severely over-drafted basin and were later joined by a newly formed Borrego Springs Watermaster Board (Watermaster).

(Figure 5 – Borrego Water District Website https://borregowd.org/#)

(Figure 6 – Borrego Springs Watermaster Website https://borregospringswatermaster.com/)

A major harbinger of climate change is stochastic weather. In addition to severe overdrafting, Borrego Springs must now contend with the threat of possible historic flooding events (over a 100-year flood category) but even more likely; increased and prolonged periods of drought and overall increases in temperature and adjacent threats from fire (while considered a low-risk fire area, Borrego is subject to frequent powergrid shutoffs to protect nearby and connected mountain communities) (CPUC 2024 IOUs Public Safety Power Shutoffs).

Furthermore, while traditional development pressures (from housing and commercial development) have been hampered by water insecurity for years in Borrego, new state housing goals under SB 10 have increased the need for development in every CA community. Additionally, climate change has led to a new class of development pressures, in the form of large renewable energy projects.

Sustainable living fosters community resiliency by conserving resources responsibly and therefore leaving reserves that provide enhanced ability to face future unknowns. For this, and other reasons we listed above, we thus undertook this planning process to help Borrego create a resiliency oriented, Integrated Watershed-Scale Master Community Plan and amplify their voice at this critical moment in time. We hope that this effort will not only assist Borrego's continued self-determination but also inspire other communities.

METHODOLOGY/RESEARCH

Analysis Frameworks

This work is generously sponsored by a Proposition 68, Sustainable Groundwater Management Act (SGMA) Implementation Grant and is written in conformance with the grant agreement between the State of California (Department of Water Resources) and the Borrego Water District, per Grant Agreement Number 4600014652. Deliverables for this grant are listed below as "Components 1 – 8.

(Figure 7 - SGMA Grant, Exhibit A, Work Plan)

This White Paper, its companion appendices, the "Basin FAQs," the "SWOT" and some education components, are under "Component 5 Resiliency Strategy" (Figure 7).

General Paper Development Approach

This white paper is under: "Category (b): Environmental / Engineering/Design Task 2: Basin Characterization" which mandates the conditions listed in Figure 8.

(Figure 8 - Basin Characteristics)

This paper and addenda are a conglomeration of the essential strength and vision of the existing Borrego Springs Community Plan (BSCP 2011; with updates in 2013 and 2014); prior planning, and GSP work done for Borrego Springs over the years. An exhaustive literature search and integration of local (community and county level), state and federal plans and policies; as well as utilizing academic and planning expertise, and publications produced subsequent to the existing BSCP. Additionally, the other eight, in-process components of the grant (especially components 6, 7, and 8); and Community Input (via 2024 surveys and engagement events and platforms) also informed this paper as did the "Draft Final Groundwater Management Plan for the Borrego Springs Groundwater Subbasin (January 2020)", and the "Integrated Watershed-Scale Master Planning Process Scoping Proposal (January 2020)."

The base of this white paper tiers off the latest Community Plan (CP) which elegantly demonstrates the distinct, progressive, and sustainable development ethos of Borrego Springs; a mindset which is crucial, as they and the globe grapple to understand and respond to needed adaptations for climate change. The community data, best available science, and planning and research information relevant to Borrego and desert communities were analyzed and added to the framework of the existing plan.

Where the text deviates from the original CP, source data is provided, otherwise the reader should assume the 2011 BSCP as base source. Important data sources include the research and information documents from the California Department of Water Resources (CA DWR), the County of San Diego, and Borrego Springs specific data used to initiate the Ground Water Sustainability Plan (GSP), the subsequent legal proceedings of the Groundwater management Plan (GMP), and the GMP plan itself. Additional documents perused include all relevant County documents including the 2010 General Plan, the regional Multiple Species Conservation Program (MSCP), and the in-process and pending North County and East County MSCP subarea plans, development code and guideline documents for grading, and newer climate change and sustainability documents (SLUF, CAP) and efforts (explained in more detail below); and federal, state, regional and local data available from planning and resource agencies such as the US Census, USFS, USGS, OPR (CEQA), CA State Parks, 30x30, USFWS, CDFW, and SANDAG; as well as from academic institutions and a variety of professional environmental planning consultants including University California Irvine, Land IQ, Dudek, and others. Finally, non-profits and local community committees and consultants, including the Borrego Valley Stewardship Council (BVSP, grantee), Civic Well (the implementing agency under the BVSC), and the Borrego Springs Community Sponsor Group (BSCSG) also greatly helped inform this effort.

Many documents utilized in this white paper are works in progress and meant to be 'living documents,' especially those related to climate change and biodiversity loss. In fact, the GMP itself is constantly evolving as the program required annual and 5-year reporting blocks that can inform and update the parameters of the plan and program. Additionally, the County's on-going climate planning includes adoption of a Final County Action Plan (CAP), an in process Regional Decarbonization Plan (RTP), and a newly initiated Sustainable Land Use Framework (SLUF) planning effort meant to inform increased sustainability for the next iteration of the General Plan (also constantly in progress). To serve a variety of community users and planning officials, this white paper, and the Basin FAQs and even the SWOT analysis (which dives a little deeper), are intentionally structured to be in a succinct, high-level format; with footnotes or references **and** hyperlinks provided for additional information forays where desired.

Demographic and Diversity, Equity and Inclusion Data

Regarding demographic data, it should be noted that government census data and other value adding government sources (such as SANDAG, and school districts who "crunch" the data) were perused for relevant data. Importantly, the state of CA has determined that Borrego Springs is a Severely Disadvantaged Community or SDAC as defined in California Health and Safety Code, Section 116760.20. SDACs are Census geographies having less than 60% of the statewide annual median household income (GMP 2020). Anecdotally, official demographic data, such as in figure 9, may not represent community perceptions or observations.

(Figure 9 - Race and Ethnicity, 2016 American Community Survey Data)

Perceived inconsistency is understandable based on the seasonality of the area, as it is estimated that part-time residents – seasonal workers, "snowbirds," and weekenders, inflate the population by two-fold. (Source: Borrego Integrated Master Plan Scope - retrieved from footnote 1: https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management). Additional reasons may also include that there is simply less meaningful "crunched" data for the small community of Borrego where numbers may not add up as "statistically significant" in government databases. Additionally, US census data collected for 2010 and 2020 and 2015 estimates from the American Community Survey (source: U.S. Census Bureau. 2018. 2012-2016 American Community Survey 5-Year Estimates) may be incomplete for reasons which may include the pandemic, and/or peoples fear of government motives. In any case, an attempt to accurately identify all members of Borrego's fabric in order to reach and serve the needs of all in the community; including underrepresented, underreported, or hidden populations in Borrego; has been on-going and discussion may include anecdotes from personal communications with trusted community representatives.

Public Input

Past Public Input

Public Involvement in Preparing the original BSCP (2011) were gathered during Community Plan "Community Meetings" held beginning with the Borrego Springs Community Sponsor Group on January 2, 2007. Public forums were held on January 29, 2007; February 26, 2007; and March 26, 2007. There was a presentation to the Borrego Springs Real Estate Association on April 10, 2007, and a final presentation to the Borrego Springs Community Sponsor Group on April 24, 2007. These meetings involved more than 100 individual residents, many of them representing groups.

2024 Community Survey

In an effort to better understand the needs and preferences of the Borrego Springs Community, the Borrego Valley Stewardship Council (as funded by the Sustainable Ground Water Implementation Grant and the Department of Water Resources), conduced a comprehensive community survey (SEE APPENDIX A – COMMUNITY SURVEY ATTACHED). This intent of the survey was to inform the development of a community resiliency strategy. The survey addressed various aspects of community life, including housing, infrastructure, public services, and economic development.

The result of the survey reveals a mature, predominantly white residential community facing significant challenges with healthcare access, water sustainability, and affordable housing, while benefiting from strong community bonds and amenities of being surrounded by the protected natural landscapes of Anza-Borrego Desert State Park. The survey gathered responses from 168 participants, providing insights into community demographics, needs, and priorities. The full survey is attached as an Appendix and a summary of major findings are found under

2024 Survey Methodology

The survey period included all or most of 2024 and 168 people responded. Due to a variety of engagement methods including in person gatherings, an on-line portal, and emailed surveys**,** **the** Total Contacted or Reached by the Survey is Uknown. The Response Format was Multiple choice, with priority selection questions (with additional input boxes available). Coverage was open and included residents, property owners, and visitors.

How to Use the Integrated Community Plan/White Paper and County General Plan

To use this White Paper Plan, the County General Plan elements should first be reviewed for applicable goals and policies and the General Plan Land Use Maps (Figure 10, General Plan, Land Use Maps Appendix, LU-A-6.1) should be referred to when applicable to determine the type, location and density of land use allowed. Additionally, Figure 11, LU-A-6.6 should be perused for consistency with the adjacent land use and communities.

(Figure 10 - County of San Diego General Plan Land Use Map)

(Figure 11 – Adjacent Land Uses and Communities)

This Plan is intended to supplement countywide policies and diagrams; and further influence and direct land uses and development practices Borrego Springs wishes/desires to use in order to achieve its community vision.

Implementing, Monitoring, and Amending the Community Plan
It shall be the responsibility of the County to implement the Plan, to monitor progress towards its implementation and to amend the Plan when necessary. The Plan includes the community's key issues as well as the goals and policies to address the issues identified. For each policy or set of policies, there is one or more implementation actions identified to carry it out.

The implementation program also identifies the County department or agency responsible for its implementation, where appropriate. Many of the policies will be implemented by County ordinances and other discretionary actions such as zoning, design guidelines, and development standards in the County Zoning Code. Implementation of this Plan should be monitored on a periodic basis by the County and the Borrego Springs Community Sponsor Group for progress towards its implementation. For compliance with State law, the Plan shall be reviewed no less than once annually so that its implementation status may be included in the County's Annual General Plan Report to the State. The annual review provides the opportunity for the Plan to be updated and amended, as appropriate, to reflect changes in the community's vision, conditions, or attitudes.

BACKGROUND/CONTEXT
This section reviews the prehistoric, historical, physical, and environmental setting of Borrego along with its natural hazards and risks; the current local, state, and federal planning setting that shapes the community; and its present socioeconomic standings along with the existing public infrastructure and facilities which support the community. This background/context is intended to lead the reader to independently discover many of the strengths, weaknesses, opportunities, and threats in the community for themselves, (but will also be outlined in the "solutions and analysis" section and covered more in depth in a stand-alone SWOT appendix.

We Sit on Indigenous Land
We recognize that Borrego Springs sits on pre-historic and historically tribal lands of the Kumeyaay, Cahuilla, and Cupeño, and for millennia the indigenous people lived harmoniously with the land as its first stewards.

Public Involvement – A Tradition for Planning in Borrego
Public Involvement in Preparing the original BSCP (2011) were gathered during Community Plan "Community Meetings" held beginning with the Borrego Springs Community Sponsor Group on January 2, 2007. Public forums were held on January 29, 2007; February 26, 2007; and March 26, 2007. There was a presentation to the Borrego Springs Real Estate Association on April 10, 2007, and a final presentation to the Borrego Springs Community Sponsor Group

on April 24, 2007. These meetings involved more than 100 individual residents, many of them representing groups.

Integrated Watershed-Scale Master Planning Process
With this white paper we hope to present a framework for the "Integrated Watershed-Scale Master Planning Process" that will outline/provide a blue print to celebrate Borrego Springs current "strengths" which include the people's resiliency and unique rugged, yet fragile desert ecosystem; and avoid, minimize, curtail, and reform "threats" such as those caused by current outdated or generalized land use practices and policies affecting Borrego Springs.

HISTORICAL SETTING

A Unique Historic Legacy

A million years ago, the Borrego Valley was part of a vast savanna/grassland covered with lakes and streams. Today in the Borrego badlands, ancient fossil remains of mammoths, mastodons, camels, horses, giant sloths, and saber tooth cats can be found.

Borrego's earliest human habitants (6,000 to 10,000 years ago) were likely ancient ancestors of the Cahuilla and Kumeyaay peoples, who became active in the area about 2,000 years ago. These semi-nomadic tribes traveled from the desert lowlands to the mountains, and thousands of recorded sites mark their occupation within the Anza-Borrego Desert State Park and the Borrego Valley. The community of Borrego Springs is named for the borrego (Spanish for "sheep"), acknowledging its natural inhabitants, the federally endangered species known as Peninsular bighorn sheep.

Early European and North American Discovery: 1750 – 1930
Explorers such as Juan Bautista de Anza forged overland routes through the Borrego Desert in the 1770s; primitive paths that would become major transportation corridors. The Juan Bautista de Anza Trail is designated a National Historic Trail, and five historical sites mark where the Anza expedition camped.1 As they journeyed through Kumeyaay and Cahuilla lands, the event may have been documented as pictographs that exist today.

The 1800s and the California Gold Rush brought a flourish of immigration, transportation, and communications development. The historic Butterfield Stage Route quickly followed, recognized at sites such as the Vallecito and Carrizo Stage Stations (about 40 – 50 miles south of Borrego Springs), where weary travelers and horses stopped for rest and food.

Following the Civil War, the cattle industry was supported by abundant feed and easily accessible water. The 1920 – 30's era coincides with early records of "tourists" journeying from the Warner Springs area to admire the Valley's great natural beauty, plant life and scenic vistas.

Homesteading started in the early 1900s, and some structures and home sites remain. The homesteaders lived a rugged life of farming and ranching, drilling their own wells or hauling water to do so. By 1928, the Ensign Ranch was producing the first irrigated cash crops, including alfalfa hay. Also in 1928, Borrego Springs' first store and post office were established at the location known today as "Old Borego".

Increasingly, visitors and residents realized the great beauty and scenic value of the area, and in 1932, the Anza-Borrego Desert State Park was formed to protect these unique desert lands,

In the mid-1930's Burnand, Jr. became a significant agricultural investor, and there were at least eight major ranches in production. Agriculture was the mainstay industry, sustained by the favorable climate and irrigation with easily accessed water. After World War II, Jeeps and other transportation improvements made desert exploration popular and brought the vivid spring wildflower blooms to wider public notice.

The Role of Agriculture (1940 to Present)
By the mid-1940's, the DiGiorgio Fruit Corporation—the largest grape grower in California's central valley—had developed a thriving business here. DiGiorgio saw profit in getting Borrego grapes to market a full month earlier than other growers.

To protect the seedlings, DiGiorgio planted miles of tamarisk tree windbreaks, and by 1950, he had more than 1,000 acres under cultivation along north DiGiorgio Road. Much of the natural desert landscape was removed with heavy equipment to make parcels more suitable for farming. The payoff came in mid-June 1950, when Borrego grapes grossed over $750,000, with competition only from Coachella Valley. By 1957, DiGiorgio was cultivating grapes on over 2,500 acres, and there were at least 20 major ranches in business producing cash crops like grapes, flowers, alfalfa and cotton. Agriculture was the community's main economic driver, providing jobs and stability.

DiGiorgio's enterprise alone took nearly twenty wells to irrigate and more than 600 seasonal workers to harvest, pack and ship. As a result of Caesar Chavez' United Farm Workers' efforts to unionize DiGiorgio employees in 1966, DiGiorgio turned off the water, abandoned farming and turned his attention to residential and commercial development.

With grapes gone, large-scale citrus farming took hold in the valley. For the past several decades, a few remaining citrus and ornamental plant farms and palm nurseries have employed a handful of local people to manage operations year-round. These growers import seasonal harvesting crews to pack and ship produce and decorative palms to national and international distributors.

But farming in Borrego Valley is changing dramatically. The implementation of SMGA (adopted in 2014) requires the sustainable use of groundwater, meaning the past high overdraft (over-pumping) must be reduced. SGMA is discussed in more detail below, but essentially the law has led to a negotiated (legally adjudicated) agreement between pumpers to reduce water use each year by a specified amount, until by 2040, when a required cutback approximately 63-70% must be achieved.

In lieu of this, several farm owners have chosen to fallow their land and/or sell it, along with its water allocation, to other entities who desire the water for their own use. For instance, two local farmers have sold over 400 acres of citrus farmland to the Borrego Water District. Some families who have farmed here for decades do intend to remain and are experimenting with less water-intensive crops and other water-saving methods.

It is recognized that stopping irrigation on those acres and exposing them to frequent winds can lead to airborne dust particles which can be harmful to human health. The same Proposition-68 funded SGMA Implementation grant that supports this paper is also funding a study (SGMA grant "Component 6: Biological Restoration of Fallowed Lands") to evaluate different methods of restoring fallowed citrus farmlands back to native habitat. The fallowed/dead trees are being handled in different ways (ground up and mulched, dead trees stacked in various fashions) in order to evaluate how quickly native plants repopulate that land. To date Land IQ and UCI

Center for Environmental Biology have published a Literature Review for Rehabilitation of Fallowed Farmlands in Borrego Valley, California (Final March 31, 2023) with a goal to review multiple methods of retaining soil on fallowed fields and encouraging best practices to rehabilitate or restore native habitat.

(Figure 12 – Biological Restoration Tasks (UCI Center for Environmental Biology)

(Figure(s) 13 - Soils Relative to Wind Patterns and Various Methods of Fallow Rehabilitation)

ENVIRONMENTAL SETTING

Borrego Springs occupies 42.5 square miles with 2,300 dwelling units and 58 persons per square mile. Full-time population is approximately 2,700, with another 2,000+ seasonal, or "snowbird" residents.

The community is largely populated by retired seniors, many living here on only a seasonal basis, and families deriving their income from service industry jobs, landscape and pool maintenance, and housekeeping positions.

Visitors and residents alike appreciate the stark natural beauty of this vast desert landscape. The low-desert climate is characterized by mild winters and extreme summers, with rainfall averaging less than seven inches per year. Climate is a major influence on the area's potential as a high- quality resort and retirement community.

Borrego Springs is a unique San Diego County community, with no traffic lights and few streetlights or sidewalks. Homes and humans share the natural desert landscape with abundant native plants that provide precious habitat to the many wild animals. The environment is Borrego Spring's greatest natural resource, and there is significant concern about growth's impact on the delicate desert. Its local characteristics—clean air, dark night skies, underground water supply, scenic mountain vistas, natural flora, and fauna—are vital to the future wealth and vitality of Borrego Springs. This "Village in a Park" is truly a "desert island."

Landscape and Habitats

Borrego Springs is located within the Colorado Desert and is considered the northern sub-region of the larger Sonoran Desert.

Figure 14 - Borrego's Desert Location (https://www.backroadswest.com/anza-borrego/welcome/)

Borrego Springs is surrounded by and biologically influenced by Anza-Borrego Desert State Park, the largest and most biodiverse Park in the United States second only to the Great Smokey Mountains. High elevation species such as white fir grow on several nearby mountaintops. Sonoran Desert stalwarts such as ocotillo, palo verde, fishhook cacti, and creosote are found in hotter, lower elevation areas. A perennial stream, Coyote Creek, offers rare riparian habitat within this arid region. Thirty fan palm oases, ocotillo, piñon pine and juniper forests, and live oak woodlands. The eroded formations of the Borrego and Carrizo Badlands are found in the eastern portion of the park.

The 932 plant taxa found in the park include a number of species unusual in California, such as the elephant tree more typical of Baja California. Late winter and early spring bring spectacular wildflower blooms and throngs of visitors. 331 bird species such as greater roadrunners and

golden eagles are on the park checklist. Reptiles and amphibians include over 60 different species such as chuckwallas, desert iguanas, and the red diamond rattlesnake. The 60 species of mammals range from kit foxes and mule deer to the majority of the endangered desert bighorn sheep remaining in California.

Due to aquifer overdraft and long-term drought, there has been very significant vegetation loss in Borrego Valley and the Park in general. A 2021 study by University of California at Irvine found that between 1984 and 2017, vegetation cover in desert ecosystems decreased overall by about 35 percent in the desert portions of the Anza-Borrego Desert State Park. Source: Biogeosciences, https://doi.org/10.1029/2020JG005942

The already-designated Environmentally Constrained Borrego Sink area is losing large amounts of native mesquite woodlands (along with wildlife dependent on the habitat) and impacting the historic value of the area.

Along with the Borrego Sink, Borregons still have an opportunity to conserve other areas containing rare and endangered plant and animal species, archaeological sites, agricultural preserves, and other environmentally sensitive areas that could otherwise experience adverse impacts from development and/or climate change. In the absence of codified protection, natural habitats are regularly converted to manufactured landscapes using plant materials that are foreign to the desert ecosystem and require lots of water to maintain. Since the 2011 Community Plan update, however, much progress has been made that will hopefully be elucidated throughout this paper and via the additional Prop. 68 deliverables (such as the standalone SWOT).

Please note in the 2011 and prior BSCPs, the term Resource Conservation Area (RCA) was a designation used by the County to identify lands requiring special attention in order to preserve significant natural resources in a manner best satisfying public and private objectives. Per the 2011 BSCP, it appears that one designated RCA was created for Mesquite Bosque and a cultural area in Borrego and four other elements were intended to be protected by RCAs including other areas of Mesquite Bosque, Ocotillo Forest, Wildflower Areas, and Prehistoric and Historic Cultural Areas. For the Mesquite Bosque it is unclear if all locations, or only one location, was intended to be protected by a RCA per the 2011 BSCP Figures 7 and 8 which are shown in under the PLANNING SETTING under Sensitive Species and Habitat Management.

To further clarify RCA's, according to the Valley Center Community Plan (adopted in 1979 and amended through 2014), the County intended that RCA protection be accomplished via a number of actions, depending on specific situations, including public acquisition, establishment of open space easements, application of special land use controls such as large lot zoning, scenic or natural resource preservation overlay zones or the incorporation of design considerations into subdivision maps or special use permits. Source: https://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/LILAC_HILLS_RANCH/dfeir/GPA_-_Valley_Center_Community_Plan.pdf

Borrego Springs is located in a desert valley in the rain shadow of the Peninsular Mountain Ranges. The community is surrounded by the 600,000+ acres of Anza-Borrego Desert State Park. The diverse terrain supports a wide variety of native plant and animal species on surrounding lands. Many species of plants and animals are listed as State and Federal Endangered Species. Open space and unimpeded movement corridors are essential to the long-term health of many species of wildlife.

One of the native animals of note is the Peninsular bighorn sheep, which inhabits the steep slopes, deep canyons and the alluvial fans of Borrego Valley and the nearby state park. Bighorn sheep attract wildlife enthusiasts in large numbers to view these rare mammals in areas such as Borrego Palm Canyon, Coyote Canyon, Montezuma Grade and Yaqui Pass. They are observed crossing the Valley in places such as Indian Head Ranch near Henderson Canyon, the Vern Whitaker Horse Camp near the mouth of Coyote Canyon, and have even been seen crossing Di Giorgio Road near the Santiago Estates Mobile Home Park. Large numbers of Bighorn Sheep rely on the steep slopes of Coyote Mountain, Indian Head Peak, and Dry Canyon to safeguard their lambs during early spring and frequent the deep canyons west of the Borrego Valley for reliable water sources in summer.

Residents of Borrego Springs enjoy the proximity of wildlife near their homes and throughout the Valley as they travel to the town center to conduct business. Many residents maintain feeding stations for birds and are protective of their local wildlife. Antelope ground squirrels, quail, doves, roadrunners, and cactus wrens are well known to most Borrego Springs residents. The howl of coyotes is a common accompaniment to the dark skies of the desert. Open spaces between homes and businesses, preservation of intact native plant communities, and natural drainage patterns are all vital to the health of native animals and plants.

Grading restrictions need to be tightened and enforced to protect the community from experiencing continued grading of commercial projects, residential lots, and golf courses. Grading needs to be restricted to the footprint of homes, commercial buildings, and other developments (see Land Use Chapter, policies under Issue LU-3.4). Enforcement needs to be consistent and stringent to curtail the grading of entire parcels prior to construction of homes and businesses. Grading of entire parcels leads to rapid wind and water erosion, unsightly scars on the lands and a reduction of native plants and natural habitats. Native plants are essential to the retention of desert soils, wildlife corridors and natural wind breaks.

The 2011 Borrego Springs Community Plan addressed these concepts which are equally important today (Figure). Fortunately, these concepts are also being addressed through the GMP program and SGMA Grant Agreement, namely with Component 6 “RESTORATION OF FALLOWED LANDS” discussed in further detail below under **Soil and Air**.

(Figure 15 – Restoration of Fallowed Lands *https://borregospringswatermaster.com/wp-content/uploads/2023/06/Borrego-Lit-Review-2023-03-31-Final-with-Appendices.pdf*)

Desert Lands

The dominant influence on the community character is the desert lands. These lands create a sense of open space and unique community character through long sightlines, sweeping vistas, unique geography and unique flora and fauna. Desert wildlife is commonly observed throughout the Borrego Valley as they travel through the yards and roadways of the community. Borrego is on the migration path for Swainson’s hawks, turkey vultures and others (https://www.abdnha.org/hawk watch.html) Coveys of quail, flocks of white-winged doves, roadrunners, Cooper’s hawks, jackrabbits, coyotes, bobcats and a variety of amphibians and reptiles are frequent visitors in the residential areas of the town. Even bighorn sheep and mountain lions find their way through the fringes of its valley, crossing from one mountain range to another, dependent upon open spaces and movement corridors.

The entire area is composed of a desert habitat native to the Colorado Desert subregion of the Sonoran Desert. This desert native habitat (flora, fauna and associated desert soils and drainages) has been disturbed by the process of urbanization by residential and commercial

developments, roads, resorts, extractive uses and agriculture. Unlike ecosystems in other areas of the County, desert native habitat does not “bounce” back after development occurs.

Borrego Springs privately-owned land falls into three categories: a.) undeveloped and undisturbed desert native habitat with no past or current uses; b.) developed with current, active uses and all- or partly disturbed desert native habitat; and c.) previously developed with now-abandoned uses and all- or partly-disturbed desert native habitat. There is a sizable amount of acreage in the latter category, which detracts from community appeal and attractiveness.

GROUNDWATER, SOILS, AND AIR

Groundwater

Groundwater is effectively the sole source of water supply for Borrego Valley, California. By the mid-2000s, agriculture, recreation (predominantly golf courses), municipal uses, and the Anza-Borrego Desert State Park habitually used about four times more water than is available through natural recharge.

Since 1945, when large scale pumping began in the Borrego Springs area following World War II, the cumulative volume loss within the Subbasin (which accounts for both annual inflows and outflows) has been approximately 520,000 acre- feet (AF), equivalent to about one-third of the groundwater volume originally present. Source: BWD Profile of the District from Audit Report 2025.

As farming activity has continually tapped the aquifer for more than 80 years. Old-timers tell us that fifty years ago the water level was about 40 feet below the ground and easy to pump out. Farmers now extend their wells 300 feet and beyond to extract sufficient water to feed lemon crops and decorative plants for export.

As a result, the demographics of those willing to invest in the community—both businesses and residential housing, have been impacted. Alternatives to augment the sole source aquifer, such as piping Colorado River water to the area, were explored and rejected. A San Diego County Water Authority **(**SDCWA**)** Regional Conveyance System pipeline (RCS) would have piped 20,000 AF per year from the Colorado River using a 47-mile-long tunnel from Escondido to Borrego Springs, but was deemed infeasible due to significant financial, environmental, socio-cultural, and temporal costs including:

- $10-$30 million for water rights
- $5-10 million to SDCWA for new pipeline, pumping station, and 230 kV powerline transecting ABSP
- $5-10 million for BWD to clean inferior Colorado River water quality
- An extended impact/construction timeline to 2047, or 7 years after the BWD Plan will have reached its 2040 sustainable water consumption goal per SGMA statute.
- Uncertainty of supply as the Colorado River is already over-allocated and due to unknown effects of climate change.

The U.S. Geological Survey began a cooperative study of the Borrego Valley with the Borrego Water District (BWD) in 2009. The purpose of the study was to develop a greater understanding of the hydrogeology of the Borrego Valley Groundwater Basin and provide tools to help evaluate the potential hydrologic effects of future development.”

(Figure 16 – Landform Class)

Agriculture accounts for 70—75 percent of annual water consumption, pumped from the sole source aquifer by farmers' private wells, with no cap on consumption until 2020, It is estimated that golf courses consume 20 percent and commercial and domestic uses consume 10 percent of the annual total.

(Figure(s) 17 - Borrego Water Use graphs)

The community recognized that if water consumption continued at recent rates, the overdraft of the sole-source aquifer would ultimately threaten the economic viability of the community. Future costs of water and uncertainty of supply have made planning difficult in Borrego and have acted as a deterrent to growth.

By 2014 however, the California Sustainable Groundwater Management Act (SGMA) was adopted which requires a Groundwater Sustainability Plan (GSP) for all "high" or "medium" priority basins to achieve sustainable groundwater management by 2040 or 2042. By 2015, the Borrego Water District received preliminary results of its aquifer status by U.S. Geological Survey. USGS estimated that the underlying aquifer had sufficient water in storage to serve the community for the next 50 to 100 years (Borrego Valley Hydrologic Model (BVHM), Faunt et. Al., 2015). The number, however, was preliminary and arrived at without any well monitoring to fine-tune and calibrate the model. Ultimately, based on USGS data (Figure 18), the CA Department of Water Resources (DWR) determined Borrego's water supply met criteria as a critically overdrafted basin (or COD).

(Figure 18 – USGS Data)

Under SGMA, due to the aquifers severely overdrafted status, Borrego was required by the State to embark on a Groundwater Sustainability Plan (GSP) to address ~~correct~~ the situation.

SGMA and Adjudication of Water Rights (2021): Following submittal of the first Groundwater Sustainability Plan (GSP) in the State by the Borrego Water District (BWD) in January 2020; over 90% of Basin pumpers began discussions and ultimately negotiated an Agreement to implement an alternative to the GSP required by SGMA, known as the Groundwater Management Plan (GMP). The Agreement was approved by the Orange County CA Superior Court in April 2021 resulting in a formal adjudication, which in other locations has taken decades and millions of dollars to accomplish.

(Figure 19 - History of Groundwater Pumping for 2015-2023 by Sector with overall mean sector pumping percentage.)

Included in the Adjudication is the creation of the Borrego Springs Subbasin Watermaster comprised of a Board of Directors containing a cross section of stake holder and professional legal/technical staff to manage the Basin and implement the GMP and comply with SGMA. The law under SGMA essentially led to a negotiated agreement between pumpers to reduce water use each year by a specified amount, until by 2040, it will be cut back by approximately 64% from present day use. Since the Watermaster's inception in 2021, all pumpers required to install a meter have done so. Basin pumping is down by approximately 50% and a Basin wide water monitoring network has been developed. Effect of SGMA and Watermaster. Large-scale water

use now measured and constrained. Resolution of the aquifer overdraft is now forging the future of the community of Borrego Springs.

Soil and Air

Several farm owners have chosen to fallow their land and sell it, along with its water rights, to other entities who desire the water for their own use. For example, two local farmers are selling several hundred acres of citrus farms to the Borrego Water District; the acres of fallowed trees are evident across the road from one of the major wildflowers viewing areas in the Park. Similarly, the corporation that owns the large Rams Hill residential and golf course development, wants to build several hundred new homes there and has purchased a palm nursery and hotel/golf course in order to obtain water rights that would allow it to expand, and acres of dead palm trees and grass are now seen. Some families who have farmed here for decades do intend to remain and are experimenting with growing less water-intensive crops.

It is recognized that stopping irrigating those acres and exposing them to frequent winds can lead to airborne dust particles which can be harmful to human health. The same Proposition-68 funded SGMA Implementation grant that supports this paper is also funding a study to evaluate different methods of restoring fallowed citrus farmlands. The dead trees are being handled in different ways (ground up and mulched, dead trees stacked in various fashions) in order to evaluate how quickly native plants repopulate that land.

The soils, mostly sands and gravels of varying gradations, derive from alluvial materials deposited by seasonal floods from surrounding mountain regions, with little organic material. However, in some areas, soils are enriched by nutrients like nitrogen, a natural benefit for agriculture. Residual fertilizers remain on many fallowed farmlands and may leach into soils and groundwater supply. High septic tank usage has the potential to degrade soils and water quality. Currently there is no use of treated effluent to water golf courses and other high water use areas.

Degradation of air quality in the community is due to large-scale clearing of soil crust and other disturbances to abiotic features (such as grading natural landscapes into flat terrain) and removing topsoil and other biotic features such as native plants and burrowing animals. Cryptogamic or cryptobiotic soil crusts are terms for the same thing. These biological soil crusts are made up of tiny organisms (which include cyanobacteria, algae, lichens, mosses, microfungi, and other bacteria) that live in the top layer of soil. The crusts are formed by interwoven filaments of cyanobacteria and microfungi and act as important soil stabilizers by thwarting erosion. They are critical but often overlooked component of arid and semi-arid ecosystems in Borrego and throughout San Diego County (including found in rare southern maritime chaparral such as at Torrey Pines State Reserve). They not only provide nutrients to plants (including nitrogen and phosphorus); but also accelerate weathering of rocks with their filaments, speeding up the formation of soil

In addition to San Diego County, they are found in all dryland regions of the world, including the polar regions, covering most soil spaces not occupied by trees, grasses, or shrubs. They are similar to ocotillo forests and other sensitive habitat; in that they do not readily regenerate. Contributing factors to their destruction include off-permitted or unpermited grading for a variety of reasons (including agriculture), and authorized or unauthorized foot and vehicle paths creation and trailblazing. The result of their loss is increasingly poor air and water quality from dust storms and migration of chemical laden sediments. In Borrego Springs, the greatest impact comes from development in the east and southeast of the community and adjacent off-road vehicle use in Ocotillo Wells.

Component 6 of the SGMA Grant
The GMP recognizes that fallowing of agricultural lands will be key to achieving the aquifers sustainability goal but also recognizes the potential adverse environmental effects of fallowing, including airborne emissions through wind-blown dust, the introduction or spreading of invasive plant species, and changes to the landscape that could adversely affect visual quality, among others. The standard farmland fallowing practices identified in the GMP and used statewide (e.g., mulching orchard trees on site) provide temporary dust mitigation, but do not lead to long term recovery of the fragile native arid plant communities that are unique to the Sonoran Desert ecosystem and protected on adjacent Anza-Borrego Desert State Park lands.

Component 6 was therefore created to develop guidance on techniques to mitigate the potential adverse effects of fallowing of lands that are expected to occur within the Basin. This component is tasked with analyzing existing data and information, conducting field reconnaissance, and assessing biological restoration techniques at existing fallowed lands within the Basin. A final technical report will describe and document their results, conclusions, and recommendations; and identify biological restoration strategies that are expected to be most effective for Basin; with a prioritization of land parcels for biological restoration.

Mesquite Bosque (Forest)
On the eastern margin of Borrego Valley, in the low-lying area known as “Borrego Sink,” large concentrations of the native Honey Mesquite (Prosopis glandulosa) are found. The mesquite forest, known by its Spanish name, Mesquite Bosque is a valuable native plant community that attracts large numbers of resident and migratory bird species. The mesquite provides large quantities of food sources to migratory birds as well as those species that stay through the nesting season. The mesquite flowers, and the insects they attract, are extremely important to scores of bird species, including the endangered Least Bell’s Vireo.

An important foundation plant in the lower elevations of the Borrego Valley, the Mesquite is a deep-rooted, woody legume that produces and recycles large quantities of nitrogen, a component rare in desert soils, and one upon which desert grasses and other native plants depend. Nutrient enrichment of soil under a woody legume canopy can result in production values twice those measured between canopy spaces. The deep mesquite roots and the grasses that thrive underneath in the enriched soil serve to stabilize the surrounding sandy soil allowing other native shrubs to take hold, which then further stabilize and fertilize the soil with organic matter in the form of leaf and seed litter. Soil in these mesquite forest ecosystems tends to be more stable in wind and rainstorms, resulting in less runoff and wind-blown sand.

Culturally significant, lithic (stone) artifacts discovered in and around the Mesquite Bosque and surrounding low area known as the Borrego Sink indicate considerable use by Native Americans who harvested the mesquite bean pods and ground them into meal or flour, an integral part of their diet. The mesquite forest also provided wood, shade, and shelter for early desert people. In addition, native tools and weapons were fashioned from the heavy, dense wood of this native tree.

(Figure 20 – Mesquite Thickets)

The mesquite bosque plant community has been classified by the County of San Diego as an area of special concern which is in need of preservation. The Mesquite Bosque of Borrego Valley is the largest such plant community left in San Diego County. (BSCP 2011 Figures 7 and

8 are shown in under the PLANNING SETTING under Sensitive Species and Habitat Management

Mesquite trees are documented as having the deepest root systems of any plant in the world. Despite the depth to which the roots can grow to reach water, a large number of the local mesquite can be observed as having died, clearly attributable to the declining water table

Ocotillo Forest
The ocotillo plant (Fouquieria splendens), a tall, woody shrub species, is commonly thought of as the signature plant of the Colorado Desert. Ocotillos are thought by botanists to live as long as 200 years; they are slow to reach maturity, and once removed from a parcel of land, will not naturally regenerate for many decades or centuries.

High densities of ocotillos are found in the northern and southern areas of Borrego Valley. Thousands of acres of ocotillos have been removed for agricultural purposes in northern Borrego Valley, and large parcels of ocotillo forest are currently threatened by proposed development in the southern and southwestern portions of the Valley.

Ocotillo is used for forage by bighorn sheep, mule deer and for food and nesting by many species of birds, including hummingbirds and orioles. Insects, an important part of the desert food-chain, also gain nutrients and water from the flower buds of the ocotillo.

The ocotillo forests are a key part of the natural desert surroundings in Borrego Springs, and a concerted effort needs to be implemented to protect this natural resource through acquisition by public/private land trusts and specific protection from destruction or disturbance due to development. Once removed, the ocotillo forests essentially can never be replaced. The ocotillo forests have taken many centuries to develop and cannot be easily restored (if at all) once destroyed.

Wildflower Fields
The most popular attraction to Borrego Springs for visitors from all over the United States and Europe are fields of native wildflowers, which in good rainfall years can literally cover the Borrego Valley in color. Several hundred thousand additional visitors will travel to Borrego Springs and the nearby Anza-Borrego Desert State Park during a good flower season. The desert area needs to receive plentiful rainfall in mid-to-late winter in order for the seeds of annual wildflowers to respond in vast fields of splendid colors. This phenomenon may present itself only once every five to eight years and will last from late February to early April. The massive crowds of flower seekers cannot be over emphasized in their importance to the local economy, supporting business and local organizations of all types, including motels, hotels, inns, restaurants, markets, gas stations, gift shops and other retail and art galleries.

Wildflowers are found on all the lower mountain slopes surrounding Borrego Valley, in the State Park, but many of the best annual wildflower fields are found within the CPA on the floor of Borrego Valley. It is imperative the best of the spring flower fields are preserved, not only for the sake of this wonderful natural resource, but also for the sake of the future of businesses in Borrego Springs. Good flower seasons save many local small businesses, as they prepare for the five summer months of extreme heat when tourism slows considerably.

The most notable flower fields are found along Henderson Canyon Road, Bighorn Road, DiGiorgio Road, Borrego Valley Road, east Palm Canyon Drive, and Pegleg Road. Anza-Borrego Desert State Park and the Anza-Borrego Foundation and Institute have successfully

purchased several hundred acres of prime flower fields in the northern Borrego Valley, and they continue to pursue new acquisitions to save the best wildflower areas.

The best areas for the annual flower bloom present a wide array of native annual plant species, including dune primrose, desert sunflower, sand verbena, popcorn flower, fiddleneck, desert lupine and the desert lily. Shrub and cacti species of note during the spring flower show include brittlebush, chuparosa, ocotillo, numerous cactus species, desert indigo and desert senna.

Preservation of the prime flowering areas of the Borrego Valley is key to the local business community and the health of the tourist industry in both Borrego Springs and the Anza-Borrego Desert State Park.

Dark Skies
The dark night sky over Borrego Springs and the surrounding desert area is so spectacular that a 2003 USA Today article rated the Anza-Borrego Desert one of the top ten stargazing locations in the nation. Residents and visitors to this area are privileged to view the wispy Milky Way in the dark night sky along with thousands of sparkling stars.

Light pollution from local and encroaching growth is threatening dark sky, even though County lighting ordinances now call for outdoor lighting that does not point upward. Consistent lighting code enforcement—especially critical where proximity to Palomar and Mt. Laguna Observatories makes dark skies essential for scientific operations—must be achieved and exceeded.

In July 2009 Borrego Springs became California's first International Dark Sky Community. This designation was awarded by the International Dark-Sky Association (I.D.A.). Borrego Springs became the second, worldwide "International Dark Sky Community" and the first in California. Throngs of visitors venture to Borrego Springs and the nearby Anza-Borrego Desert State Park from all over the world to experience the natural desert landscape and the astounding clarity of the desert's night sky. This would serve to promote the community as a preferred destination for star-seeking visitors. Anza-Borrego Desert State Park will also pursue an International Dark-Sky Park designation. The area is highly susceptible to light trespass and degradation of its unusually dark night skies and dark night environment, both of which are unique and important elements of community character.

Quiet Conservation Area
Along with the Park's designation as a Dark Sky International Park; ABF, the Park, and the Community of Borrego Springs are committed to preserving the land, its flora and fauna, and the sounds that accompany a natural landscape. To achieve this, ABF and the Park has communicated the importance of quiet with the citizens of Borrego Springs and its visitors, namely by including noise in our 'Leave No Trace' principles when enjoying the Park and the Community's natural lands.

Understanding noise in a region, one gains a sense of the health of its ecosystems. By visiting wildlife habitats in the Community mindfully and quietly, we can help preserve their integrity. In March of 2022, Matt Mikkelsen, the Executive Director of Wilderness Quiet Parks, and his team came to ABDSP to record and listen in the park. They set up their equipment ready to record before the sunrise and dawn chorus. Ultimately, they wished to determine whether it qualified under the Quiet Parks International Assessment Criteria for being a Wilderness Quiet Park. They worked over four days in four different locations of the park and returned to gather additional information the following year.

While it was the hoped the Park would be named a Wilderness Quiet Park, there are several sources of human-generated noise that disqualify it from the current assessment criteria. However the crew wished to continue working with the Park and ABF to find other ways of recognizing, protecting, and uplifting the beautiful soundscapes here. The solution was to name ABDSP a 'Quiet Conservation Area,' a first for public lands in the nation. Deep quiet can be found in the Borrego area, most consistently in the State Wilderness Areas (Figure).

Figure 21 - Borrego's Quiet Area Map (2023)
(https://theabf.org/our-work/key-initiatives/quiet- park/#:~:text=Anza%2DBorrego%20Desert%20State%20Park%20is%20the%20first%20public%20land,both%20Park%20and%20Foundation%20staff.)

DESERT NATIVE HABITAT, SOIL AND AIR AND SPECIAL DESIGNATIONS SWOT ANALYSIS:

(Figure 22 – BSCP COMMUNITY GROWTH POLICY)

Strengths

Borrego Springs possesses significant natural resource advantages, particularly in its infrastructure and environmental monitoring capabilities. The region's natural landscape benefits from strong regulatory protections that safeguard its desert ecosystem. The area's sophisticated environmental monitoring network, particularly its air quality system, represents one of the most advanced systems for a community of its size in California. The existing microgrid infrastructure demonstrates the community's commitment to sustainable energy solutions, while its geographic position outside the primary Wildland Fire Zone provides a natural buffer against wildfire risks. These strengths reflect a community that has successfully integrated technological solutions with natural resource management.

- Strong environmental protection measures through existing regulations (e.g., RWQCB requirements under state and federal Clean Water Acts)
- Advanced air quality monitoring system with five stationery nephelometers strategically placed throughout the region
- Existing microgrid infrastructure providing energy resilience
- Location outside the primary Wildland Fire Zone, resulting in minimal direct wildfire risk
- Sophisticated partnership between UC Irvine, Borrego Water District, and Borrego Valley Endowment Fund for environmental monitoring

Weaknesses

The natural landscape of Borrego Springs presents several inherent challenges. The extensive alluvial fan system, while a distinctive geological feature, creates significant flooding vulnerabilities across the valley. The desert environment's limited capacity for natural regeneration makes it particularly susceptible to long-term damage from human activities and natural disasters. The area's location along the Coyote Creek fault line introduces seismic risks that affect both natural and built environments. These geological and environmental vulnerabilities are compounded by deteriorating air quality conditions, which impact both human health and ecosystem stability.

- Extensive flood vulnerability with nearly 30,350 acres of land in alluvial floodplain
- High-risk alluvial fan flooding patterns with potential for debris flows

- Multiple properties designated as "repetitive loss properties" due to flooding
- Significant seismic risk due to proximity to the Coyote Creek fault (extension of San Jacinto Fault)
- Deteriorating air quality linked to increasing asthma cases
- Desert lands lacking self-healing capabilities

Opportunities
Borrego Springs' natural resources present numerous opportunities for environmental conservation and sustainable development. The community's existing environmental frameworks provide a foundation for expanding conservation efforts, particularly through programs targeting fallowed agricultural lands. The unique desert ecosystem offers potential for enhanced ecotourism, while the existing water management infrastructure can be leveraged for more comprehensive resource protection. The Red Basin Project represents a significant opportunity to restore critical wetland habitats while addressing air quality concerns, demonstrating how environmental restoration can serve multiple ecological functions.

- Potential for conservation of fallowed lots through County acquisition programs (PACE, Williamson Act)
- Enhancement of auditory environment to support ecotourism potential
- Integration with resilient Water Master Plan
- Expansion of biological soil crust education, salvage, and restoration programs
- Development of the Red Basin Project to restore wetland habitat and reduce fugitive dust
- Further development of local microgrid and dispersed energy resources

Threats
The natural resources of Borrego Springs face multiple interconnected threats, primarily driven by climate change and regional environmental challenges. The community's desert ecosystem is particularly vulnerable to climate-related impacts, affecting everything from water availability to air quality. The proximity to the Salton Sea introduces additional environmental pressures through dust storms and air quality degradation. The increasing prevalence of Valley Fever represents a significant public health concern linked to environmental conditions. These environmental threats are compounded by development pressures and infrastructure challenges that could potentially compromise the region's natural resources.

- Climate change impacts on:
- Public health through increased temperatures
- Drought conditions
- Reduced wetlands
- Air quality deterioration
- Surface water availability
- Groundwater recharge
- Dust storms from the Salton Sea area increasing hazardous particulate matter
- Rising Valley Fever cases in the region
- Pressure to convert Agricultural Reserve lands for energy infrastructure
- Flood-related development constraints impacting commercial revitalization
- Power grid vulnerabilities during regional emergencies

PLANNING SETTING

Governance

Borrego Springs is an unincorporated community far removed from the majority of San Diego County and has little local governance. It is overseen by County District 5 Supervisor Jim Desmond, 38th State Senate District Senator Brian Jones, and 71st District Assemblymember Randy Voepel. All land use planning is subject to County approval, governed by the County General Plan and the Borrego Springs Community Plan. The Anza Borrego Desert State Park has jurisdiction over much of the land surrounding Borrego Springs, but no authority outside the park boundaries.

COUNTYWIDE GENERAL PLAN - County of San Diego's General Plan (GP 2011) Land Use Element is a framework that provides maps, goals, and policies that guide planners, the general public, property owners, developers, and decision makers as to how lands are to be conserved and developed in the unincorporated County. The first section, Land Use Framework, defines the categories of use to be permitted. These are defined at two scales: (a) broadly defined regional categories differentiated by character and overall density and (b) detailed categories that break-down the regional categories into more precise land use types, population densities, and development intensities. The Land Use Maps Appendix presents the Land Use Map depicting the allocation of these categories to all unincorporated County lands based on the General Plan's Guiding Principles in Chapter 2 (Vision and Guiding Principles). The Land Use Map serves as the regulatory document guiding land use, conservation, and development. The final section presents the goals and policies that carry out and amplify the intentions of the Land Use Map (Section 3.2 of GP. 2011). See Figure 10 – County of San Diego General Plan Land Use Map.

COMMUNITY PLANS -While the Land Use Element inclusive of Land Use Maps and Goals and Policies applies to all lands throughout the unincorporated County, there are special land use issues and objectives that uniquely pertain to each of its diverse communities. These are addressed by Community Plans in which goals and policies are defined to provide more precise guidance regarding the character, land uses, and densities within each community planning area. Though Community Plans are a part of this General Plan, they are bound separately and must be referenced in determining the types and density of land use that may be considered for any property within the community planning area (Section 3.2 of GP. 2011).

Relationship to Adjoining Communities

Since the town is completely surrounded by the 600,000-acre Anza-Borrego Desert State Park, Borrego Springs is the most isolated San Diego County community. It is over an hour's drive to any "full-service" town. The nearest neighbors are Ocotillo Wells, Shelter Valley, Ranchita and Salton City, all very limited-service communities. See Figure 11 – Adjacent Land Uses and Communities.

Geographically Borrego Springs is a small town centered literally in the heart of the Anza-Borrego Desert State Park and is positioned as 'the gateway' or hospitality hub for the Anza-Borrego Desert State Park. This nexus connects the planning and management of the Borrego Basin with the Anza-Borrego State Park which serves as the watershed. Connecting them not only in a physical systems sense but also in an economic development and land development sense.

The town is the primary gateway for visitors to Anza-Borrego Desert State Park (ABDSP, the Park), which surrounds the community on all sides, is a National Natural Landmark, and part of a larger International Biosphere (which encompasses both the Colorado and Mohave deserts). ABDSP is the largest desert State Park in the nation (635,000 acres) and one of the largest protected areas in the west. It also achieved distinction as a part of the University of California (UC) Natural Reserve System (added in 2011, https://theabf.org/our-work/research/) and known as the "UC Irvine (UCI) Steele/Burnand Anza-Borrego Desert Research Center/reserve headquarters" (https://anzaborrego.ucnrs.org/about-us/).

Borrego Springs is located about 90 miles from San Diego, California's 2nd largest city, which drives Borrego's national and international visitation to exceed ~ 500,000 tourists each year. Despite this popularity, perceived level of development pressure in Borrego has not translated into frequent planning updates or modernization of desert policy by the County. Due to distance to major urban and suburban areas, high temperatures/weather extremes, and limitation on water availability; planning attention has been minimized to the detriment of the Community. While not readily apparent; adjacent community, renewable energy and extractive projects now warrant County assistance to ensure Borrego's community vision and environmental heritage are not compromised by massive transmission lines and pipes leading to the coastal population bulk. In this vein, natural habitats and sensitive species require adequate planning now to ensure their survival from these new projects, but also from climate change challenges.

Sensitive Species and Habitat Management

In the "Physical Setting section, existing prior biological planning concepts and designations were discussed including the County RCA designation, the Anza Borrego State Park, and the UN Biosphere Reserve (Figure). These designations, however, offer little protection to the 50 square miles of potential biological resources within the BSCP area, or assurances that connectivity corridors will be adequately planned. The RCA designation has no concomitant guidelines (within the County's Biological Mitigation Ordinance or otherwise) and or codified protection in their General Plan or related land use policies; and the State Park while surrounding the Borrego Community, has little direct planning power over the management of developed and natural lands that abut them. Moreover, the Biosphere Reserve is more of an honorary designation; recognizing the value of the southwest's unique deserts, but with only voluntary compliance required. Without the benefit of a comprehensive combined state Natural Communities Conservation Plan (NCCP) and federal Habitat Conservation Plan known as a Multiple Species Conservation Plan, comprehensive planning for Borrego's unique natural habitat will be left to 'project by project' planning, rather than comprehensive regional planning

(Figure 23 – California Protected Areas)

(Figure 24 - Advantages and Benefits of State and Federal Conservation Planning – from Pathways to 30x30 Final Report, April 2022)

While the County of San Diego took part in the County's Regional MSCP Planning Process in 1998, they have adopted only one of their three related subarea plans in the 27 years since.

(Figure 25 - County General MSCP Map 2023- https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/mscp_general_map.pdf)

The Regional MSCP within the County of San Diego is a conservation planning program designed to establish a connected preserve system that ensures the long-term survival of sensitive plant and animal species and protects the native vegetation found throughout the incorporated and unincorporated County. The MSCP addresses the potential impacts of urban

growth, natural habitat loss, and species endangerment and creates plans to mitigate for their potential loss. The County MSCP Plan covers 582,243 acres over twelve jurisdictions. Each jurisdiction has its own Subarea Plan; however, there are only minor differences in how each is implemented. The MSCP is also an important program that significantly contributes to the County's ability to realize its watershed protection and climate change goals (County General Plan 2011: https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/GP/GENERAL%20PLAN_April2022_PRINT.pdf).

The premises of the Regional and County MSCP Programs as well as the County Biological Mitigation Ordinance (BMO), requires avoiding, minimizing, and/or mitigating sensitive habitat by a variety of measures and/or policies (often encountered in guidelines or agency practices). Biological mitigation may therefore include for instance: developing the least biologically sensitive areas and clustering remaining development into a smaller space to accommodate wildlife corridors and preserve development. Additionally piecemealing projects under CEQA so the full picture cannot be analyzed in its entirety is also prohibited (i.e., the actual full project must be presented during scoping even if it will be carried out in phases). Additionally, CEQA and biological mitigation practices discourage and removing existing land protections (such as vacating a conservation easement for a prior mitigation site or otherwise designated open space) and will result in 2:1 replacement (because moving the mitigation credits off one site and placing them in another habitat site still results in a net deficit of habitat (i.e. when you develop the former mitigation site, you now need to mitigate for the credit loss and also for the additional habitat impact too). Finally, in kind or equivalent mitigation on various levels is usually required or mitigation ratios can again rise (i.e., impacting a coastal habitat but proposing to mitigate inland on similar habitat that may be under less development pressure is often discouraged by increase mitigation ratios equivalent mitigate that rarer and more costly coastal parcel. may be discouraged or disallowed by various policies.

While the County has started and stopped the North County MSCP (NC MSCP) Plan and the Planning Agreement for the NC MSCP and the East County (EC MSCP), the NC MSCP draft MSCP planning agreement is currently proceeding after prior attempts in 2005, and 2018. Recently, the 3rd Restated and Amended NC/EC MSCP Planning Agreement expired (on January 31, 2025) however, the Wildlife Agencies have confirmed that the County is in the process of renewing the agreement (Appendix -).

Borrego Springs is located in the EC MSCP, with the tan overlay and within the desert region shown on the map above. A preliminary list of 157 "MSCP Covered Species" has been created and "Focused Conservation Areas" have been mapped (as above) and the County and Wildlife Agencies have committed to adhering to the agreed upon parameters thus far, in the interim between now and adoption. Please note, the EC MSCP incorporates the former BSCP RCA sites and expands them, and the program will provide various strategies for conserving native habitats and species including conditions of coverage, adjacency guidelines, developing the least biologically sensitive areas (via unit clustering) and other strategies. Another benefit of the EC MSCP is that planners, developers, and conservationists alike have developed these plans and will benefit from the certainty and consistency provided by their plan, rather than apply for individual "take permits" through the lengthy, uncertain, and expensive CA (CESA) and federal endangered species acts (FESA).

(Figure 26 - Figure 8 from BSCP 2011)

County Land Use Map 2020 (with existing RCA block in gray due east of "Springs" on the map) versus EC MSCP 2008 Preliminary Focused Conservation Areas (RCA block in an FCA block slightly northeast of the end of the word "Springs", with blown up RCA block showing resources from the 2011 BSCP.

We note per above rural lands largely overlap but are slightly more extensive than FCA, however designated conservation land. While the BSCP (2011) had one existing designated RCA which encompasses two areas of Mesquite Bosque, and a large historical (upper right corner) area and a smaller prehistoric culture area (lower right area east of Borrego Sink. The 2011 plan also proposed incorporating addition RCAs to four additional elements (which are importantly not 'areas') shown below on Figure 7 from the 2011 plan. The importance of using elements over areas can play out either positively or negatively for the resources. As identified 'elements' in the community they could be subject to intentional destruction or degradation before official protection. While identifying 'areas,' assures more distinct focus and protection but could leave out important seasonal appearance, future areas being discovered, or new areas forming induced by climate change or other factors. Fortunately, the EC MSCP is habitat based and includes large swaths of contiguous and connected lands with appropriate habitats broad enough to support all 'covered species.' . The additional four areas.

(Figure 27 - Figure 7 from BSCP 2011)

Other important indices for sensitive habitat and species include: the California Natural Diversity Database or CNDDB (which shows map instances of species filed by biologist in the field with through California Department of Fish & Wildlife *(CDFW),* Areas of Conservation Emphasis (ACE) also a CDFW tool that combines the best available map-based data in California to depict biodiversity, significant habitats, connectivity, climate change resilience, and other datasets for use in conservation planning.

(Figure 28 – California National Diversity Database)

The California National Diversity Database (CNDDB) or California Special Status Species contains text and spatial information on California's special status species (rare plants and animals). It is a positive detection database. Records in the database exist only where species were detected. This means there is a bias in the database towards locations that have more survey work. Also, the database is proprietary and shall be displayed at such a scale (no larger than a scale of 1:350,000).

As described above under the METHODOLOGY/RESEARCH, General Paper Development Approach, this document was made possible by a SGMA Implementation Grant which included 8 components shown on Figure "Exhibit A, Work Plan". The Work Plan includes activities associated with implementation and continued planning, development, and preparation of groundwater sustainability for the Borrego Valley Subbasin and the resulting work from this grant will incorporate appropriate Best Management Practices as developed by DWR, and includes eight Components with three of them, 5, 6, and 8 especially relating to species and habitat management and protection. Although all components are running concurrently under the SGMA grant, important preliminary data and guidance have already been made available through draft report and documents to inform this integrated watershed-based master planning effort. However, as data is finalized and put into practice, we do expect this and other documents and programs under the SGMA program and grant to be 'living documents' (regularly updated to include new best available science and practices).

Component 5: Resiliency Strategy
Component 5, presented in this paper (under the direction of the BVSC) is intended to improve community understanding of socio-ecological systems, increase the community's ability to engage in basin-wide planning and decision-making, and ensure disadvantaged community member concerns are addressed. Work on this component is intended to help identify, prioritize, and implement initiatives supporting the Borrego Valley GMP "projects and management actions" to minimize undesirable results. This includes presenting science and facts to "help reverse chronic lowering of groundwater levels" by educating stakeholders on the facts of the basin, the timeline for water reduction and anticipated water quality issues; promote water use efficiency and identify potential land use policy changes needed to protect recharge areas. We propose land use designations for County Sustainable Land Use Framework (guided by the 2020 "Scoping Proposal for an Integrated Watershed-Scale Master Planning Process" and identify priorities based on identified strengths, weaknesses, and opportunities (SWOT) shown by the data collected in support of resiliency in this paper, within the standalone SWOT Analysis, and the Basin FAQ brochure.

Component 6: Biological Restoration Of Fallowed Lands
The Borrego Springs GMP defines a Sustainability Goal of operating the Basin within its sustainable yield by 2040. Achieving this goal requires implementation of an aggressive pumping ramp down of approximately 75 percent over the next twenty years. The GMP recognizes that fallowing of agricultural lands will be key to achieving the Sustainability Goal, but also recognizes the potential adverse environmental effects of fallowing, including airborne emissions through wind-blown dust, the introduction or spreading of invasive plant species, and changes to the landscape that could adversely affect visual quality, among others.

Under the Implementing Agency of Borrego Springs Watermaster (Watermaster), Component 6 supports and informs Component 5's natural resources and conservation work by reviewing how standard farmland fallowing practices identified in the GMP and used statewide (e.g., mulching orchard trees on site) provide temporary dust mitigation, but do not lead to long term recovery of the fragile native arid plant communities that are unique to the Sonoran Desert ecosystem, and protected on adjacent Anza-Borrego Desert State Park lands. New farmland fallowing guidelines that address the unique needs of the desert ecosystem and Borrego Springs are required to facilitate the reduction in groundwater pumping that is necessary to achieve the sustainable use of the Basin.

The goal of Component 6 work is to analyze existing data and information, conduct field reconnaissance, test cases of biological restoration techniques at existing fallowed lands within the Basin, and ultimately develop guidance on techniques to mitigate the potential adverse impacts associated with the fallowing of lands that is expected to occur within the Basin. A final technical report will describe and document the results, conclusions, and recommendations; the biological restoration strategies that are expected to be most effective within the Basin; and a prioritization of land parcels for biological restoration.

Component 8: Groundwater Dependent Ecosystem (GDE) Identification, Assessment, And Monitoring
Component 8 (under University of California, Irvine (UCI) Implementing Agency) will provide essential data to UCI water management planners and affected citizens of the region during implementation of the GMP for the Basin. Impacts upon GDEs is a sustainability indicator identified in the Basin's Groundwater Management Plan This component focuses on determining if native ecosystems that were once indisputably groundwater dependent; are, or

are not, still at the present time utilizing groundwater; and if so, to what extent (due to declines in the water table over the past several decades). This component will also analyze if groundwater that supports the GDEs will be impacted by changes in the groundwater elevations; and how, or how not, the GDEs themselves are affected by these changes.

(Figure 29 – GMP 2020 Comments and Response to Comments, TNC Letter)

As reduction of the Mesquite Bosque near the Borrego sink has occurred in response to the lowering of the water table in the area (Figure 26 and 27), Component 8 is using an established method of comparing the isotopic signature of the groundwater to the predominant isotopes found in the local plant. Several data sets are being captured to enable a calculation to determine if the plant assemblage and supported fauna at the proposed GDE could survive only with access to surface water. These data sets are: 1) a complete inventory of the plants and fauna in the potential GDE, 2) a water needs assessment of that plant assemblage found at the potential GDE, and 3) determining the availability of surface water at the potential GDE. If data from existing monitoring wells is found to be insufficient, a dual-nested monitoring well will be constructed near or within the Borrego Sink.

(Figure(s) 30 – Borrego Sink)

Analysis and Solutions:

Definitive preliminary data (UCI, Technical Memorandum 3/25/23) has already determined by isotope analysis that surviving areas of Mesquite Bosque are clearly still accessing groundwater and that the aquifer's restoration and availability will be critical for this life-sustaining species and habitat (its beans and seeds are eaten by many animals and its branches shelter the migratory endangered least Bell's vireos and their young as they nest here annually) to survival.

(Figure 31 – Species Biodiversity Summaries)

Species Biodiversity Summaries combine the three measures of biodiversity developed for ACE into a single metric.:1) native species richness; 2) rare species richness; and 3) irreplaceability. Much of western flank of the Subbasin is ranked as high species biodiversity (grey hexagons).

Analysis and Solutions-

Provide sustainability education and opportunities for grades K-12 through Graduate school for the community and to gain interest outside the community. Have kids engage in drawing interpretive signage for natural resources in the community. Be a world model of desert sustainability and strive for community health and posterity that thrives despite environmental constraints. Turn environmental threats into opportunities to innovate and model sustainability as well as continuing to provide an irresistible tourist draw (remember how successful ecotourism has been to help rainforest poverty?)

Cultural Resources
Planning Context

In the 2011 BSCP a goal (Goal-COS-4.1) to identify and conserve Borrego Valley's cultural resources includes: archaeological (prehistoric), paleontological, historical, and biological components with Policy COS -4.1.1 to "Coordinate with appropriate agencies for the protection of cultural and biological resources throughout the Borrego Springs CPA. Implementation-COS-4.1.1 then include:

1. Develop a joint relationship program with the County of San Diego Park and Recreation Department for the expansion of the County preservation area located in the east valley in the vicinity of the Badlands.
2. Valuate the historic context of the area in the preservation of historic sites such as Old Town Borego and the De Anza Trail.
3. Identify and preserve archaeological and paleontological sites throughout the Borrego Valley as a research center.
4. Establish a Historical Society for the Borrego Springs CPA dedicated to the preservation of the architectural context of the original settlements.

Petroglyphs, pictographs, and other archeological sites indicate that human habitation in the area began at least 6,000 years BP. In the late eighteenth century, Spanish explorers encountered settlements of Kumeyaay, Cahuilla, and other native peoples in the area. The Southern Emigrant Trail and the Butterfield Overland Mail Route, which brought many nineteenth-century migrants to the West, pass through the park. The park's Begole Archeological Research Center houses maps and historical artifacts from all of these periods and is located near the UCI Steele/Burnand Anza-Borrego Desert Research Center/reserve headquarters. Source: https://anzaborrego.ucnrs.org/about-us/

Pre-historic/Native American Occupation
Development and developable land within the Borrego Springs area overlay significant cultural resources. Hundreds of Native American sites, including seasonal village sites and food gathering areas have been documented or exist without documentation throughout the Borrego Valley. Native Americans are credited with being careful stewards of the land for time immemorial and specific tribes in Borrego Valley include The Kumeyaay utilized the southern part of the Anza Borrego State Park (ABSP) and large parts of the central section, and their territory extended from Laguna Salada in Mexico to the Imperial Valley. The Cahuilla Native American tribes traditionally occupied the northern part of the park, and they spoke a Shoshonean language. The Cupeño people also lived in the northwestern part of the park, including the middle fork of Borrego Palm Canyon, and their territory extended to Hot Springs Mountain and Warner Springs. The Northern Diegueño lived in the southern part of the park, including Lake Henshaw, San Felipe Creek, and Blair Valley and spoke a Yuman language. Evidence of Native American presence can be found as Rock art/Pictographs in many places in the desert. Additionally, one can find morteros used to grind and prepare food, and Agave plants: An important food source for the native people.
Source:
https://www.google.com/search?q=borrego+valley+native+tribes+map&rlz=1C1CHBF_enUS1146US1147&oq=Borrego+Valley+Native+Tribes&gs_lcrp=EgZjaHJvbWUqBwgBECEYoAEyBggAEEUYOTIHCAEQIRigATIHCAIQIRigATIHCAMQIRigAdIBCTExNzI5ajBqN6gCALACAA&sourceid=chrome&ie=UTF-8#vhid=PbF8YbnsIuHb3M&vssid=_f-SdZ5TmMqnykPIPsv6O6Qw_38

Development encroaches on cultural and historical sites and structures. Private land ownership makes it difficult to preserve cultural history (both prehistoric and historic) for the present and future.

Native American sites exist in locations such as the Borrego Sink, where the mesquite bosque was an important food gathering site to the nomadic natives for thousands of years. Other areas where cultural resources can be easily observed are in the dune areas of the northern and eastern Borrego Valley and the desert scrub flats along Di Giorgio Road north of Santiago Estates. Numerous sites are found at the base of the mountains from Palm Canyon to Tubb Canyon and south to Glorietta Canyon, as well as along the edge of the Valley along the base of Coyote Mountain.

Historic Era Resources

Old Borego Town Site
Old Borego is the original commercial district for early Borego Springs. (Borrego was spelled with one "r" prior to the mid-1940s). It was the center of town for the early desert homesteaders and farmers of the 1920s, 30s, and early 40s. Historically, it was the site of an original homestead residence and the community's first grocery store, gas station, post office and library. Old Borego Townsite serves as a reminder of the region's homesteading roots and the often difficult, early life in the desert in eastern San Diego County. Of countywide historic significance, Old Borego Townsite is currently the only designated cultural site with the Historic District Preservation (H) Special Area Designator in the Borrego Valley.

Today, Old Borego Townsite is located on private property, which is owned by an East Coast family with a home and other property in Borrego Springs. The old homestead residence is well maintained and occasionally occupied by the property owner and family. The historic store and gas station building is in moderate to good repair. The owners are keenly aware of the historic significance of the property to the community. The family cooperates with the Borrego Springs Civic Foundation to open the property annually to school children and the public. The Civic Foundation and the Anza-Borrego Desert Natural History Association (ABDNHA) sponsor an annual History Preservation Day open house at the Old Borego Townsite, offering tours, talks by old timers and local history information. The two non-profit groups, working together, are in contact with the family about the possibility of designating the property an official County historic site. The San Diego County Historic Site Board (HSB) has offered assistance; efforts in this direction continue.

A broader survey of additional local historic sites indicates that in many cases, developable land encroaches on cultural sites and structures, which makes it difficult to preserve cultural history, both indigenous and modern. In some cases, historic sites significant to the local community are located on nearby State Park land, which makes it difficult to preserve the site, structure, or landmark. The local history committee has identified historic sites and landmarks in the CPA that require future study for consideration as part of this Special Study Area under this Community Plan.

Cultural Analysis and Solutions
A significant problem in Borrego is that some developable land encroaches on cultural sites and structures, which makes it difficult to preserve Borrego's cultural history, both indigenous and modern. Additionally, much of acquired data is proprietary and only available to professional archaeologists and Native American tribal designees monitors. It is necessary to protect this sensitive data in this way to deter pot hunters and destruction of valuable human history. All planners, however, should be mindful and aware of these issues and utilize best practices, respect, and required elements for Native American noticing, and standard and local initial study investigations (i.e., from CEQA Appendix G), etc.

Currently, the Old Borego town site is the only cultural site with the Historic District Preservation (H) Special Area Designator. However, the local history committee has identified 40 other potential historically significant sites in the CPA.

Incorporate 30x30 goals of reintegration of Native Americans on the land (also see “Land Back” programs expanding across the Nation) and utilizing their “Traditional Ecological Knowledge” (TEK). Importantly TEK should be incorporated for fire management throughout the region as humans have sustainably managed the land and fire regimes of eons in the past whereas today when humans are excluded, ecological damage compounds (see the work of David Bainbridge, UCR and Biosphere Reserve Management by indigenous cultures taking place in Honduras (Rio Platano Biosphere Reserve) and in Panama (management of the Darien Gap by Kuna tribes).

San Diego is known to be the most biodiverse county in the continental US. Recently the importance of San Diego County a biodiversity hotspot was highlighted once again through partnerships Countywide MSCP programs, SANDAG’s EMP and the SD Natural History Museum.

(Figure 32 – Biodiversity Heat Map)

Source: San Diego Collaboration for Conservaton, Sustaining the Region’s Legacy of Biodiverisity Conservatoin (SD Nat, June 2024)

(Figure 33 – Biodiversity Conservation)

(Figure 34 – Pathways to 30x30 California)

Source: Pathways to 30x30 California; Accelerating Conservation in California, Final Report April 2022

https://www.californianature.ca.gov/

TOWN PLANNING

Town Planning involves processes undertaken by municipal planning departments to visualize, plan for, coordinate, and act on the three-dimensional physical layout of the town. This includes the zoning of different areas for various uses, such as residential, commercial, and office spaces. It also includes the subdivision of public property and the creation of public streets and park spaces. In addition, it takes into consideration the economic, transportation, political, legal, environmental, utility and sanitation infrastructures.

The goal of town planning is to achieve a desired urban form and to ensure that a certain level of accessibility, walkability, adaptability, efficiency, and economy are built in and adapted to over time. The public streets and spaces provide the long-term structure for building a town, and private development provides the day-to-day life within this framework is allowed to change and adapt as needed.

Today, town planning discussion have been dominated by zoning, the regulation of private property. However, this focus on zoning can sometimes overlook the more permanent and important patterns of subdivision, which involve the ordering of public and private property.

Therefore, the challenge in town planning is to balance these two domains of zoning and subdivision to create a town that is healthy, safe, and welfare-promoting.
Foundational Town Planning Elements Involves:

- Development Patterns – Suburban to Urban Street/Block Types
- Public and Private Spaces and Buildings – Location and Scale
- Planning Types – from the Region to the Lot
- Place Types – from Pristine Nature to the Town Center
- Community Character – From Memory to Expectations

Town planning policy forms the rules and regulations that govern the use, ownership, and management of urban and rural lands. It involves both rational and emotional decisions about how the federal, state, and local authorities determine land uses, who are allowed to access to it, and what activities are permitted on it. These policies trend with collective social consciousness between individual property rights and common public good at both national and local levels.

Land policy generates both formal and informal outputs. Formal outputs are often plans, regulations, and programs. Informal outputs are often socially accepted patterns that shape underlying cultural behaviors and social expectations. The study of land policy was founded during the early 20th century's Progressive Era in response to economic and environmental instability generated by industrialization's overwhelming amount of poverty and pollution.

Existing Land Uses
The Borrego Valley is surrounded on three sides by mountains: the Santa Rosas to the north, the San Ysidros to the west, and the Grapevine Hills to the south. To the east, the mud hills of the Borrego Badlands stretch off toward the Salton Sea. The area has been a major transportation corridor due to its geography and water sources. Native American migrations, Juan Bautista de Anza's inland route to San Francisco and other missions, stagecoach routes, the gold rush, Mexican War troop movement, ranchers and cattlemen, farmers, and settlers. All followed the same routes in use today and used the same water sources.

Borrego Springs encompasses a thriving community with 3,400 permanent residents, 5,000 seasonal residents, six golf courses, 11 lodging establishments, a university research center, two airports, five electric vehicle-charging stations, and a community medical center. Borrego Springs is California's first International Dark Sky Community, home to numerous arts, architecture, music, environment, sport, and recreation events and experiences annually, an amazing biodiversity hotspot with an incredible sense of place, and a gateway to the abundant natural must-see features of southern California.

Borrego Springs, a "Village in a Park," is a widespread, rural community set like a gem within the second largest state park in the United States. Most residents hold the idea of conservation, quality of life, open space and sweeping vistas close to their hearts. Balancing the needs of residents, visitors, and businesses, including agriculture, with the conservation of natural and cultural resources is one of the premier tasks of the Borrego Springs Community Plan. The long-term viability of the single-source supply of water has been the number one issue for community groups since the early 1990s.

The growth of the low desert valley is uniquely limited by the closed perimeter of the park boundaries. Its remote location is not easy to get to, and other than tourism, there is no major industry or source of high-quality jobs. 4,000 acres are devoted to agriculture, and the majority of commercial and residential property is undeveloped.

The Borrego Springs community was envisioned by the original developers in the 1940's as a New Town to compete with Palm Springs and other resort communities accessible from Los Angeles, as well as other points in California, Nevada, and Arizona. While other post war communities have grown exponentially since the 1950s, Borrego Springs has grown very slowly due to limited access and lack of adequate employment, leaving large gaps in the development pattern. The planned single family residential development requiring substantial infrastructure of roads and utilities resulted in the eventual sale of lots over time due to the increasing demand for second homes. The present result is a lack of actual building of houses on residential developments. Commercial lands were also left vacant.

Land use patterns are very low density and follow the 1940's design for the New Town Movement of the 1920/30s. The core of the village is Christmas Circle Park which serves as the town center and is a traffic circle similar to those applications in Mexico. Commercial businesses line Palm Canyon Drive (S-22) from Stirrup Road to the east to the entrance of the State Park on the west.

Borrego Springs has a variety of golf resorts located away from the town center which provide recreation as well as a variety of housing for residents and seasonal visitors. Subdivisions are located mainly to the northwest and south of Christmas Circle and generally follow the availability of water lines provided by Borrego Water District from a sole-sourced aquifer. Citrus and ornamental tree farming incorporate approximately 4,000 acres in the north end of the Valley; this one use constitutes 70 percent of annual groundwater consumption. Tourism has become the primary source of income during the winter season while summers have been very quiet.

County General Plan

Most land in Borrego Springs' 42.5 square mile radius is zoned as Rural Lands, some Semi-Rural Residential, and a sprinkling of General Commercial and Rural Commercial. There are also a few industrially zoned land uses related to jobs-based businesses. The larger Borrego Valley comprises 110 square miles and is defined by its open desert lands and mountains that surround Borrego Springs. See Figure 10 County of San Diego General Plan Map.

County General Plan 2020 United States Geological Survey report (Scientific Investigations Report 2015-5150) estimated the percent of overall land use in 2009 in the Borrego Valley Groundwater Basin as the following. Approximately 72.5% of land is native vegetation, generally desert-type vegetation, while 5.6% of land is phreatophytic vegetation, e.g., plant communities with deep roots that depend on groundwater, like mesquite. An additional 11.1% of land is dedicated to residential or developed land while 3.6% of land is dedicated to citrus farming, 3% dedicated to golf courses, 2.1% to fallowed agricultural land or dedicated to livestock, 1.2% was dedicated to potato farming, and 0.9% was dedicated to dates, palms, or other nursery types.

Community Design and Character

Borrego Springs is a small desert community remotely located in the northeastern part of San Diego County, completely surrounded by the Anza-Borrego Desert State Park. Due to the large size of ABDSP, it is about an hour's drive in any direction to get to the nearest communities to assess full services and commerce variety (i.e., 24/7, advanced, and specialty health care options and centers; large supermarkets and discount stores; auto dealers, or movie theaters, etc.). Borregons, must drive east then north to the Coachella Valley, south to Brawley and El Centro, or west to Julian, San Diego, or Temecula.). There is no community located health care

or pharmacy available on weekends, although CalFire provides EMT and ambulance services, and Mercy Air is contracted by the Borrego Valley Endowment Fund to provide no-cost emergency helicopter flights to regional hospitals for both permanent and seasonal residents of the village.

This unique “Village in a Park” is a lightly populated desert town with very hospitable winter temperatures and extremely hot summers. The environment is arid with flora and fauna uniquely adapted to the intensity of the summer sun as well as the cool winter nights which has become a tourism draw. Diligent monitoring of public and private exterior lighting has maintained a striking, dark sky environment, along with the natural environment, the built environment significantly impacts the economic viability of Borrego Springs. Community design includes everything we see around us, including buildings, landscapes, roads, signs, fencing, lighting, and power poles, etc.

Diligent monitoring of public and private exterior lighting has maintained a dark sky environment. Geography in the valley is generally sloping alluvium posing a significant flood consideration. No new commercial building has occurred in Borrego Springs in a decade—recent building is largely residential.

Anecdotally, community residents report the following: that only one commercial building has been-built in Borrego Springs in over 20 years – a Dollar General Market store. Additionally, over the last few decades, very few residential buildings have finished constructed. Although land is relatively cheap, lack of building in both sectors is due in part to the Federal Emergency Management Agency (FEMA) designating most of the valley as a flood zone. See “NATURAL HAZARDS AND RISKS, FLOODING above for a detailed FEMA flood risk map and County Flood Guidelines. This makes construction costs in most areas relatively high and often prohibitive compared to other communities in San Diego.

Local building design themes are mostly inconsistent with historical or natural desert elements. Much of the built environment at present is not what is typically considered to be desert imagery. The built environment reflects imported styles and building techniques, resulting in a lack of identity that bonds with the natural surroundings. New projects, walled communities and residential fencing are being built in a manner that impacts wildlife corridors, natural water flow, and connecting open space.

(Figure 35 - 2011 BSCP Vision)

How to reach this with the new planning effort is covered in the Analysis and Solutions section.

Visual Graphics / Signage

Signage in the Borrego Valley consists of a broad variety of materials, colors, styles, and size of components, not all of them particularly suited or designed for the demands of a hot, dry, and sometimes very windy desert climate. These elements produce confusion and visual chaos for visitors, who experience wayfinding fatigue. The size of economic loss likely due to poor / absent signage is unknown. General themes which incorporate the desired “vibe” or vibes of various parts of the community can be developed via community input. Important wayfinding could include flower fields and additional interpretive/protection signage at such locations.

Community Survey 2024 Summary

During 2024 a Resiliency Focused Community Survey was distributed (see METHODOLGY and APPENDICES for methods used and full content) for Borrego Springs with the following key demographics and major findings:

Key Demographics:
Relationship to Community
- 75.6% live in Borrego Springs
- 53.0% own property
- 17.3% work in the area
- 7.1% are visitors

Residency Status
- 57.1% year-round, full-time residents
- 26.8% seasonal residents (primarily winter)
- 0.6% seasonal residents (primarily summer)
- 5.4% non-residents

Age Distribution
- 53.6% aged 65+
- 30.4% aged 46-64
- 6.5% aged 25-45
- 9.5% under 25

Racial/Ethnic Composition
- 73.2% White/Caucasian
- 18.5% Hispanic/Latino
- 3.0% Asian
- 1.8% American Indian or Alaska Native
- 0.6% Native Hawaiian and Other Pacific Islander

Major Findings include “Community Satisfaction” and “Quality of Life” Indicators which showed that:
- 80% report a strong sense of community
- 79.5% feel satisfied with their quality of life
- 71.9% feel safe at night
- 84.3% agree there are sufficient public parks and open spaces

Primary Community Attractions recognized include:
1. Access to nature (76%)
2. Quality of life (68%)
3. Rural atmosphere (66.7%)
4. Sense of community (60%)

Critical Challenges identified by the Community include Healthcare Services And Water Sustainability as follows:

Healthcare Services
- 74.7% prioritize healthcare access
- 70.3% concerned about insufficient medical services
- 78.4% support medical care development
- Healthcare ranks as top desired industry (76.3%)

Water Sustainability
- 92.9% aware of aquifer as sole water source

- 84.5% aware of required 70% reduction by 2040
- Water Costs:
  - 46.6% pay $50-100 monthly
  - 43.6% pay $100-200 monthly
  - 9.8% pay over $200 monthly

Housing Affordability
- 73.2% perceive housing shortage
- Affected Groups:
  - 92.9% Low/moderate income families
  - 45.1% Senior citizens
  - 40.7% Assisted living needs

Infrastructure Priorities
1. Natural resource protection (59.5%)
2. High-speed internet access (55.4%)
3. Sustainable water management (41.9%)
4. Reliable public utilities (36.5%)

Recommendations
1. Healthcare Development
- Prioritize healthcare provider recruitment
- Develop telemedicine infrastructure
- Explore public-private partnerships
- Create medical facility development plan

2. Water Sustainability
- Implement comprehensive conservation programs
- Develop tiered water pricing
- Launch public education campaigns
- Explore water-efficient housing solutions

3. Housing Strategy
- Develop mixed-income housing
- Focus on senior/assisted living facilities
- Encourage multi-family development
- Implement sustainable building practices

4. Infrastructure Development
- Secure high-speed internet funding
- Create sustainable infrastructure plans
- Develop integrated trail systems
- Support EV infrastructure

5. Economic Development
- Focus on sustainable tourism
- Encourage R&D industries that also protect the priority of natural landscape conservation
- Support healthcare/tourism businesses
- Develop workforce training programs

Long-term Considerations

Sustainability
- Balance development with water restrictions:
- Preserve natural resources
- Maintain rural character
- Support sustainable tourism
- Update Community Plan and zoning recommendations

Community Development
- Focus on age-diverse design
- Improve essential services
- Protect natural amenities
- Enhance community connectivity

Community Design and Character Analysis and Solutions
Green Building Code
California has multiple building codes, which are all part of the California Building Standards Code (CBSC), which is Title 24 of the California Code of Regulations.

(Figure 36 - Title 24)

Importantly, the County adopted the Green Building Code in 2022, which is made up of both mandatory and voluntary (incentivizing components). The green building code reiterates and incorporates components of many other voluntary “green building” standards found around the world including LEED (Leadership in Energy and Environmental Design), Energy Star, and the Living Building Challenge. More information about these program are available on the websites of national and local chapters of the US Green Building Council (USGBC) who manages the LEED program and conducts regular trainings and various certification programs.

ADA, Accessibility, and Universal Design

While Title 24 in California does require accessibility features for people with disabilities (under the US Americans with Disability Act or ADA), it does not explicitly mandate "universal design" as a standard, but it does allow for the voluntary incorporation of universal design features through the "New Home Universal Design Option Checklist" which builders can offer to buyers upon request; essentially making universal design an optional feature within the accessibility requirements of Title 24.Universal Design includes features that make it possible for new and remodel architecture to make it easier to age in place or live with disabilities. Feature may include sturdy railings and wider in entry ways into the dwelling and into all rooms such as bathrooms, and can include counters of lowered height with clearances that can accommodate wheelchairs. Typically the homes may be single story and or feature accessibility components such as ramps, elevators, or motorized stair chairs. Other features may include visual or braille signage and the like. A universal design checklist example can be accessed here: https://www.hcd.ca.gov/sites/default/files/docs/building-standards/2007-universal-design-checklist.pdf

Additionally, other concepts such as “Moral Architecture, Biophilic Design, Nature Based Architecture, along with Sustainable Landscape Design concepts may be desirable for utilization in Borrego to design both interior and exterior components to be in harmony with the surrounding natural lands.

Community Design Suggestions

While standard and voluntary building codes mentioned above should be utilized, developing community led design guidelines would be one method to build consensus and develop a cohesive, consistent design signature for the Community. Such guidelines may be developed for a distinct community sector, or as a signature for the whole community. Gleaning from efforts of other nearby county's, and international desert communities such as Palm Springs, Indio, Joshua Tree (oasis themes), Casablanca, Chile, and other communities which may have strong sustainable planning is recommended (Figure).

We note that Joshua Tree's 2020 Community Action Plan has distinct parallels with this planning process and elements should be perused and perhaps "borrowed" for possible design and format suggestions (see Joshua Tree CAG 2020 pdf at https://countywideplan.com/wp-content/uploads/sites/68/2020/08/03_Joshua_Tree_CAG_2020pdf.pdf.

We note that Joshua Tree's 2020 Community Action Plan has distinct parallels with this planning process and elements should be perused and perhaps "borrowed" for possible design and format suggestions (see Joshua Tree CAG 2020 pdf at https://countywideplan.com/wp-content/uploads/sites/68/2020/08/03_Joshua_Tree_CAG_2020pdf.pdf.

For development enclaves within Borrego, one or more distinct design and signage districts (theme and palettes) could be chosen for the Community. For instance, if the community decided to utilize a signature style featuring 'natural desert elements' such design themes often feature warm, neutral, and saturated colors (such as terracotta, warm deep ambers, and yellow greens, , shades of tan, sand, terracotta, and rich hues of with dusty ochres; with deep greens, burnt oranges, browns, reds, and pinks). Natural materials which evoke or enhance an airy, breathable atmosphere (such as leather, rattan, cool dark stone, and linen); and lightly woven textures, which result in color saturated, uncluttered, can be used to create light-filled, interior spaces and exterior spaces that feel like, and blend into the desert. A goal can be to create a soothing ambiance and a connection to nature. To that effect, building exteriors should blend in with the natural terrain in color and stature (simple mid-century modern design with color saturated smooth or textured plaster), typically being low slung with care in orientation to maximize beneficial views and breezes while reducing harsh glare or flood risks. Landscaping should feature water smart, non-invasive mostly Coloradan native plants (or those from the greater Sonoran Desert) chosen for their architectural impact, seasonal color or pollinators supporting function, garden elements and fences should ideally be made of native rock and found material (such as ocotillo skeletons, native colored gravel. Rooftops and windows, however, should consider heat gain and loss and feature heat reflection features (such as white or tan roofs and treated windows).

Example Desert Theme Design Palette

- **Woven textures**: Woven baskets, macrame wall hangings, rugs, and throw pillows
- **Clean lines**: Sleek yet rough, desert modern interior design is a balance between modern and earthy
- **Rich colors**: Rich hues evoke a desert scape
- **Visual interest**: Reduce clutter while emphasizing visual interest through texture
- **Light-filled spaces**: Balance light-filled spaces through scale and height of décor and furniture

For further reference, examples and resources from Palm Spring's famous mid-century architecture may be of interest (Figure):

Mid-century modern architecture in Palm Springs, California is characterized by clean lines, open floor plans, and an emphasis on natural light. These homes often have flat roofs, tall windows, and geometric shapes.

Design features

- **Clean lines**: Simple, basic lines with rectangular windows and doors
- **Open floor plans**: Create a sense of balance and harmony
- **Natural light**: Seamless indoor-outdoor living spaces
- **Organic forms**: Curved contours and flowing lines inspired by nature

Notable examples

- **Kaufmann Desert House**
  Designed by Richard Neutra in 1946, this iconic home features large sliding glass doors and open floor plans
- **Twin Palms**
  Designed by E Stewart Williams for Frank Sinatra in 1946, this estate is known for its piano-shaped pool
- **Frey House II**
  Designed by Albert Frey, this home is built into the side of a large boulder

Preservation efforts

- Palm Springs Preservation Foundation: A non-profit that promotes public awareness of the importance of preserving mid-century modern architecture
- Modernism Week: An annual celebration that includes tours, exhibitions, talks, and parties

Related terms Desert Modernism and Palm Springs School of Architecture.

SOCIOECONOMICS

The Census Bureau is legally obligated to keep all individual data confidential and cannot share it with any other agency, including law enforcement. Additionally, collecting data on immigrants, regardless of their legal status, is legal under US law and is considered necessary for accurate population counts. Collecting accurate census data on populations can, however, be problematic for a variety of reasons. There can be mistrust of handing over sensitive data that could possibly be misused. There could be individuals or groups of people that are transitory, unemployed and/or retired, have little access to on-line systems, disabilities, criminal histories, language differences, or any number of socioeconomic barriers to participating. Marginalized and/or uncounted people may also include those with partial, pending, or no legal citizen (undocumented immigrant) status. Although the Census Bureau employs various methods to encourage participation among immigrant and non-immigrant populations, including language assistance and outreach programs. While the accuracy and completeness of citizen and noncitizen coverage in U.S. is therefore in question; including anecdotally in Borrego Springs, we present the following best available data on Borrego Springs, CA (or Borrego Springs or Borrego in this section), from cited sources.

In 2022, Borrego Springs, CA had a population of 2.95k people with a median age of 58.8 and a median household income of $101,458. Between 2021 and 2022 the population of Borrego Springs, CA grew from 2,566 to 2,946, a 14.8% increase and its median household income declined from $103,390 to $101,458, a −1.87% decrease.

The 5 largest ethnic groups in Borrego Springs, CA are White (Non-Hispanic) (64.6%), Two+ (Hispanic) (18.4%), White (Hispanic) (15.6%), Other (Hispanic) (1.39%), and Black or African American (Non-Hispanic) (0%).

None of the households in Borrego Springs, CA reported speaking a non-English language at home as their primary shared language. This does not consider the potential multi-lingual nature of households, but only the primary self-reported language spoken by all members of the household.

96.8% of the residents in Borrego Springs, CA are U.S. citizens. In 2022, the median property value in Borrego Springs, CA was $397,000, and the homeownership rate was 78.5%.

Most people in Borrego Springs, CA drove alone to work, and the average commute time was 25.8 minutes. The average car ownership in Borrego Springs, CA was 2 cars per household. In 2022, 70.6% of workers in Borrego Springs, CA drove alone to work, followed by those who worked at home (27.9%) and those who carpooled to work (1.48%). Using averages, employees in Borrego Springs, CA have a shorter commute time (25.8 minutes) than the normal US worker (26.7 minutes). Additionally, 11.6% of the workforce in Borrego Springs, CA have "super commutes" in excess of 90 minutes.

Population Demographics

The estimated full-time population of Borrego Springs is 2,328.[1] The median age of residents in Borrego Springs is 53.8 years, with almost 60% of the population aged 55-years or older.[2] Residents are primarily White (87%), with the remainder Black/African-American, Asian, or two or more races. Approximately 20% of residents identify as Hispanic or Latinx.[3] And based on the seasonality of the area, it is estimated that part-time residents – seasonal workers, "snowbirds," and weekenders – inflate the population by two-fold.[4]

Borrego Springs, CA is home to a population of 2.95k people, from which 96.8% are citizens. As of 2022, 23.1% of Borrego Springs, CA residents were born outside of the country (681 people).

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[1] U.S. Census. (2016). *ACS Demographics and Housing Estimates, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_DP05; U.S. Census (2010). *Profile of General Population and Housing Characteristics, 2010.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1

[2] U.S Census. (2016). *Age and Sex, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S0101

[3] U.S. Census. (2016). *Place of Birth by Nativity and Citizenship Status, 2012-2016 American Community Survey 5-Year Estimates*. Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B05002

[4] San Diego County. (2011). *Borrego Springs Community Plan.*

In 2022, there were 3.52 times more White (Non-Hispanic) residents (1.9k people) in Borrego Springs, CA than any other race or ethnicity. There were 541 Two+ (Hispanic) and 460 White (Hispanic) residents, the second and third most common ethnic groups. As of 2022, 96.8% of Borrego Springs, CA residents were US citizens, which is higher than the national average of 93.5%. In 2021, the percentage of US citizens in Borrego Springs, CA was 95.9%, meaning that the rate of citizenship has been increasing.

In 2022, there were 3.52 times more White (Non-Hispanic) residents (1.9k people) in Borrego Springs, CA than any other race or ethnicity. There were 541 Two+ (Hispanic) and 460 White (Hispanic) residents, the second and third most common ethnic groups. 35.4% of the people in Borrego Springs, CA are Hispanic (1.04k people). As of 2022, 23.1% of Borrego Springs, CA residents (681 people) were born outside of the United States, which is higher than the national average of 13.6%. In 2021, the percentage of foreign-born citizens in Borrego Springs, CA was 22.9%, meaning that the rate has been increasing.

Residential Demographics

Anecdotally, year-round residents are comprised of two types:

1. Households consisting of individuals and couples over the age of 55, primarily White/non-Hispanic, who are living on limited or fixed incomes.

2. Households comprised of multigenerational families, primarily Hispanic/Latinx and consisting of grandparents, working parents, and children who make up most of the students in the Borrego Unified School District.[5]

Part-time residents are comprised of the following three types:

1. Seasonal workers: Individuals who work in the area during agricultural harvest seasons.
2. Snowbirds: Those with second homes in the area who avoid Borrego's hotter months, typically arriving in November and leaving in March or April.
3. Weekenders: Visitors often interested in outdoor activities ranging from golf to hiking to mountain biking.

Housing

There are approximately 2,667 total housing units in Borrego Springs, with a seasonal housing vacancy rate of around 40%.[6] Over 1,000 units are estimated to be for seasonal, recreational, or occasional use. Borrego is largely made up of single-family homes (62.5%), the majority detached, while 24.6% of homes in the area are mobile homes. Duplexes and multifamily units

[5] According to the National Center for Education Statistics (2018), 84% of students in the Borrego Springs Unified School District (BSUSD) are Hispanic/Latinx and 44% of students are English language learners. Retrieved from: https://nces.ed.gov/ccd/districtsearch/district_detail.asp?Search=2&details=1&ID2=0605700&DistrictID=0605700

[6] U.S. Census. (2016). *Selected Housing Characteristics, 2012-2016 American Community Survey 5-Year Estimates.*; U.S. Census. (2016). *Vacant housing units, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B25004

make up the final 12.9% of the housing stock.[7] According to the Borrego Springs Community Plan, over 1,500 homes and condominiums were in the development pipeline in Borrego in 2011.[8] Most of the projects were put on hold due to groundwater supply discussions, while some have had development resume, such as the Rams Hill Golf Course redevelopment.

The larger San Diego County Desert Community Planning Area, which includes the Ocotillo Wells area and expands south encompassing the Anza Borrego State Park, adds an additional 1,000 housing units to the sub-region's total, totaling approximately 3,500-3,700. The San Diego Association of Governments (SANDAG) estimates that more than 10,000 additional acres will be developed as Low-Density Single Family or Single Family by 2050, which would increase the total housing units in the Desert CPA by more than 1,500.[9] This census data is old (2013). Newer housing data has been made available on the County's website including a series of 12 (2020) Borrego Specific housing growth maps developed to support the GP update; including these two below (Figure), representing *existing dwelling units and adjusted available capacity for dwelling units.*

(Figures 37 – Adjusted Capacity and Future Potential DU)
– Lf. -Existing Dwelling Units and Rt. Adjusted Available Capacity of the GP Future Potential Dwelling Units
Source:
https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/DevTracker/BorregoSprings.pdf

Though sparsely populated, Borrego Springs still has unmet housing and infrastructure needs. The Census estimates that about 76% of renters in Borrego Springs are cost-burdened, and 30.6% of renters are severely cost-burdened.[10] This means almost a third of rental households face monthly housing costs that are 50% or more of their total household income. This generally affects lower-income households, as approximately 95% of renter households making below $50,000 are cost burdened.[11]

Socioeconomics Analysis and Solutions:

Every drop of water is now allocated through the judgement outlined in the 2020 GMP and the above maps (Figure) were posted the same year. Map J's analysis to determine an adjusted

[7] U.S. Census. (2016). *Selected Housing Characteristics, 2012-2016 American Community Survey 5-Year Estimates.*

[8] San Diego County. (2011). *Borrego Springs Community Plan.* Retrieved from: https://www.sandiegocounty.gov/pds/docs/CP/Borrego_Springs_CP.pdf

[9] SANDAG. (2013). *Series 13 Regional Growth Forecast: Desert Community Plan Area, County of San Diego*.

[10] U.S. Census. (2017). *Selected Housing Characteristics, 2012-2016 American Community Survey 5-Year Estimates.*

[11] U.S. Census. (2016). *Estimated percent of all renters with incomes less than $50,000 who are burdened by housing costs between 2012-2016.* Retrieved from https://policymap.com

housing capacity of 7,651 importantly, done not factor in the need to include the mandated drawdown of the aquifer use to the sustainable yield by 2040 of approximately 5,000 -8,000 AF/year. While we note that the sustainable yield is reassessed in Watermaster Reports every five years and will fluctuate, limitations on water must be carefully analyzed and included specifically into any adjusted housing capacity in Borrego Springs.

In addition, the graphic above (Figure?) was produced prior to SB10 (passed in 2021 and implemented January 1, 2022). SB10 is meant to address the housing crisis in CA, requiring each community in the state to meet construction/supply quotas of affordable housing.

Counterbalancing SB 10 perhaps, in future GP iterations, the County will be required to include a "Vehicle Miles Traveled" (VMT) analysis in lieu of the current Level of Service (LOS) traffic analysis included in the 2010 County General Plan. VTM replaced LOS in CEQA to take into account, actual transportation-related environmental impacts of any given project (Source: The Governor's Office of Land Use and Climate Innovation, accessed 2/9/25; https://lci.ca.gov/ceqa/sb-743/faq.html#what-is). Although passed in 2013 (under SB 743) to address Green House Gases tied to vehicle exhaust emissions affecting climate change, it did not go into effect until July 1, 2020. In the interim, (2020 to quasi-current) the County has made various decisions regarding VTM, from using the existing General Plan with a 15163 Consistency Analysis under CEQA, to updating its Transportation Study Guidelines (TSG Final September 2022; to require VTM studies for projects meeting outlined criteria. https://www.sandiegocounty.gov/content/dam/sdc/pds/SB743/Transportation%20Study%20Guide%20-%20FINAL%20-%20September%202022.pdf.

The County updated it's TSG from a prior 2020 version however, which did include VMT analysis requirements but only for the County's unincorporated areas. Subsequently, the County, was sued by The Cleveland National Forest Foundation for not including the entire County in the requirements (Source: San Diego County supervisors OK new transportation guide to comply with state law; By: City News Service Posted 5:29 PM, Sep 28, 2022; https://www.10news.com/news/local-news/san-diego-county-supervisors-ok-new-transportation-guide-to-comply-with-state-law) and the Board of Supervisors then voted 4:1 to include the County in its entirety in its final 2022 TSG. Despite the GP Consistency Analysis approach, the County thus addresses VMT it using the following decision trees from the TSG:

(Figure 38 - County TSG September 2022)

Despite all the messiness which occurred with the County's compliance with state mandated VMT law, the whole process led to the County's increased commitment to address climate and environmental shortfalls and led directly to its decision to develop the Sustainable Land Use Framework or SLUF (green comment and arrow in the figure below). Importantly, the SLUF will be used to augment future General Plan Updates particularly for the unincorporated areas such as Borrego. The article cited about eloquently captures the County's pivot in the following excerpt:

(Figure 39 – County SLUF Idea is Born (excerpts from City News Service, Posted 5:29 PM, Sep 28, 2022)

SLUF with its required public involvement could guide winning solutions for Borrego's future. It is recommended that all the requirements for affordable housing and climate change be put into into the SLUF "meat grinder" to see what truly, sustainable, future development potential there is.

Income and Poverty

The median property value in Borrego Springs, CA was $397,000 in 2022, which is 1.41 times larger than the national average of $281,900. Between 2021 and 2022 the median property

value increased from $339,600 to $397,000, a 16.9% increase. The homeownership rate in Borrego Springs, CA is 78.5%, which is approximately the same as the national average of 64.8%. According to 2016 U.S. Census data, the median household income (MHI) in Borrego Springs is $34,046.[12] This is almost 50% less than the San Diego County MHI of $66,529 and the California MHI of $63,783. The MHI qualifies Borrego Springs as a Severely Disadvantaged Community (SDAC) as well as an Economically Distressed Area (EDA) according to California Department of Water Resources guidelines.[13]

With such a large population in retirement, income for many Borrego households comes from retirement, Social Security, or other sources of fixed income. In 2016, there were 1,050 individual Social Security beneficiaries in the 92004 ZIP code – 850 of the total were retired, and 895 were aged 65 or older.[14] The Census estimates 45.2% of households receive Social Security income at an average of $18,201 per year, and 30.3% of households have retirement income at an average of $19,371 per year.[15]

It is estimated that 11.5% of Borrego Springs full-time residents live below the federal poverty line, the threshold for 2016 being an income of $24,3000 for a four-member household.[16] Though children under 18 make up only 16% of the total population of Borrego, 60% of youth live in a household that receives food stamps/SNAP, cash assistance, or Social Security Income.[17] Additionally, 71% of children in the Borrego Springs Unified School District (BSUSD) qualify for free lunch, while another 17% qualify for reduced-price lunch under the National School Lunch Program.[18]

The census tract is also designated as “Low Income, Low Access at 10 miles” to groceries by the USDA.[19] A census tract is designated Low Income if the poverty rate is 20% or higher, or if the MHI in the census tract is 80% less than the state or metropolitan area. A census tract is

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[12] U.S. Census. (2016). *ACS Demographics and Housing Estimates, 2012-2016 American Community Survey 5-Year Estimates*.

[13] CA Department of Water Resources. (2016). *DAC Mapping Tool.*

[14] OASDI Social Security Administration. (2016). *Number of beneficiaries with benefits in current-payment status and total monthly benefits, by field office and ZIP Code.* Retrieved from: https://www.ssa.gov/policy/docs/statcomps/oasdi_zip/2015/ca.html

[15] U.S. Census. (2016). *Selected Economic Characteristics, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_DP03

[16] U.S. Census. (2016). *Percent of families and people whose income in the past 12 months is below the poverty level, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_DP03

[17] U.S. Census. (2016). *Receipt of Supplemental Security Income (SSI), Cash Public Assistance Income, of Food Stamps/SNAP, 2012-2016 American Community Survey 5-Year Estimates.* Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B09010

[18] National Center for Education Statistics. (2016). *Enrollment Characteristics (2015-2016 school year).* https://nces.ed.gov/ccd/schoolsearch/school_detail.asp?Search=1&SchoolID=060570000517&ID=060570000517

[19] United States Department of Agriculture, Economic Research Service. (2015). *Low Income & Low Access Layers 2015.* Retrieved from: https://www.ers.usda.gov/data-products/food-access-research-atlas

designated Low Access if at least 33% of the population lives farther than 1 mile from the nearest grocery store in an urban area, or farther than 10 miles in a rural area.

The main economic driver in Borrego Springs is tourism, largely from state park visitation. It is estimated that the 900 square-mile ABDSP attracts between 650,000 and 1,000,000 visitors to the region annually.[20] Recent California State Park Statistical Reports from 2013-2016 put the official numbers between 350,000 to 550,000. In FY2015-2016, there were approximately 403,000 visitors to ABDSP, accounting for $620,169 in total park revenue; meanwhile, Anza-Borrego's 2015-2016 total budgetary expenses added up to over $3.7 million.[21] In 2022, the median household income of the 1.4k households in Borrego Springs, CA declined from $101,458 from the previous year's value of $103,390.

3.23% of the population for whom poverty status is determined in Borrego Springs, CA (95 out of 2.95k people) live below the poverty line, a number that is lower than the national average of 12.5%. The largest demographic living in poverty are Females 35 - 44, followed by Males 16 - 17 and then Females 18 - 24. The most common racial or ethnic group living below the poverty line in Borrego Springs, CA is White, followed by Hispanic and Black.

(Figure 40 - Borrego Water District Project and Service Area https://borregowd.org/wp-content/uploads/Project-Justification.pdfhttps://sdgpolicyinitiative.org/

https://opendata.sandag.org/stories/s/svmp-j2ku)

Community Groups

Borrego Springs has a very extensive and active network of community groups, comprised primarily of year-round residents and part-time "snowbirds." Interests range from outdoor activity and nature clubs to youth and religious groups, volunteer service organizations, and community leadership groups focused on business and governmental affairs.

Two new non-profits, initially formed during the pandemic, have become very active in providing some social services to the community. They are the Community Resource Center and the Borrego Ministers Association. Borrego is so remote that County social service staff only come out once a month, so the community has stepped into the void with donations (used for food and emergency needs such as assistance with rent) and significant volunteer time (for example, there is a weekly food bank at the CRC). Importantly, Hispanic leaders in the village have also created OLAX – Organizacion de LatinX – a nonprofit to inform and speak for their community as well as stage community events.

Existing Community Groups Current as of February 2025 include:

Al-Anon, Alcoholic & Narcotics Anonymous
American Legion Auxiliary
American Legion Post 853
Anza Borrego Foundation (ABF)
Anza-Borrego Desert Natural History Association
Borrego Art Institute (BAI), Borrego Springs Civic Foundation
Borrego Ministers Association

[20] San Diego County. (2011). *Borrego Springs Community Plan.*

[21] California State Parks. (2016). *State Park Statistical Report 2015-2016 Fiscal Year.* Retrieved from: http://www.parks.ca.gov/?page_id=23308

Borrego Spring Art Guild
Borrego Springs Chamber of Commerce
Borrego Springs Children's Center
Borrego Springs Community Sponsor Group
Borrego Springs Community Resource Center
Borrego Springs Dark Sky Coalition
Borrego Springs Little League
Borrego Springs Ministers Association
Borrego Springs Performing Arts Center (PAC)
Borrego Springs Rotary Club/Rotary Foundation
Borrego Springs Senior Center
Borrego Springs Youth Basketball League
Borrego Valley Endowment Fund
Borrego Valley Stewardship Council
Borrego Village Association
Borrego Village Foundation (BVF)
Boy Scouts & Cub Scouts, Boys & Girls Club of Borrego Springs
Christmas Circle Community Park
Feeding America at Borrego Springs Unified School District
Feeding America at St Richard's Catholic Church
Friends of the Borrego Springs Library
Kiwanis Club
Lions Club
OLAX -- Organizacion de LatinX
S'Interact Club (High School Interact/Rotary plus Soroptimist)
San Diego County Supervisor Jim Desmond Revitalization Groups: Working Group on Economic Development/Tourism, Revitalization Working Group on Infrastructure, Revitalization Working Group on Community Health, Revitalization Working Group on the Environment
San Diego Food Bank at Saint Barnabas Episcopal Church
Soroptimist International of Borrego Springs
Tubb Canyon Desert Conservancy

Industry and Workforce

The economy of Borrego Springs, CA employs 1.19k people. The largest industries in Borrego Springs, CA are Accommodation & Food Services (206 people), Arts, Entertainment, & Recreation (185 people), and Administrative & Support & Waste Management Services (171 people), and the highest paying industries are Professional, Scientific, & Management, & Administrative & Waste Management Services ($50,869), Retail Trade ($48,245), and Arts, Entertainment, & Recreation ($46,250). From 2021 to 2022, employment in Borrego Springs, CA grew at a rate of 18.9%, from 1k employees to 1.19k employees.

The most common job groups, by number of people living in Borrego Springs, CA, are Sales & Related Occupations (282 people), Building & Grounds Cleaning & Maintenance Occupations (203 people), and Management Occupations (166 people). From 2021 to 2022, employment in Borrego Springs, CA grew at a rate of 18.9%, from 1k employees to 1.19k employees. The industries with the best median earnings for men in 2022 are Professional, Scientific, & Management, & Administrative & Waste Management Services ($40,281) and Arts,

Entertainment, & Recreation, & Accommodations & Food Services ($29,801). The industries with the best median earnings for women in 2022 are Arts, Entertainment, & Recreation, & Accommodations & Food Services ($14,177).

The most common employment sectors for those who live in Borrego Springs, CA, are Accommodation & Food Services (206 people), Arts, Entertainment, & Recreation (185 people), and Administrative & Support & Waste Management Services (171 people) (Figure) although some residents may live outside of Borrego Springs, CA but work there, or visa-versa.

(Figure 41 - Most Common Jobs Groups in 2022 https://datausa.io/profile/geo/borrego-springs-ca#economy)

While Anza-Borrego Desert State Park is the largest draw to the Borrego Springs area, visitors are often interested in other activities such as biking, hiking, golfing, stargazing, or visiting the Borrego Art Institute and local galleries. The surrounding businesses in Borrego, such as restaurants, retail stores, and lodging properties, also support this tourism economy. There are 10 lodging options for visitors to Borrego Springs, with additional communities and resorts offering traditional house rentals or RV parking, as well as multiple private vacation home listings for the greater Borrego Springs area.

It is important to note that most of the business in Borrego Springs is seasonal, with the high season from October to May, although the village is still active during the summer months. Since 2009, the Borrego Village Association has been working on a variety of community initiatives to make Borrego's Central Business District more accessible and pedestrian-friendly through design enhancements and traffic-calming. This central area of the village provides much of the support for the tourism economy and hosts many of the local businesses serving the community. In the winter of 2024-25, the County Department of Public Works did extensive work to make the central business district more pedestrian-friendly, completing sidewalks on two roads, calming traffic around Christmas Circle (which is the main community gathering place), and creating very visible crosswalks to the Circle.

There are an estimated 1,000 residents (around 50% of residents aged 16 years or older) in the labor force in Borrego Springs.22 Workers are primarily employed in natural resources, construction, and maintenance occupations, as well as educational services, healthcare, and social assistance.23 Borrego Springs' 2015 Work Area Profile24 indicates that just over one-third of workers earned $1,250 per month or less, one-third earned $1,251 to $3,333 per month, and

22 U.S. Census. (2016). Employment Status, 2012-2016 American Community Survey 5-Year Estimates. Retrieved From: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S2301.
23 Ibid.
24 Ibid.

a third earned more than that. The workforce is majority female (60%) and 37.5% are Hispanic/Latinx.

Unemployment data – excluding retired workers, students, active-duty military, stay-at-home parents, those completing unpaid volunteer work, etc. – indicates that almost 20% of the civilian labor force in Borrego Springs is unemployed, compared to 7.8% of the population in San Diego County and 7.4% of the population nationally.

25 According to the CalEnviroScreen 3.0 unemployment indicator, this unemployment rate within the census tract is higher than 99% of the rest of the state.26 However, this higher rate could be inflated due to a factor other than a
lack of job opportunities in the area, such as the informal or “underground” sector of the local economy. The informal sector is defined as a part of the economy that is unregulated, unrecorded, and/or untaxed by the government. Common examples of informal employment includes paid domestic workers, day laborers, or other types of employees.27 The Census estimates that there were 147 self-employed workers (in non-incorporated businesses) and unpaid family workers in Borrego Springs in 2016.28

According to the San Diego North Economic Development Council (SDNEDC), two sub-regions, the Northern Coast, and Inland North County (where Borrego is located), have lower than average educational attainment and lower than average wages.29 A result of this disparate growth, SDNEDC suggests targeted workforce development to connect residents in less dynamic regions to high-skill, high-growth career pathways to distribute opportunity more evenly across the North County.

The main economic driver in Borrego Springs is tourism, largely from state park visitation. It is estimated that the 900 square-mile ABDSP attracts between 650,000 and 1,000,000 visitors to the region annually.30 Recent California State Park Statistical Reports from 2013-2016 put the official numbers between 350,000 to 550,000. In FY2015-2016, there were approximately 403,000 visitors to ABDSP, accounting for $620,169 in total park revenue; meanwhile, Anza-Borrego’s 2015-2016 total budgetary expenses added up to over $3.7 million.31

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26 California Environmental Protection Agency. (2016). CalEnviroScreen 3.0: Unemployment. Retrieved from: https://oehha.ca.gov/calenviroscreen/indicator/unemployment
27 Martha A. Chen. (2012). WIEGO Working Paper No. 1: The Informal Economy: Definitions, Theories and Policies. http://www.wiego.org/sites/wiego.org/files/publications/files/Chen_WIEGO_WP1.pdf
28 U.S. Census. (2016). Industry by Occupation for the Civilian Employed Population, 2012-2016 American Community Survey 5- Year Estimates. Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_C24050
29 San Diego North Economic Development Council (SDNEDC). (2018). 2018 San Diego North County Indicators. Retrieved from: https://www.sdnedc.org/wp-content/uploads/2018/04/2018-NC-Prospects-Report-final.pdf
30 San Diego County. (2011). Borrego Springs Community Plan.
31 California State Parks. (2016). State Park Statistical Report 2015-2016 Fiscal Year. Retrieved from: http://www.parks.ca.gov/?page_id=23308

restaurants, retail stores, and lodging properties, also support this tourism economy. There are 10 lodging options for visitors to Borrego Springs, with additional communities and resorts offering traditional house rentals or RV parking, as well as multiple private vacation home listings for the greater Borrego Springs area.

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32 U.S. Census. (2016). Employment Status, 2012-2016 American Community Survey 5-Year Estimates. Retrieved From: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S2301
33 Ibid.
34 Ibid.
35 U.S. Census. (2016). Employment Status, 2012-2016 American Community Survey 5-Year Estimates.
36 California Environmental Protection Agency. (2016). CalEnviroScreen 3.0: Unemployment. Retrieved from: https://oehha.ca.gov/calenviroscreen/indicator/unemployment
37 Martha A. Chen. (2012). WIEGO Working Paper No. 1: The Informal Economy: Definitions, Theories and Policies. http://www.wiego.org/sites/wiego.org/files/publications/files/Chen_WIEGO_WP1.pdf
38 U.S. Census. (2016). Industry by Occupation for the Civilian Employed Population, 2012-2016 American Community Survey 5- Year Estimates. Retrieved from: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_C24050

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Farming

Borrego Valley has long been attractive to the agricultural industry. Early interests brought the growing of cotton, gladiolas, alfalfa, and grapes to the Valley. By the mid-1960s the primary crops turned to grapefruit and lemons, then later in the 1970s evolved to landscape species such as palm and olive. The climate of the desert, along with very inexpensive land and the perception of readily accessible ground water caused the agricultural ventures in Borrego Valley to grow and sometimes prosper.

Approximately 4,000 acres in the northern part of Borrego Valley have been converted to the growing of grapefruit, grapes, palm trees and lemons since the 1940s. The groundwater pumping for intensive agriculture has drawn the water table down at an average rate of about two feet per year for about sixty years, causing the pumping to become all the more expensive and the quality of the water to become more problematic as the well depth increases and the use of fertilizers and pesticides is prolonged.

Today, in spite of the arid desert climate and the declining water supply, agriculture still uses the most water but employs just a handful of local residents. Borrego's agricultural products, by and large, are not consumed locally, and most farm owners actually live outside the Valley. There are approximately 4,000 agricultural acres in the north end of the Valley, about half planted in citrus, largely exported. Landscape ornamentals, palm trees and other nursery products are grown on about 900 acres and shipped to national and international destinations as well.
Add a recent pie chart pict here

Tourism
One of the community's main economic drivers is tourism—welcoming the estimated 650,000 to 1,000,000 annual visitors to the Anza-Borrego Desert State Park. Anza-Borrego Desert State Park is one of the strongest economic engines in the region. Visitors to the Anza-Borrego Desert State Park account for over $40 million in annual revenue to the region each year.

The Park maintains an award-winning Visitor Center at the western edge of town. Park and Chamber of Commerce representatives are collaborating closely to more effectively market and promote the area, and the Chamber of Commerce has recently launched a new destination-marketing program, Tourism Borrego, to support those efforts.

Tourism supports nine lodging properties, about a dozen restaurants, and more than two-

39 San Diego North Economic Development Council (SDNEDC). (2018). 2018 San Diego North County Indicators. Retrieved from: https://www.sdnedc.org/wp-content/uploads/2018/04/2018-NC-Prospects-Report-final.pdf

dozen retail establishments. Two thriving non-profit educational membership organizations offer a large number of programs for locals and visitors—the Anza-Borrego Foundation & Institute (ABFI) and the Anza-Borrego Desert Natural History Association (ABDNHA). These organizations and their programs attract members and financial support from people all over the world.

Several nine and 18-hole golf courses are open to the public: Road Runner Club (9), The Springs (18), Club Circle (9) and Borrego Springs Resort (18). Private golf courses include De Anza Country Club (18) and Montesoro (Ram's Hill) (18 x 2 courses). Some of these developments have exercise rooms and tennis courts open to guests, residents or on a monthly or annual membership basis. There is one commercial horseback riding facility. There is a private commercial desert tour company operating in Borrego Springs, which has a concession contract to operate within the State Park. Otherwise, there are no commercial recreation facilities, including movie theater, bowling alley, bike rental, jeep rental, mini-golf, water park or gym/weight room open on a drop-in basis without membership.

Industrial land uses in Borrego Springs are limited to light impact jobs-based businesses that are largely service-related in nature. These businesses are generally located along Stirrup

Road. Secondly, service-related business are located in the proximity of the airport east of the town center and tend to be of greater land use impact, such as the concrete plant and construction yards. The community supports many professional and trade services, and local Chamber of Commerce has 225 members. The Performing Arts Center and the Borrego Art Institute provide cultural programs for residents and tourists.

Beside small businesses, other employers include the San Diego County Road Sub-station, the Borrego Springs Unified School District, and the Anza-Borrego Desert State Park.

State and Local Policy

The Sustainable Groundwater Management Act (2014) requires formation of Groundwater Sustainability Agencies (GSAs) to develop a groundwater sustainability plan (GSP) to ensure the long-term sustainability of groundwater resources. The California Department of Water Resources designated the Borrego Springs Subbasin as “critically overdrafted” basin (or COD), which required that the GSA develop a GSP by 2020 and ensure the subbasin reaches sustainable yield by 2040. Fortunately, as discussed above under Environmental Setting, Groundwater, as a result of the state SGMA and the recently formed Watermaster Board (2020), large-scale water use now measured and constrained. Resolution of the aquifer overdraft is now forging the future of the community of Borrego Springs.

The integrated master planning process must account for the range of resiliency factors, from climate change uncertainties to economic shifts due to SGMA implementation. The Borrego Watermaster projects that a 70-75% reduction in groundwater use by 2040 is needed to reach sustainability, i.e., to bring groundwater use and natural replenishment into balance. This substantial water-use reduction will have socioeconomic impacts affecting local industries (particularly agriculture and golf), job types and availability, water quality and affordability, and area demographics (both seasonal and year-round). Public health impacts related to land fallowing and any other physical changes related to SGMA need to, and are on track to be closely monitored.

After 2011, the need for watershed scale planning in Borrego Springs was highlighted when San Diego County initially declined to update ordinances in the “interim period” before GMP adoption, in which it was known that the General Plan did not sufficiently protect the Borrego’s critically overdrafted subbasin. During the interim period, the subbasin was left vulnerable to overdraft, while on-going proposals for new golf courses and new housing developments on existing mitigation land have been put forth.

Public Health

96.6% of the population of Borrego Springs, CA has health coverage, with 35.5% on employee plans, 14.3% on Medicaid, 34.2% on Medicare, 9.71% on non-group plans, and 2.89% on military or VA plans. Between 2021 and 2022, the percent of uninsured citizens in Borrego Springs, CA declined by 27.4% from 4.68% to 3.4%.

Borrego Springs is located within a Medically Underserved Area (MUA) in San Diego County, as defined by the federal Health Resources and Services Administration. An MUA is an area with too few primary care providers, high poverty rates, a higher older adult population, and/or a high infant mortality rate.40 There is one medical clinic that provides comprehensive healthcare for residents in the Borrego Valley -- the Borrego Valley Medical Center, which does not provide emergency services. Desert Home Care provides in-home care and Mountain view Assisted Living is an assisted-living facility in the area.

Borrego's location within the desert of San Diego County poses increased risk for heat-related illnesses. There is also a significant number of sub-populations with greater heat-related risk factors: those 65 years or older, those who are medically underserved and/or low-income, as well as those who are occupationally or recreationally active outdoors.41 However, since 2014, thanks to the development of one of the largest utility microgrids in the United States, Borrego Springs and the surrounding northeast area of the county are less likely to have extended power outages that risk residents being without air conditioning.42 In addition to heat risks, the census tract is also ranked higher than 75% of other state tracts for the number and type of groundwater threats that exist in the area due to contamination.43

About 12% of residents in the 92004 ZIP code in 2014 had ever been diagnosed with asthma. This is slightly lower than the statewide rate of 14% and the countywide rate of 16% (1-17 years) and 14% (18- plus years).44 However, changes in climate or land use could affect these rates, as the neighboring Salton Sea area has seen a spike in asthma issues due to drought and receding water.45

40 County of San Diego Health & Human Services Agency. (2013). San Diego County Atlas of Medically Underserved Areas/Populations, Health Professional Shortage Areas, & Registered Nurse Shortage Areas. Retrieved from: https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/documents/CHS-HealthcareShortageAtlas_2013.pdf 41 County of San Diego Health & Human Services Agency. (2012). Health Vulnerability Atlas, San Diego County, 2012. Retrieved from: https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/documents/CHS-HeatAtlas2012.pdf
42 San Diego Gas and Electric. (2018). The Borrego Springs Microgrid is a Glimpse into the Future. Retrieved from: https://www.sdge.com/more-information/environment/smart-grid/borrego-springs-microgrid
43 California Office of Environmental Health Hazard Assessment. (2017). CalEnviroScreen 3.0, Groundwater Threats. Retrieved from: https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats

44 UCLA Center for Health Policy Research, California Health Interview Survey (2014). Ever diagnosed with Asthma (1-17); Ever diagnosed with Asthma (18+). Retrieved from: askchisne.ucla.edu
45 Desert Sun (2017). Salton Sea communities "no longer a good place to live" for those with respiratory issues. Retrieved from: https://www.desertsun.com/story/salton-sea/2017/10/25/salton-sea-communities-no-longer-good-place-live-those-respiratory-issues/769970001/

PUBLIC FACILITIES

Parks and Recreation

Borrego Springs has several community facilities and is also located near multiple public recreation areas. The Borrego Springs Performing Arts Center presents multiple plays and musicals in season and the Community Concert Association also provides regular programming. The Borrego Springs Community Park offers pickleball courts, a dog park, a picnic area, and an astronomy bowl. Cuyamaca Rancho State Park, Palomar Mountain State Park, and Anza-Borrego Desert State Park are nearby, as is Ocotillo Wells Off-Highway Motor Vehicle Recreation, San Bernardino National Forest, Mt. San Jacinto, Joshua Tree National Park, and the Salton Sea.

The Anza-Borrego Desert State Park headquarters provides visitor facilities that are also used by residents, including a Visitor Center, developed campgrounds, trails, and an outdoor amphitheater. It provides a number of pleasant, age-and environment-appropriate recreation facilities at the Borrego Springs Children's Center, a licensed childcare and learning center, the Borrego Springs Elementary School, and Greater San Diego County Boys' and Girls' Club. The middle and High Schools have a "half-Olympic size" pool, plus a track and a football field open for public use after school and on weekends. It also has a two-field Little League complex. Many

of these facilities were funded and built by private philanthropic citizens or community organizations.

Christmas Circle Park (maintained and managed by the non-profit Christmas Circle Association) sits at the nexus of major access roads, S-22, and S-3. It has the only easily accessible public restroom facilities, recently upgraded to meet Americans with Disabilities Act (ADA) requirements. Christmas Circle is the focal point for many community gatherings, activities, and events, including Borrego Days Desert Festival, the Circle of Art, and the weekly Farmer's Market. The County has allotted Community Enhancement Funds (CEF) for park improvements and maintenance.

In May 2000, San Diego County purchased a 16-acre parcel along Church Lane and Country Club designated for a Community Park. However, this park has not been developed because there is no local entity responsible for Parks & Recreation, and no agency, funding, or people to manage maintenance and operations for a park of this size.

Borrego has an integrated equestrian/pedestrian trail system, the Community Trail System that links with the federally designated Sea-to-Sea, California Riding and Hiking Trail, and the Pacific Crest Trail. There is no community memorial park or cemetery in Borrego Springs.

Existing Circulation and Mobility
The original plan to provide access to Christmas Circle and the Borrego Valley from Los Angeles and the coastal population centers to the west was via Coyote Canyon. When this access was blocked by state park concerns, the present road was cut into the side of the mountain down Montezuma Grade to access Christmas Circle via Sunset Road. This plan also failed because the lower section of the road had to be relocated, and the present alignment was realized down

Palm Canyon Drive to Christmas Circle. Where Sunset Road was to be the main access road to the Circle, Palm Canyon Drive now took on that role providing access to the heart of the community in its present configuration.

There are well-established neighborhoods developed off major corridors (S-22 and S-3) many dating from the 1950s: Sun Gold, Ocotillo Heights, de Anza Country Club, Club Circle, Verbena, Deep Well and Montesoro (Ram's Hill). The primary commercial and tourist-serving corridor is S- 22, Palm Canyon Drive, with a central business district comprising a one-mile stretch from Stirrup Road westward to Country Club Road. Tourist-serving and other businesses are located primarily west of Christmas Circle and in The Center and The Mall.

Highway S-22, Palm Canyon drive, is the main thoroughfare through the center of Borrego Springs, and links to State Route 79 to the west and Salton City and Route 86 to the east. Highway S-3 links Borrego to State Route 78, which connects to Julian and Ramona to the west, and Brawley to the east.

Christmas Circle was envisioned by town fathers to be a vibrant town center with a large three-acre park dedicated to the then operational Community Association in the model of the traditional town square. It followed in the vision of the New Town movement of the first half of the century with roads radiating out from the "garden" center and with "grand avenues and boulevards" reaching out to designated activity centers throughout the valley which were to become Rams Hill (Montesoro), the Borrego Springs Resort and Country Club and the DeAnza Country Club.

It was designed in the shape of a circle as was the Hispanic town center or the 'Zocalo' in Mexican villages to the south. Land uses around the center were to be crafted in the model of Scottsdale with a vision for shops on small lots being patronized by seasonal visitors filling their shopping bags with gifts for Christmas, which is the start of the high winter season.

Christmas Circle is located at the central crossroads of Palm Canyon Drive and Borrego Springs Road. It combines a community park, a traffic control device and surrounding retail commercial parcels. Originally conceived by its planners to serve as the town center, it remains largely undeveloped except for the community park.

In the 50 years since its initial planning, changing public tastes and governmental standards for hydrology, flood control, public health, road design and parking have made the current Christmas Circle area poorly suited to current and future community needs.

Christmas Circle was to be anchored in the model of the 1950's shopping center design with the grocery store, the bank, the newspaper and whatever else could be garnered to support the Circle with respectable businesses all facing the park. The major streets intersecting the park were traffic controllers, but the minor streets were designated as pedestrian shopping streets for the convenience of the general population purchasing items of perhaps other than essential needs in the support of tourism.

In desert country, the resources of quiet, uninterrupted vistas and brilliant night skies are the signature of healthy communities and landscapes. Disturbance of the skyline, silhouettes of towers, powerlines, telephone poles, "cut and fill" road scars, "security" lights, agricultural burning, and dust from off-highway vehicles during busy holidays are all impacts to the scenic quality of Borrego Valley and the surrounding State Park.

State Highway 78 and County Highways S3 and S22 serve the residents of Borrego Springs. The closest airport is Borrego Valley Airport. The closest international airport is Palm Springs International Airport, approximately 80 miles north of Borrego Springs. Public transit is available by Metropolitan Transit System (MTS), which provides transportation service via routes 891 and 892 but only on Thursdays and Fridays.

A County-approved "Back Country Rural Area" transportation map exists for Borrego Springs, supported by the Community Sponsor Group. Transportation systems include state highways, city streets, horse trails and footpaths throughout the community.
The widely dispersed nature of the community means we are "car-oriented." Rural bus service to surrounding areas has been significantly reduced. Since the post office does not provide residential mail delivery, residents must drive to pick up and deliver mail. The medical center provides limited transportation shuttles from downtown to its facilities at Montesoro, 6.5 miles away. Without a network of sidewalks or covered walkways, hot weather walking in the downtown area is impractical, at best.

A significant concern is the deteriorating condition of internal and connector roadways. Maintenance methods (patching) are inadequate, and asphalt additives leach out in the warm environment causing roads to break apart and creating potholes.

People in Borrego Springs, CA have an average commute time of 25.8 minutes, and they drove alone to work. Car ownership in Borrego Springs, CA is approximately the same as the national average, with an average of 2 cars per household.

Existing Community Facilities and Infrastructure
The community is supported by the following facilities and infrastructure:

- County Road Station
- School District (High School is Red Cross Emergency Evacuation Center)
- Water District
- Fire Department
- Sheriff's Sub-station
- County Library
- Children's Center
- Boys' and Girls' Club
- Senior Center
- Medical Center
- Airport
- County Rural Bus System
- AT&T Central Office
- Chamber of Commerce

The Anza-Borrego Desert State Park headquarters provides visitor facilities that are also used by residents, including a Visitor Center, developed campground, trails and outdoor amphitheater.

School Service
The Borrego Unified School District (BSUSD) serves grades K-12 who attend five schools. The school district includes Ocotillo Wells and serves discretionary students from Ranchita and Salton City. As of the last Community Plan update in 2014,46 the Borrego Unified School District, with offices on the High School campus, serves grades K-12 (currently 450 students) who attend five schools. School District includes Ocotillo Wells and serves discretionary students from Ranchita and Salton City. A new charter school was recently approved by the Borrego Unified School District (BSUSD) Board of Trustees, which consists of five elected members.

Utilities
Electrical service in Borrego Springs is provided by San Diego Gas and Electric (SDG&E). Service reliability from SDG&E is poor, especially during summer "monsoon" season. Above-ground utility poles are susceptible to damage in frequent high winds, often disrupting service during storms. With high summer temperatures (averaging 107 degrees), costly electric bills for residents and businesses affect the ability to conduct year-round commerce, resulting in fewer services and lessened ability to market the community for year-round tourism. Propane service providers to Borrego Springs are Amerigas and Pro-Flame Gas Co. Increasingly, residents are installing private solar generation systems.47

Sewer and Water
Borrego Springs receives sewer and water service from the Borrego Water District (BWD), established in 1962. In December 1979, the latent powers of the District were activated by the San Diego Local Agency Formation Commission to provide water and sewer services to Montesoro (formerly Rams Hill). Since 1979, the BWD has consolidated water and sewer services within the community.

Sewer service uses existing treatment facilities located in the southeastern area of the Valley adjacent to the Borrego Sink. Service is provided via a collection system extending from the

treatment plant approximately 7.2 miles north along Borrego Valley Road, and west along Palm Canyon Drive to Montezuma Valley Road. The Borrego Water District also maintains pest control and flood control powers.

46County of San Diego General Plan (2014), Borrego Springs Community Plan. Retrieved from https://www.sandiegocounty.gov/pds/docs/CP/Borrego_Springs_CP.pdf
47 Ibid.

The Water District has 2100 water customers and 800 sewer customers. Since most of the houses are not occupied all year round only 1/3rd of the sewage is created from year-round residents. Many individual house owners have elected for septic tanks, which indicates low flow of sewage due to less customers.

Borrego Springs Microgrid
The local Microgrid is the first utility-owned, community scale microgrid in America to demonstrate the capabilities of renewable generation and new technologies to enhance energy reliability. Microgrids that use renewable energy and battery storage can increase energy resilience. The Borrego Springs Microgrid is designed to be a robust, renewable-based system that provides critical power during emergencies and planned outages, which are necessary when system upgrades and maintenance work are needed. The Borrego Springs Microgrid is also a true community microgrid providing benefits to the entire area, and not just to a single-metered customers. A utility-grade microgrid controller known as the Distributed Energy Resources Management System (DERMS) monitors all assets deployed across Borrego Springs including the distributed battery storage and the solar plant located at the northern edge of town.

When an outage occurs, the Microgrid can be activated to provide power. During the day, the Microgrid can harness energy from a local solar plant as well as the Microgrid's batteries and generators to power the entire community. During the night, the Microgrid's batteries and generators power designated critical-load areas. As needed, non-critical loads are shed to maintain Microgrid stability. Seamless transitions to and from the grid are possible and can be initiated and controlled onsite or remotely.49

Distribution Communications Reliability Improvement (DCRI) Project
The Distribution Communications Reliability Improvement (DCRI) project will provide more reliable, high-speed communications to help protect communities from wildfires by expanding the use of the Falling Conductor Protection (FCP) technology. FCP uses relays that communicate wirelessly to de-energize downed power lines (typically due to high winds) before contacting the ground, potentially sparking fire.

48 County of San Diego General Plan (2014), Borrego Springs Community Plan. Retrieved from https://www.sandiegocounty.gov/pds/docs/CP/Borrego_Springs_CP.pdf
49 Distribution Communications Reliability Improvement (DCRI) Project. SDGE. Page 1

SDG&E plans to use its new advanced wireless communications network to monitor, communicate with, and control transmission and distribution equipment. They will be able to support additional smart grid functionality such as microgrids, advanced battery storage, dynamic voltage controllers, falling conductor applications, high-risk fire mitigation and photovoltaic penetration volatility.

SDG&E uses wireless networks to communicate between FCP and other devices. DCRI will

replace these systems with a single wireless network serving various purposes, like FCP enabling push-to-talk radio for crews and the ability to monitor and control the power grid DCRI is part of a comprehensive 3-pronged program to minimize the risk of wildfire. First, SDGE engineers operate the electric system to be fire safe. Second, they have weather models and over 150 weather sensors to predict and monitor fire conditions. Lastly, SDGE has been educating residents in High
Fire Threat Districts to be safe and prepared for wildfires

Telecommunications
The local telephone company is AT&T. Only Borrego Valley businesses and residents living near Palm Canyon Drive are able to obtain high-speed data (T-1 and DSL) service. Residents living more than 10,000 feet from the central office must use dial-up or cable Internet service. The
local franchised cable provider is CableUSA, providing television and high-speed Internet service. There are several Internet service providers that provide toll-free local access to their dial-up networks.50 Most residents now use only cell phone service, not landlines. This means that free directory lookup for someone's phone number is difficult to impossible. A local non-profit has for years published a directory available at a minimal price, but most Spanish-speakers do not participate in it.

The local telephone company is AT&T. Only Borrego Valley businesses and residents living near Palm Canyon Drive are able to obtain high-speed data (T-1 and DSL) service. Residents living more than 10,000 feet from the central office must use dial-up or cable Internet service. The local franchised cable provider is CableUSA, providing television and high-speed Internet service. There are several Internet service providers that provide toll-free local access to their dial-up networks.

Trash Collection / Dump / Landfill
Trash collection for Borrego Springs is provided by CRR Waste Services research and update Allied Waste Services out of Imperial County. They provide customers with trash and recycle containers and make weekly pickups. Allied
Waste Services also operates the local landfill at 2449 Palm Canyon Drive.

The local landfill is owned and operated by Allied Waste and their subsidiary, San Diego Landfill Operators. It currently uses 19 acres of a 40-acre site and is operating under a 1973 permit from San Diego County allowing the landfill a cap at 50 tons of garbage per day. Occasionally in the wintertime they will reach the cap and have to close for the day. The landfill can accept garbage from many regional communities, and some of the Borrego Valley residential garbage is transported to El Centro for dumping. There are no current plans for expansion of the active
50 County of San Diego General Plan (2014), Borrego Springs Community Plan. Retrieved from landfill area.

Airport
The Borrego Valley Airport, three miles to the east of the Village Core, is an ideal area for future commercial and research park development. There is no development surrounding the airport now, permitting a re-thinking of uses in the area. There is a large quantity of disturbed habitat land in the area left over from prior, now-defunct uses.

The Airport Influence Area (AIA) for Borrego Valley Airport affects the Borrego Springs Community. The AIA is comprised of the noise contours, safety zones, airspace protection surfaces and overflight areas for Borrego Valley and serves as the planning boundaries for the

Airport Land Use Compatibility Plan (ALUCP). The Airport Land Use Commission for San Diego County adopted the Airport Land Use Compatibility Plan to establish land use compatibility policies and development criteria for new development within an AIA to protect the airport from incompatible land uses and provide the County with development criteria that will allow for the orderly growth of the area surrounding the airport. The policies and criteria contained in the ALUCP are addressed in the General Plan.

Fire Protection
The Borrego Springs Fire Protection District, formed in 1961 and was replaced by CalFire in 2023. The transition eliminated the special district tax on real property in Borrego and property owners now pay the same tax as all San Diego County residents.

CalFire provides fire protection, emergency medical services, Community Emergency Response Team (CERT) trainings, fuel reduction projects, and fire prevention efforts. The transition to CalFire resulted in more firefighters and paramedics, updated equipment, improved safety and well-being for residents, and protection of property and resources. CalFire provides structural and groundcover fire protection and rescue services for approximately 300-square miles and about 2,500 residents. The District operates one fire station staffed by professional, full-time firefighters and trained emergency medical technicians (EMT) and paramedics. Its equipment consists of three fire engines, one hazardous material trailer, and three ambulances. All ambulance personnel are either County-certified EMT 1As or paramedics. The Fire Department responds to approximately 390 calls per year. (Source: google search CalFire Borrego, accessed 2/9/2025)

Another fire station is under consideration by the Borrego Springs Fire Department for the purpose of bringing the Montesoro and other developments into compliance with the five-minute travel time requirement for development with densities greater then Village Residential 2.

Law Enforcement
The San Diego County Sheriff's Department and the California Highway Patrol provide police protection in Borrego Springs. Currently there are two resident Highway Patrol officers and three County Sheriff deputies. Ten Anza-Borrego Desert State Park rangers also maintain peace officer powers and provide additional protection. The Park also maintains a patrol plane and an assigned Pilot Ranger. Borrego Springs has the lowest crime rate in the Rural Law Enforcement sector of San Diego County.

PUBLIC FACILITIES
SWOT Analysis of BSCP Agriculture/Water and Energy Decisions.

(Figure 42 - 2011 BSCP Goals and Policies)

SWOT OF THESE Policies: identified:

Threat: Borrego may not be impacted by fire directly as greatly as other communities due to sparser vegetation, but nevertheless, they suffer greatly due to threats associated with it. For those without generators or other backup systems, public health is jeopardized from lack of emergency information, excess heat, and loss of air conditioning when power companies shut down electricity (Cite SDGE instances). \

Opportunity: Recommendation For the sake of public health, it is recommended that extreme cold or hot weather communities such as Borrego Spring must be allowed to have state and

federal waivers for full off the grid systems as climate change ramps up. Codifying this goal in the BSCP will help, as will direct involvement with politicians.

Opportunity: Water limitations and population growth necessitate pulling back from ag emphasis, which is water and soil intensive use but, is Ag to Energy – a good idea?

Weaknesses and Threats:

- Other adjacent communities have experienced increased desertification leading to
- sandstorms,
- valley fever
- loss of vegetation and visual blight
- change in weather (due to loss of plant microclimates)

SOLUTIONS ANALYSIS

Working Towards A Resiliency Integrated Watershed-Scale Master Community Plan -
Purpose and Intent
Resources
Evidence and Examples
Recommendations
Community Focused Resiliency Strength, Weakness, Opportunity, and Threats (SWOT) Analysis
Public Input – Opportunity: Utilize follow up surveys after the 2021 grant effort concludes to access success of the Resilience Strategy Component. – use remaining 2021 funds or and/or ensure SGMA puts this in future grant solicitations to let the community weigh in on the success….and/or we apply for another grant

INTEGRATED TOWN AND WATER RESOURCE PLANNING

In addition to agriculture production, Borrego Springs serves as a hospitality hub, providing lodging, dining, arts, and activities for visitors coming to explore the area. The Anza Borrego Desert State Park (ABDSP) is one of the largest draws for tourism in the area. Encompassing approximately 600,000 acres of California's western Colorado Desert, the park is the largest state park in California and second largest in the U.S. ABDSP is also recognized by the UNESCO World Heritage Center's Man and Biosphere Programme, which tracks changes in the biosphere resulting from human and natural activities. Recreational opportunities attract hikers, campers, wildlife watchers, equestrians, mountain bikers, road bikers, nature seekers, star gazers, and artists to the area. Researchers, academics, teachers, and students of natural sciences, primarily geologists and paleontologists, study the area and have access to the University of California Irvine Desert Research Center facilities (Figure)

(Figure 43 – Geography of the Biosphere Region
https://www.instagram.com/anzaborrego/p/C6J6F9Gv9am/)

Purpose and Intent

Before any master planning initiative can really begin, it is critical that the community at large has a shared vision of what they want for the future of their community and watershed. This vision need not be very specific or detailed, but it must be broadly supported. If the community is relatively cohesive and already has at least a high-level shared vision for their future, then this task will be less intensive. The existing vision can be further crystallized, in the context of the

scope and scale of the Integrated Master Plan (as determined in Task A2). If, on the other hand, the community is fractured and/or lacks any real collective vision, then this task will require much greater time and resources. This vision must be established, as it will shape the goals, objectives, and activities that the plan will address.

Subtasks that may occur within this task include (but should not be limited to): identifying the values and priorities of all stakeholder groups within the community; determining areas in which identified stakeholder values and priorities conflict, as well as areas in which they are aligned; and then coalescing around a set of core values and top priorities broadly supported by the entire community. These activities are outlined in more detail below, for guidance purposes only.

KEY STAND ALONE SWOT ASSESSMENTS - Appendix

Overview of Conservation and OS and SWOT Analysis Approach for BSCP Update

The goal of this section is to provide a 'strengths, weaknesses, opportunities and threats" (SWOT) analysis of the existing Borrego Springs Community Plan (BSCP) in terms of Conservation and Open Space in the hopes of updating it to meet current and anticipated needs and conditions in the Community; and per the outline of the Scoping Proposal for an Integrated Watershed-Scale Master Planning Process (2020). As evidenced by the latest community plan written in 2011 (with updates in 2013 and 2014) the Community has demonstrated a distinct, progressive, and sustainable development ethos. This mindset is an asset to Borrego Springs, as they, and the globe, grapple to understand and respond to needed adaptations for climate change.

The 2011 BSCP is a strong document in terms of the discussion of Conservation and Open Space as exemplified by this passage/statement on page 6:

"Application of countywide Conservation and Open Space Element policies to address issues associated with designated plant and animal habitats, agriculture, water bodies, open space, and other specific resources within the Community Plan Area (CPA). This may encompass actions to protect resources that may uniquely apply to specific sites or resources. "

Additionally, per expressed wishes of the people; the-heritage, identity, and economy of Borrego Springs is tied to its unique, beautiful, wide-open vistas ~~spaces~~, and fragile desert landscapes. For this reason, all planning for Health, Education, and Economic Development in this community must occur with an ecological lens.

Water SWOT Analysis

Strengths

- Aquifer Management
- Recent replacement of dry season wildlife guzzlers (November 2023) to augment water supply and enhance climate change resilience
- Natural aquifer recharges from rainfall
- New Groundwater Management Plan (GMP) includes comprehensive assessment of

water use through baseline data compilation

Stormwater & Wastewater

- Implementation of GMP Task 2 to track and assess potential impacts on water quality
- GMP Task 2.1 addresses pollution burden assessment, including analysis of baseline air quality conditions
- 2011 Borrego Springs Community Plan (BSCP) includes goals for wastewater effluent reuse
- BWD GMP (2020) commitment to track and assess wastewater systems and explore gray water reuse opportunities

Weaknesses

Infrastructure

- Limited stormwaters capture systems
- Restricted municipal sewer service coverage (only 800 units out of 2500 connected)
- Current GMP lacks comprehensive assessment of roadway chemicals, golf courses, and other commercial ventures

Water Management

- Insufficient wastewater system coverage
- Limited water recycling opportunities due to restricted sewer connections

Opportunities

Policy & Infrastructure

- Enhanced enforcement of Low Impact Development (LID) and Best Management Practice (BMP) guidelines
- Potential expansion of municipal sewer connections
- Optimization of wastewater treatment and recycled water infrastructure placement to protect sensitive areas
- Implementation of monthly or weather-informed street sweeping programs

Water Quality

- Increased water quality and quantity through BSCP updates
- Potential for expanded wastewater reuse in open spaces and golf courses

Threats

Environmental

- Aquifer over drafting leading to decline of unique biomes (Mesquite and Ocotillo forests)
- Impact on sensitive species (bighorn sheep) due to water scarcity and climate change
- Groundwater contamination risks from:
    - Existing and proposed septic tanks
    - Agricultural runoff
    - Yard maintenance chemical runoff
    - Untrained pest control application

Water Quality

- Potential degradation of aquifer water quality from increased recycled wastewater use
- Risk of salt, mineral, and chemical buildup in areas using recycled wastewater
- Persistent issues with untrained pest control applicators in various settings

Note: This analysis is based on the Borrego Springs Community Plan and Groundwater Management Plan, with specific focus on water resource management and environmental protection.

Energy and Biodiversity

Strength: The 2011 BSCP wisely recognized that Renewable Energy and Extraction Projects could threaten community character, this is especially true for their natural resources.

Weakness: The Desert Renewable Energy Conservation Plan (DCREP 2015) once included plans for an HCP/NCCP or MSCP. In 2016 however, the DCREP was adopted without the MSCP which was deemed too ambitious for the 22.5-million-acre coverage area. In 2016 a Bureau of Land Management Land Use Planning Amendment (BLM LUPA) to the DRECP was adopted. The amendment primarily focuses in on energy “Development Focus Areas” on federal BLM land (shown in pink in Figure ? below). Although none of the DFA’s appear to be planned within Borrego Springs and Anza Borrego State Park boundaries, related transmission infrastructure is likely to be proposed to pass within their boundaries to reach energy customers in closer to the Pacific Ocean coast. The CAISO proposed North of SONGS line discussed in the Biodiversity background section is one example of this potential threat. Without either the DCREP MSCP or EC MSCP adopted, existing community plan policies and goals and comprehensive conservation planning in the BSCP area may be compromised by renewable energy goals.

(Figure 44 - DRECP Energy Development Focus Areas)

h. Energy Production and Extractive Uses

Issue-LU-2.7 Solar / Wind Energy Projects Threaten Community Character. Intense interest in renewable energy sources has and will attract proposals for sizeable solar-energy farms or

wind-generation plants in Borrego Springs, for which current ordinance and regulation makes no provision.

Goal-LU24.7 Renewable energy-related industrial uses that are compatible with the existing environment and do not detract from the unspoiled nature of the area, detract from community character, or impair local economic development.

Strength – the Borrego Microgrid is an example of this goal

Weakness and Opportunities:

Weaknesses: Borrego's microgrid may not be functioning at peak performance or as promised to the community.

Strengths and Opportunities:

The existing microgrid has been unreliable as of late due to the need for new battery storage. Costly generators have filled in the interim. Borrego is, however, continuing to innovate with not only a battery option but also with a hydrogen fuel tank option ordered.

Now is the time to Upgrade and Expand the Existing Microgrid in situ and look for more ways the community can move toward more energy independence to support and increase health, education, and the economy:

Opportunity and Strength:

Opportunities: SDGE is examining rulemaking to meet the "Access and Functional Needs or AFN's" of communities during dangerous condition power shutoffs and have developed the "Customer Resiliency Programs and Continuous Power Solutions" listed below. While still in development, this new program could have a profound impact on energy independence.

Customer Resiliency Programs and Continuous Power Solutions:

- *Back-Up Power*
- *Portable Battery Program (Generator Grant Program)*
- *Generator Rebate Program (Generator Assistance Program)*
- *Mobile Home Park Resilience Program.*
  Resiliency Surveys
  Self-Generation Incentive Program (SGIP)
- *Microgrid Incentive Program ..*

Utilize the AFN Customer Resiliency Programs and Continuous Power Solutions to provide additional dispersed energy in the community that does not replace ag or green fields and increases stability and reliability as homeowners are in control.

Threats: Avoid industrialized large energy infrastructure as that violates Borrego green energy goals to general local energy and preserve scenic views as well as maintain the eco-tourism value and inherent beauty of the community.

Policy-LU 2.7.1 Require all proposed energy-generation (wind and solar) uses to fully assess community-wide impacts to environmental resources, community character and economic resources to the CPA.

Implementation-LU-2.7.1 Develop guidelines and special review for all proposed solar and wind energy-generating uses.

Strengths and Opportunities:

Should the above policies and implementations move forward, the threat of large industrial projects affecting BS have a chance to be mitigated.

As illustrated on Figure ; the County should update its Building Form and Guide #273 to include information and links to the required by municipal governments to use the 2019 Green Building Code in the state of California as follows on this County page: https://www.sandiegocounty.gov/content/sdc/pds/bldg/green.html#:~:text=The%20purpose%20of%20this%20code,Planning%20and%20design .

(Figure 45 - Green Building Code)

In addition to the above, it is recommended the County amend "Environmental Review Questionnaire 08/21 PDS #646 (FOR ONE SINGLE-FAMILY RESIDENCE GRADING PLAN)" be updated to include a reference to ensure that CEQA Appendix G Biological Resources would not be impacted by the project; and that all County BMP/LID documents (i.e. #143,#272, and Stormwater Design Manual" and the "Standard Lot Perimeter Protection Design 09/12 PDS #659 (STANDARD LOT PERIMETER PROTECTION DESIGN SYSTEM)" be amended to include the same reference to CEQA biological resources and that all fiber roles be specified to be jute rather than plastic covered and to be removed after their useful life has been complete to reduce entanglement and death from small animals (rabbits and lizards which are prevalent in many communities and habitat including Borrego and deserts). Furthermore, as stormwater runoff moves across surfaces, it picks up trash, debris, and pollutants such as sediment, oil and grease, pesticides, and other toxics. Changes in ambient water temperature, sediment, and pollutants from stormwater runoff can be detrimental to aquatic life, wildlife, habitat, and human health. Soil exposed by construction activities is especially vulnerable to erosion. Runoff from an unstabilized construction site can result in the loss of approximately 35–45 tons of sediment per acre each year

Please reference the following CA.gov guidelines for further guidance: https://documents.coastal.ca.gov/assets/water-quality/permits/Wildlife-Friendly_Netting_in_Erosion_&_Sediment_Control-Factsheet_r5_Sept_2016.pdf

BUILDING DIVISION

Finally, it is recommended that the following guidelines be reviewed Borrego Springs and the County and by San Diego Community Power and similar Community Choice Aggregations (CCAs) as well:

(Figure 46 - Community Choice C3 Energy in the Backcountry June 26. 2024 https://studio.youtube.com/video/vlF1OWCKsOk/edit)

Land Use and Biodiversity

Issue-LU-2.8 Poorly-Regulated Extractive Uses Damage. Sizeable areas of undeveloped land in the CPA are subject to potential extractive uses, specifically mining of sand, gravel, and rock, threatening significant adverse impacts to community character and key resources (sightlines, viewsheds, park uses).

Goal-LU-2.8 New extractive uses that the BSCSG approves, consistent with full CEQA review.

Policy-LU-2.8.1 Require Special Plan and full CEQA review and encourage the consent of the BSCSG for all future extractive uses in the CPA.

Strengths

All of LU-2-8 entries are strengths.

Threats and Opportunities

Consider the misuse of undeveloped and fallow agricultural lands to be a harmful extractive use leading to loss of healthy cryptogamic soil crusts and valuable agricultural topsoil

1.3 Community Conservation and Protection

a. County Ordinances & Regulations Issue-LU-3.1 Countywide Ordinances & Regulations. The County of San Diego has four well-defined environmental zones including coastal, upland, mountain, and desert (which is the most unique and most remote). County-wide ordinances and regulations are written following a “one-size-fits-all” approach and are generally not customized to the particular environmental setting, resulting in inappropriate application of County ordinances and regulations in the Plan area.

Goal-LU-3.1 Appropriate application of countywide regulations in the desert environment of the CPA.

Policy-LU-3.1.1 Encourage new and existing codes and ordinances to be flexibly interpreted in the context of their applicability to the Desert Subregion, rather than only in a broad, rigid, countywide context, to allow consideration for local micro climates and characteristics on DPLU interpretations of development techniques and standards.

Implementation-LU-3.1.1

1. Develop, with coordination from the BSCSG, broad guidelines and value statements to guide the flexible interpretation of County regulations in the CPA.

2. Provide guidelines and top-level value statements to DPLU staff and to CPA permit applicants at the time of application, including this Community Plan.

Issue-LU-3.2 Enforcement by County of Codes and Regulations. Due to the isolated geographic

location of the Borrego Springs community, along with fiscal limitations, the enforcement of County ordinances and regulations is non responsive; encouraging and aggravating community-character-degrading violations.

Goal-LU-3.2 Consistent, rapid, and responsive enforcement of violations of County ordinances, codes and regulations relating to zoning, building, grading, landscaping, and lighting issues.

Policy-LU-3.2.1 Identify and pursue the necessary fiscal resources to increase code enforcement presence in the CPA and to provide, to the extent feasible, rapid, consistent, and responsive enforcement of its zoning, lighting, and building code ordinances and related regulations within the Desert Subregion.

Implementation-LU-3.2.1

1. Review County administration and enforcement of existing zoning, grading, and lighting ordinances and building codes within the CPA and put in place strategies to ensure prompt, consistent and effective enforcement to prevent difficult-to-reverse damage to fragile, non-regenerating desert lands, dark skies, and dark environment and viewsheds and neighborhoods.

***Weakness**: County building guides and handout #211 addresses outdoor lighting; however dark sky areas or policies are not mentioned. The County however, does have a COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE ANDREPORT FORMAT AND CONTENT REQUIREMENTS DARK SKIES AND GLARE (2007-2009) found here: https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Dark_Skies_Guidelines.pdf . This document mainly addresses dark skies in the context of CEQA "Aesthetics" impact analysis and dark skies importance to the Palomar Observatory, Borrego is not mentioned.*

***Opportunity:** exists to add dark sky communities into the County Lighting Ordinance documents (such as Borrego) to codify and strengthen their use and provide legal enforcement mechanism in general, or specifically in reference to Borrego Springs as desired by their population.*

2. County to investigate providing a resident enforcement liaison (possibly located in Sheriff's substation or at Department of Public Works road station) to work closely with the BSCSG and County personnel on a regular schedule to provide local, "one-stop" multidisciplinary investigation of and enforcement coordination for zoning, animal regulations, lighting, construction and grading ordinance and regulation violations.

b. Community Design Local building design themes are mostly inconsistent with historical or natural desert elements. Much of the built environment at present is not what is typically considered to be desert imagery. The built environment reflects imported styles and building techniques, resulting in a lack of identity that bonds with the natural surroundings. New projects walled communities and residential fencing are being built in a manner that impacts wildlife corridors, natural water flow, and connecting open space. Signage also does not represent the open desert character of the CPA. c. Exterior Walls and Fences

Issue-LU-3.3 Walls, Fences and Desert Character. Thoughtlessly planned and sited exterior walls and fences set too close to parcel boundaries, even though consistent with County regulations, detract from the open desert character of the CPA and impede natural water flows and animal movements.

Goal-LU-3.3 The preservation of the open desert character of the CPA and the preservation of mobility for native animal species and natural water flows through appropriate fence and exterior wall setbacks and height restrictions.

Policy-LU-3.3.1 Discourage all perimeter fencing of residential parcels in the CPA along all public faces (street and non-street facing borders) of legal parcels and regulate fence and exterior wall setbacks to include maximum heights above-grade as a function of distance between structure(s) and the nearest lot boundary.

Implementation-LU-3.3.1 1. Develop a formula, approved by the BSCSG, for specifying minimum setback and maximum height of exterior walls (up to six feet for freestanding walls, or up to the eaves of structures) and fences as a function of distance between structures and the nearest lot boundary in the CPA. 2. Revise DPLU procedures for issuing building permits for walls and fences in the CPA.

d. Grading and Landscaping Due to the oft-cited nature of desert native habitat, grading and landscaping are particularly sensitive issues in the CPA.

Issue-LU-3.4 Lot Clearing. Without clear direction to the contrary, developers and builders unfamiliar with the unique characteristics of the CPA often “clear” lots prior to commencing development, as is routinely done elsewhere. Unfortunately, in the CPA, this results in the needless disturbance and destruction of desert native habitat and does hard-to-reverse damage to community and neighborhood characters by disrupting the continuity of desert lands and desert native habitat.

Goal-LU-3.4 Protection of the top soil and protection from blowing sand with limited grading or clearing of sites, clearing only the areas minimally needed for the siting and construction of approved improvements.

Policy LU-3.4.1 Minimize grading for the retention of topsoil, protection of erosion and defense from dust created by unprotected land.

Policy-LU-3.4.2 Require, for all development in the CPA, an approved site plan that clearly specifies the areas of any parcel proposed to be developed that are: (1) Approved for clearing for the siting of approved improvements; (2) Approved for temporary clearing in order to permit necessary and reasonable access to the site(s) of approved improvements during their development, further, to be relandscaped in accordance with “Desert Native Landscaping”, below; and (3) Prohibited from being cleared, and which must be protected from disturbance by the builder or developer during development. Policy-LU-3.4.3 Require that significant desert native habitat species removed during approved clearing be conserved and re-used in site landscaping, and encourage increased enforcement remedies to correct violations.

Weakness: *Salvage is not mentioned in either the Grading Ordinance (GO) or the Landscape Ordinance (LO).*

Opportunity: *Amend the GO and LO to specify grading cubic yards/sf size to evoke salvage or sensitive native species and soil crusts for co-benefit use on disturbed lands enrolled in private or public partnerships for restoration (under formal County PACE, or conservation easements or other in -perpetuity or interim restoration projects). Slowly regenerating habitat components such as the fragile desert in Borrego should have lower grading thresholds and other habitats should have thresholds determined by their rarity, species components, and relative regeneration capacity. Partnering with academic (UCI), agency (USFSW, State Park and CDFW, County) and non-profit groups such as the Endangered Habitat League or local desert conservation groups to design, remove, provide interim care, and place salvaged material should occur. Specifics of this program could be appropriately developed in the context of the EC MSCP and be tied partially to "Conditions of Coverage for EC MSCP Covered Species).*

Implementation-LU-3.4.3 1. Amend the Grading Ordinance to place additional restrictions and standards for the Borrego Springs Subregional Group Area.

Weakness: The G.O. has not been amended to specifically address deserts or Borrego.

2. Incorporate standards into the Landscape Ordinance that address desert specific vegetation and rehabilitation of desert habitat.

Weakness: The Desert is not mentioned once in the L.O and neither restoration nor revegetation are mentioned in the document but:

Strengths: The words: native, conservation, transitional area (i.e., buffer area between development and natural land, or Wildland Urban Interface (WUI) are utilized in the L.O. to protect native habitat from excessive water, chemical fertilizers and pesticide, and invasive plant species. Additionally, the LO references to soil and soil health and means to attain it are scattered throughout the document and the following excerpts from the LO represent a commitment to conserving water and native species:

(Figure 47)

3. DPLU to prepare a site plan preparation guide for the CPA that sets forth the requirements of regulations associated with this policy, including specimen site plans, before, during and after photographs.

4. Revise DPLU permit and subdivision application guides to clearly highlight this requirement in the same way as other requirements unique to the CPA so as to give homeowners, builders, and developers as much advance notice as possible and as early in their plan development processes as possible to minimize any violations or negative impacts.

5. Require a final inspection of the completed site to ensure compliance with the site plan prior to certificate(s) of occupancy.

Strengths: *While a site plan preparation guide specifically for the CPA does not yet seem to exist; the County's 2007 REPORT FORMAT AND CONTENT REQUIREMENTS (for) REVEGETATION PLANS is a comprehensive preparation guide for revegetation suitable for mitigation purposes and/or to remedy general impacts to native habitats from prior disturbance and 'other than direct' development impacts.*

Additionally, the County has a comprehensive list of Building Forms and Handouts that contains guidelines responsive to Policy-LU-3.4.3 Items 3 –7. These documents address (among other

things) BMP and LID stormwater management, green and sustainable building, sensitive species avoidance and compliance, landscaping, minimum grading considerations and exceptions to qualifying which include environmental concerns per CEQA. Most of these guidelines are dated post 2011 and are therefore subsequent to the BSCP (Figure below shows important an example of important environmental elements now required by the County) and are found here: https://www.sandiegocounty.gov/content/sdc/pds/bldgforms.html

(Figure 48 – Baseline BMPs) Excerpt from #040 Plot Plan (not for grading)

***Weaknesses and Opportunities**: We recommend for clarity that all building forms and handout include the # and date per the comprehensive list on the link above (for instance #252 is listed as "Gnatcatcher Endangered Species Notification 03/23 PDS #252"* but the actual document is broader and updated to acknowledge all sensitive species in the County under the title "NOTIFICATION OF THREATENED AND ENDANGERED SPECIES UNDER THE CALIFORNIA AND FEDERAL ENDANGERED SPECIES ACT.*"*

For desert specific elements which are not included in the link above it is hoped that elements of this SWOT and the EC MSCP process can be used to develop and guide such desert specific documents that can be codified for meaningful use in BSCPA in the near future.

6. In regulation requirements, as a penalty for the un-approved clearing of or failure to protect desert native habitat where required per the Site Plan, the retirement to open space use of a similar-size area of undisturbed desert native habitat prior to certificate of occupancy.

7. Prepare, in consultation with local botanists and resource ecologists, a Native Species List of significant, reasonably replantable desert native habitat species to be removed *(i.e., required to be salvaged when under eminent threat of legal development/grading permit is issued)*, conserved and re-planted during development.

***Opportunity:** Use the EC MSCP species list as a starting point for critical species and add more as appropriate where salvage programs have been set up to handle, etc.*

8. Review/modify appropriate County codes and procedures to allow for appropriate prosecution and administrative enforcement including the imposition of fines and penalties for violations of this policy including, as a penalty for the un-approved clearing of desert native habitat, the retirement to open space use of a similar-size area of undisturbed desert native habitat.

***Strength, Weakness, and Opportunity:** The county has regulations and code enforcement authority, however, due to the distance of BS from County offices, regulation and enforcement can be spotty. An opportunity exists to deputize local state park officials and designate qualified persons such as local botanists, and other trained and designated individuals or groups.*

9. Substantially lower the cubic-yard threshold at which the County requires a grading permit.

Issue-LU-3.5 Desert Native Landscaping. *The Sonoran Desert is a larger desert region that includes the Colorado Desert as a sub-region, and Borrego Springs lies wholly within this sub-region.* Private and public lands landscaped with non-native species disrupt and degrade the open-desert character of the community, as well as contributing to the increased consumptive use of water and soil erosion.

Goal-LU-3.5 All landscaping that is visible from the "street" (parcel boundaries) use only non-invasive species and groupings native to the Sonoran Desert, with a preference for those species and groupings native to the Colorado Desert.

Strength: *"Transitional areas" are defined in LO ordinance* as "*a portion of a landscaped area that is adjacent to a natural or undisturbed area and is designated to ensure that the natural area remains unaffected by plantings and irrigation installed on the property"; so, this feature is essentially already present in County documents.*

Policy-LU-3.5.1 When a landscape plan is required, the Borrego Springs Community Sponsor Group encourages the use of species and groupings native to the Sonoran Desert, with a preference for the use of species and groupings native to the Colorado Desert. The preference of the Community Sponsor Group is that all single-family residences restrict their landscape palette to plant species and groupings native to the *more endemic* ~~Sonoran~~ *Colorado* Desert.

Implementation-LU-3.5.1

1. Seek funding to prepare a landscaping guide for the CPA that identifies approved native Sonoran Desert species and groupings and also identifies those preferred species and groupings native to the Colorado Desert.

Opportunity*: exists by partnering with UCI or similar to write a Borrego Springs Native Landscaping Guide with not only the above components but also addressing biohygiene for the health of native species (i.e., checking, refusing to accept plants infected with non-native ants or aphids (etc.), disease, and/or weed seeds and seedlings.*

2. Revise DPLU permit and subdivision application guides to clearly highlight this requirement in the same way as other requirements unique to the CPA, so as to give homeowners, builders, and developers as much advance notice as possible and as early in their plan development processes as possible to minimize any negative impact.

3. Require a final inspection of completed landscaping prior to certificate(s) of occupancy. 4. Develop a system of fines for violations of this policy.

Issue-LU-3.6 Hardscaping. The use of non-porous materials for hardscaping aggravates run-off issues. The use of asphalt further aggravates heat gain and retention, adversely affecting the environment.

Goal-LU-3.6 Common use of porous, reflective substrates rather than concrete and asphalt for all walkways, driveways, parking lots and hardscaping.

Policy-LU-3.6.1 Permit and encourage, the use of porous, reflective substrates rather than concrete and asphalt for all walkways, driveways, parking lots and hardscaping in the CPA.

Implementation-LU-3.6.1 Revise DPLU Regulations for asphalt and publications and Parking Guidelines to make explicitly clear that decomposed granite is both acceptable and encouraged for use as a finish surface for parking areas and driveways in the desert area.

Strengths *– This is a nature-based solution that not only looks attractive, is compatible with the adjacent native habitat, it also alleviates flood risk by allowing water to permeate the surface during floods.*

REFERENCES

Included in body as footnotes or references and live hyperlinks
Citations and sources used in this research include:
- Academic papers
- Industry reports
- Market research
- Expert interviews
- Statistical databases

APPENDICES
Deliverables Separate from White Paper
A. 2024 Community Survey
B. Basin FAQ
C. Stand Alone SWOT
D. Presentation Slide Decks
Supporting Documentation:
-SGMA Prop 68 Grant PSP
-SGMA Prop 68 Grant Application
-SGMA Prop 68 Grant Agreement
--Glossary Terms

APPENDIX A COMMUNITY SURVEY 2024

Borrego Springs Community Resiliency Strategy
Community Survey Analysis Report
January 2025

Executive Summary

In an effort to better understand the needs and preferences of the Borrego Springs Community. The Borrego Valley Stewarship Council as funded by the Sustainable Ground Water Implementation Grant and the Department of Water Resources, conduced a community survey. This survey reveals a mature, predominantly white residential community facing significant challenges with healthcare access, water sustainability, and affordable housing, while benefiting from strong community bonds and amenities of being surrounded by the protected natural landscapes of Anza-Borrego Desert State Park.

Introduction

This report presents the findings from a community survey conducted in Borrego Springs between May and August of 2024. The intention of this survey were to help inform the development of a community resiliency strategy. The survey addressed various aspects of community life, including housing, infrastructure, public services, and economic development, providing insights into community demographics, needs, and priorities.

Survey Methodology

- Total Respondents: 168
- Survey Period: 2024
- Response Format: Multiple choice and priority selection questions
- Coverage: Residents, property owners, and visitors

Key Demographics

Relationship to Community

- 75.6% live in Borrego Springs
- 53.0% own property
- 17.3% work in the area
- 7.1% are visitors

Residency Status

- 57.1% year-round, full-time residents
- 26.8% seasonal residents (primarily winter)
- 0.6% seasonal residents (primarily summer)
- 5.4% non-residents

Age Distribution

- 53.6% aged 65+
- 30.4% aged 46-64

- 6.5% aged 25-45
- 9.5% under 25

Racial/Ethnic Composition
- 73.2% White/Caucasian
- 18.5% Hispanic/Latino
- 3.0% Asian
- 1.8% American Indian or Alaska Native
- 0.6% Native Hawaiian and Other Pacific Islander

Major Findings

Community Satisfaction
Quality of Life Indicators
- 80% report strong sense of community
- 79.5% satisfied with quality of life
- 71.9% feel safe at night
- 84.3% agree there are sufficient public parks and open spaces

Primary Community Attractions
1. Access to nature (76%)
2. Quality of life (68%)
3. Rural atmosphere (66.7%)
4. Sense of community (60%)

Critical Challenges

Healthcare Services
- 74.7% prioritize healthcare access
- 70.3% concerned about insufficient medical services
- 78.4% support medical care development
- Healthcare ranks as top desired industry (76.3%)

Water Sustainability
- 92.9% aware of aquifer as sole water source
- 84.5% aware of required 70% reduction by 2040
- Water Costs:
  - 46.6% pay $50-100 monthly
  - 43.6% pay $100-200 monthly
  - 9.8% pay over $200 monthly

Housing Affordability
- 73.2% perceive housing shortage
- Affected Groups:
  - 92.9% Low/moderate income families
  - 45.1% Senior citizens
  - 40.7% Assisted living needs

Infrastructure Priorities

1. Natural resource protection (59.5%)
2. High-speed internet access (55.4%)
3. Sustainable water management (41.9%)
4. Reliable public utilities (36.5%)

Recommendations Development of Priorities and Resilience Strategy

1. Healthcare Development

- Prioritize healthcare provider recruitment
- Develop telemedicine infrastructure
- Explore public-private partnerships
- Create medical facility development plan

2. Water Sustainability

- Implement comprehensive conservation programs
- Develop tiered water pricing
- Launch public education campaigns
- Explore water-efficient housing solutions

3. Housing Strategy

- Develop mixed-income housing
- Focus on senior/assisted living facilities
- Encourage multi-family development
- Implement sustainable building practices

4. Infrastructure Development

- Secure high-speed internet funding
- Create sustainable infrastructure plans
- Develop integrated trail systems
- Support EV infrastructure

5. Economic Development

- Focus on sustainable tourism
- Encourage R&D industries that also protect the priority of natural landscape conservation
- Support healthcare/tourism businesses
- Develop workforce training programs

Long-term Considerations

Sustainability

- Balance development with water restrictions:
- Preserve natural resources
- Maintain rural character
- Support sustainable tourism
- Update Community Plan and zoning recommendations

Community Development

- Focus on age-diverse design
- Improve essential services
- Protect natural amenities
- Enhance community connectivity

Conclusion

This data-driven analysis, based on community input from survey respondents, identifies clear priorities for development in Borrego Springs. The survey results consistently highlight healthcare, housing, and infrastructure needs while emphasizing the importance of water conservation and community character preservation.

The strong response rates and clear preference patterns provide reliable guidance for development priorities. Notably, the high awareness of water issues (92.9%) combined with strong community satisfaction (79.5%) suggests a population ready to embrace sustainable development that addresses critical needs while preserving community character.

These survey results provide a clear roadmap of community needs and preferences, helping ensure that new developments align with both market demands and community values. Success will require careful attention to the community's highest priorities while addressing the fundamental challenge of water conservation.