5. Our Resilient Community

GOAL

Build a resilient city that is able to anticipate, plan for, and mitigate the risks, and seize the economic, environmental, and social opportunities it needs to bounce forward from a disaster.

A. INTRODUCTION

Resilience is the capacity of individuals, organizations, businesses and systems within South Pasadena to survive, adapt and grow, no matter what kinds of chronic stresses and acute shocks they experience. Becoming resilient is a multi-pronged strategy that focuses on establishing a General Plan framework by which we ensure that the individual focus areas and decisions are based on an integrated approach that produce multiple benefits.

The approach considers the resiliency challenges in the eight General Plan Chapters (focus areas), and seeks to bridge the practice gaps between the focus areas by developing relationships and partnerships through which more comprehensive solutions can be developed.

Today's weakness can potentially become tomorrow's disruption or disaster. Future earthquake, climate change, or ups and down of an economic cycle may pose a challenge. Approaching challenges through the lens of resilience helps South Pasadena better serve their residents today and in the long term, while preparing for any future potential adversity.













Part B, Chapter 5: Our ResilientCommunity 93

B. OUR NATURAL COMMUNITY

The natural systems that surround the city include the water supply, air, trees, and local food, provide the fundamental life force of the City's ecosystem. As cities grow, consume, and erode the natural environment, they must ensure that some of the natural systems are conserved, managed, and rejuvenated. Natural systems are resilient but if they impacted too heavily they may collapse.

Multi-functional infrastructure replaces gray infrastructure with natural systems (green infrastructure). Trees that clean the air and pervious surfaces (parks, open spaces, green roofs, swales) that absorb and clean water go beyond resilience to heal the regional watershed and make the City a better place. People exposed to nature can concentrate better as a result of restored vitality, mood, and creativity.

Policies and Actions

- P5.1 Support transition of conventional (gray) infrastructure to multi-functional natural system (Green Infrastructure).
- A5.1 Prepare a citywide Green Infrastructure Framework. 🖲 🧆 📾
- P5.2 Plant, protect, and maintain trees in South Pasadena.

👸 Aging in Place



Vision Zero

Continued vitality of the local economy is an essential component of resilience. After a disaster, the sooner local businesses return to normal operations, the faster the surrounding neighborhoods and city recover. Public and private institutions and organizations should collaboratively identify best practices; develop procedures for improved situational awareness; and communicate with businesses after a disaster. Each organization should proactively plan for uncertainty and disruption, but South Pasadena has a clear stake in helping all businesses weather the inevitable crises and bounce back faster and better.

Cyclical swings in the economy are normal and are predictable stresses whose effects can be minimized through thoughtful preparation. A key aspect of economic resilience is ensuring the City can maintain its fiscal health in light of adverse economic conditions. The exact actions that the City must pursue to achieve economic resilience is dependent on context and are therefore likely to change over time.

Policies and Actions

P5.3 Proactively plan for rapid post-disaster recovery of local businesses.

- A5.3a Update the City's Hazard Mitigation Plan to address rapid post-disaster within the local business community. ® @
- A5.3b Explore the creation of a Business Disaster Assistance Center that would become operational when needed. ® @
- P5.4 Diversify fiscal base and enhance existing fiscal resources.
- A5.4a Diversify fiscal revenue streams to avoid a critical budget shortfall should any one revenue source significantly diminish. ⁽²⁾
- A5.4b Recalibrate existing taxes, fees, and resources to meet present needs.
- P5.5 Support flexible land use policies.
- A5.5 Adopt zoning policies that are anticipatory of emerging changes in user needs to better capture demand from emerging industries, providing opportunities to enhance its tax base. I solutions
- P5.6 Maintain a "living" economic development framework.
- A5.6 Periodically re-evaluate the economic development framework to respond to changing market, disruptive technologies, changes in mobility, and other unforeseen event. (3) (9) (9)
- P5.7 Provide reliable Wi-Fi to provide connectivity during emergency.
- A5.7a Require new developments to offer free Wi-Fi, and ensure that if there is power to the building, there is Wi-Fi available during emergencies.
- A5.7b Utilize the City's street lights to provide Wi-Fi in key areas of the city, especially during emergencies.



Social Equity



D. OUR WELL PLANNED COMMUNITY

Affordability

South Pasadena is becoming out of reach for many of the people who made the city what it is today. Median home prices are continuing to rise, making it a challenge for first-time homebuyers. One out of five households in South Pasadena are low or very low

income. These households pay more than 30% of their income for housing. In a low growth build out City context, opportunities to

increase supply of affordable housing are limited and should be aggressively pursued Equally important are efforts to maintain the existing stock of affordable housing.

Policies and Actions

| P5.8 | Support the reduction of governmental and regulatory constraints, and |
|------|---|
| | advocate for the production of affordable housing. |

- A5.8a When appropriate and feasible, require all City departments to expedite processes and allow waivers of development fees as a means of promoting the development of affordable housing. Image: Im
- A5.8b Amend Zoning Code to encourage development of Accessory Dwelling Units. (3) (2)
- P5.9 Support the community social structure and economic livelihood of residents.
- A5.9a Promote activities and events that build and enhance social connections.
- A5.9b Attract and retain business that provide high-wage, high-value jobs to local residents. 🛞 🧆
- P5.10 Reduce the vulnerability of residents to environmental risks and stresses resulting from substandard units.
- A5.10a Use the City's code enforcement program to identify and bring substandard units into compliance with City codes. ® 👁
- A5.10b Assist low- and moderate-income households in the community with CDBG-program that provides grants to funding for necessary energy saving home repairs and improvements. (3) 🚳
- P5.11 Enhance the personal security of residents from threat of displacement.
- A5.11a Explore options to stabilize rent that could protect lower income families in the community. 🕲 🐵
- A5.11b Assist property owners and landlords in maintaining and improving their properties through local and state housing rehabilitation programs. ©









Accessory Dwelling Unit

Land in South Pasadena is a significant portion of the total cost of a house. Allowing an additional accessory unit spreads the land costs, lowering the total cost of development.

An accessory dwelling unit (ADU) is an additional, self-contained dwelling on a single-family lot. It can be attached in the lower level of the main dwelling, or detached at the rear of the property above the garage. An ADU is smaller in size than the main unit, but is maintained under the same ownership of the property and cannot be a fee simple condo.

ADU's unlock large areas of South Pasadena for modest increase in the amount of housing in residential areas without altering the overall character of the established neighborhood. Residents of ADUs contribute to the vitality of the community, and the additional income from ADUs makes it possible for more families to own and maintain a home in South Pasadena.

ADUs promote aging in place. For instance, an older couple building an ADU may choose to retire into the ADU while renting out the main house for income. An ADU could also be a rental unit that provides extra income so the retiree can afford to remain in their home. The ADU could also serve as a residence for a homeowner's elderly parents. ADUs allow older adults to stay in their neighborhoods and maintain their social connections, have access to their support system, be in a familiar environment and live in a home that both meets their needs as they age and is in proximity to the primary home.

The California legislature requires local government to allow accessory dwelling units (ADUs) in single family and multifamily zones.

ADUs demonstrate the values of inclusivity, diversity, and affordability within South Pasadena. They serve to fill a gap in South Pasadena's housing market by providing neighborhood scale rental housing option for those looking for affordable living arrangements in a more traditional single-family-home setting.



The compact and walkable pattern of development of new growth will be intrinsically greener, less wasteful, and more energy efficient. For example, apartment buildings are more efficient to heat and cool and consume far less water per capita for watering lawns than detached single-family homes. People living and working in downtown areas are more likely to walk, bike, or use transit than drive.

Infrastructure

Infrastructure is central to our daily lives. We want to ensure these systems continue to operate past their intended life span, and are adequate altogether to meet the needs of a growing city.

The new development stimulated by a revised Downtown Specific Plan could be expected to exert minimal pressure on existing municipal water, sewer, power, gas, telecom and street systems since the anticipated new development is relatively small over a protracted period of time. Most growth would be expected to occur in the Downtown area along Mission Street and Fair Oaks Avenue. A small growth increment with a focus on office development is projected at Ostrich Farm. Small neighborhood scale infill development could revitalize the three centers along Huntington Drive. The General Plan conservatively projects that the infill and redevelopment of these corridors and centers will largely mirror current land uses.

Water

Water brings social, economic, and ecological benefits into South Pasadena. Water can also threaten life and property from drought, flooding, and toxic water pollution. The General Plan is structured to cope with the dual nature of water.

The City of South Pasadena supplies water to approximately 26,000 permanent residents through 6,200 active connections. The City has pumping rights in the Main San Gabriel Basin where water supply is obtained from four city owned ground water wells; Wilson Well 2, 3, 4 located in the City of San Gabriel and Grave Well 2 in the City of San Marino. The well sites also have booster stations & storage reservoirs Wilson (1.3MG) and Graves Reservoir (1.0MG) to provide contact time for disinfection.



Figure B5.1 Water Pressure Zones. Source: South Pasadena Public Works.

The City has four different pressure zones; Pasadena, Raymond, Bilicke, and Central zone with three storage reservoirs Garfield (6.5MG), Grand (2.4MG) and Westside (2.0MG) located in the Central zone and Bilicke (0.15MG) and Raymond (0.15MG) elevated tanks located in the Bilicke and Raymond zones respectively. There are four distribution booster stations located within City limits that provide water to the different pressure zones. The total of water storage



capacity of the City is 13.2MG and water is delivered through 6,200 water meters that are connected by 67.7 miles of water pipes located throughout the city.

The City has two alternative sources of supply:

- 1. The Metropolitan Water District (MWD) connection located on Kolle Avenue near Monterey Road to the central zone; and
- 2. The City of Pasadena connection that supplies water to the Pasadena zone on a continuous basis. The water supplied by the city is tested regularly and meets or exceeds the State and Federal Drinking

Water Standards.

The Water distribution system serving the Downtown Specific Plan Area lies entirely within the "Central" water system. Water is provided to this system by the Wilson Reservoir in San Gabriel, the Graves Reservoir in San Marino, the Garfield Reservoir on Garfield Avenue north of Hardison Street, the Grand Reservoir at the north end of Floral Park Terrace, and a connection to the Metropolitan Water District (MWD) line at Kolle Avenue south of Monterey Road. A comprehensive analysis of the overall system conducted previously identified a series of system-wide modifications required to improve the operation of the distribution system.

The analysis indicated that during peak use hours, water pressure within the Specific Plan Area averages

Our forefathers had the vision to secure for us a reliable water source, miles from our borders, where we have an allocation of water at no cost, except the cost of transporting it into the city. We need to have the same vision of securing that water and our water system for future generations. – Kim Hughes about 45psi, with the lower pressures occurring on the easterly side. Water pressure of 50 to 70 psi is desirable. Along El Centro Street, the pressure averages about 38 psi with the lower pressures also occurring on the easterly side. These pressures are low but unavoidable given the current system equipment and configuration. Future development may encounter problems associated with the low water pressure which can only be remedied on a system-wide basis.

Some of the possible pressure and flow rate remedies identified include: modifications to the lines entering and leaving the Grand and Garfield Reservoirs, enlarging, replacing, or adding water lines, adding pumping stations, and increase usage of MWD water.

In recent years, the city has invested heavily and embarked on an aggressive capital improvement and aging infrastructure replacement projects including, the Grand, Wilson, and Garfield Reservoir reconstruction, water line replacement, and creation of hydraulic modeling system of the entire water system to identify and address deficiencies on an ongoing basis. Even with implementation of some of the recommended system-wide improvements, all new development may require on-site pumps for two or three story buildings.

Periodic Review

Low rainfall, high temperature, population growth and density, San Gabriel Valley Aquifer level, water prices affect reliable and affordable supply of water.

Most of the projected growth within this General Plan will be directed to downtown and centers in an urban pattern that uses less water per person than do most of the single-family neighborhoods since high density dwellings tend to have shared outdoor spaces and there is less landscaped area per person that needs to be irrigated.

Increasing water supply tends to have substantial economic, social, or environmental costs. South Pasadena will need to monitor water use and conservation, and if needed, make periodic adjustments to population growth and density to ensure the amount of water desired or needed for many purposes does not exceed available supplies.

Integrated Water Management System

As the universal solvent, water is part of every human and natural system.

The collection, treatment, distribution, and regulation of water for human purpose is accomplished through a mix of built and natural systems.

Built infrastructure tends to be large-scale, expensive to construct and maintain, inflexible in challenging conditions, and most often engineered for single-purpose rather than providing multiple benefits.

Natural water infrastructure includes Arroyo Seco watershed, which includes the stream, riparian areas, floodplains, and wetlands and the San Gabriel Valley Aquifer. This infrastructure is mostly smallscale, distributed, provides free services, and is flexible and adaptable to changing conditions. Natural systems also provide other benefits such as natural beauty, recreational opportunities, and wildlife habitat.

Climate change is affecting precipitation patterns leading to more frequent and longer duration of droughts. To become resilient, South Pasadena will need to increase the water system's adaptive capacity to function under a wider range of hydrological conditions by changing how we manage the built and natural water infrastructure.

South Pasadena can increase adaptive capacity by reducing demand which frees up the system's capacity to deal with extreme conditions like climate-induced drought.

- 1. **Conservation** Use less, waste less, and reuse water where feasible are relatively quick and easy items to achieve through incentives, regulations, and repairs.
- 2. **Design with Nature** When rain falls within a natural setting, it soaks into the ground, percolates into the acquirer, while some it flows off into streams and some is returned to air through evaporation. The built system can incorporate



nature-mimicking elements such as permeable pavers, rain gardens, and constructed wetlands that reduce run-off.

3. **Restore and Protect Natural Assets** — Sole reliance fixing aging infrastructure is expensive and ineffective. Natural systems are the first line of defense against extreme weather events. Protecting healthy natural systems from harm, restoring damaged components, and repairing ecological functions are strategies that can move South Pasadena towards greater resilience.

An integrated water management strategy recognizes that water is precious and interconnected, whether in nature or in built systems and should be managed in conjunction with land use, energy, and other key resources. Benefits of this approach go beyond providing reliable and affordable water services to enhancing property values, recreation opportunities, physical and mental health, and wildlife habitat.

98 South Pasadena General Plan

Wastewater System

South Pasadena's wastewater system discharges wastewater into the Los Angeles County Sanitation Districts' West Side Trunk Sewer line, which is located on Mission Street between Orange Grove Avenue and Diamond Avenue. This 24-inch diameter trunk sewer line has a peak capacity of 8.4 million gallons per day (mgd) and conveyed a peak flow of 3.2 mgd (37% of capacity) when last measured in 1993.

The City owns and operates the sanitary sewer collection system under a Regional Water Quality Control Board Permit and is responsible to ensure compliance with Board Order Number 2006-003-DWQ. This Board order requires the City to take a proactive approach to ensure a city-wide operation, maintenance, and management plan is in place to reduce the number and frequency of Sanitary Sewer Overflows (SSO) within the City. Over 25,000 residents and local businesses discharge into the City-owned sewer collection system. The system consists of approximately 53 miles of gravity sewer lines which ultimately flow into larger trunk lines owned and operated by the Sanitation Districts of Los Angeles County.

In January 2012, the City entered into a consent judgment with the State Regional Water Quality Control Board as a result of a number of SSO experienced in the City's sanitary sewer system. The consent judgment requires the City to repair certain deficiencies identified through the City's sewer video inspection program within a specified period of time. Phase 1 of the sewer repairs started in 2014 and was completed in year 2015. Phase 1 addressed 233 pipe segments totaling approximately 64,000 lineal feet of sewer lines.

In March 2017, the City Council awarded a construction for Phase 2 of the sewer repair project. The project consisted of a comprehensive multi-year capital improvement sewer program to satisfy the terms of the consent judgment on a broader scale. The project addressed all of the remaining deficiencies of the consent judgment and consisted of approximately 107,100 lineal feet of sewer mains and modification of 143 existing flush tanks. Over 60% of the City's sanitary sewer lines have been improved through sewer lining or full pipe replacement.

According to the City's Public Works Department, the sewer system is adequate to handle the current needs of the Downtown Specific Plan Area and should be capable of handling the projected future development. A previous analysis of the overall system concluded that the existing system could sustain a population of 30,000, along with intensification of commercial land uses, including development in the Downtown Specific Plan Area.

Wastewater from the Downtown Specific Plan Area is treated at either the Los Angeles County Sanitation Districts Whittier Narrows Water Reclamation Plant (WRP) located near the City of El Monte or at the Los Coyotes WRP located in the City of Cerritos. The Whittier Narrows WRP has a design capacity of 15 mgd and currently processes an average flow of 11.8 mgd (78% of capacity). The Los Coyotes WRP has a design capacity of 37.5 mgd and currently processes an average flow of 33.8 mgd (90% of capacity).

Stormwater System

The watershed contributory to the Downtown Specific Plan Area is approximately 113 acres and is roughly defined by Arroyo Drive to the west, Grevelia Street to the north, and Fair Oaks Avenue to the east. Storm water runoff generally flows in a southerly direction through the Specific Plan Area where some is intercepted by storm drains located in Orange Grove Boulevard, Mission Street, Fremont Avenue and Fair Oaks Avenue. The remainder flows to the south. Storm drains on Orange Grove to Mission Street and westerly along Mission Street to the Arroyo Seco channel and on Fremont Avenue from Hope Street south to Mission Street, east along Mission and south along Marengo Avenue, are designed to handle flows generated by a 10year storm event. On Mission Street, between Orange Grove Boulevard and Fremont Avenue, no storm drains exist. Water flows from a high point at Meridian Avenue to the east or west to the storm drain lines.

The Downtown Specific Plan Area is substantially

developed at this time. Proposed development would not include construction over large unpaved areas. As a result, there should not be any large increases in runoff quantities. According to the City's Public Works Department, there are no major flooding problems in the Downtown Specific Plan Area. The existing storm drain system appears to be adequate to handle most storm water runoff with only minor modifications.

All of the City of South Pasadena is located in Los Angeles County Flood Zone "B" which indicates a non-flood hazard area. Problems may result if the proposed development places any obstructions in the streets which now serve as drainage channels. If obstructions are proposed, additional catch basins will have to be added and the existing storm drains may have to be extended or enlarged.

The soil types vary throughout the project area, but are predominantly Hydrologic Group B/C- which percolate well enough and are conducive to green infrastructure practices. Soils are rated A to D with A having the highest infiltration rates.

Stormwater Projected Demands

The Mission Street and Fair Oaks Avenue corridors are redevelopment and infill areas in which most parcels have been built out in the past. The general drainage pattern of the developments in the corridors consist of what is often called a pave-pipe-and-dump pattern in which rooftops and paved parking lots cover most of the lot, and the runoff is directed to the street and then to inlets and pipes that eventually dump into the stormwater system. This is a worst-case scenario rainwater runoff pattern of development that can pretty easily be incrementally improved upon through redevelopment; so in general, the redevelopment of the corridors should not put any increased demand on the storm drainage system; and can, in fact, improve the conditions as described below in the recommendations.





Tree pocket



Sawcutting curb

landscaping and a permeable surface to allow the rainwater to re-enter the aquifer.

- 4. Pervious pavers and other permeable materials can be used on parking lots and streets as an enhanced surface that provides filtering, infiltration, and storage of rainwater runoff from the site.
- 5. In-Street Detention Storage can be used to detain rainwater runoff and release it slowly after the peak flows to reduce flooding downstream. Some infiltration can also be accomplished. Depending on utility locations, some streets may have room in the center of the street and may be conveniently located for this rainwater treatment.
- 6. Design parking lots as plazas by replacing the usual sea of asphalt with trees and pervious pavers providing a place for cars and people while reducing pressure on the storm drain system and helping to recharge the groundwater aquifer.

Green street

Stormwater System Improvement Recommendations

There are a number of rainwater interventions that could be integrated into the redevelopment plans to help to alleviate pressures on the storm drain system, enhance the livability, and replenish the aquifer. These procedures are often called LID (Low Impact Development) or Green Infrastructure. Below are some recommended rainwater treatment practices for the corridors.

- 1. Tree Pockets can be installed between parking spaces in the parking lanes on streets. Sawcut the tree pocket, scoop out a hole, and fill it with soil and a tree. Leave the existing curb and gutter in place, and leave openings so the gutter rainwater can flow into and fill up the tree pocket, and then flow out at the lower end.
- 2. Tree Zippers can be installed in parking lanes by sawcutting the entire strip of parking, scooping it

100 South Pasadena General Plan

out and replacing with soils, trees, and pervious pavers. Rainwater enters the pervious pavers from the street surface and gutter flow and is absorbed by the trees and soils.

- Tree pockets and zippers define the outdoor room of the street, help to shade and cool the paving and parked cars and sidewalks, and absorb rainwater for tree evapo-transpiration while allowing for infiltration that will help replenish the aquifer.
- 3. The Green Street is a slight modification of an existing street curb and adjacent planting area. A portion of curb can either be replaced with a depressed top-of-curb section, or the curb face can be simply core-drilled. Both modifications allow rainwater to pass to the adjacent planting area; which has been slightly excavated and re-landscaped to accept the rainwater run-off. This landscaped area can be planted with indigenous, drought-tolerant

Policies and Actions

P5.12 Ensure continuity of critical services.

A5.12a Create a long-term plan to update infrastructure to accommodate growing population/businesses and the effects of climate change. (3) (2) (3)

> This would include upgrading the water system to provide proper pressure throughout the city, the sewer system to accommodate future increases in flow, as well as the stormwater system to not only accommodate storm surges but also provide direct benefit to the watershed whenever possible.

- A5.12b Every three years, monitor and adjust rate of population growth to ensure amount of water needed or desired does not exceed available supplies. (*)
- A5.12c Create incentives and promote the installation of residential greywater systems that meet appropriate regulatory standards. (*)
- A5.12d Provide educational resources to encourage rainwater harvest. 🧆
- A5.12e Require developers to pay for water, wastewater, and stormwater system upgrades beyond what is currently in place. ⁽²⁾
- A5.12f Adopt zero net water building codes. 🧆





Social Equity

Vision Zero



South Pasadena is the first city in the country to be certified by American Green Zone Alliance (AGZA), as a "green zone" to have converted outdoor maintenance of parks, medians and other city-owned property from gas- and diesel-power to emission-free equipment.

Energy

The endless supply of relatively cheap energy primarily from fossil fuels, is not a reliable option. Disruptions to the nation's energy supply can ripple through many aspects of modern life, including water supply, transportation systems, communications, economic development, health, and general comfort. A local energy strategy can help build resilience to outside supply and price shocks. The City, businesses, and residents need to use energy efficiently: reduce demand, conserve, and switch to renewable sources of energy. Land use and transportation patterns and building standards directly affect local consumption.

South Pasadena's participation in the Los Angeles Community Choice Energy will ensure that at least 50% of South Pasadena's energy consumed is from renewable resources. It will also provide incentive programs.

Policies and Actions

P5.13 Promote energy efficient retrofit improvements in existing buildings.

- A5.13 Explore implementation of a clean energy program to provide loans to property owners for the installation of energy efficiency improvements or renewable energy devices.
- P5.14 Support the inclusion of energy efficient design and renewable technologies in all new public and private projects.
- A5.14a Require solar panels on all new buildings. Encourage battery back-up systems or generators in key locations throughout the city.
- A5.14b Explore opportunity to develop a clean energy "micro-grids".
- A5.14c Adopt zero net energy building codes. 🧆
- A5.14d Provide builders, businesses, and residents with resources and information about energy efficiency and renewable energy technologies at the Building Permit counters and on the City's website.
- A5.14e Develop a Solar Action Plan to meet 50% of South Pasadena's power demand through solar by 2040.
- A5.14f Electrify South Pasadena's Vehicles. Develop a city fleet alternative fuel conversion policy, and use it to promote residents to convert as well.
- A5.14 g Install Electric Vehicle (EV) chargers at public facilities. Encourage property owners to install EV chargers at business and multi-family locations. (8)
- P5.15 Reduce Vehicle Miles Travelled (VMT).
- A5.15 Adopt land use patterns that channel all new growth into compact, walkable, bikeable, and transit friendly areas. (3) (3) (3)
- 🏹 👌 Aging in Place





Part B, Chapter 5: Our ResilientCommunity 101



In 2015, the City Council established the Renewable Energy Council (REC). The nine members of the REC worked for nine months researching, debating and converging on an overall plan, "A Clean Energy Pathway for South Pasadena," and a short-term action plan, "Solar in South Pasadena: First Steps," to both cut greenhouse gases and save money. The latter considered many sites for solar installations and recommended Wilson Reservoir and the lots across from City Hall as the best sites for solar system. Many considerations went into the selection of these sites. Solar on these sites would offset about 10% of the City's electricity use. The savings on electricity at both Wilson Reservoir and City Hall could more than cover payments on a loan from a state fund starting in year 1. Solar could pay for itself, and then some, starting in year 1. Those savings are expected to continue to grow over the lifetime of the systems as electricity rates increase, and, ultimately, the loan is paid off. There was also discussion of including car chargers for EVs and battery packs for the emergency operations center at the City Hall location. These two sites for solar were just the "low hanging fruit" with many sites around the City also worth considering. A single solar installation at the newly refurbished Garfield Reservoir, for instance, could offset approximately an additional 30% of the City's energy usage. Converting to LEDs would also have a significant impact on energy usage and bottom line. In short, the REC found no shortage of potential within the City to wean ourselves from fossil fuels making the City and the world a more resilient place to live.

Solid Waste

At this time a majority of residents have their waste picked up from their property by staff from the City's waste hauler. This means that the waste hauler's vehicles drives on their property to the cans, empties them into the truck and then drives away. Some residents in the hillside areas of town place their trash cans at the curbs, mainly due to logistical issues. This method was adopted based on community consensus.

In an effort to move more towards zero waste, the City should promote multi-family and commercial properties to have programs in place for

organic waste diversion, multifamily recycling, higher diversion rates, and a 20 year goal of zero waste. Zero waste involves shifting consumption patterns, managing purchases, and maximizing the reuse of materials at the end of their useful life.

Policies and Actions

| P5.16 | Support reuse of discarded materials through waste prevention, recy- cling, and composting. |
|--------|--|
| A5.16a | Develop a Zero Waste Plan and supporting ordinances that incrementally lead the city to be a zero waste city. $\textcircled{0}$ |
| A5.16b | Require multi-family and commercial properties to have on site recy- cling containers as well an organics recycling program. 3 |
| A5.16c | Require construction sites to separate waste for proper diversion, and reuse or recycling, where feasible. $\textcircled{0}{0}$ |
| A5.16d | Review and amend the city's waste franchise agreement so that all residents and businesses could self-separate their waste for proper recycling/diversion. ® |



Social Equity



E. OUR ACCESSIBLE COMMUNITY



Rapidly evolving transportation-related technologies have the potential to radically reform urban mobility over the next few decades. This, in turn, could have important implications for the design of our cities and towns, and leaders should start preparing now for an uncertain future.

At some point in the near future, two distinct but related technology-based platforms – autonomous vehicles, and smartphone app-enabled on-demand

"e-hail" services – will converge. At that point, shared mobility services will become less expensive to provide, and may rival private automobiles in terms of both convenience and cost. As a result, many experts believe subscription-based on-demand mobility services may eventually largely replace auto ownership. Why deal with all the responsibility and hassle of owning a car and having to find parking when you can more easily and cheaply order a car, have it arrive within minutes, and be dropped off at your destination?

There are two areas of urban design that could be greatly impacted by this shift. One is parking: if privately owned autos are replaced by on-demand fleets, demand for parking could be greatly reduced (as cars could remain in motion) and/or relocated (as it would no longer be necessary for cars to be parked near one's destination). This could render existing parking – or parking still to be built – largely or wholly unnecessary.

The second area of urban design that may be impacted is the curbsize zone of roadways. In urban contexts, this is typically used for parking, and sometimes for loading. If parking demand were to be eliminated or shifted to remote lots, parking spaces would no longer be needed – but areas for pick-up and drop-off of passengers would be.

All of this suggests that:

- 1. Cities should be flexible and cautious in their approaches to both requiring and providing new parking; and
- 2. Over time, cities may need to be more proactive in their approaches to curb management. Strategies to avoid potentially wasteful investments in parking include: measures to reduce parking demand such as transportation demand management (TDM) strategies and/or investments in transit, biking and walking; "landbanking" of surface lots as an alternative to construction of structures; and design of parking structures so that they may be adapted for other uses. Proactive curb management, meanwhile, will require that cities first think of the curbside zone not simply as a place for parking and loading but as space that may be programmed for a variety of uses, including pick-up and drop-off as well as "parklets" and other site-specific uses.

Policies and Actions

- P5.17 Seek to "futureproof" transportation investments by prioritizing flexibility and adaptability.
- A5.17a Monitor demand for pick-up\drop-off access to curbs and identify additional passenger loading zones as needed. (3) (3)
- A5.17b Where demonstrated parking shortages exist, seek to provide availability rather than simply increasing supply. Strategies for doing so may include transportation demand management (TDM) and parking demand management (PDM) measures to reduce demand for parking.
- A5.17c If public parking supply must be increased, prioritize potential for future conversion to other uses. (3) (2) (3)
- A5.17d Implement strategies to increase parking availability without increasing supply including a parking in-lieu program, the revenues from which could be used to lease private parking for public use; adjustments to time limits and other policies; and a wayfinding strategy. (8) (9) (9)





Vision Zero

F. OUR HEALTHY COMMUNITY

Health and Social Stability

South Pasadena's physical environment: the walkable infrastructure, transit system, and access to open spaces foster equity and resilience. An inclusive, healthy city offers accessible and affordable transportation options to the car, such as walking, biking, and transit.

Empower neighbors and neighborhoods through improved connections. South Pasadena will build on the strength of the city's character and vibrancy, by being effective governmental stewards of resilient, healthy and cohesive neighborhoods based in trust, equity and partnership.

Local Food

A wide range of natural and human-made crises have the potential to disrupt our food systems. Producing and distributing food on the local level could help weather disruptions of all kinds. Because food travels shorter distances, locally grown produce is able to conserve nutrients better, making it more tasty and nutritious. Better nutrition means better public health—a cornerstone of disaster resilience.

Policies and Actions

- P5.18 Promote multimodal safe streets and land uses that encourage physical activity.
- A5.18a Create safe and well-connected street networks for walking and biking to improve access to destinations, school zones, and other community services. [®] [⊗] [⊗]
- A5.18b Activate street level with retail and service uses that have attractive and engaging store frontages. (3) (3)
- P5.19 Support production, distribution, and consumption of local food.
- A5.19a Encourage wide-scale adoption of neighborhood and school food gardens. (1) 🚳
- A5.19b Minimize food waste by encouraging redistribution of food that would otherwise be wasted.
- A5.19c Encourage the use of local, independent food shops and traders that also help keep the streets vibrant and diverse. (3)

👌 🛛 Aging in Place





G. OUR SAFE COMMUNITY

Readiness Through Education and Technology

Connect South Pasadena is the City's emergency notification system that allows city officials to stay connected to residents and efficiently provide them with direction in the event of an earthquake, fire or other public emergency. Using Connect South Pasadena, City officials can record and send personalized voice messages to home phones, mobile phones, businesses and local agencies in just minutes.

Earthquakes

Continue to improve the seismic safety of South Pasadena's most vulnerable apartment buildings.

In the wake of the 1994 Northridge earthquake, the City is identifying many wood-frame apartment buildings with weak first stories, described as a soft, weak, or open-front condition. These weak first stories make the structures, and the many residents housed in them, extremely vulnerable to earthquakes. Since that time, the City has catalyzed seismic retrofits in many of those buildings using incentive programs, inspections, and other tools. In the future, the City will continue to provide a combination of technical assistance, financial incentives, and requirements that remove barriers to seismic upgrades in vulnerable buildings.

Wildfire

Prepare for wildfire in the hill area. Despite the City's progress, the risk of a wind-driven wildfire in the hills that could transition into a fast-moving urban firestorm in the flatlands continues. The City will build on existing readiness efforts by developing a robust wildfire evacuation traffic control plan for the hill areas. The plan will include consideration of the area's unique geography and transportation challenges and establish evacuation zones and routes, as well as necessary staffing and communication protocols to manage the flow of people. Once this plan is established, the City will work with the neighborhood groups to ensure that area residents are aware of the best evacuation routes from their homes—whether by car or on foot.

Policies and Actions

P5.20 Support safe emergency evacuation for all hillside residents.

A5.20a Develop a rapid response team to respond in areas where regular emergency response vehicles can not access. I Image and Image a

> This team will need specialized vehicles equipped to maneuver these parts of the city, while also containing the basic necessary equipment to provide emergency response.

A5.20b Periodically review and update the post-disaster recovery plan. ® 🚳

👸 Aging in Place

social Equity



H. OUR ACTIVE COMMUNITY

South Pasadena is a leader in green practices. The City is the first in the nation to be a Certified American Green Zone Alliance Green Zone City. The City uses drought tolerant plants from the Water Use Classification of Landscape Species (WUCOLS IV) list. The WOCOLS IV list is a guide for California plants and water use requirements. The City has changed out all park controllers to smart controllers. The piping needs to be updated from galvanized to PVC; the sprinkler heads need to be updated from galvanized to plastic with low flow nozzles, or convert to drip, where feasible. The City has rebates to incentivize properties to convert to drought tolerant plants with drip irrigation, upgrade their existing sprinkler heads and irrigation controllers, and to remove unnecessary turf. Public Works has switched to electric lawn equipment. Grants and rebates are available for converting turf to planter and are being actively pursued by the City.

South Pasadena's public landscapes were conceived to provide a safe and beautiful setting for recreation. To increase City's overall resiliency, the design and function of parks needs to expand beyond recreation, to store and clean water, filter air, help improve public health, and provide habitat and connectivity to increase biodiversity, in essence to become green infrastructure.

Collaborating with operations staff and other agencies could save labor, reduce annual expenses, and require less frequent capital replacement. Incorporating the perspectives and priorities of gardeners and maintenance workers early on could make these projects last longer and will result in more successful public spaces.

Policies and Actions

- P5.21 Maximize the economic efficiency and productivity of all park design, construction, and maintenance.
- A5.21a Expand the function of parks and open spaces beyond recreation, to store and clean water, filter air, help improve public health, and provide habitat and connectivity to increase biodiversity, in essence to become green infrastructure.
- A5.21b Consider the long-term impact of material selection, including source and production methods, whether a material is recycled or recyclable, how the material can be maintained, and how long it will last.
- P5.22 Consider maintenance needs in all park designs to assure that projects will thrive without extensive repair and modifications.
- A5.22 Work with maintenance staff to learn from past problems and increase serviceability.

I. OUR CREATIVE COMMUNITY

When a city's resilience is tested, people feel down and uncertain about the future. In these difficult times, the beauty, meaning, and connection from cultural experiences can provide sanctuary for recovery, reflection and growth that can elevate the community and provide hope. Besides physical infrastructure, community resilience also relies on human networks and connections. Climate resilience requires cultural resilience.

The creative talent of our visual artists, filmmakers, poets, theatre-makers, dancers and musicians could provide creative insights on ways to convey the complex themes of risk and resilience.

A strong and vibrant arts scene can be a reliable and durable driver of South Pasadena's economic growth and resilience. Creative providers should collaborate and effectively partner with businesses and school district to advocate for City funding for arts and culture; and collectively leverage City funding for private and public support including donors, sponsors and regional and national grants to support more creative endeavors by individuals and organizations.

Policies and Actions

- P5.23 Link climate and cultural resilience through creative place-making.
- A5.23a Integrate arts, culture, and creative activities within community development efforts. (9) (9)
- A5.23b Engage the creative power of the arts to convey and involve people in complex risk and resilience themes. (9)
- P5.24 Support funding for arts and cultural groups.
- A5.24a Document compelling stories supported with facts on economic, social, and environmental benefits of arts and culture in South Pasadena. It is a stories of the stori
- A5.24b Leverage city funds for private and public sector support including donors, sponsors, and grants. ③ ④



Social Equity



🇞 Social Equity