

AZUSA WILDERNESS PARK

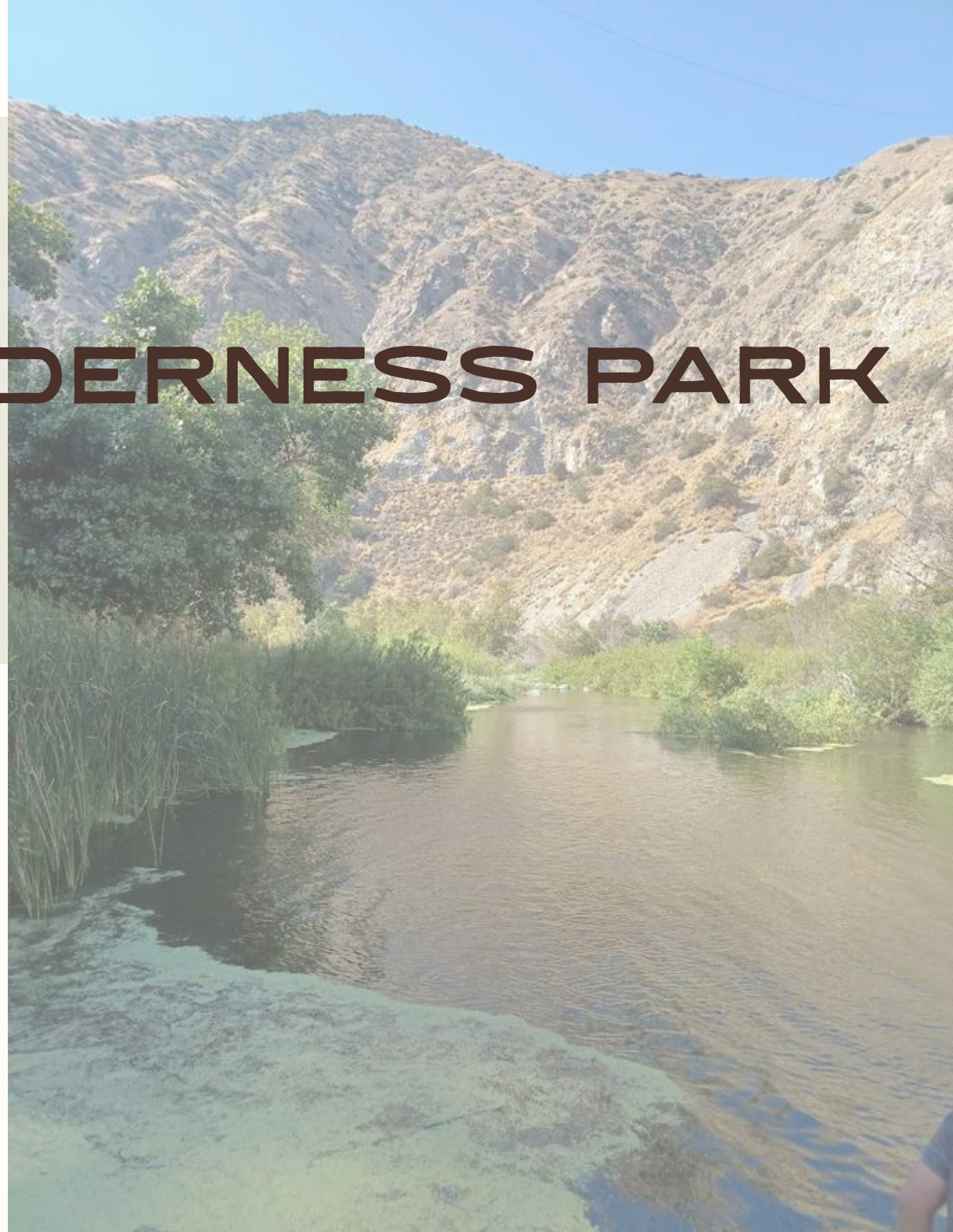


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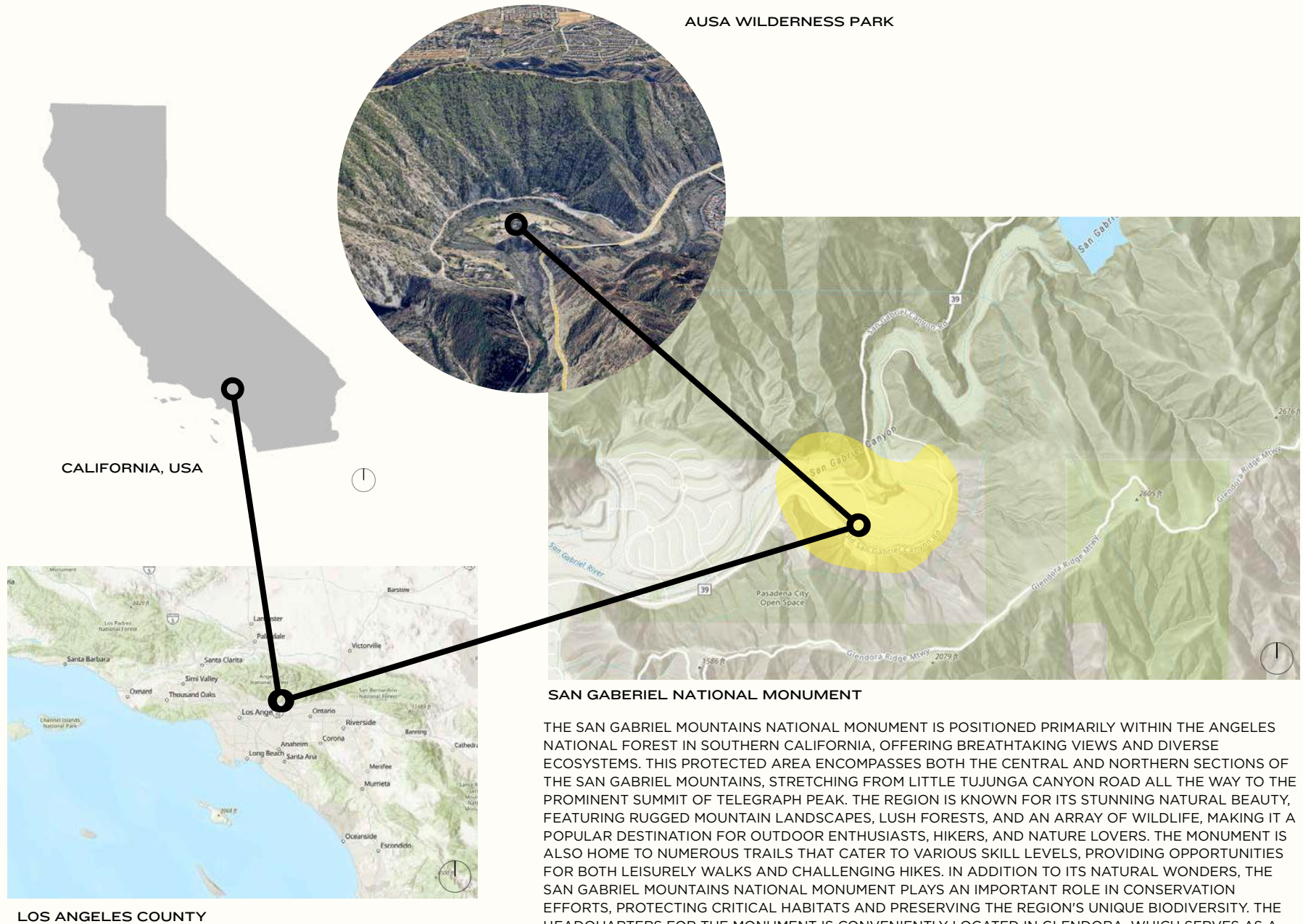
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PROJECT STATEMENT

**THE BASKET METAPHOR
REMINDS US THAT
LANDSCAPES ARE NOT
OBJECTS TO BE BUILT. BUT
VESSELS TO BE TENDED.
ROOTED IN MATERIAL AND
MEANING BY THE HANDS THAT
SHAPE THEM.**



LOCATION



AUSA WILDERNESS PARK

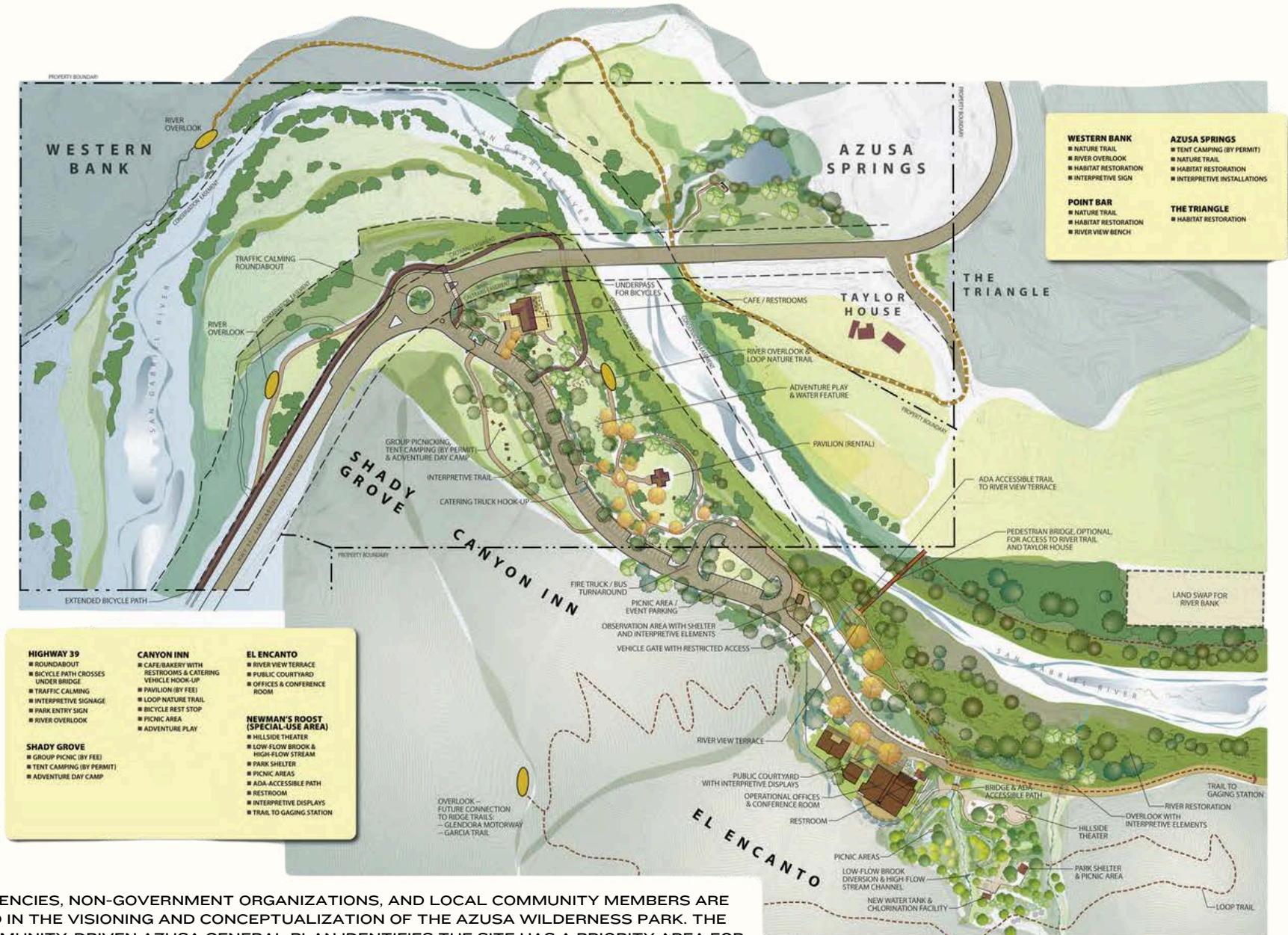
CALIFORNIA, USA

SAN GABRIEL NATIONAL MONUMENT

LOS ANGELES COUNTY

THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT IS POSITIONED PRIMARILY WITHIN THE ANGELES NATIONAL FOREST IN SOUTHERN CALIFORNIA, OFFERING BREATHTAKING VIEWS AND DIVERSE ECOSYSTEMS. THIS PROTECTED AREA ENCOMPASSES BOTH THE CENTRAL AND NORTHERN SECTIONS OF THE SAN GABRIEL MOUNTAINS, STRETCHING FROM LITTLE TUJUNGA CANYON ROAD ALL THE WAY TO THE PROMINENT SUMMIT OF TELEGRAPH PEAK. THE REGION IS KNOWN FOR ITS STUNNING NATURAL BEAUTY, FEATURING RUGGED MOUNTAIN LANDSCAPES, LUSH FORESTS, AND AN ARRAY OF WILDLIFE, MAKING IT A POPULAR DESTINATION FOR OUTDOOR ENTHUSIASTS, HIKERS, AND NATURE LOVERS. THE MONUMENT IS ALSO HOME TO NUMEROUS TRAILS THAT CATER TO VARIOUS SKILL LEVELS, PROVIDING OPPORTUNITIES FOR BOTH LEISURELY WALKS AND CHALLENGING HIKES. IN ADDITION TO ITS NATURAL WONDERS, THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT PLAYS AN IMPORTANT ROLE IN CONSERVATION EFFORTS, PROTECTING CRITICAL HABITATS AND PRESERVING THE REGION'S UNIQUE BIODIVERSITY. THE HEADQUARTERS FOR THE MONUMENT IS CONVENIENTLY LOCATED IN GLENDORA, WHICH SERVES AS A CENTRAL POINT FOR VISITOR INFORMATION AND RESOURCES, AS WELL AS A GATEWAY TO EXPLORING THE VAST AND DIVERSE LANDSCAPES OF THIS REMARKABLE AREA. WHETHER YOU'RE LOOKING TO HIKE, CAMP, OR SIMPLY ENJOY THE SCENIC SURROUNDINGS, THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT OFFERS A WEALTH OF EXPERIENCES FOR VISITORS LOOKING TO CONNECT WITH NATURE.

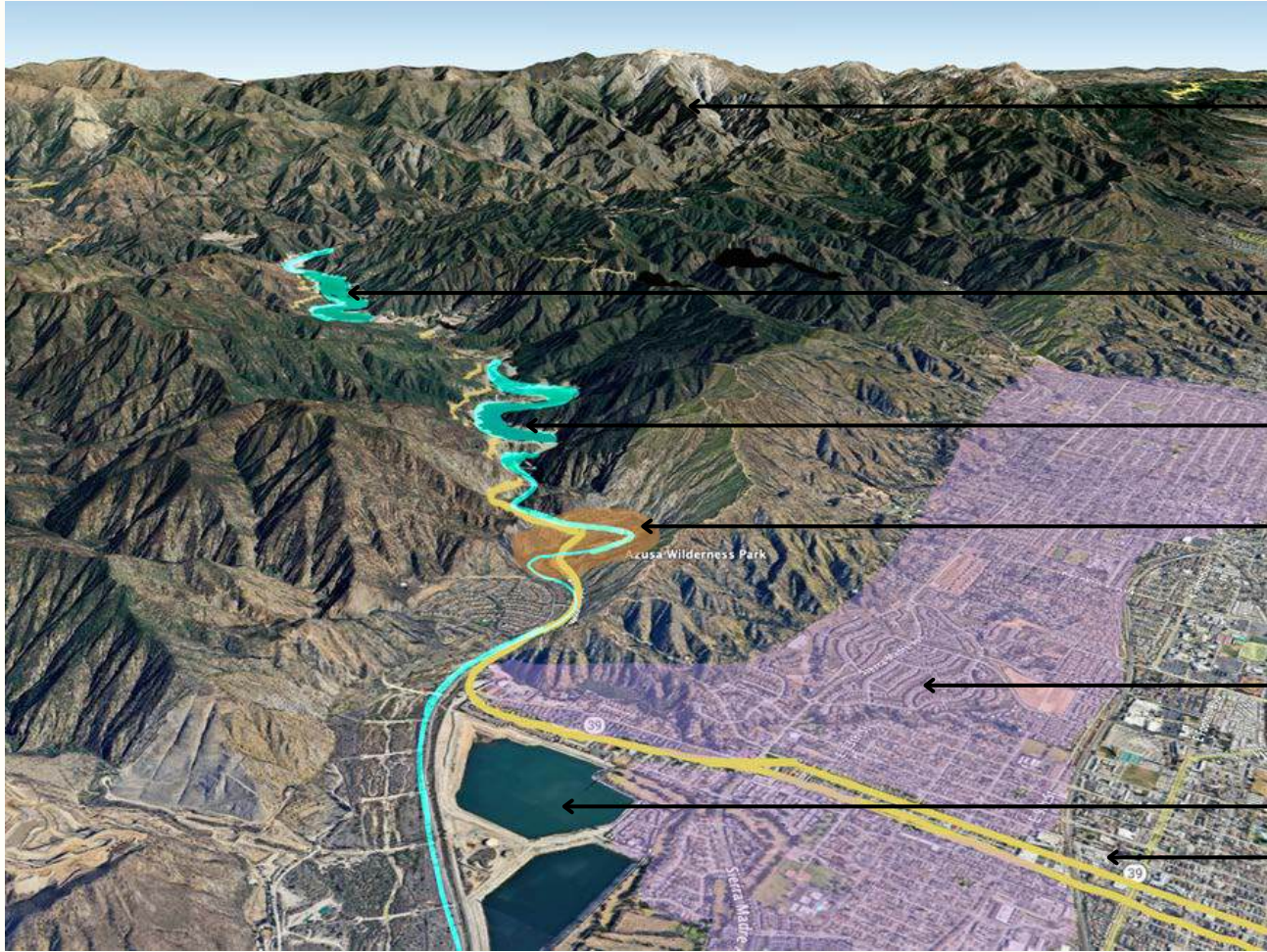
EXISTING PHASE I - MASTER PLAN



"MANY AGENCIES, NON-GOVERNMENT ORGANIZATIONS, AND LOCAL COMMUNITY MEMBERS ARE INVOLVED IN THE VISIONING AND CONCEPTUALIZATION OF THE AZUSA WILDERNESS PARK. THE LOCAL COMMUNITY-DRIVEN AZUSA GENERAL PLAN IDENTIFIES THE SITE HAS A PRIORITY AREA FOR THE ESTABLISHMENT OF A 'CITY NATURE PRESERVE'. COVERING A MORE REGIONAL VISION FOR THE SAN GABRIEL RIVER, THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS' 2006 SAN GABRIEL RIVER CORRIDOR MASTER PLAN INCLUDES THE 'AZUSA CANYON RIVER PARK' AS AN ENHANCEMENT PROJECT SPONSORED BY THE CITY OF AZUSA."

WATER CONSERVATION AUTHORITY"

SITE OVERVIEW / CONTEXT



SAN GABRIEL NATIONAL MONUMENT

SAN GABRIEL RESERVOIR

MORRIS RESERVOIR DAM

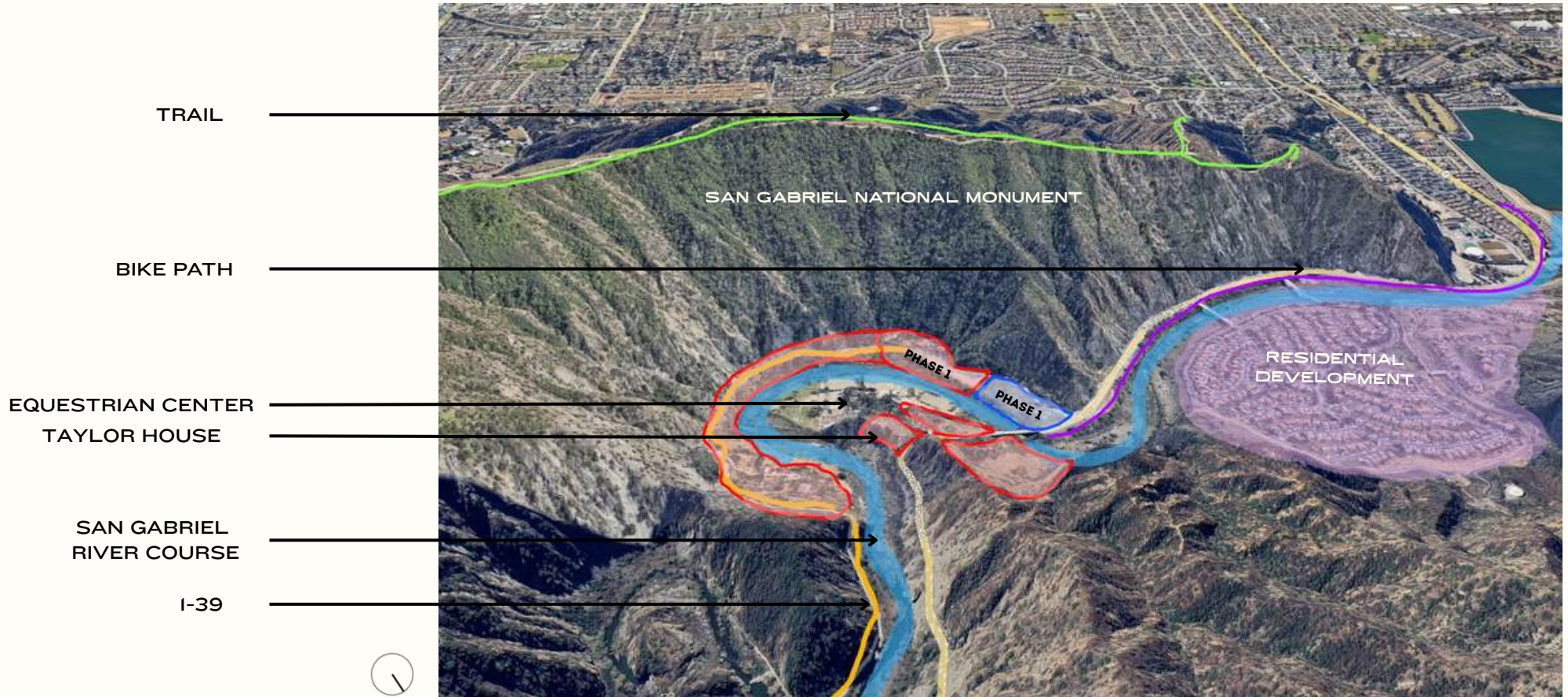
PROJECT SITE

RESIDENTIAL AZUSA

RETENTION PONDS

ROUTE 39

SITE OVERVIEW / CONTEXT



SITE HISTORY



AZUSA AND THE SAN GABRIEL MOUNTAINS:

A LEGACY OF CULTURE, NATURE, AND COMMUNITY

FOUNDED IN 1887 AND INCORPORATED IN 1898, AZUSA IS A VIBRANT CITY IN LOS ANGELES COUNTY, NESTLED AT THE BASE OF THE SAN GABRIEL MOUNTAINS, ABOUT 27 MILES NORTHEAST OF DOWNTOWN LOS ANGELES. COVERING JUST OVER 9 SQUARE MILES, AZUSA IS HOME TO APPROXIMATELY 45,000 RESIDENTS AND OFFERS A VARIETY OF EDUCATIONAL INSTITUTIONS, INCLUDING PUBLIC SCHOOLS AND A PRIVATE UNIVERSITY.

THE AREA IS RICH IN INDIGENOUS HERITAGE, PARTICULARLY THAT OF THE GABRIELENO (SHOSHONEAN) PEOPLE, WHOSE PRESENCE IS EVIDENCED BY CULTURAL ARTIFACTS AND STONE ARRANGEMENTS NEAR THE SAN GABRIEL CANYON. THESE SITES REFLECT DEEP SPIRITUAL AND HISTORICAL SIGNIFICANCE.

IN THE MID-1800S, GOLD DISCOVERIES IN NEARBY PLACERITA CANYON LED TO A BOOM IN MINING THROUGHOUT THE SAN GABRIEL MOUNTAINS. EL DORADOVILLE, A ONCE-THRIVING MINING TOWN ALONG THE EAST FORK OF THE SAN GABRIEL RIVER, FLOURISHED BRIEFLY WITH HUNDREDS OF MINERS AND MAKESHIFT BUSINESSES. THE AREA LATER BECAME A DESTINATION FOR HIKERS AND HOLLYWOOD FIGURES—SWITZER'S CAMP, FOR EXAMPLE, WAS A BELOVED MOUNTAIN RESORT. FROM 1955 TO 1958, NIKE MISSILE SITES—PART OF COLD WAR DEFENSE INFRASTRUCTURE—WERE CONSTRUCTED ACROSS THE REGION. THE LOS PINETOS SITE REMAINS ONE OF THE BEST-PRESERVED.

IN 2014, PRESIDENT OBAMA DESIGNATED THE SAN GABRIEL MOUNTAINS AS A NATIONAL MONUMENT. IN 2024, PRESIDENT BIDEN EXPANDED IT BY MORE THAN 100,000 ACRES, BRINGING THE TOTAL TO OVER 452,000 ACRES OF PROTECTED LAND. THIS EXPANSION HONORS INDIGENOUS HISTORY, SUPPORTS WILDLIFE, AND PRESERVES RECREATIONAL ACCESS FOR MILLIONS OF VISITORS EACH YEAR.

TODAY, AZUSA WILDERNESS PARK STANDS AS A GATEWAY TO THIS HISTORY AND LANDSCAPE. ONCE HOME TO THE 1920S EL ENCANTO RESTAURANT, THE SITE NOW HOSTS THE WATERSHED CONSERVATION AUTHORITY AND SERVES AS A TRAILHEAD AND OUTDOOR EDUCATION HUB—RECONNECTING THE COMMUNITY WITH THE NATURAL WORLD.

TIMELINE OF AZUSA AND SAN GABRIEL MOUNTAINS HISTORY

- 1769 ● Father Juan Crespi references the valley and river near Bassett, area inhabited by the Gabrieleno (Shoshonean) tribe.
- Pre-1800s ● Evidence of long-standing Native American presence in Azusa and San Gabriel Valley
- 1841 ● Luis Arenas receives a Mexican land grant for "El Susa Rancho" and builds an adobe home.
- 1842 ● Gold discovered in Placerita Canyon initiates mining interest in San Gabriel Mountains
- 1861 ● Robert Wesley Dawson builds a cabin near what becomes Crystal Lake.
- 1887 ● Azusa is founded as a settlement.
- 1898 ● Azusa is officially incorporated as a general law city
- 1920-1925 ● El Encanto Restaurant built to house the San Gabriel Canyon Forest Ranger.
- 1955-1958 ● Nike missile sites, including Los Pinetos, are constructed during the Cold War for natial defense
- Mid-1900s ● Switzer's Camp becomes a popular resort hosting celebrities like Henry Ford and Shirley Temple
- 2014 ● President Obama designates the San Gabriel Mountains National Monument
- May 2, 2024 ● President Biden expands the Monument by 105,919 acres, totaling over 452,000 acres
- 2020s-Present ● Azusa Wilderness Park established for environmental engagement and stewardship. Former El Encanto site becomes trailhead and education hub



SITE ANALYSIS

OPPORTUNITIES AND CONSTRAINTS



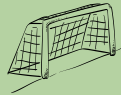
OPPORTUNITIES

- GATEWAY TO THE SAN GABRIEL NATIONAL MONUMENT
- CREATE A SAFER ENTRY AND EXIT TO THE SITE
- HABITAT RESTORATION
- STEWARDSHIP AND LAND MANAGEMENT WITH NATIVE TRIBES
- SAFER PEDESTRIAN AND VEHICULAR CIRCULATION
- TAYLOR HOUSE AREA COULD BECOME AN ENGAGING DESTINATION
- RIVER ENGAGEMENT AND RECREATION
- CONNECTIONS ACROSS THE RIVER
- CONNECTIONS TO THE OPPOSITE SIDE OF I-39
- OPEN AREAS FOR SHADE STRUCTURES AND GATHERING PLACES
- OPEN AREAS TO INCORPORATE ART AND CULTURAL ENGAGEMENT
- CONCRETE PADS COULD BE READAPTED INTO CAMPING EXPERIENCE
- NATURE VERY CLOSE TO URBAN CONTEXT



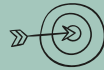
CONSTRAINTS

- STEEP GRADE ON PROJECT SITE
- EXPOSED SITE- VERY HOT!
- IN HIGH FIRE HAZARD SEVERITY ZONE
- EXTREME TOPOGRAPHY
- VERY BUSY AND DANGEROUS HIGHWAY ROUTE
- LANDSLIDE ZONES THROUGHOUT SITE
- NO DIRECT RIVER ACCESS
- EXISTING HORSE RANCH
- FULL TIME RESIDENCIES ON THE PROPERTY
- SAN GABRIEL ROAD IS IN NEED OF SERIOUS REPAIRS



GOALS

- EDUCATION
- CULTURAL ENGAGEMENT
- FLAGSHIP SITE OF RIVER AND MOUNTAINS CONSERVANCY
- RECREATION AND RIVER ENGAGEMENT
- SUSTAINABLE AND RESILIENT DESIGN SOLUTIONS



OBJECTIVES

- EDUCATIONAL SIGNAGE AND WAYFINDING
 - CURATED ENVIRONMENTAL AND CULTURAL EDUCATIONAL EXPERIENCES
 - RECREATIONAL PROGRAMMING AND RENTALS
 - CREATE ADA ACCESSIBILITY THROUGH MATERIAL SELECTIONS AND PLACEMENT
 - SHARED PROGRAMMING WITH LOCAL SCHOOLS AND ORGANIZATIONS
 - REHABILITATE AREAS WITH INVASIVE PLANTS
 - CREATE A TRAFFIC SOLUTION WITH ENTRY AND EXIT
- IMPLEMENT CLIMATE RESILIENT DESIGN SOLUTIONS FOR BOTH SOFT AND HARD SPACES



REFURBISH TRAILS



RIVER ACCESS



ONSITE CONNECTIONS



RECREATION OPPORTUNITIES

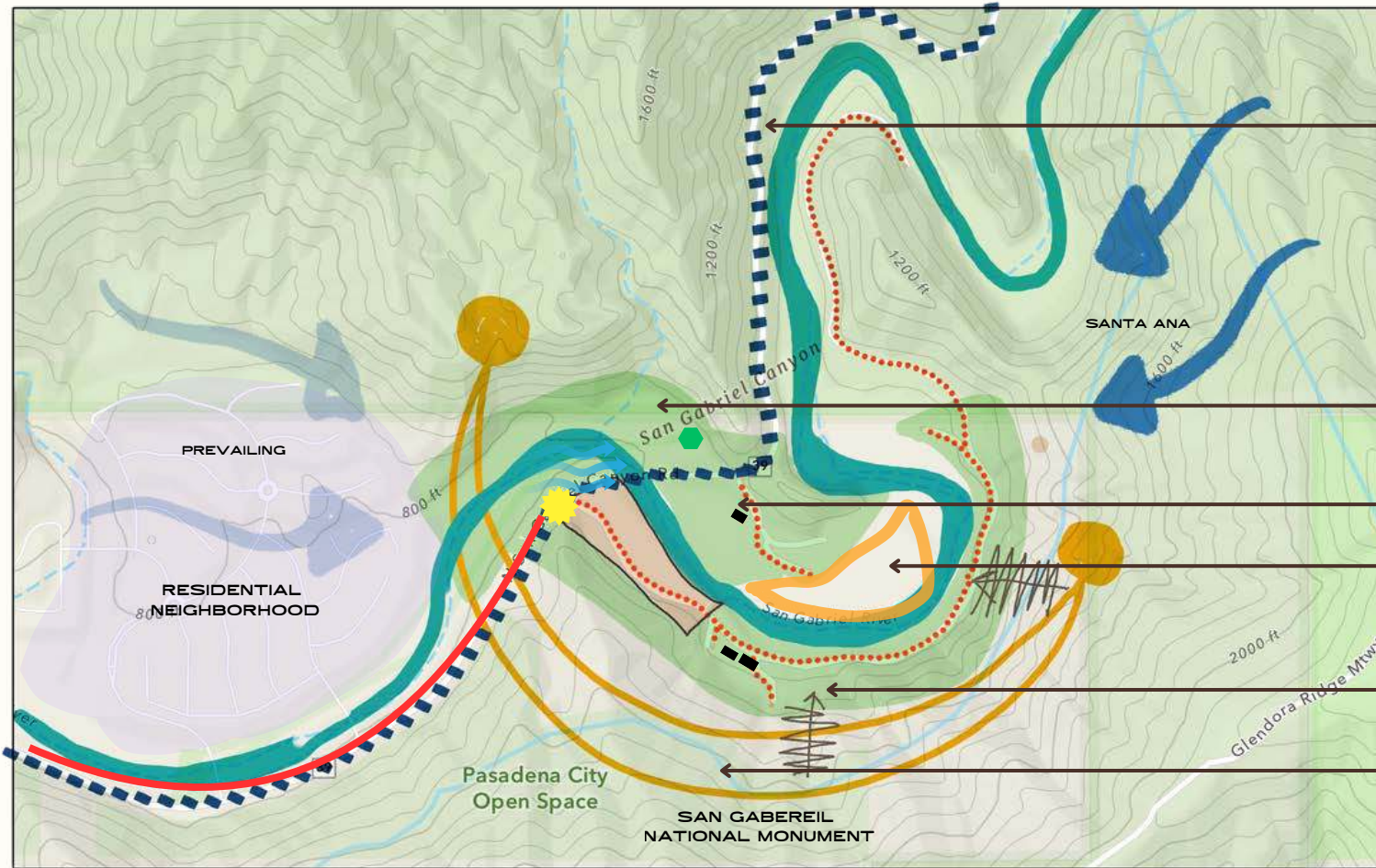


OUTDOOR CLASSROOM



REPURPOSE EXISTING BUILDINGS

FIELD SITE ANALYSIS



I-39

RITUAL AREA

TAYLOR HOUSE

EQUESTRIAN CENTER

CAMPING AREA

HIKING AREA



LIMIT OF WORK PHASE 2



SAN GABRIEL RIVER



EQUESTRIAN CENTER



SUNPATH



BIKE PATH



PEDESTRIAN CIRCULATION



VEHICULAR CIRCULATION



ENTRANCE



SPRINGS



EXISTING BUILDING

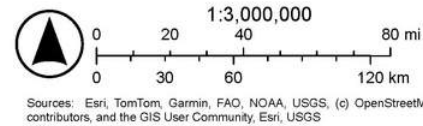
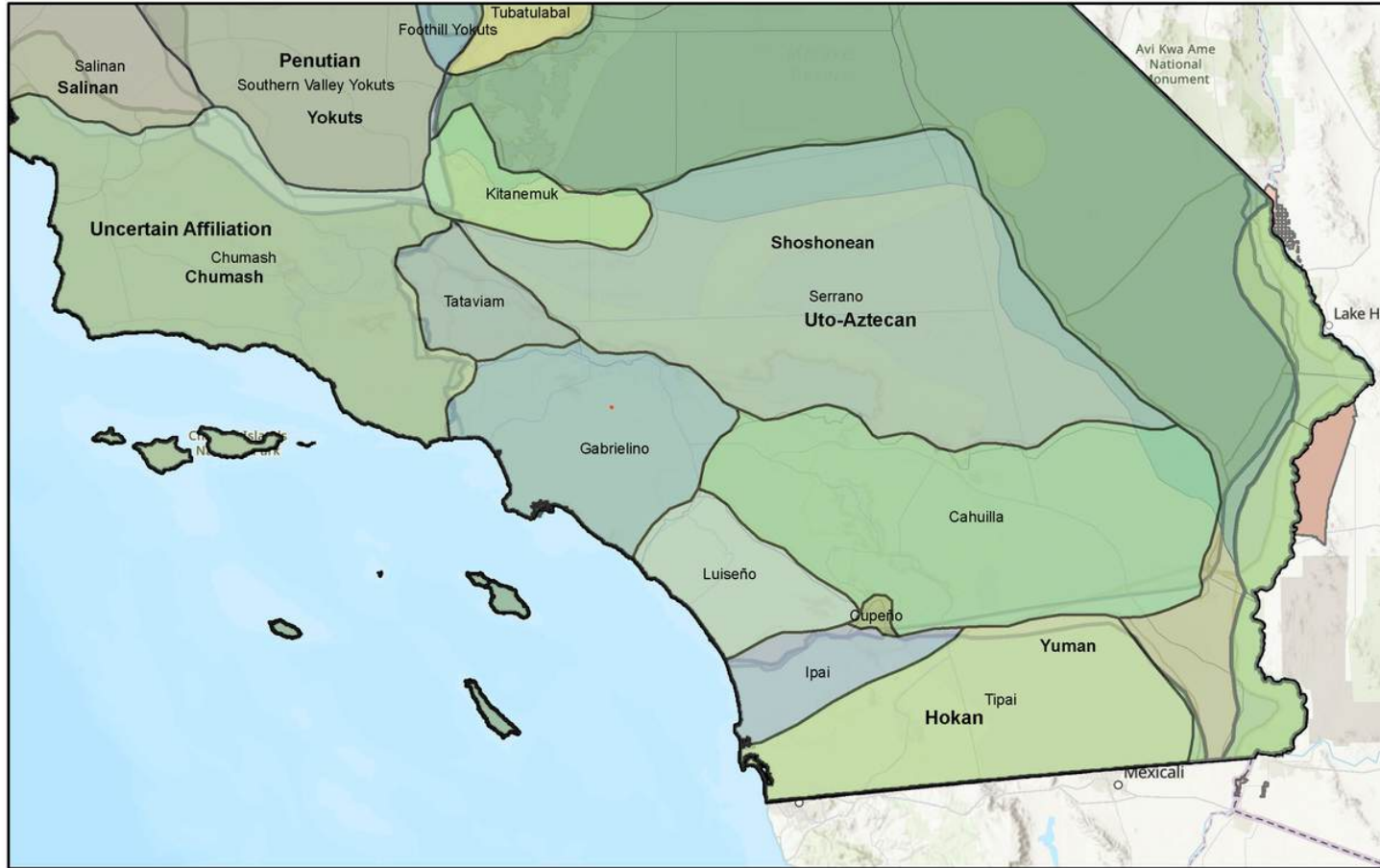


WINDS



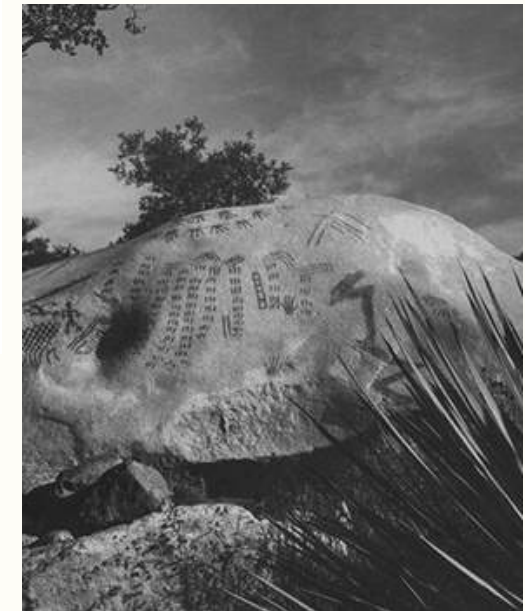
LANDSLIDE AREA

FIRST NATIONS



OVERVIEW

THE TONGVA, OR GABRIELINO, WERE THE PRIMARY INHABITANTS OF THE LOS ANGELES BASIN, INCLUDING THE SAN GABRIEL MOUNTAINS, ALONG WITH OTHER INDIGENOUS GROUPS SUCH AS THE KIZH, CHUMASH, KITANEMUK, SERRANO, AND TATAVIAM. THE ARRIVAL OF SPANISH MISSIONARIES IN THE LATE 18TH CENTURY LED TO SIGNIFICANT DISPLACEMENT AND ASSIMILATION, DRASTICALLY REDUCING THE INDIGENOUS POPULATION AND DISRUPTING TRADITIONAL LIFESTYLES. TODAY, DESCENDANTS OF THESE TRIBES MAINTAIN A STRONG CONNECTION TO THE SAN GABRIEL MOUNTAINS, ENGAGING IN RESTORATION EFFORTS AND USING THE AREA FOR CEREMONIES AND TRADITIONAL PRACTICES. TRIBAL NATIONS, INCLUDING THE FERNANDEÑO TATAVIAM BAND AND THE GABRIELEÑO SAN GABRIEL BAND, ADVOCATE FOR THE PRESERVATION OF THESE LANDS, AND THE RECENT EXPANSION OF THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT REFLECTS THEIR CONCERNS AND CULTURAL HERITAGE.



INDIGENOUS PICTOGRAPHS ON A ROCK NEAR THE CONFLUENCE OF THE WEST AND NORTH FORKS OF THE SAN GABRIEL RIVER IN 1937



SACRED LAND

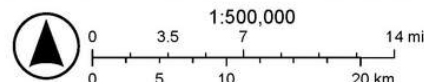
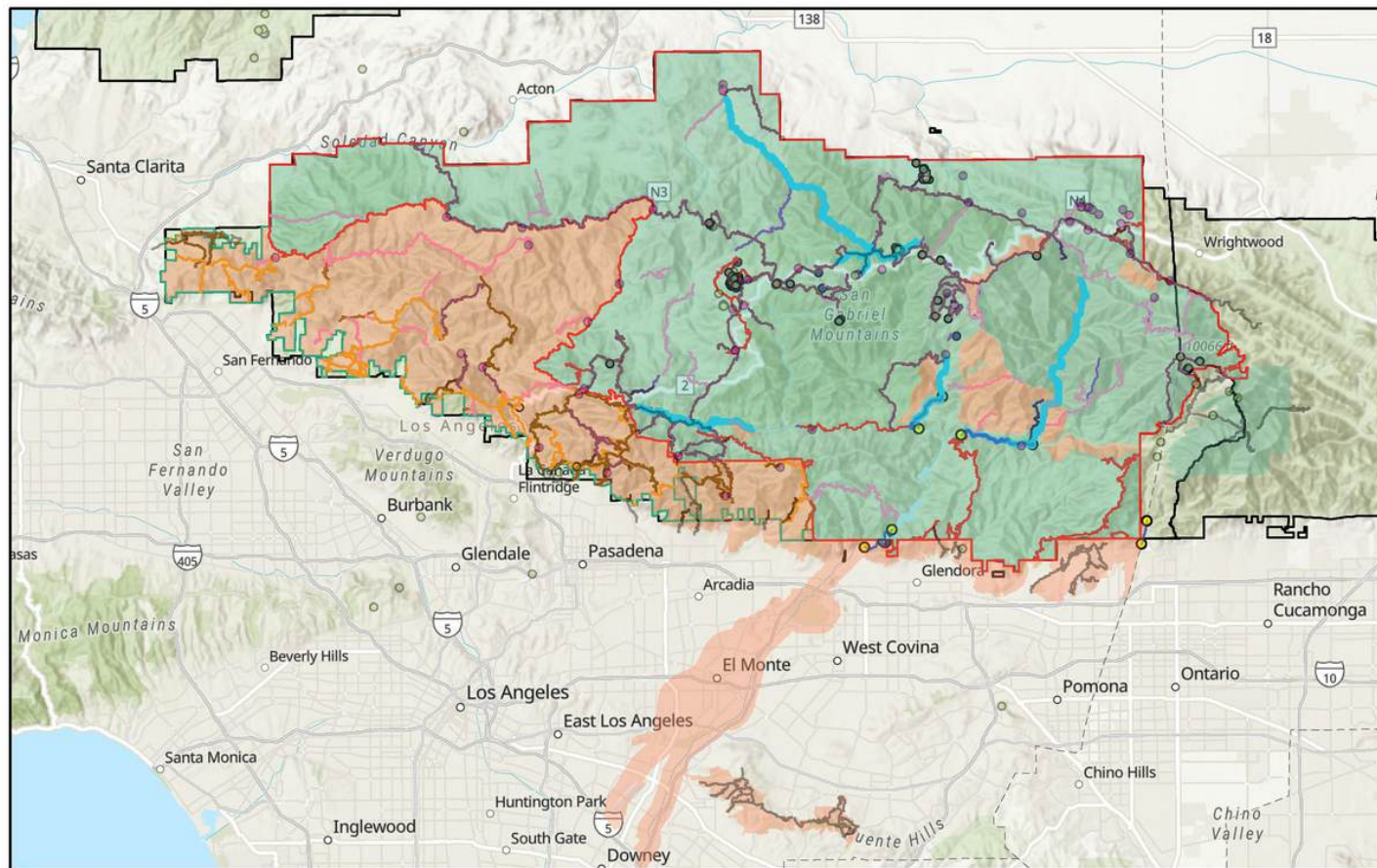


ANDREW GUIDING YOUNG CLOUD MORALES OF THE GABRIELINO SAN GABRIEL BAND DOES A FOUR DIRECTION BLESSING



SHOSHONE BASKETS

SAN GABRIEL NATIONAL MONUMENT



Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

OVERVIEW

THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT, ESTABLISHED BY PRESIDENT OBAMA IN 2014, COVERS 346,177 ACRES WITHIN THE ANGELES NATIONAL FOREST. THIS AREA IS CRUCIAL FOR CONSERVING DIVERSE ECOSYSTEMS AND GEOLOGICAL FEATURES, WHILE ALSO PROVIDING APPROXIMATELY 70% OF LOS ANGELES COUNTY'S OPEN SPACE AND 30% OF ITS DRINKING WATER. THE MONUMENT IS HOME TO A RICH VARIETY OF PLANT AND ANIMAL SPECIES, INCLUDING ENDANGERED ONES LIKE THE CALIFORNIA CONDOR AND BIGHORN SHEEP. WITH OVER 600 MILES OF HIKING, BIKING, AND HORSEBACK RIDING TRAILS, IT OFFERS NUMEROUS OUTDOOR ACTIVITIES THAT PROMOTE HEALTHY LIFESTYLES. CULTURALLY SIGNIFICANT, THE AREA FEATURES ARCHAEOLOGICAL SITES AND NATIVE AMERICAN ROCK ART, HIGHLIGHTING ITS RICH HERITAGE. EASILY ACCESSIBLE, THE MONUMENT SERVES AS A CONVENIENT ESCAPE FOR MILLIONS FROM THE URBAN LANDSCAPE OF GREATER LOS ANGELES. ADDITIONALLY, IT FOCUSES ON RECREATION, RESOURCE SUSTAINABILITY, AND WATER CONSERVATION, ENSURING THESE NATURAL TREASURES ARE PRESERVED FOR FUTURE GENERATIONS.



CONSERVENCIES



OVERVIEW

NATURE CONSERVANCIES SERVE AS VITAL STEWARDS OF THE ENVIRONMENT, PASSIONATELY DEDICATED TO THE PRESERVATION OF OUR PLANET'S LANDS AND WATERS WHILE CHAMPIONING BIODIVERSITY. THEY ARE AT THE FOREFRONT OF DEVELOPING INNOVATIVE, NATURE-BASED SOLUTIONS TO CONFRONT PRESSING GLOBAL CHALLENGES SUCH AS CLIMATE CHANGE AND HABITAT DEGRADATION. THESE ORGANIZATIONS OPERATE ON A GLOBAL SCALE, FORGING MEANINGFUL PARTNERSHIPS WITH LOCAL COMMUNITIES, GOVERNMENTS, AND BUSINESSES TO DELIVER ON THEIR AMBITIOUS CONSERVATION GOALS.

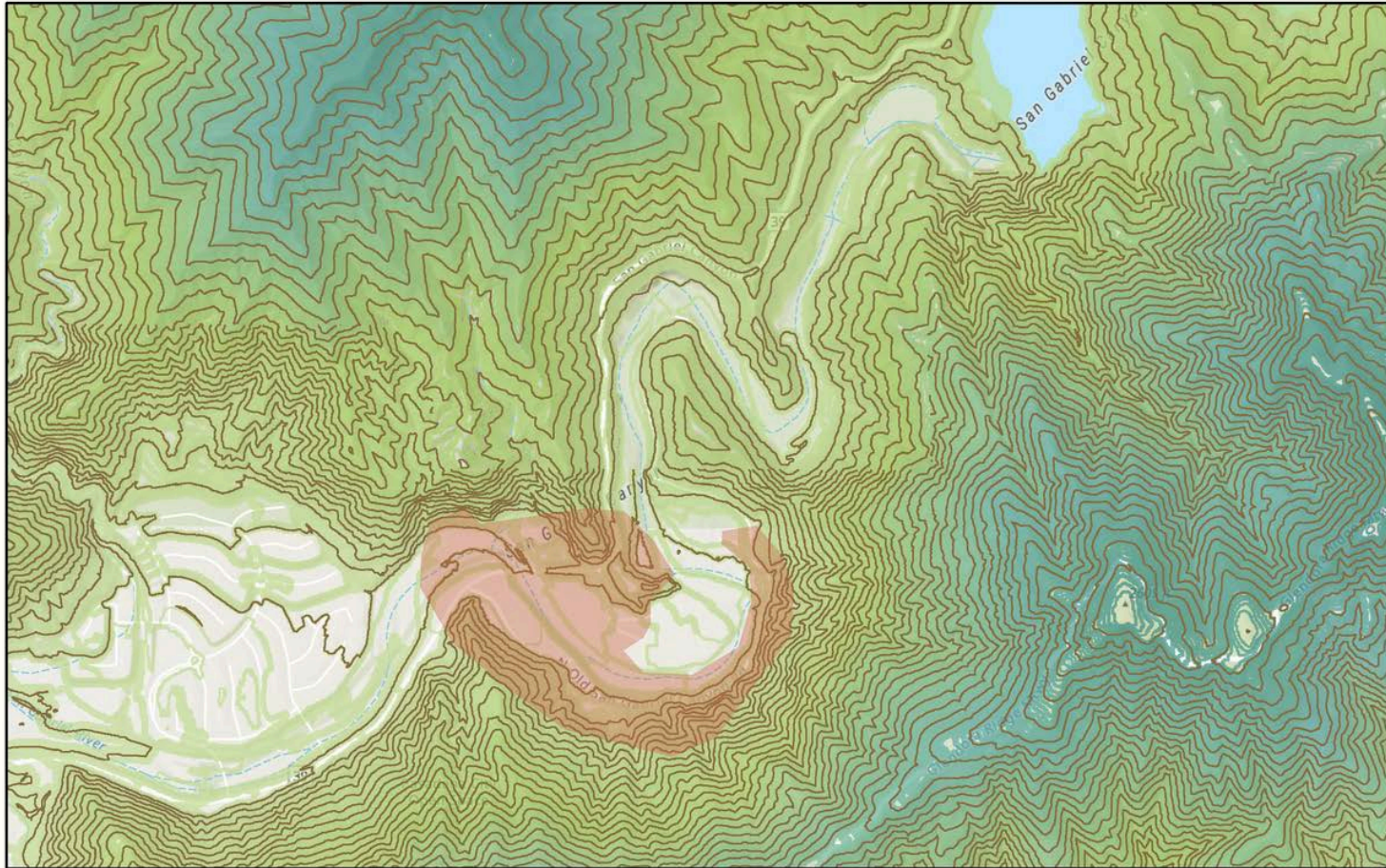
THE SAN GABRIEL AND LOWER LOS ANGELES RIVERS AND MOUNTAINS CONSERVANCY

(RMC) STANDS AS A PROACTIVE CALIFORNIA STATE AGENCY, UNWAVERING IN ITS COMMITMENT TO SAFEGUARDING OPEN SPACES, PROTECTING DIVERSE WILDLIFE HABITATS, AND ENRICHING RECREATIONAL AND EDUCATIONAL OPPORTUNITIES FOR THE PUBLIC. WITH A MISSION THAT EMPHASIZES THE IMPORTANCE OF HEALTHY WATERSHEDS, THE RMC STRIVES TO ENHANCE ACCESS TO THE BREATHTAKING NATURAL AREAS WITHIN ITS JURISDICTION. IT PLAYS A PIVOTAL ROLE IN RESTORING AND PRESERVING ESSENTIAL ECOSYSTEMS, SERVING THE DIVERSE COMMUNITIES OF EASTERN LOS ANGELES COUNTY AND WESTERN ORANGE COUNTY. THE CONSERVANCY OVERSEES THE VITAL WATERSHEDS OF THE LOS ANGELES AND SAN GABRIEL RIVERS, ENSURING THAT THESE NATURAL TREASURES ARE PROTECTED FOR FUTURE GENERATIONS TO ENJOY AND CHERISH.



Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

TOPOGRAPHY

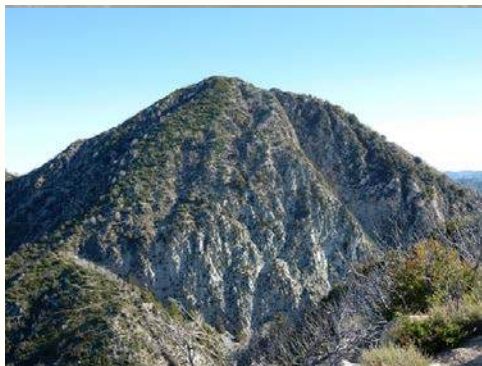


LEGEND

- 50 FT CONTOURS
- 3,000 FT
- 3,000 FT
- PROJECT SITE

OVERVIEW

AT THE SAN GABRIEL MOUNTAINS NATIONAL MONUMENT IS KNOWN FOR ITS RUGGED, STEEP TERRAIN, FEATURING ROLLING PEAKS AND NUMEROUS CANYONS. THE LANDSCAPE IS GENERALLY CHALLENGING TO NAVIGATE AND DOES NOT HAVE MANY CRAGGY FORMATIONS. IT IS CHARACTERIZED BY A VARIETY OF VEGETATION ZONES, RANGING FROM CHAPARRAL AT LOWER ELEVATIONS TO PINE AND FIR FORESTS AT HIGHER ALTITUDES. ADDITIONALLY, THE MONUMENT INCLUDES TWO SCENIC LAKES THAT WERE FORMED BY GEOLOGICAL FORCES.



SAN GABRIEL PEAK



INNER MOUNTAINS

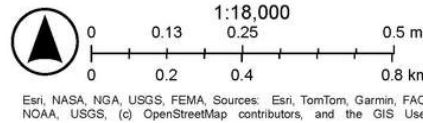


OVERVIEW OF SAN GABRIEL MOUNTAINS

WILDFIRE



- Project Boundary
- Direct Exposure
- California Fire Perimeters (all)
- Wildfire Risk to Communities Community Wildfire Risk Reduction Zones (4-Category)
- Wildfire Transmission Zone
- Minimal Exposure
- Indirect Exposure
- NA
- World_Hillshade



OVERVIEW

THE SAN GABRIEL MOUNTAINS HAVE A LONG HISTORY OF WILDFIRES, WITH SIGNIFICANT EVENTS RECORDED THROUGHOUT THE 20TH AND 21ST CENTURIES. NOTABLE FIRES INCLUDE THE EATON FIRE IN 1925, THE KINNELOA FIRE IN 1993, THE BOBCAT FIRE IN 2020, AND THE SAN GABRIEL COMPLEX FIRE IN 2016. THESE FIRES HAVE CAUSED CONSIDERABLE DAMAGE, LOSS OF PROPERTY, AND EVEN FATALITIES. MAJOR FACTORS CONTRIBUTING TO WILDFIRES IN THE SAN GABRIELS:

CLIMATE AND WEATHER: THE SAN GABRIEL MOUNTAINS ARE PARTICULARLY VULNERABLE TO WILDFIRES DUE TO HOT, DRY SUMMERS AND THE SANTA ANA WINDS, WHICH CAN RAPIDLY SPREAD FLAMES.

FUEL LOAD: THE AREA'S VEGETATION, INCLUDING GRASSES, SHRUBS, AND TREES, PROVIDES AMPLE FUEL FOR WILDFIRES.
HUMAN ACTIVITIES: IGNITIONS CAN OCCUR FROM HUMAN CARELESSNESS, SUCH AS UNATTENDED CAMPFIRES OR DISCARDED CIGARETTES, AS WELL AS INFRASTRUCTURE ISSUES LIKE FAULTY POWER LINES.
PROPERTY DAMAGE: WILDFIRES CAN DESTROY HOMES, BUSINESSES, AND OTHER INFRASTRUCTURE, RESULTING IN SIGNIFICANT ECONOMIC LOSSES.
LOSS OF LIFE: THESE FIRES POSE A SERIOUS THREAT TO HUMAN LIFE, WITH THE POTENTIAL FOR FATALITIES AND INJURIES.
ENVIRONMENTAL DAMAGE: WILDFIRES CAN SEVERELY HARM VEGETATION, SOIL, AND WILDLIFE HABITATS.

HISTORICAL CONTEXT: THE SAN GABRIEL MOUNTAINS HAVE EXPERIENCED WILDFIRES FOR CENTURIES, WITH EVIDENCE OF INDIGENOUS FIRE USE AND HISTORICAL ACCOUNTS OF LARGE FIRES. AS HUMAN POPULATIONS IN THE AREA HAVE INCREASED, SO HAS THE RISK AND IMPACT OF WILDFIRES.



SAN GABRIEL COMPLEX FIRE



SAN GAB. COMPLEX FIRE 6-20-2016

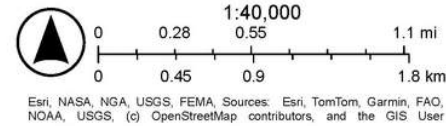
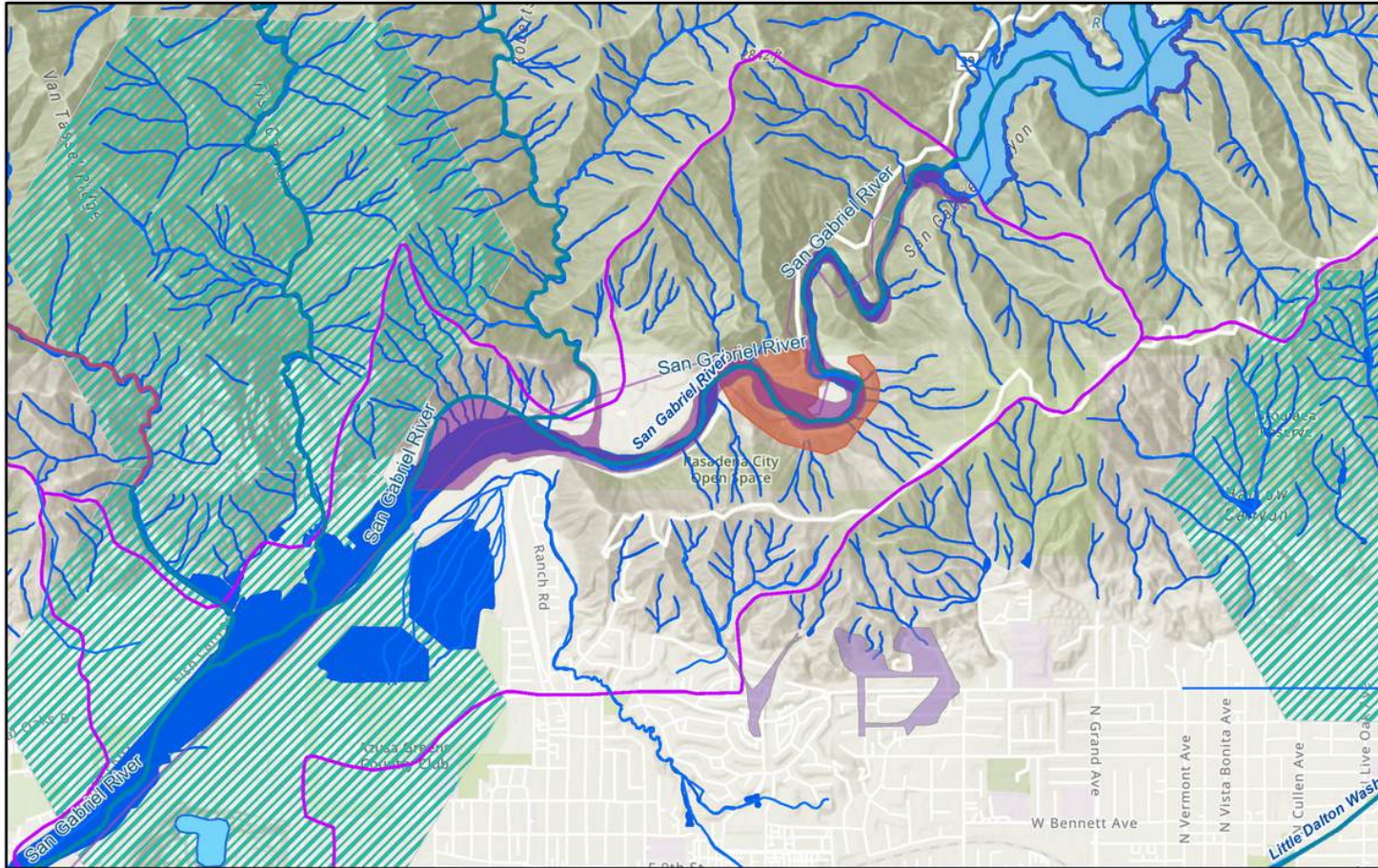


FIRE FIGHTERS IN SAN GABRIELS



FIRE RETARDANT AIR DROPS 6-20-2016

WATER SHED / HYDROLOGY



OVERVIEW

THE HYDROLOGY OF THE SAN GABRIEL MOUNTAINS IS PRIMARILY CHARACTERIZED BY THE SAN GABRIEL RIVER, WHICH ORIGINATES FROM MELTING SNOW AND RAIN RUNOFF ON THE SOUTHERN SLOPES OF THE MOUNTAINS. THE RIVER IS FED BY ITS TWO MAIN BRANCHES, THE WEST FORK AND EAST FORK, WHICH CONVERGE AT THE SAN GABRIEL RESERVOIR BEFORE FLOWING INTO THE SAN GABRIEL VALLEY AND EVENTUALLY REACHING THE PACIFIC OCEAN. KEY ASPECTS OF THE SAN GABRIEL MOUNTAINS' HYDROLOGY INCLUDE THE SAN GABRIEL RIVER WHICH IS THE MAIN RIVER FLOWING FROM THE MOUNTAINS, SOURCED FROM MELTING SNOW AND RAIN RUNOFF. THE WEST FORK AND THE EAST FORK ARE THE TWO PRIMARY TRIBUTARIES OF THE SAN GABRIEL RIVER THAT MEET AT THE SAN GABRIEL RESERVOIR. THE SAN GABRIEL VALLEY GROUNDWATER BASIN IS A BASIN THAT CONTAINS WATER-BEARING SEDIMENTS AND GROUNDWATER, BORDERED BY FAULTS AND OTHER GEOLOGICAL FEATURES. ANNUAL PRECIPITATION RANGES FROM 15 TO 31 INCHES, WITH AN AVERAGE OF ABOUT 19 INCHES. THE RIO HONDO IS A DISTRIBUTARY OF THE SAN GABRIEL RIVER THAT FLOWS WESTWARD TOWARDS THE WHITTIER NARROWS AREA. THE WHITTIER NARROWS IS A LOW-LYING AREA BETWEEN THE PUENTE HILLS AND MERCED HILLS, SERVING AS THE EXIT POINT FOR SURFACE WATER FROM THE SAN GABRIEL VALLEY. FLOOD CONTROL IS MANAGED BY VARIOUS DAMS AND CHANNELIZATION EFFORTS HAVE BEEN IMPLEMENTED TO MANAGE FLOOD FLOWS, PARTICULARLY DOWNSTREAM OF MORRIS DAM.



WATERFALL / HIKING



SAN GABRIEL DAM

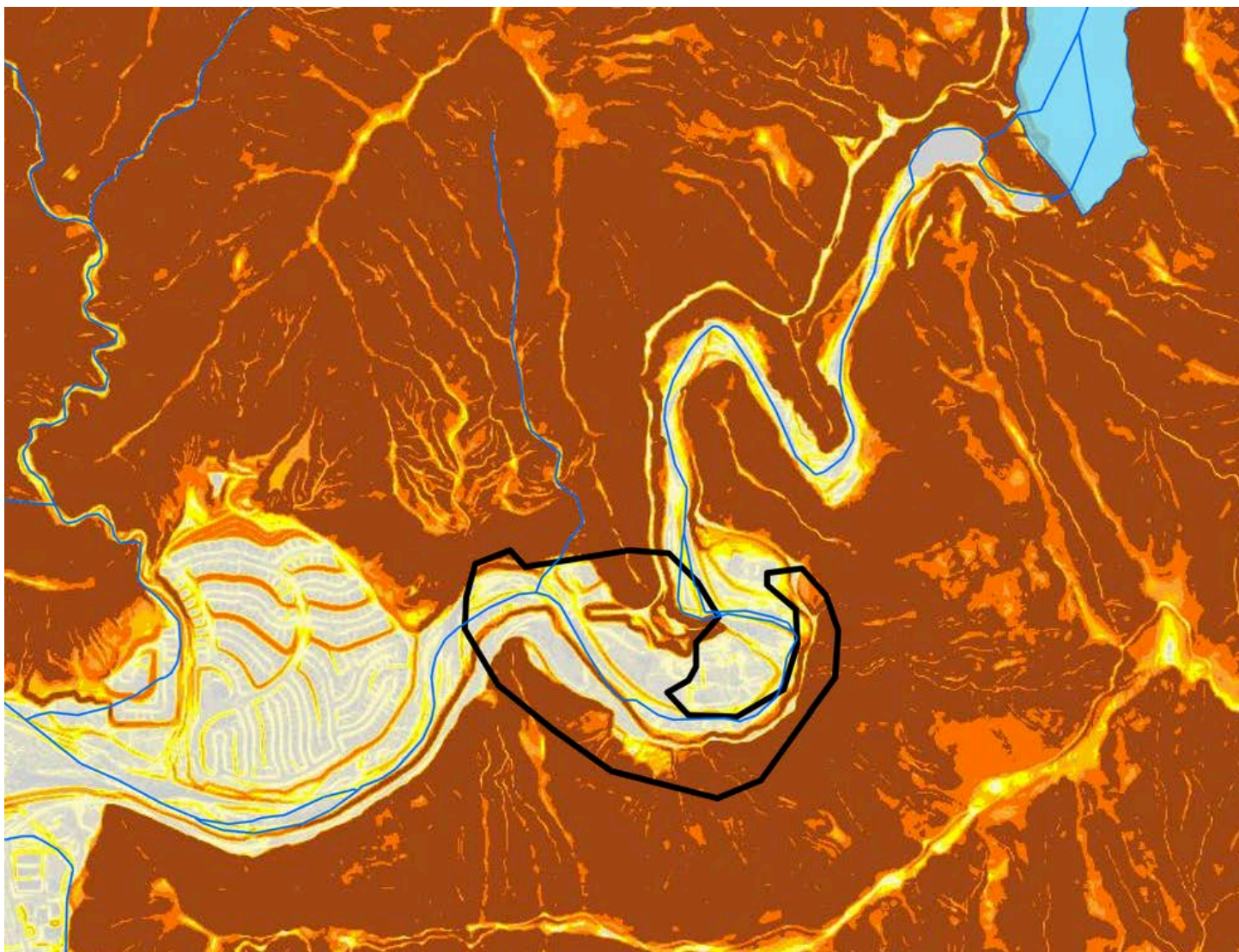


SAN GABRIEL RIVER TROUT



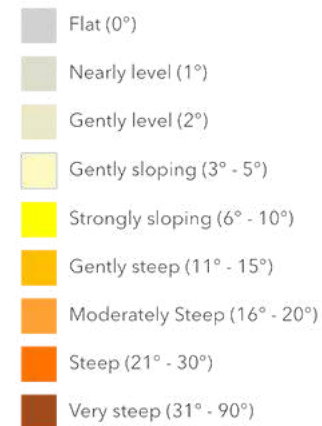
WINDING RIVER

SLOPE



LEGEND

Terrain - Slope Map



OVERVIEW

TERRAIN ENCOMPASSES THE PHYSICAL CHARACTERISTICS OF A SPECIFIC LAND AREA, INCORPORATING ELEMENTS SUCH AS ELEVATION, SLOPE, AND THE DISTRIBUTION OF NATURAL FEATURES LIKE MOUNTAINS, PLAINS, AND RIVERS. THIS COMPLEX INTERPLAY SHAPES AGRICULTURAL METHODS AND INFLUENCES VEGETATION GROWTH, MAKING IT A KEY FOCUS IN THE FIELDS OF GEOGRAPHY, GEOLOGY, AND ENVIRONMENTAL SCIENCE. THE SLOPE OF THE LAND PLAYS A VITAL ROLE IN DETERMINING WATER FLOW AND EROSION PATTERNS. A SOLID GRASP OF SLOPE DYNAMICS EMPOWERS FARMERS AND LAND MANAGERS TO MAKE STRATEGIC DECISIONS REGARDING LAND USE AND WATER CONSERVATION. MOREOVER, ANALYZING SLOPES IS INSTRUMENTAL IN ENHANCING INFRASTRUCTURE DEVELOPMENT. ASPECT, OR THE DIRECTION A SLOPE FACES, IMPACTS EXPOSURE TO SUNLIGHT, WHICH IN TURN AFFECTS TEMPERATURE, SOIL MOISTURE, AND VEGETATION TYPES. THIS DIRECTIONAL ASPECT CAN FOSTER MICROCLIMATES THAT ALTER LOCAL WEATHER PATTERNS. UNDERSTANDING THESE NUANCES IS CRUCIAL FOR MANAGING BIODIVERSITY AND EXECUTING EFFECTIVE CONSERVATION STRATEGIES. THE SAN GABRIEL MOUNTAINS EXEMPLIFY A DRAMATIC LANDSCAPE, FEATURING STEEP SLOPES AND A DIVERSE RANGE OF ELEVATIONS. THE LOWER FOOTHILLS ARE ADORNED WITH LUSH CHAPARRAL, WHILE THE HIGHER ALTITUDES BOAST DENSE FORESTS OF PINE AND FIR TREES. WITH DEEP CANYONS AND ARROYOS WOVEN THROUGHOUT.



SAN GABRIEL SLOPE



SAN GABRIEL SLOPE



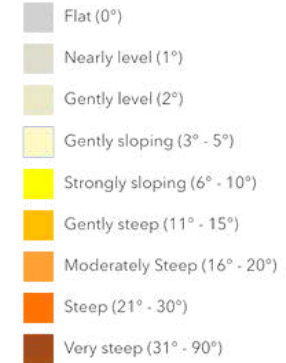
SAN GABRIEL TERRAIN

LANDSLIDE RISK



LEGEND

Terrain - Slope Map



Landslide (Deposit-Direction of Movement)

init_type

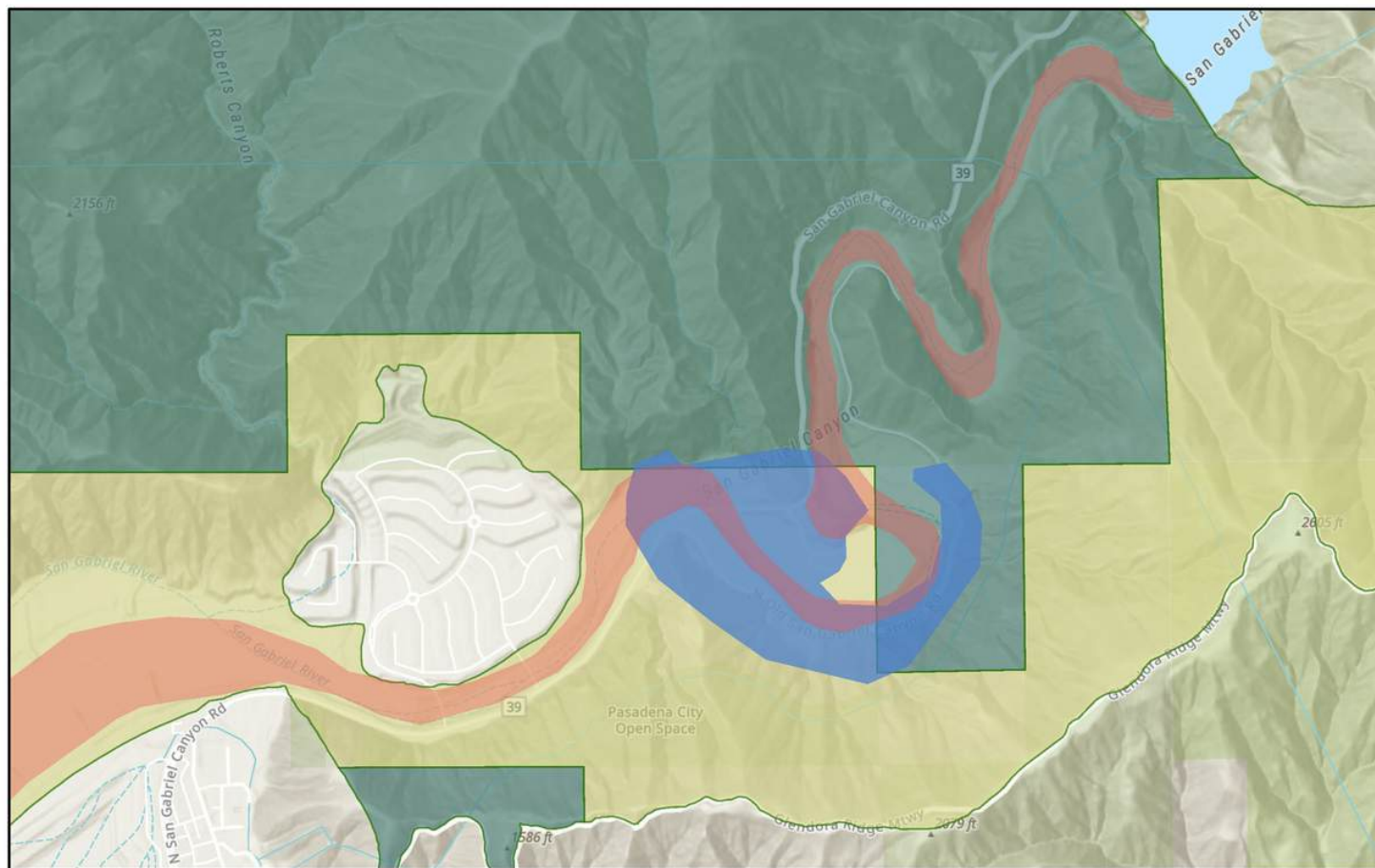


MUDSLIDES IN AZUSA CANYON - 4/25

OVERVIEW

THE SAN GABRIEL MOUNTAINS, LOCATED IN SOUTHERN CALIFORNIA, ARE A REGION WITH SIGNIFICANT LANDSLIDE RISK DUE TO A COMBINATION OF GEOLOGICAL, TOPOGRAPHICAL, AND CLIMATIC FACTORS. THERE ARE MAJOR FACTORS THAT CONTRIBUTE TO LANDSLIDE RISK IN THE SAN GABRIEL MOUNTAINS. FIRST, STEEP SLOPES AND SHATTERED ROCK: THE SAN GABRIEL MOUNTAINS HAVE A RUGGED TOPOGRAPHY WITH STEEP SLOPES AND ARE HIGHLY FRACTURED DUE TO EXTENSIVE FAULTING, MAKING THE TERRAIN INHERENTLY UNSTABLE. SECONDLY, GEOLOGICAL CONDITIONS: THE MOUNTAINS ARE COMPOSED PRIMARILY OF GRANITIC AND METAMORPHIC ROCKS, WHICH CAN BE PRONE TO WEATHERING AND EROSION, CONTRIBUTING TO LANDSLIDE SUSCEPTIBILITY. EARTHQUAKES CAN CAUSE MUCH HARM! THE SAN GABRIEL MOUNTAINS ARE LOCATED IN A SEISMICALLY ACTIVE AREA, AND EARTHQUAKES CAN TRIGGER LANDSLIDES BY SHAKING THE GROUND AND CAUSING SOIL LIQUEFACTION. HEAVY RAINFALL IS ALSO A MAJOR CONTRIBUTING FACTOR. THE REGION EXPERIENCES PERIODS OF INTENSE RAINFALL, ESPECIALLY DURING EL NIÑO EVENTS, WHICH CAN SATURATE THE SOIL, REDUCE ITS SHEAR STRENGTH, AND TRIGGER LANDSLIDES. IN ADDITION, WILDFIRES, WHICH HAVE BECOME MORE FREQUENT IN RECENT YEARS, CAN DEVASTATE VEGETATION, LEAVING SLOPES VULNERABLE TO EROSION AND INCREASING THE RISK OF DEBRIS FLOWS AND MUDSLIDES. A SIGNIFICANT LANDSLIDE OCCURRED IN THIS AREA POST STORM'S IN MID FEBRUARY 2025.

SIGNIFICANT ECOLOGICAL AREAS

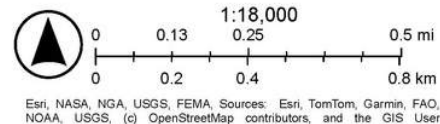


Critical Habitat - Polygon Features - Final

- █ Endangered
- █ Project Boundary

Significant Ecological Area (SEA)

- █ Significant Ecological Area
- █ Significant Ecological Area (Incorporated City)



OVERVIEW

THE SAN GABRIEL MOUNTAINS HAVE DIFFERENT CLIMATES, FROM THE DESERT AREA ON THE NORTHERN SLOPE WITH JOSHUA TREES AND PINYON PINES, TO HIGH-ELEVATION FORESTS WITH WHITE FIR AND ANCIENT LIMBER PINES THAT ARE 1,000 YEARS OLD. THE REGION HAS UNIQUE PLANT COMMUNITIES, SUCH AS CHAPARRAL AND OAK WOODLANDS, WHICH BELONG TO A RARE MEDITERRANEAN ECOSYSTEM FOUND IN ONLY 3 PERCENT OF THE WORLD. THESE MEDITERRANEAN CLIMATE ZONES HAVE A HIGH NUMBER OF PLANT SPECIES FOR THEIR SIZE. THE SAN GABRIELS ALSO SUPPORT 52 SENSITIVE PLANT SPECIES AND UP TO 300 PLANTS THAT ARE UNIQUE TO CALIFORNIA, LIKE PIERSON'S LUPINE AND SAN GABRIEL BEDSTRAW, WHICH ONLY GROW IN THIS AREA. THESE MOUNTAINS FEATURE SEVERAL KEY TYPES OF VEGETATION. THE DOMINANT CHAPARRAL SHRUBLAND IS DROUGHT-TOLERANT AND ADAPTED TO FIRE, AND INCLUDES SCRUB OAKS, CHAMISE, MANZANITA, WILD LILAC, AND WESTERN MOUNTAIN-MAHOGANY. A RELATED MIXED CONIFER FOREST INCLUDES JEFFREY PINE, SUGAR PINE, AND WHITE FIR, AS WELL AS RIPARIAN WOODLANDS WITH WHITE ALDER, SYCAMORE, AND WILLOW. THESE PLANT COMMUNITIES PROVIDE HOMES FOR MANY NATIVE ANIMALS AND INSECTS, SUCH AS IMPORTANT POLLINATORS, THE SAN GABRIEL MOUNTAINS SLENDER SALAMANDER, THE SAN BERNARDINO MOUNTAIN KINGSNAKE, SONG SPARROWS, PEREGRINE FALCONS, MULE DEER, AND PALLID BATS.



FLORA ON MOUNT WILSON TRAIL



SAN GABRIEL SLENDER SALAMANDER

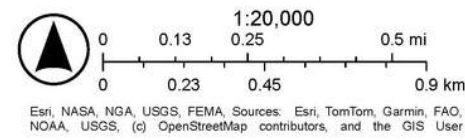
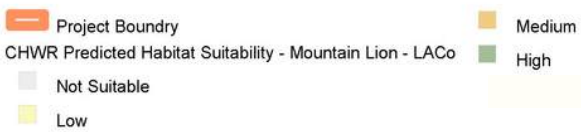
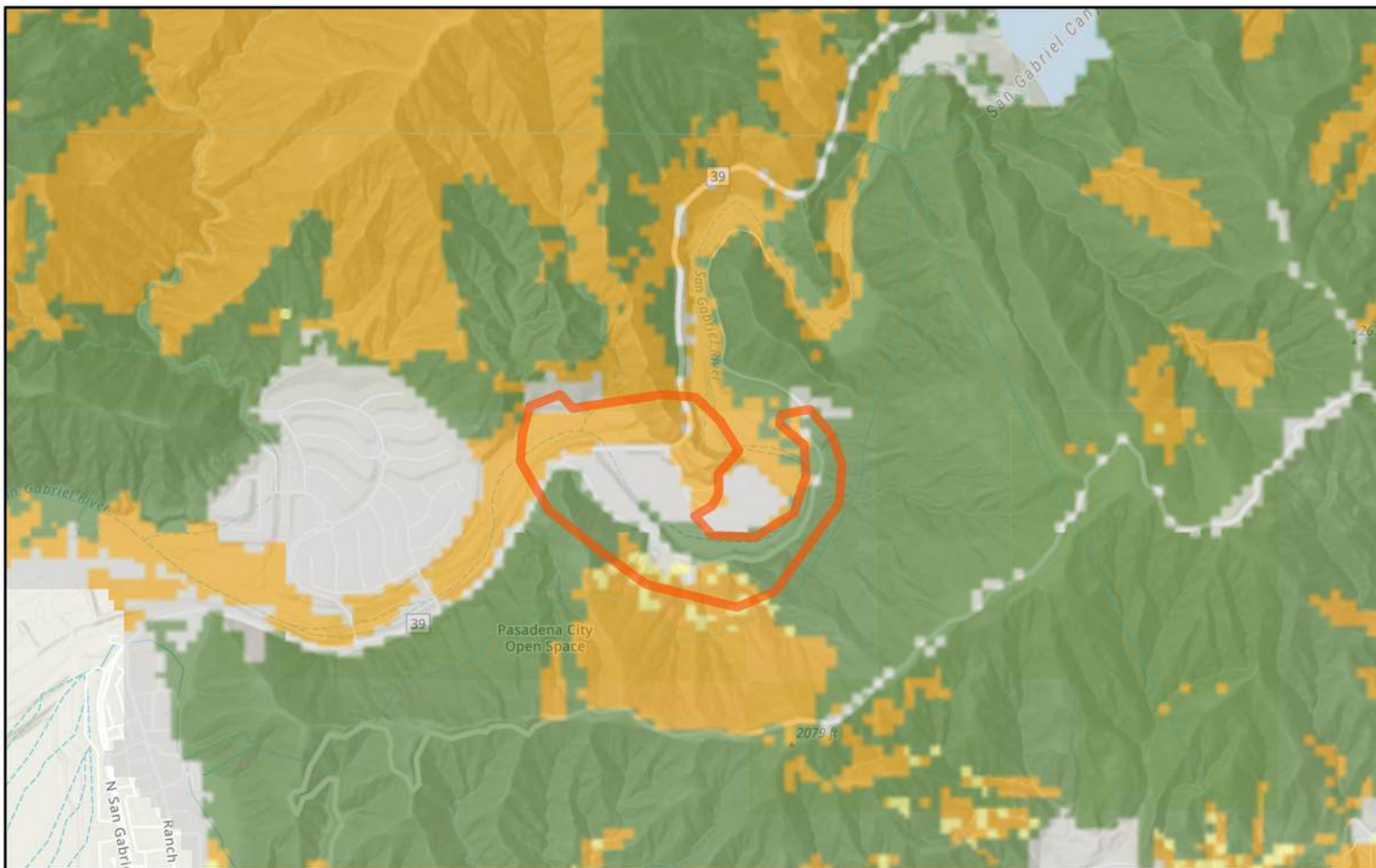


SUGAR PINE IN SAN GABRIEL



ARCTOSTAPHYLOS GABRIELENSIS

MOUNTAIN LION HABITAT



OVERVIEW

MOUNTAIN LIONS INHABIT THE SAN GABRIEL MOUNTAINS, ALTHOUGH THEIR POPULATION IS RELATIVELY SMALL, AND THEY ARE NOT OFTEN SEEN. THESE MOUNTAINS PROVIDE SUITABLE HABITAT, FEATURING DIVERSE VEGETATION TYPES SUCH AS CHAPARRAL, FORESTS, AND FOOTHILLS. WHILE THERE IS ENOUGH HABITAT TO SUPPORT A SMALL POPULATION, MOUNTAIN LIONS IN THIS AREA FACE SEVERAL CHALLENGES, INCLUDING HABITAT FRAGMENTATION AND HUMAN ACTIVITIES. THE SAN GABRIEL MOUNTAINS CONTAIN A VARIETY OF HABITATS THAT SUPPORT MOUNTAIN LIONS, INCLUDING CHAPARRAL, OAK WOODLANDS, CONIFEROUS FORESTS, AND FOOTHILLS. THESE ENVIRONMENTS OFFER COVER, PREY (SUCH AS DEER), AND OTHER RESOURCES ESSENTIAL FOR MOUNTAIN LIONS. ALTHOUGH THERE IS LIKELY A MOUNTAIN LION POPULATION IN THE SAN GABRIEL MOUNTAINS, IT IS CONSIDERED SMALL, AND SIGHTINGS ARE RARE. LIKE OTHER MOUNTAIN LION POPULATIONS IN SOUTHERN CALIFORNIA, THOSE IN THE SAN GABRIEL MOUNTAINS ENCOUNTER THREATS FROM HABITAT FRAGMENTATION DUE TO DEVELOPMENT AND ROADWAYS. THIS SITUATION LEADS TO REDUCED GENETIC DIVERSITY AND INCREASED MORTALITY RATES. ORGANIZATIONS SUCH AS THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW) AND THE NATIONAL PARK SERVICE CONDUCT STUDIES ON MOUNTAIN LIONS IN THE REGION TO BETTER UNDERSTAND THEIR BEHAVIOR AND CHALLENGES. FOR INSTANCE, THE CDFW TRACKS COLLARED MOUNTAIN LIONS TO MONITOR THEIR MOVEMENTS AND HABITAT RANGES.



MOUNTAIN LION

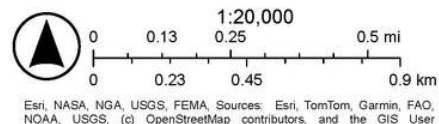
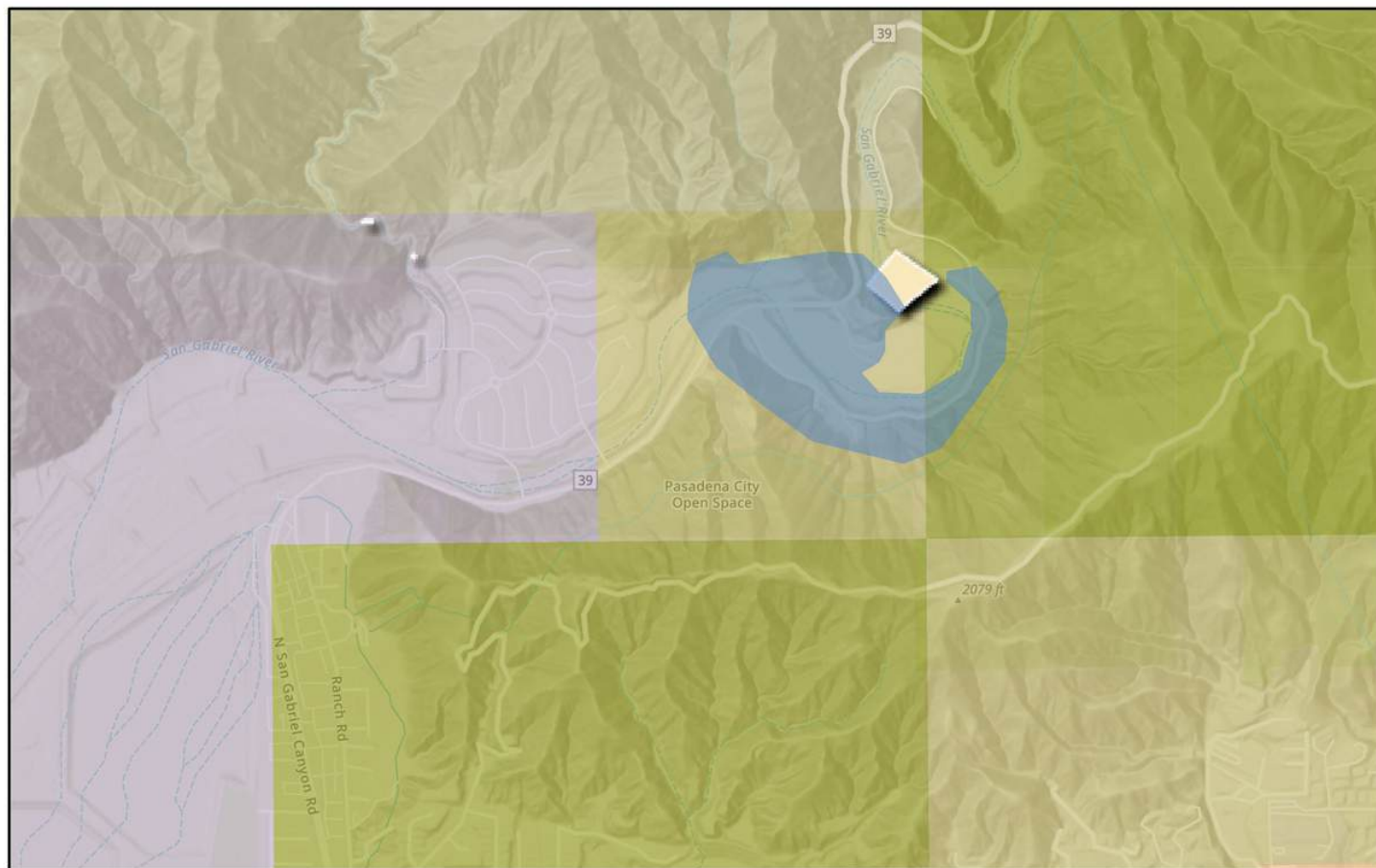


MOUNTAIN LION ABOVE AZUSA



MOUNTAIN LION ON WILDERNESS CAM

PLANT COMMUNITIES



OVERVIEW

THE SAN GABRIEL MOUNTAINS HOST A DIVERSE RANGE OF PLANT COMMUNITIES THAT THRIVE DUE TO VARIATIONS IN ELEVATION, LAND SHAPE, AND CLIMATE. THESE COMMUNITIES INCLUDE COASTAL SAGE SCRUB, CHAPARRAL, SOUTHERN OAK WOODLAND, RIPARIAN WOODLAND, AND ALLUVIAL SCRUB, EACH FEATURING UNIQUE AREAS THAT ENHANCE THE DIVERSITY OF PLANT SPECIES. COASTAL SAGE SCRUB THRIVES IN DRY CONDITIONS AND IS CHARACTERIZED BY AROMATIC SHRUBS SUCH AS CALIFORNIA SAGEBRUSH (*ARTEMISIA CALIFORNICA*) AND CALIFORNIA BUCKWHEAT (*ERIOGONUM FASCICULATUM*), WHICH ARE WELL ADAPTED TO ARID ENVIRONMENTS. CHAPARRAL REGIONS ARE DENSELY POPULATED WITH FIRE-RESISTANT SHRUBS LIKE MANZANITA (*ARCTOSTAPHYLOS* SPECIES) AND DEERBRUSH (*CEANOETHUS INTEGERRIMUS*). THIS TYPE OF LANDSCAPE IS VITAL FOR THE LOCAL ECOSYSTEM AND IS CAPABLE OF SURVIVING WILDFIRES. SOUTHERN OAK WOODLANDS ARE MARKED BY SCATTERED TREES LIKE THE COAST LIVE OAK (*QUERCUS AGRIFOLIA*) AND VALLEY OAK (*QUERCUS LOBATA*), BENEATH WHICH A VARIETY OF GRASSES AND HERBS CREATE A RICH ECOSYSTEM. RIPARIAN WOODLANDS, FOUND ALONG STREAMS AND CANYONS, SUPPORT TREES SUCH AS CALIFORNIA SYCAMORE (*PLATANUS RACEMOSA*) AND BIGLEAF MAPLE (*ACER MACROPHYLLUM*). THESE TREES PROVIDE ESSENTIAL HABITATS FOR WILDLIFE AND HELP IMPROVE WATER QUALITY. THE ALLUVIAL SCRUB COMMUNITY GROWS IN FLAT AREAS AND WASHES, FEATURING DROUGHT-RESISTANT SHRUBS AND SMALL TREES. COMMON SPECIES INCLUDE BLACK SAGE (*SALVIA SPICATA*) AND BLACK MUSTARD (*BRASSICA NIGRA*), WHICH CAN TOLERATE A RANGE OF WATER AVAILABILITY. TOGETHER, THESE PLANT COMMUNITIES ENRICH THE SAN GABRIEL MOUNTAINS AND PROVIDE CRUCIAL HABITATS FOR THE REGION'S FAUNA.



COASTAL SAGE SCRUB

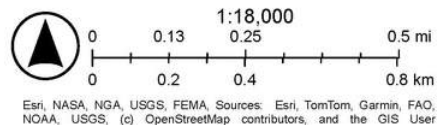
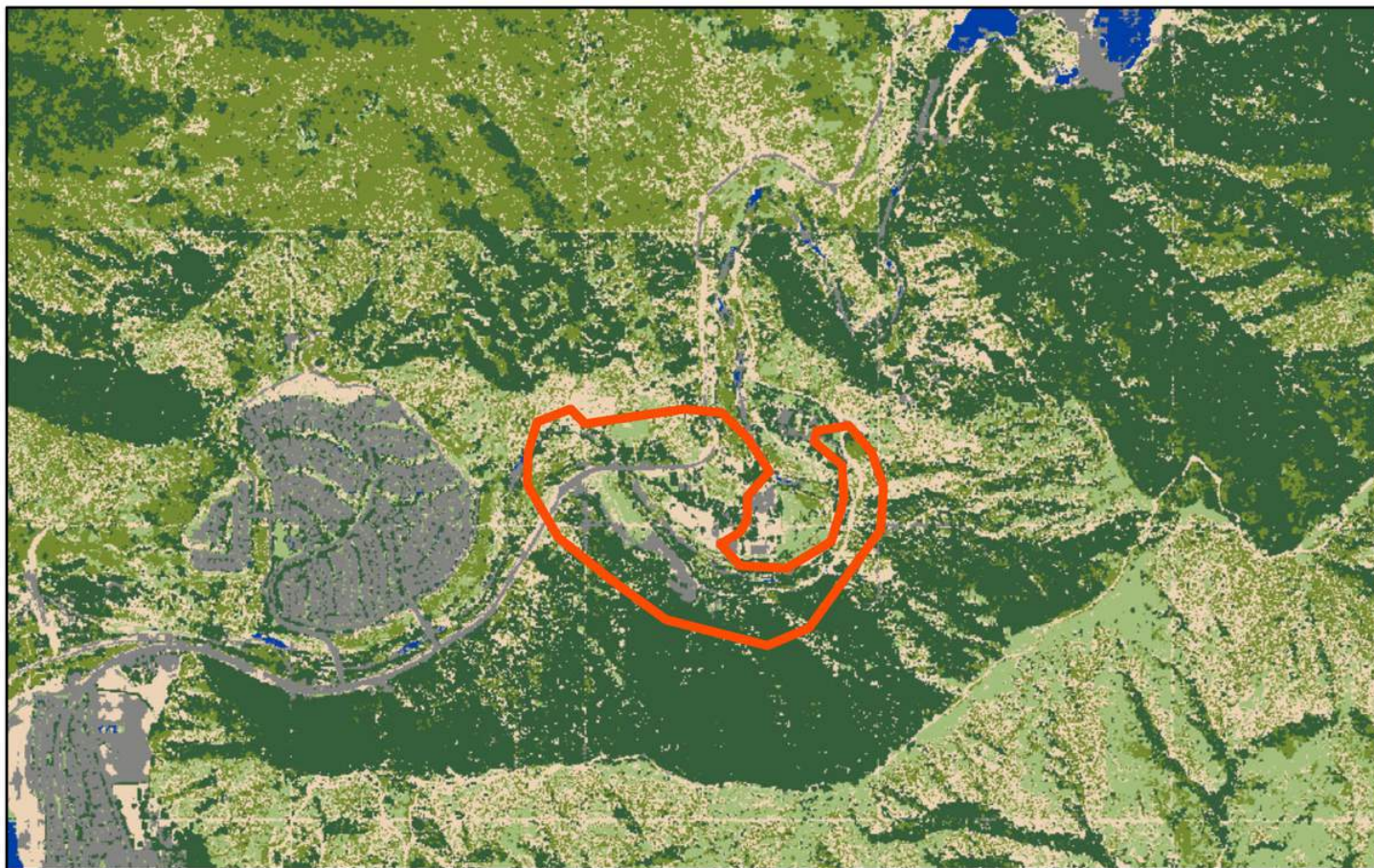


SOUTHERN CALIFORNIA OAK WOODLAND



ALLUVIAL SCRUB

LAND COVER CLASSIFICATIONS



OVERVIEW

THE PRIMARY LAND COVER CLASSIFICATION IDENTIFIES THE DOMINANT THEMATIC LAND COVER CLASS FOR A SPECIFIC MAPPING YEAR AND AREA. CATEGORIZING SURFACES AS EITHER ARTIFICIAL OR NATURAL. THIS MAP HIGHLIGHTS VARIOUS ELEMENTS, INCLUDING TREE CANOPY, SHRUBS, GENERAL GROUND COVER, BARE GROUND, AND IMPERVIOUS SURFACES, WITH WATER ALSO BEING REPRESENTED. UNDERSTANDING THIS INFORMATION HELPS US ASSESS THE OVERALL EXTENT OF VEGETATION TYPES PRESENT ON AND AROUND OUR SITE. ADDITIONAL MAPS PROVIDE MORE DETAILED CLASSIFICATIONS. OUR ANALYSIS INDICATES THAT AZUSA WILDERNESS PARK HAS A SUBSTANTIAL AMOUNT OF TREE COVER, BARE GROUND, AND IMPERVIOUS SURFACES.



SAN GABRIEL RIVER - AZUSA WILDERNESS PARK



SAN GABRIEL TREE CANOPY



SHRUB COVER SAN GABRIEL



IMPERVIOUS SURFACES @ AWP



BARE GROUND ON TRAIL SYSTEM AT - AWP



CASE STUDIES

CASE STUDY I - CANYON DE CHELLY

OVERVIEW

SIZE:

LOCATION: CHINLE, ARIZONA

TYPE: NATIONAL MONUMENT

KEY FEATURES

- CULTURAL ENGAEMENT PROGRAMS
- INDIGENOUS HISTORY AND LAND MANAGEMENT
- DEEP CANYONS AND GEOLOGIC FORMATIONS
- SEASONAL RIVERWASHES
- ABUNDANT NATIVE SPECIES OF PLANTS
- CULTURAL HERTIAGE EDUCATION
- TRAIL SYSTEMS
- MULTIPLE AREAS FOR ENTRANCES AND VIEWS
- HISTORIC RUINS
- WELCOME CENTER



METHODOLOGY AND TAKE AWAYS

CANYON DE CHELLY IS A UNIQUE NATIONAL MONUMENT DUE TO THE FACT THAT IT IS THE CURRENT RESIDENCE OF THE INDIGENOUS DINÉ PEOPLE, WHO HAVE CONTINUOUSLY OCCUPIED THE COLORADO PLATEAU FOR OVER 5,000 YEARS. THESE FAMILIES TEND THE LAND, FARM, AND RAISE LIVESTOCK THROUGHOUT THE CANYONS. THE ENTIRE CANYON SYSTEM IS OWNED BY THE NAVAJO TRIBAL TRUST AND IS CO-MANAGED BY THE NAVAJO NATION, THE NATIONAL PARK SERVICE, AND THE LOCAL PARKS AND RECREATION ORGANIZATION. THIS ARRANGEMENT ENSURES THAT THE LAND IS RESPECTED AND THAT ALL STAKEHOLDERS SHARE RESPONSIBILITY. AZUSA WILDERNESS PARK COULD ALSO EXPLORE CO-MANAGEMENT WITH THE INDIGENOUS PEOPLE WHO HAVE LIVED ON AND MAINTAINED THE LAND FOR CENTURIES. CERTAIN AREAS OF THE PARK ARE RESTRICTED AND REQUIRE ACCOMPANIMENT BY A NATIVE GUIDE. THIS CONNECTION WITH THE INDIGENOUS COMMUNITY COULD BE INCORPORATED INTO PROGRAMMING AT THE WILDERNESS PARK. THERE ARE UNIQUE CULTURAL MONUMENTS ON-SITE, SUCH AS THE WHITE HOUSE RUINS, WHICH ARE SURROUNDED BY STUNNING SANDSTONE WALLS. THE LAND IS RICH IN A DIVERSE ARRAY OF PLANT SPECIES. AT HIGHER ELEVATIONS NEAR THE MESA, YOU CAN EXPERIENCE THE NOBLE BEAUTY OF DOUGLAS FIR, PONDEROSA PINE, QUAKING ASPEN, AND GAMBEL OAK. AS YOU DESCEND TO LOWER ELEVATIONS, YOU ENTER PINYON AND JUNIPER WOODLANDS AND ENCOUNTER SPECIES SUCH AS YUCCA, RABBITBRUSH, AND ARTEMISIA. UPON REACHING THE VAST CANYON FLOOR, YOU MEET THE CHINLE WASH, A SEASONAL RIVERBED. LIKE CANYON DE CHELLY, OUR SITE ALSO FEATURES UNIQUE GEOLOGICAL FORMATIONS AND A DEEP RELATIONSHIP WITH WATER, ALONG WITH A PLETHORA OF NATIVE PLANT SPECIES. THESE ELEMENTS PRESENT VALUABLE OPPORTUNITIES FOR EDUCATION THAT COULD BE SHARED AMONG ALL STAKEHOLDERS MANAGING THE PARK.



UNIQUE GEOLOGIC FORMATIONS



APPROACHING SEASONAL RIVERBED



WHITE HOUSE RUINS



SANDSTONE CANYON FACES

CASE STUDY 2 - YUMA NATIONAL HERITAGE AREA

OVERVIEW

SIZE: 1,500 ACRES

LOCATION: YUMA, ARIZONA

TYPE: OPEN SPACE/RESTORATION

KEY FEATURES

- EDUCATIONAL AND VOLUNTEER OPPORTUNITIES
- CULTURAL AND ENVIRONMENTAL PROGRAMING
- PROGRAMED AREAS FOR USER ENGAGEMENT
- FOCUS ON HABITAT AND RESTORATION
- TRAIL SYSTEMS
- CONNECTION TO INDIGENOUS CULTURE
- REVITALIZED COMMUNITY
- RICH RELATIONSHIP TO WATER
- REDUCED ENERGY AND WATER DEMAND
- BIO-ENGINEERED SOLUTIONS
- EQUESTIRAN COMPONENT



METHODOLOGY AND TAKE AWAYS

THE YUMA WETLANDS ARE A SIGNIFICANT CONSERVATION PROJECT LOCATED IN YUMA, ARIZONA. DESIGNED BY FRED PHILLIPS CONSULTING, THE PROJECT HAS SUCCESSFULLY RESTORED HUNDREDS OF ACRES OF VITAL WETLAND HABITAT. THE SITE OFFERS A VARIETY OF RECREATIONAL OPPORTUNITIES, INCLUDING WALKING AND EQUESTRIAN TRAILS. IT IS HOME TO MANY NATIVE PLANT AND ANIMAL SPECIES, INCLUDING THE ENDANGERED RIDGEWAY’S RAIL AND THE YELLOW-BILLED CUCKOO. THE RESTORATION EFFORTS HAVE REESTABLISHED THE NATURAL FLOW OF THE WATERWAYS AND REPLACED INVASIVE PLANT SPECIES WITH LOCAL, ENDEMIC VARIETIES. SIMILAR TO AZUSA WILDERNESS PARK, THE WETLANDS ARE OWNED AND MAINTAINED THROUGH A COLLABORATION BETWEEN THE CITY OF YUMA, THE ARIZONA FISH AND GAME DEPARTMENT, AND THE QUECHAN INDIAN TRIBE. TOGETHER, THESE ORGANIZATIONS HAVE COORDINATED THE RESTORATION OF THE WETLANDS, AS WELL AS THE DEVELOPMENT OF TRAILS AND RECREATIONAL PROGRAMMING. WHILE FIRES HAVE OCCURRED IN ADJACENT AREAS, EFFORTS HAVE BEEN MADE TO REPAIR THE RESULTING BURN SCARS. THE SITE, WHICH WAS ONCE A CITY LANDFILL, NOW ATTRACTS A RECORD NUMBER OF VISITORS. POPULATIONS OF THE ENDANGERED BIRDS ARE STARTING TO RECOVER AS THEIR HABITAT IS RESTORED. THE NATIONAL HERITAGE AREA (NHA) OFFERS A VARIETY OF CULTURAL, EXPERIENTIAL, AND EDUCATIONAL PROGRAMS RELATED TO THE WETLANDS, WHICH COULD BE ADAPTED FOR OUR SITE ALONG THE RIVER, DAM, AND NATIVE SPECIES. LIKE AZUSA, THE WETLANDS PROJECT HAS BEEN COMPLETED IN PHASES AND SEEKS FUNDING FROM VARIOUS ORGANIZATIONS AND INITIATIVES.



WETLAND BANKS



EXPERIENTIAL PROGRAMMING



DESTINATIONS AND SHADE



EQUESTRIAN ENGAGEMENT

CASE STUDY 3 - WILDWOOD CANYON STATE PARK

OVERVIEW

SIZE: 900 ACRES

LOCATION: YUCAIPA, CALIFORNIA

TYPE: NATURE PRESERVE

KEY FEATURES

- ROBUST TRAIL SYSTEM
- NATIVE CHAPPARAL AND SAGE SCRUB HABITAT
- RECREATION AND EQUESTRIAN ACTIVITIES
- WILDLIFE HABITAT
- MULTIPLE ENTRANCES AND VIEWS
- MIGRATORY BIRD AND OBSERVATION SITE
- WELCOME CENTER
- PRESERVATION OF FOOTHILLS



METHODOLOGY AND TAKE AWAYS



WELCOME CENTER



HABITAT FOR NATIVE FAUNA



HISTORIC BUILDINGS



NATIVE OAK HABITATS

WILDWOOD CANYON, AKIN TO OUR AZUSA SITE, IS A RICH HABITAT NESTLED IN THE FOOTHILLS OVERLOOKING THE SUBURBS OF THE INLAND EMPIRE. THIS REMARKABLE LOCATION OFFERS NOT ONLY PANORAMIC VIEWS OF THE STUNNING SURROUNDING VALLEYS BUT ALSO AN UNPARALLELED NATURE EXPERIENCE. AS PART OF THE MAJESTIC SAN BERNARDINO MOUNTAINS, THE PARK BOASTS EXPANSIVE GRASSLANDS, CANOPIES OF CENTURIES-OLD INTERIOR LIVE OAKS, AND VITAL CHAPPARRAL AND SAGE SCRUB HABITATS, MAKING IT A SANCTUARY FOR DIVERSE WILDLIFE. IN ADDITION TO ITS NATURAL BEAUTY, WILDWOOD CANYON IS STEEPED IN HISTORY, PRESERVING THE REMNANTS OF PAST RANCHES AND HOMESTEADS. THIS REGION WAS HISTORICALLY A CROSSROADS FOR INDIGENOUS PEOPLES, WITH THE CAHUILLA, SERRANO, AND TONGVA TRIBES. THE CAHUILLA TRIBE WERE ESPECIALLY PROMINENT, CREATING A DEEP CULTURAL TAPESTRY. WILDWOOD CANYON PRESENTS OPPORTUNITIES FOR DAY HIKING AND EQUESTRIAN ADVENTURES, FEATURING MILES OF WINDING TRAILS THAT MEANDER PAST HISTORIC STRUCTURES AND THROUGH BREATHTAKING NATURAL LANDSCAPES. YOU'LL FIND TOWERING INTERIOR LIVE OAKS AND VIBRANT SYCAMORE WOODLANDS FLOURISHING ALONG THE CANYON BOTTOMS, WITH SOME OAKS ESTIMATED TO BE BETWEEN 150 AND 250 YEARS OLD, FORMING A BEAUTIFUL, SHADED CANOPY. OTHER PLANTS INCLUDE CALIFORNIA LILACS, VARIOUS SAGE SPECIES, BUCKWHEAT, MONKEY FLOWER, LORD'S CANDLE, AND SILK TASSEL BUSH, ECHOING THE PALETTE FOUND AT OUR AZUSA SITE. CURRENTLY, WILDWOOD CANYON IS OPEN FOR DAY USE FROM SUNRISE TO SUNSET, INVITING OUTDOOR ENTHUSIASTS TO IMMERSE THEMSELVES IN NATURE.

CASE STUDY 4 - STORY MILL COMMUNITY PARK

OVERVIEW

SIZE: 60 ACRES

LOCATION: BOZEMAN, MONTANA

TYPE: NATURE PRESERVE / COMMUNITY PARK

KEY FEATURES

- NATURE PRESERVE / OPEN SPACE
- CULTURAL AND COMMUNITY PROGRAMMING
- TRAIL SYSTEMS
- IMMERSIVE ART INSTALLATIONS
- LEARNING AND EDIBLE GARDENS
- NATURAL PLAY SPACES
- RIVERFRONT EXPERIENCES
- CONNECTIONS TO REGIONAL RAIL LINES
- BIKE PATHS
- BIRD HABITAT AND CULTURE
- COMMUNITY CENTER / GYM



METHODOLOGY AND TAKE AWAYS

STORY MILL COMMUNITY PARK, NESTLED IN THE HEART OF BOZEMAN, MONTANA, IS A VIBRANT TESTAMENT TO THE AREA'S RICH AGRICULTURAL HERITAGE AND CULTURAL HISTORY. AT THE CENTER OF THE PARK STANDS THE ICONIC STORY MILL, ONCE A HUB OF WHEAT AND FLOUR PRODUCTION, SURROUNDED BY BREATHTAKING MOUNTAINS AND TRIBUTARIES THAT ECHO THE REGION'S DEEP CONNECTION TO INDIGENOUS AND AGRICULTURAL HISTORY. ALTHOUGH URBAN DEVELOPMENT HAS HISTORICALLY DISRUPTED THE LOCAL ECOSYSTEM AND INTRODUCED INVASIVE SPECIES, THE PARK HAS UNDERGONE A REMARKABLE TRANSFORMATION. TODAY, IT THRIVES AS BOZEMAN'S LARGEST NATURE PARK, SHOWCASING A DIVERSE ARRAY OF NATIVE SPECIES AND SERVING AS A SANCTUARY FOR MIGRATORY BIRDS AND WILDLIFE. THIS REVITALIZED SPACE IS MORE THAN JUST A PARK; IT IS A DYNAMIC COMMUNITY GATHERING POINT, FOSTERING SOCIAL CONNECTIONS AND CULTURAL ENGAGEMENT. WITHIN THE PARK, VISITORS CAN EXPLORE A VARIETY OF AMENITIES, INCLUDING A COMMUNITY CENTER, A GYM, AND ROTATING ART INSTALLATIONS THAT CELEBRATE LOCAL CREATIVITY. ONE STANDOUT FEATURE THAT COULD BE ESPECIALLY BENEFICIAL IN OUR AZUSA PROJECT, IS THE HALF-ACRE LEARNING GARDEN AND FOOD FOREST, WHICH SUPPLIES FRESH PRODUCE TO THE COMMUNITY AND PROMOTES SUSTAINABLE LIVING. THE PARK IS THOUGHTFULLY DESIGNED WITH EXTENSIVE INFORMATIONAL SIGNAGE AND WAYFINDING, ENSURING EASY NAVIGATION FOR ALL. ADDITIONALLY, INVITING SPACES FOR RELAXATION ARE STRATEGICALLY PLACED THROUGHOUT, OFFERING ESSENTIAL MOMENTS OF RESPIRE AND TRANQUILITY. MOREOVER, THE COLLABORATIVE EFFORTS OF LOCAL ORGANIZATIONS AND AUTHORITIES LED TO THE CREATION OF 31 BELOW-MARKET-RATE HOMES, PAVING THE WAY FOR EQUITABLE HOUSING SOLUTIONS AND ESTABLISHING BOZEMAN'S SECOND COMMUNITY HOUSING TRUST. THIS INNOVATIVE APPROACH HIGHLIGHTS THE POTENTIAL FOR INCORPORATING ACCESSIBLE HOUSING INTO OUR PROJECT.



PLAY SPACES



RIVERBANKS AND NATURAL VEGETATION



EXPERIENTIAL AND EDUCATIONAL GARDENS



ART INSTALLATIONS

CASE STUDY 5 - POWER TO BE - BASECAMP

OVERVIEW

SIZE: 78 ACRES

LOCATION: VICTORIA, CANADA

TYPE: OUTDOOR ACTIVITY CENTER

KEY FEATURES

- INCLUSIVE AND ACCESSIBLE ACCESS TO NATURE
- RETREAT AND CONFERENCE CENTER
- ADA THROUGH LINE SITE FOCUS
- CULTURAL/COMMUNITY BASED PROGRAMMING
- ENGAGEMENT WITH INDIGENOUS COMMUNITIES
- NATURAL PLAY SPACES
- STORM WATER/ INFILTRATION FEATURES
- WILDERNESS SCHOOL
- VOLUNTEER OPPORTUNITIES
- LANDSCAPE RESTORATION AND TRAINING PROGRAM



METHODOLOGY AND TAKE AWAYS

THE POWER TO BE BASECAMP, STANDS AS A REMARKABLE MULTIPURPOSE OUTDOOR ACTIVITY CENTER IN VICTORIA, CANADA, WHICH SET ON A ONCE-DECOMMISSIONED GOLF COURSE THAT BORDERS THE SERENE WATERS OF PROSPECT LAKE, AN AREA THAT IS HISTORICALLY LINKED TO THE LEKWUNGEN PEOPLE. THIS UNIQUE SPACE SERVES AS THE HEART OF, POWER TO BE, A NONPROFIT ORGANIZATION DEDICATED TO BREAKING DOWN BARRIERS FOR YOUTH, FAMILIES, AND ADULTS WHO FACE COGNITIVE, PHYSICAL, FINANCIAL, AND SOCIAL CHALLENGES. THROUGH A DIVERSE SET OF PROGRAMS, POWER TO BE PROVIDES INCLUSIVE OUTDOOR ADVENTURES, PERSONAL GROWTH, AND SOCIAL TRANSFORMATION. INTEGRATING A CONCEPT LIKE "POWER TO BE" INTO OUR AZUSA DESIGN COULD BE TRANSFORMATIVE, ESPECIALLY CONSIDERING THAT THE CURRENT EMPHASIS ON ACCESSIBILITY IS STILL VERY LIMITED. THE LANDSCAPE DESIGN OF POWER TO BE ARE DELIBERATELY CONNECTED TO THE SITE'S RICH NATURAL ENVIRONMENT, ENCOMPASSING 78 ACRES OF LUSH FORESTS, OPEN FIELDS, AND HYDROLOGY. THIS SYMBIOSIS ALLOWS INDIVIDUALS TO TRULY ENGAGE WITH NATURE. NOTABLY, A PREVIOUSLY BURIED CREEK HAS BEEN RESTORED TO FLOW FREELY FOR MUCH OF THE YEAR, HAS IGNITED ONGOING RESTORATION EFFORTS WITHIN THE COMMUNITY. AN RAIN GARDEN, WHICH ECHOS THE HYDROLOGICAL PATTERNS OF THE AREA BEFORE DEVELOPMENT, SUPPORT A THRIVING HABITAT OF NATIVE PLANTS. AT ITS CORE, POWER TO BE EMBODIES THE BELIEF THAT EVERY INDIVIDUAL DESERVES A PLACE IN NATURE. THE SITE FOSTERS A MULTITUDE OF EXPERIENCES THAT DEEPEN PARTICIPANTS CONNECTIONS WITH THE OUTDOORS, ALL GROUNDED IN THE PRINCIPLES OF UNIVERSAL ACCESSIBILITY AND INCLUSION. A COMPELLING MISSION STATEMENT, RESONATING WITH THE SPIRIT OF "POWER TO BE," COULD SERVE AS AN INSPIRING FOUNDATION FOR THE AZUSA PROJECT, EMPHASIZING THE IMPORTANCE OF ACCESS TO NATURE FOR EVERYONE.



BASECAMP ENTRANCE



WETLAND AND TRIBUTARY AREAS



NATURAL PLAY AREAS



ADA ACCESSIBLE PROGRAMMING



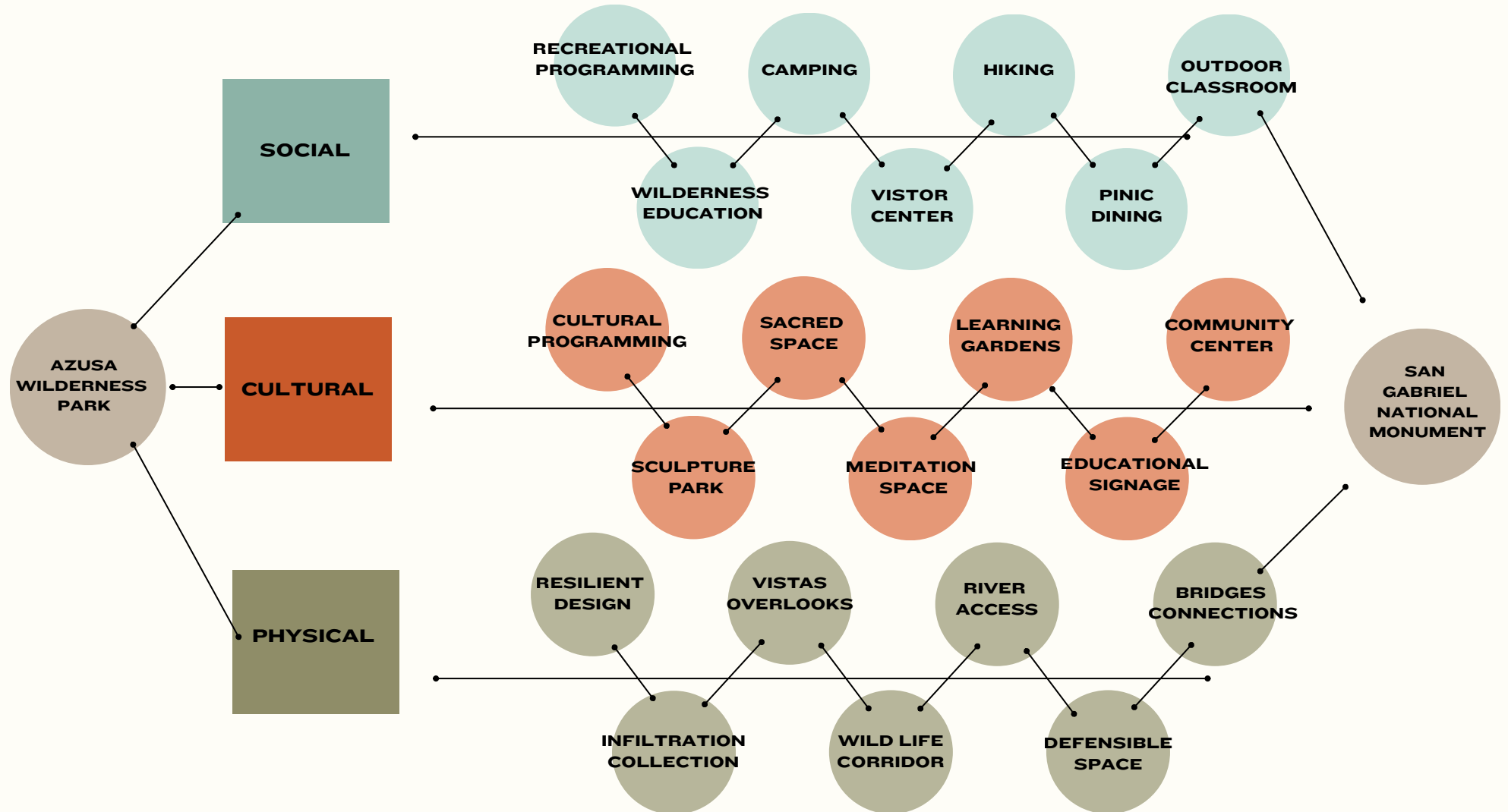
DESIGN DEVELOPMENT

CONCEPT DIAGRAMS

THE GATEWAY



AZUSA WILDERNESS PARK OFFERS AN EXCELLENT INTRODUCTION TO THE ENVIRONMENT, NATIVE CULTURE, AND THE VARIOUS RECREATIONAL OPPORTUNITIES AVAILABLE IN THIS EXPANSIVE MOUNTAIN RANGE. VISITORS CAN ENJOY ACCESSIBLE DAY USE, CAMPING, AND ACTIVITIES THAT MIGHT OTHERWISE BE DIFFICULT TO ACCESS IN THE HIGHER ELEVATIONS. THIS CREATES AN EQUITABLE OPEN SPACE EXPERIENCE FOR DIVERSE USERS. ADDITIONALLY, AZUSA WILDERNESS PARK CAN SERVE AS A GREAT STOP FOR THOSE LOOKING TO EXPLORE THE OFFERINGS OF THE ENTIRE MONUMENT BEFORE HEADING FURTHER NORTH. THROUGH THE INTEGRATION OF SOCIAL, CULTURAL, AND PHYSICAL ELEMENTS, THE DESIGN CONCEPT FOR AZUSA WILDERNESS PARK CAN BECOME IMMERSIVE, CULTURALLY ENRICHED, AND ECOLOGICALLY ROBUST FOR BOTH HUMAN AND NON-HUMAN VISITORS.

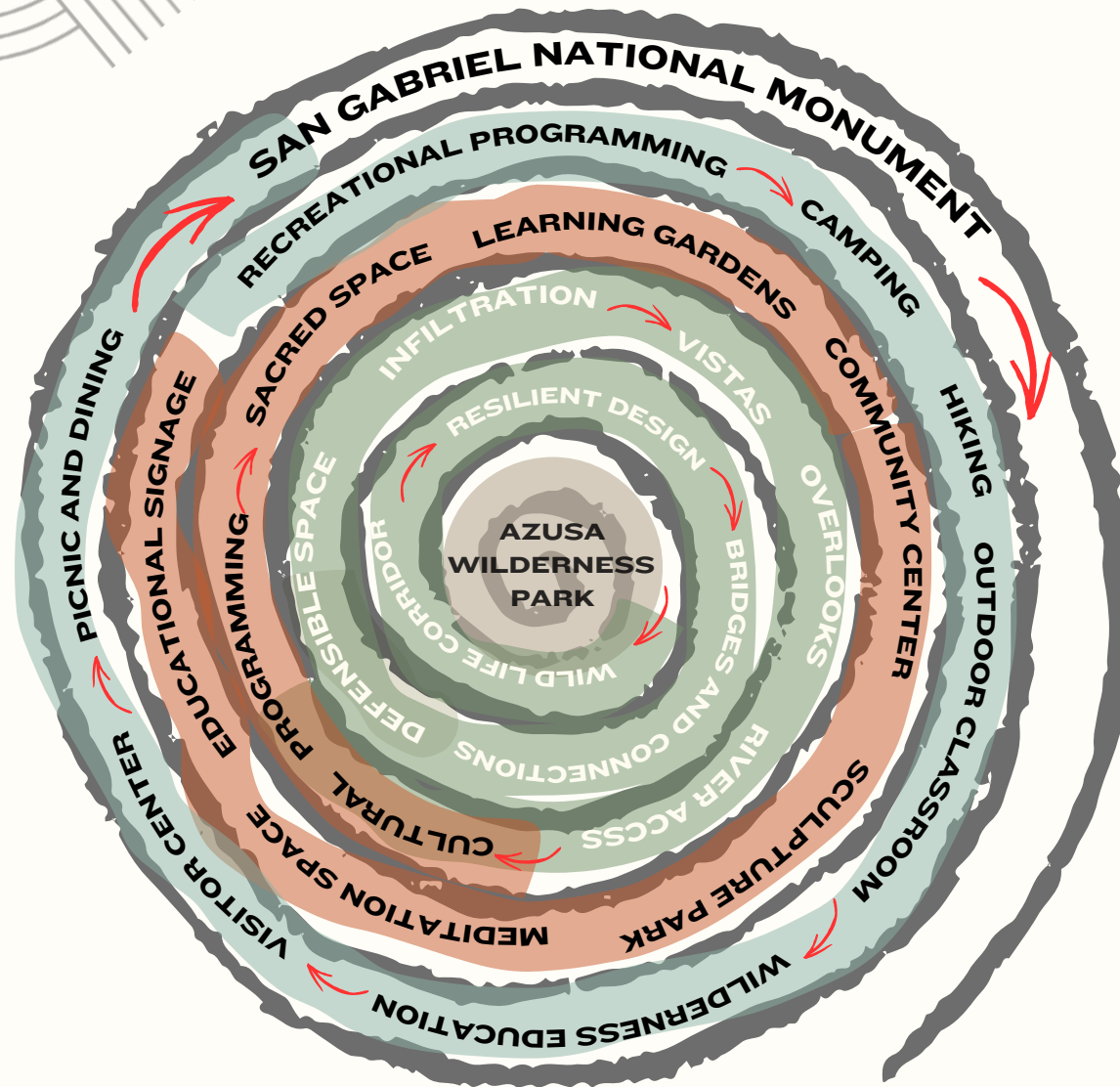


CONCEPT DIAGRAMS

THE WOVEN BASKET



THE CONCEPT OF THE WOVEN BASKET SERVES AS A METAPHOR ROOTED IN THE INDIGENOUS HISTORY OF THE AREA. THE GABRIELINO-TONGVA PEOPLE WERE SKILLED WEAVERS, ARTISTS, AND TAPESTRY MAKERS. THE BASKET REPRESENTS THE GREATER WHOLE OF AZUSA WILDERNESS PARK AND SAN GABRIEL NATIONAL MONUMENT, INTRICATELY WOVEN TOGETHER THROUGH IMPORTANT METAPHORICAL THREADS: SOCIAL, CULTURAL, AND PHYSICAL. THIS COMBINATION CREATES AN EXPERIENCE THAT INTEGRATES RESILIENT ENVIRONMENTAL DESIGN, HISTORICAL AND CULTURAL PROGRAMMING, AS WELL AS STEWARDSHIP AND GATHERING SPACES. THE END PRODUCT FORMS A SACRED SPACE THAT EMBODIES VALUE, COMMUNITY, AND ECOLOGY ALL WITHIN ONE VESSEL.



SOCIAL

CULTURAL

PHYSICAL



CONCEPT DIAGRAMS

THE BRIDGE



THE BRIDGE SYMBOLIZES THE POTENTIAL CONNECTION BETWEEN AZUSA WILDERNESS PARK AND SAN GABRIEL NATIONAL MONUMENT. BY ESTABLISHING STRONG SOCIAL, CULTURAL, AND PHYSICAL FOUNDATIONS, VISITORS CAN FULLY APPRECIATE THE DIVERSE WONDERS OF THIS MOUNTAIN RANGE. THIS SITE NOT ONLY PROVIDES ACCESS TO THE SAN GABRIELS' BEAUTY BUT ALSO DEEPENS THE APPRECIATION FOR NATURE THROUGH HIKING, CLIMBING, AND EXPLORING ITS UNIQUE FLORA AND FAUNA. ADDITIONALLY, THE SPACE CAN CONNECT COMMUNITIES TO NATURE BY OFFERING EDUCATIONAL PROGRAMS AND WORKSHOPS THAT PROMOTE STEWARDSHIP AND ENVIRONMENTAL AWARENESS. THESE INITIATIVES WILL HIGHLIGHT THE IMPORTANCE OF PRESERVING NATURAL HERITAGE FOR FUTURE GENERATIONS. AZUSA WILDERNESS PARK EMBODIES THE IDEA OF BRIDGING GAPS BETWEEN COMMUNITIES, LEARNING, AND NATURE, INVITING EVERYONE TO EXPLORE AND CONNECT WITH THE OUTDOORS.



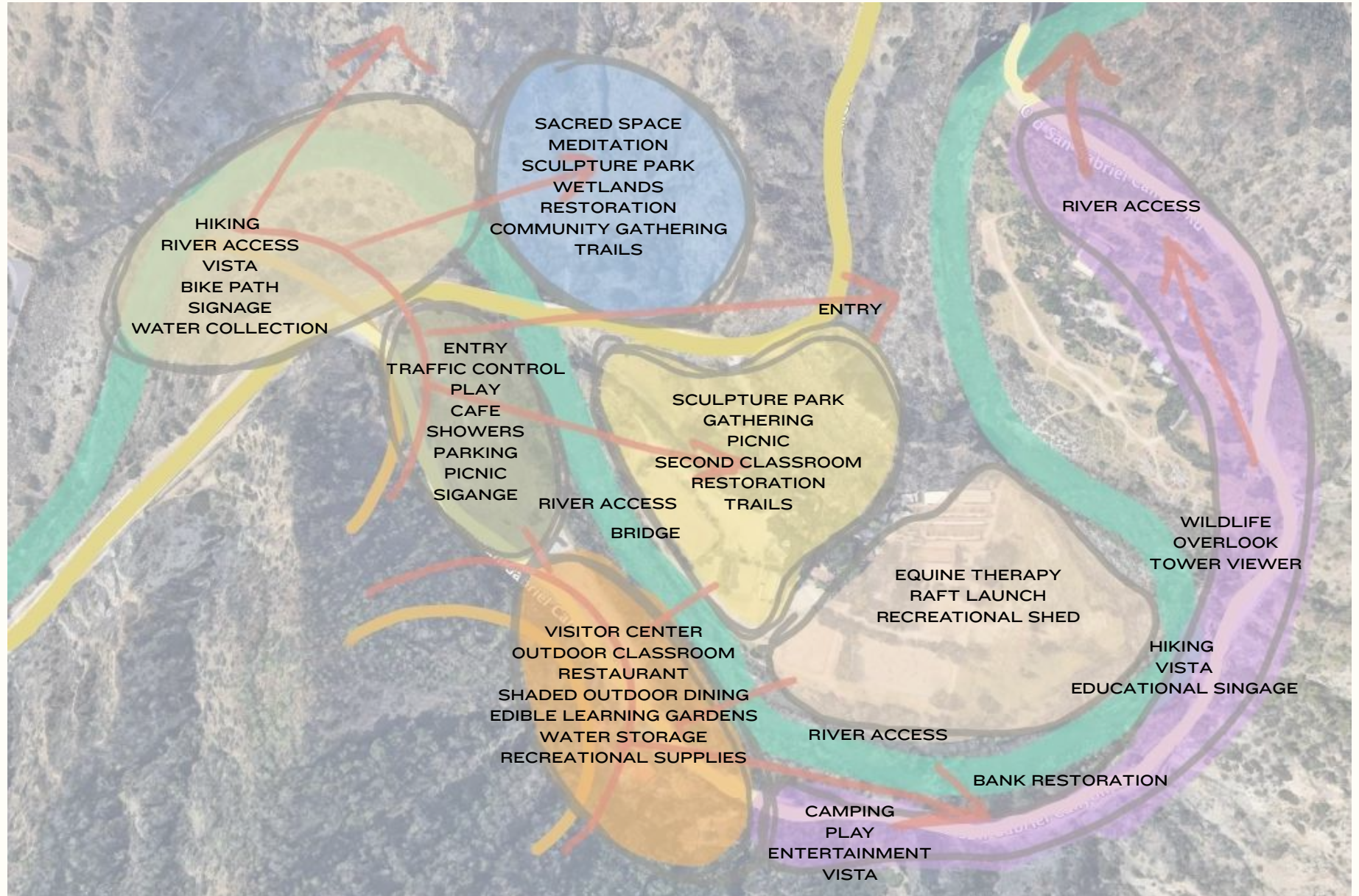
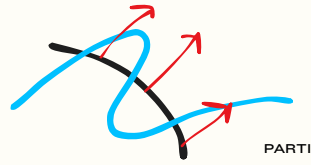
AZUSA
WILDERNESS PARK



SAN GABRIEL
NATIONAL MONUMENT

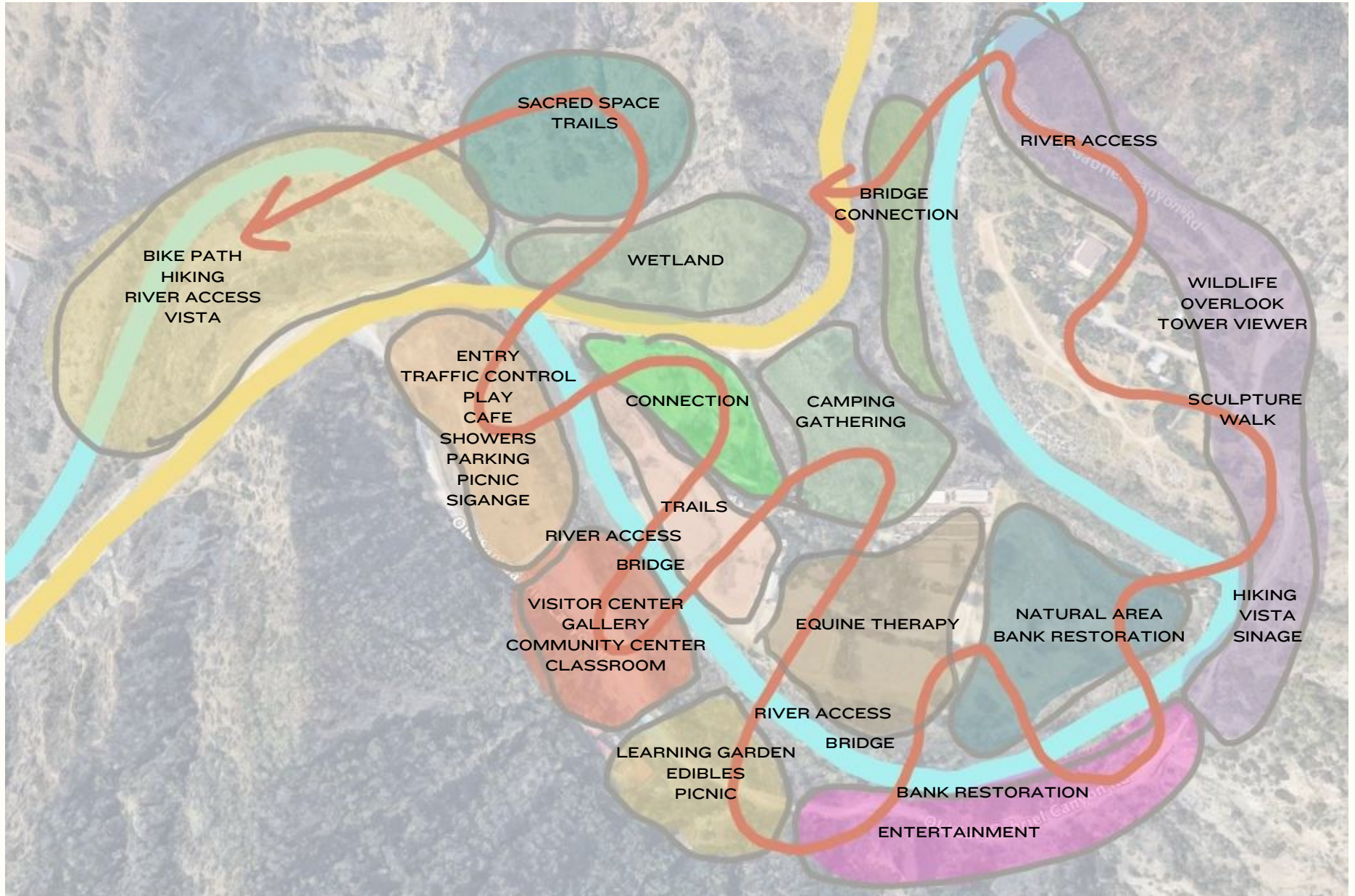
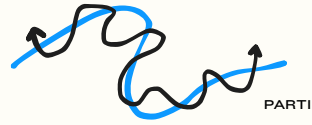
CONCEPT DIAGRAMS

THE GATEWAY



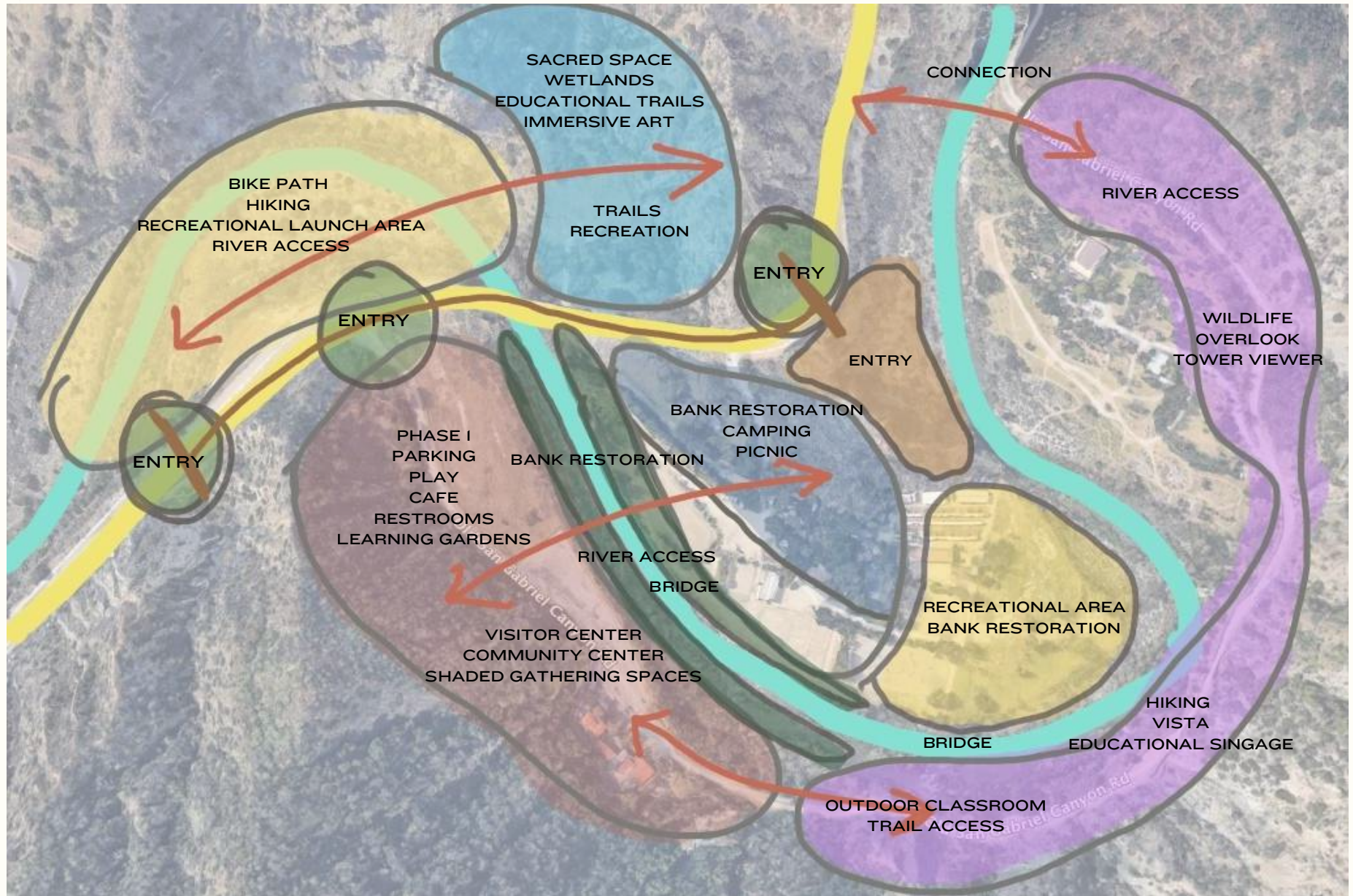
CONCEPT DIAGRAMS

THE WOVEN BASKET



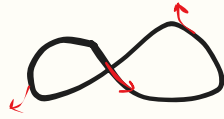
CONCEPT DIAGRAMS

THE BRIDGE



FINAL CONCEPT

THE WOVEN BASKET





FINAL CONCEPT

AZUSA WILDERNESS PARK - AIMEE KIRBY - LD7

THE WOVEN BASKET



HONOR

CONNECT

STEWARD

A basket serves as both a vessel and a craft, woven from strands of place, tradition, and use.

In landscape, it is a powerful metaphor—a space that holds, gathers, and connects. Just as a basket is shaped by the tension between its warp and weft, landscapes can be designed through the interlacing of ecology and culture.

Such as streams winding through hills and paths threading between trees, creating fibers of movement and meaning. The open form of a basket traditionally carries seeds, food, stories.

Similarly, the land can be shaped to hold memories, sustain life, and offer protection. Such as a grove planted to honor ancestors, or a plaza that invites the community to gather.

Woven baskets depend on native and local materials—such as willow and grasses.

Likewise, landscape architecture draws from place, flora, and traditions. The metaphor of the basket means to design with intention and care: to shape the land not as an object to dominate but as a container for life, resilience, and connection.

FINAL CONCEPT

THE WOVEN BASKET

HONOR

- CELEBRATE INDIGENOUS HISTORY THROUGH CULTURAL EXPERIENCES.
- RESPECT THE LAND THROUGH NATIVE AND EDUCATIONAL PLANTINGS.
- CREATE MEMORIAL SPACES AND REFLECTION POOLS.
- DESIGN TRAILS WITH SIGNAGE TO EDUCATE AND INSPIRE HIKERS.
- LIVING MEMORIALS THROUGH PLANTING DESIGN.
- FACILITATE MATERIALS WITH MEANING.

CONNECT

- FOSTER COMMUNITY THROUGH EVENTS AND PROGRAMMING.
- EDUCATE USERS ON THE LAND'S HISTORY AND LOCAL ECOLOGY.
- USE AZUSA WILDERNESS PARK AS THE GATEWAY TO THE SAN GABRIEL MOUNTAINS.
- CREATE SAFE AND CLEAR BIKING AND HIKING PATHS.
- STORYTELLING AND TACTILE EXPERIENCES THROUGH THE OUTDOOR CLASSROOM.

STEWARD

- REHABILITATE THE RIVER BANKS.
- REMOVE INVASIVE SPECIES AND PROMOTE NATIVE.
- CREATE HORTICULTURAL, MAINTENANCE AND ECOLOGICAL PROGRAMS.
- EDUCATE USERS ABOUT THE LAND AND INDIGENOUS HISTORY.
- CREATE WATERSHEDS AND CAPTURE AND INFILTRATE WATER ON SITE.



DIRECTION

BRIDGES AND WALKWAYS



WALKWAYS



SHADED WALKWAYS



BRIDGE



FOOTBRIDGE



WALKWAYS



FOOTBRIDGE



BRIDGE



WALKWAYS

DIRECTION

STRUCTURES AND SHADE



CABINS



VISITOR CENTER



OVERLOOK



AMPITHEATHER



VISTOR CENTER



WILDLIFE WATCHTOWER



SHADED WALKWAY

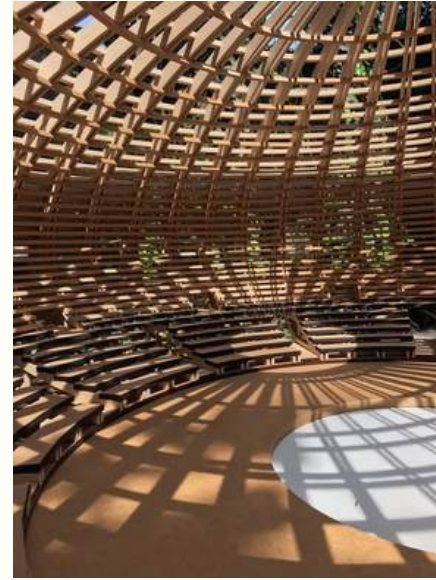


SHADE PAVILLIONS



DIRECTION

BASKET STRUCTURE / GATHERING PLACE

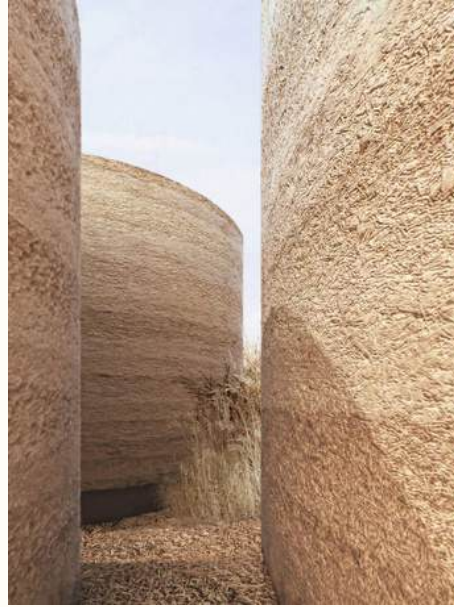


DIRECTION

ADDITIONAL SITE FEATURES



GATE WAY SCULPTURE



LABYRINTH



OUTDOOR CLASSROOM



MEADOW



ELEVATED WALKWAYS



LAND ART



DIRECTION

SURFACES



PATTERNED HARDSCAPE



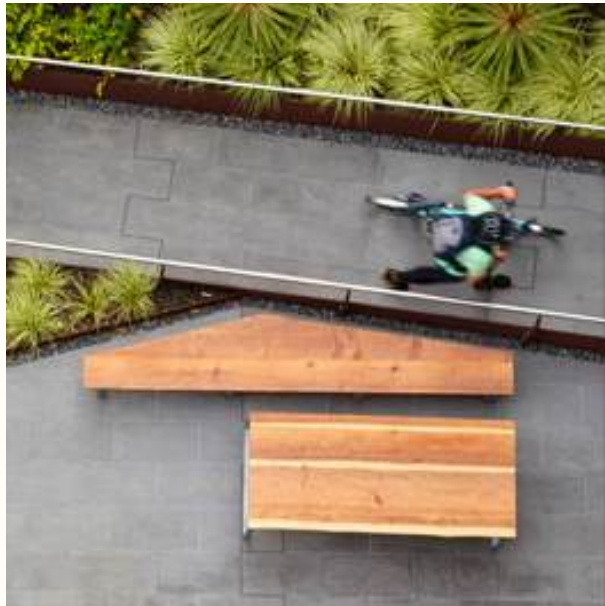
BOULDER STREAMS



WOODEN BOARDWALKS



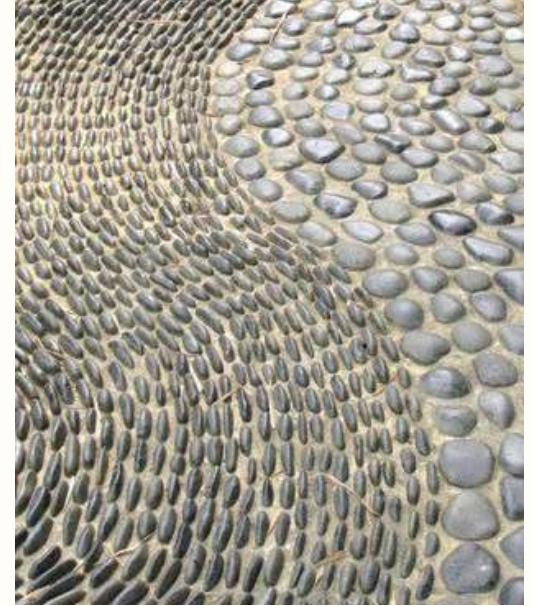
COBBLE



ADA ACCESSIBLE SURFACES



BASKETWEAVE STONE



RIVER BRAID PATTERNS



SITE PLAN

MASTER PLAN



MASTER PLAN - PROGRAMMING



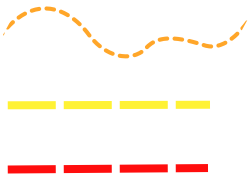
- (A) ENTRY ALLÉE
- (B) TRAFFIC CIRCLE / SCULPTURE
- (C) ENTRY OVERLOOK
- (D) FOOT BRIDGE
- (E) WILD LIFE LOOK OUT
- (F) BIKE PATH
- (G) FOOT PATH
- (H) WCA OFFICE
- (I) PARKING LOT
- (J) INFORMATION / ENTRY
- (K) OVERLOOK DECK
- (L) OUTDOOR CLASSROOM
- (M) SWALE BRIDGE
- (N) COMMUNITY CENTER / EVENTS OVERNIGHT CAMPING
- (O) OLD SAN GABRIEL CANYON TRAIL
- (P) SHADED WALKWAYS
- (Q) OVERLOOK
- (R) RESTROOM / FOUNTAIN
- (S) TENSION BRIDGE
- (T) ENTRY / EXIT GATEWAY
- (U) LAGOON LOOP
- (V) SACRED CIRCE
- (W) WOVEN LIGHT DOME
- (X) LABYRINTH
- (Y) RIVER LOOKOUT
- (Z) WATER STORAGE / PUMP HOUSE
- ① HONOR GARDEN
- ② CONNECTION GARDEN
- ③ STEWARD GARDEN
- ④ SWALE

— SECTION LINE

□ ENLARGMENT AREAS



MASTER PLAN - CIRCULATION



VEHICULAR CIRCULATION

PEDESTRIAN CIRCULATION

BIKE PATH

STRUCTURE



ENLARGEMENT - WOVEN LIGHT DOME



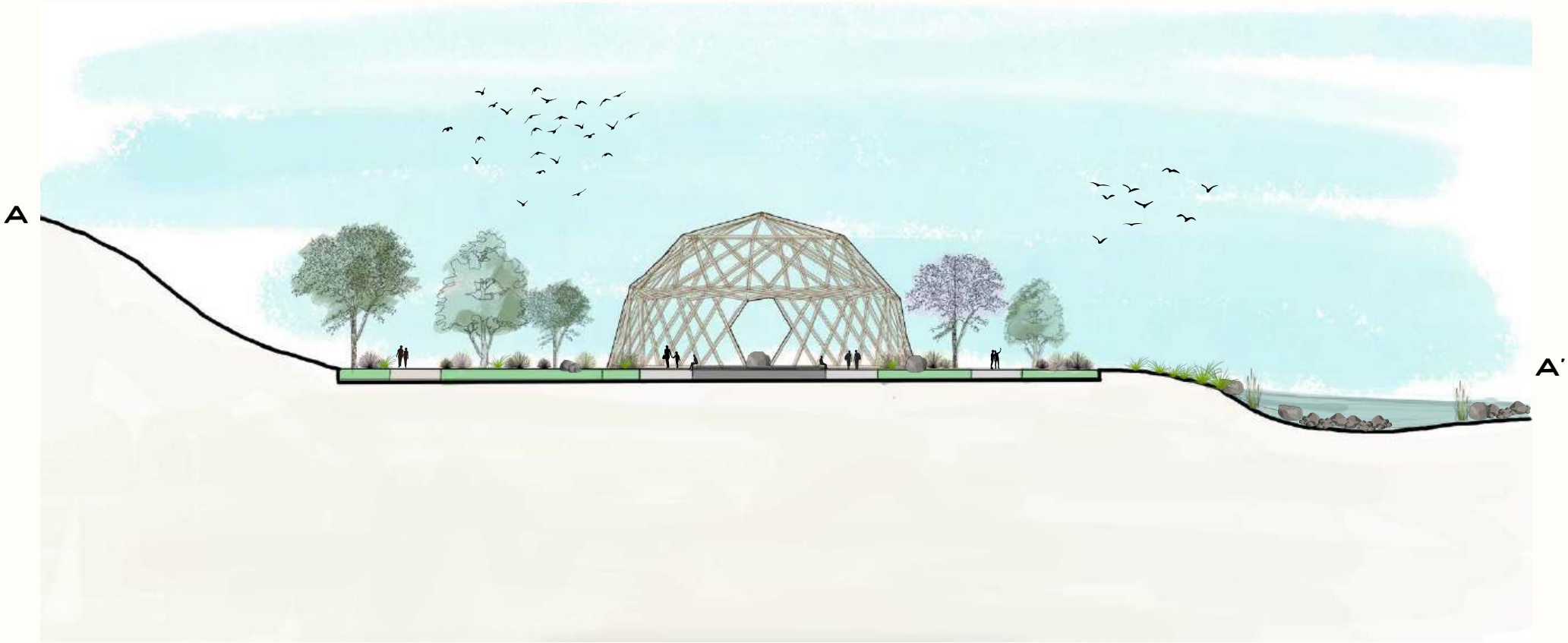
0' 30'



WOVEN LIGHT DOME

The woven light dome is conceptualized through the overarching metaphor of a basket, embodying a space designated for quiet reflection, meditation, and restorative calm. Access to this structure necessitates a hike down to the land amphitheater area, serving as a metaphorical journey for users. Although the dome is visible from a distance, upon reaching it, visitors encounter a complex, intricately woven wooden structure. Upon entry, individuals are immersed in dynamic patterns of light that are cast by the dome's design. The interplay of shadows and light is in constant flux throughout the day as the sun traverses the sky, ensuring that no two moments within the light dome are identical. This serene environment offers users a profound opportunity to engage with both the natural landscape and one another, fostering a deeper sense of connection and contemplation.

SECTION - WOVEN LIGHT DOME



KEY MAP



0' 50'



CALIFORNIA NATIVE MEADOW



BASKET INSPIRED STRUCTURE



RIVER ACCESS

PERSPECTIVES - WOVEN LIGHT DOME



PERSPECTIVES - WOVEN LIGHT DOME



ENLARGEMENT - SACRED CIRCLE



0' 30'



SACRED CIRCLE

The sacred circle is one of the oldest and most universal forms found in human culture, seen in medicine wheels, stone circles, fire pits, ceremonial rings, and gathering places throughout time and across continents. In landscape design, it serves as a powerful organizing geometry that embodies wholeness, continuity, and relationships. This space encourages both inward reflection and outward radiance. The symmetry of the circle symbolizes equity and inclusion, creating a shared center. It invites listening, dialogue, ceremony, and renewal. At each cardinal direction, a native oak tree has been planted, while wooden benches, crafted from fallen native trees, surround a large fire bowl. The surrounding land is shaped like a bowl, enhancing the metaphor of a sacred land embrace.

SECTION - SACRED CIRCLE



KEY MAP



0' 30'



CALIFORNIA NATIVE MEADOW



SACRED CIRCLE



CARDINAL OAK TREES

PERSPECTIVES - SACRED CIRCLE

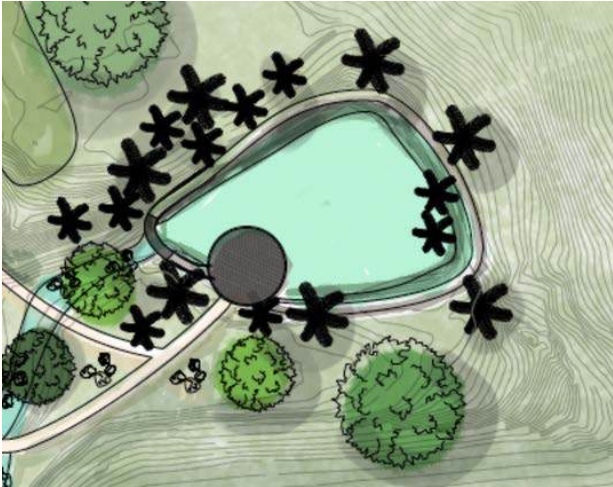


ENLARGEMENT - LAGOON LOOP



KEY MAP

0' 20'



LAGOON LOOP

The lagoon loop has been transformed into a rehabilitated wetland area, filled with native plants. It is more than just a body of water; it serves as a space of calm, mystery, and ecological richness. Visitors enter this area via a winding path, which leads to a large circular observation deck and a boardwalk that circles the water, giving the impression that they are floating on the surface. The lagoon evokes a sense of refuge, functioning as a place where water slows, life gathers, and boundaries blur. Lagoons support a diverse range of wildlife, including amphibians, fish, migratory birds, and aquatic plants. The lagoon's surface can reflect the sky or the canopy above, contributing to a meditative atmosphere that encourages stillness and reflection.

SECTION - LAGOON LOOP



KEY MAP



0' 40'



WOODEN BOARDWALK



CIRCLE VIEWING DECK



CALIFORNIA WETLAND

PERSPECTIVES - LAGOON LOOP



ENLARGEMENT - TOWER WALK



KEY MAP

0' 20'



TOWER WALK

The tower represents more than just a physical structure; it serves as a metaphorical journey toward awareness. At Azusa, it symbolizes the human desire to rise above distractions, to observe, to reflect, and to reconnect with the larger rhythms of the natural world. The tower can be positioned at either the beginning or the end of a user's journey at Azusa Wilderness Park, as it is part of the infinity loop trail, accessible via the tower's footbridge. As visitors approach, their perspective broadens, and users gain insight to the land, connecting rivers to valleys, forests to cities, and the past to the future. Perched between earth and sky, the tower serves as a liminal space—a bridge between human and non-human worlds.

SECTION - TOWER WALK



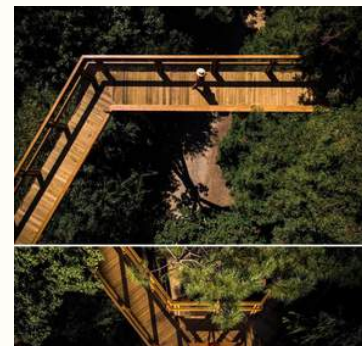
KEY MAP



0' 80'



WILDLIFE LOOK OUT



FOOTBRIDGE



OVERLOOKS

PERSPECTIVES - TOWER WALK



ENLARGEMENT - OUTDOOR CLASSROOM



OUTDOOR CLASSROOM

The outdoor classroom at Azusa Wilderness Park is a thoughtfully designed space where learning takes place within a natural setting. Students can safely access the classroom from the parking lot by following the pedestrian path that leads to the river viewing deck. This environment fosters a direct connection with nature, encouraging sensory experiences and meaningful interactions with the surroundings. Students are invited to sit on the reclaimed log seats or relax in the shade pavilion. There is also an edible learning area, where students can engage with horticulture and enjoy hands-on experiences.

SECTION - OUTDOOR CLASSROOM



0' 300'



OUTDOOR CLASSROOM



SHADE STRUCTURE



EDIBLE BEDS

PERSPECTIVES - OUTDOOR CLASSROOM



PERSPECTIVES - OUTDOOR CLASSROOM



CLOSING THOUGHTS

The basket metaphor reminds us that landscapes are not objects to be built, but vessels to be tended. Rooted in material and meaning by the hands that shape them.

THANK YOU!



ASUZA WILDERNESS PARK