

5 SUSTAINABLE COMMUNITY

Serve as an environmental steward; ensure that residents enjoy clean air and water; make efficient use of energy, water, and land resources; and grow in a manner in which increased population does not negatively impact resources.

Residents would like Redlands to practice sustainability, and for the City to serve as a steward of its environmental resources. The community would like to see the City promote greater energy and water efficiency in new construction; expand programs for enhanced energy efficiency to existing homes and businesses; promote measures that reduce carbon emissions originating in the city; emphasize water conservation measures; and reduce waste to extend the life of the landfill. Redlanders would like the City to demonstrate environmental leadership by installing solar panels on City facilities, continuing to reduce the carbon emissions from its vehicle fleet, extending the non-potable water system, and approving a “greywater” ordinance.

5.1 ENERGY EFFICIENCY AND CONSERVATION

Principles

- 5-P.1 Promote energy efficiency and conservation technologies and practices that reduce the use and dependency of nonrenewable resources of energy by both City government and the community. (Sustainability Plan)
- 5-P.2 Promote energy awareness community-wide by educating the community regarding energy audits and incentive programs (tax credits, rebates, exchanges, etc.) available for energy conservation. (Sustainability Plan)
- 5-P.3 Proactively review and update City plans, resolutions and ordinances to promote greater energy efficiency in both existing and new construction in regards to site planning, architecture, and landscape design. (Sustainability Plan modified)

Actions

- 5-A.1 Coordinate with Southern California Edison Company (SCE) and Southern California Gas Company (SCG) to educate the public about the need to conserve energy resources and advocate for energy conservation. (1995 General Plan modified)
- 5-A.2 Support San Bernardino County and San Bernardino Associated Governments (SANBAG) in implementation of their energy-related policies. (1995 General Plan)

- 5-A.3 Leverage and help drive community participation in utility company programs and financial incentives within the city (e.g., one stop information clearinghouse, incentives, on bill financing, etc.). (Sustainability Plan)
- 5-A.4 Continue pursuit of sustainable energy sources—such as hydroelectricity, geothermal, solar, and wind power—to meet the community’s needs. (Staff recommendation)
- 5-A.5 Accelerate the adoption of solar power and/or other alternative energy usage in Redlands through actions such as: (Staff recommendation)
- Establishing incremental growth goals for solar power/alternative energy systems in Redlands;
 - Developing guidelines, recommendations, and examples for cost-effective solar and/or other alternative energy-based installation; and
 - Installing solar/alternative energy technology on available City spaces.
- 5-A.6 Complete a cost-benefit analysis for new City energy conservation or renewable energy projects that reviews the costs and benefits of a project over its life cycle to ensure the highest and best use of available funds. (GPSC recommendation)
- 5-A.7 Seek alternatives to reduce non-renewable energy consumption attributable to transportation within the Planning Area. Seek funding and other assistance from the South Coast Air Quality Management District (AQMD) for installation of electric vehicle charging stations at appropriate locations throughout the city. (1995 General Plan modified)
- 5-A.8 Implement and enforce California Code of Regulations Title 24 building standards (parts 6 and 11) to improve energy efficiency in new or substantially remodeled construction. Consider implementing incentives for builders that exceed the standards included in Title 24 and recognize their achievements over the minimum standards. (GPSC recommendation)
- 5-A.9 Encourage the use of construction, roofing materials, and paving surfaces with solar reflectance and thermal emittance values per the California Green Building Code (Title 24, Part 11 of the California Code of Regulations) to minimize heat island effects. (GPSC recommendation)
- 5-A.10 Integrate trees and shade into the built environment, to mitigate issues such as stormwater runoff and the urban heat island effect. (Committee added)
- 5-A.11 Further City efforts to be a model of energy conservation stewardship by (Sustainability Plan modified):
- Continuing participation in SCE/SCG’s Community Partnership program;
 - Moving City electric load off-peak where practical;
 - Partnering directly with large consumers of energy and encouraging and promoting their energy efficiency activities;
 - Establishing energy efficiency and conservation baselines; and
 - Reporting routinely on the progress of goals.

- 5-A.12 Explore participating in new high-efficiency technology programs such as LED lighting for City facilities, safety lighting in parks and other public spaces, and LED street lighting conversion for all City-owned street lights. (Sustainability Plan)
- 5-A.13 Identify and obtain funding sources to implement energy conservation and efficiency programs and other emerging energy strategies suitable to conditions within the city. (Sustainability Plan)
- 5-A.14 Seek funding programs to assist low and moderate-income households in energy conservation. (GPSC recommendation)
- 5-A.15 Encourage City employees to submit energy efficiency and conservation recommendations for City operations and follow up on the recommendations. (Sustainability Plan)
- 5-A.16 Complete a comprehensive review of City codes and standards for applicability for energy and water efficiency/conservation measures and make changes to modify them accordingly. (Sustainability Plan)
- 5-A.17 Set goals consistent with the State’s Long-Term Energy Efficiency Strategic Plan. Design and implement programs and incentives to meet these goals in both private and public sector construction. (Sustainability Plan)
- All new residential construction in California will be zero net energy by 2020.
 - All new commercial construction in California will be zero net energy by 2030.
 - The heating, ventilation, and air conditioning (HVAC) industry will be improved to ensure optimal equipment performance; and all eligible low-income homes will be energy efficient by 2020.
- 5-A.18 Allocate savings realized from energy efficiency improvements at City facilities to additional energy efficiency improvements at City facilities. (Sustainability Plan)
- 5-A.19 Explore adoption of a model dark sky ordinance for appropriate areas of the City. (Sustainability Plan)

5.2 WATER CONSERVATION

Principles

- 5-P.4 Promote residential and commercial water conservation using multiple strategies. (Sustainability Plan)
- 5-P.5 Conserve the highest quality of water reasonably available for domestic use. (1995 General Plan)
- 5-P.6 Minimize dependence on imported water through efficient use of local surface sources, using wise groundwater management practices, conservation measures, and the use of reclaimed wastewater and non-potable water for irrigation of landscaping and agriculture, where feasible. (1995 General Plan)

Actions

- 5-A.20 Engage with the Santa Ana Watershed Project Authority (SAWPA) in preparation and periodic updating of the Integrated Regional Water Management (IRWM) Plan for surface and groundwater resources. Update the City of Redlands' Water Master Plan, within the structure and guidelines of the IRWM Plan, including an assessment of Redlands' position relative to regional demand and availability of water resources through buildout. (1995 General Plan)
- 5-A.21 Work with the SAWPA, Bear Valley Mutual Water Company, San Bernardino Valley Municipal Water District, and Western Heights Water Company to educate the public and implement water conservation measures. Update the Redlands' Water Conservation Plan, Ordinance No. 2151, to reflect current best practices for water conservation. (1995 General Plan)
- 5-A.22 Participate in regional efforts to clean up the Bunker Hill Groundwater Basin and maintain high water quality going forward so that it can be used to its full potential. (1995 General Plan modified)
- 5-A.23 Encourage water conservation through the following strategies (Sustainability Plan):
- Establish water and wastewater rates that encourage conservation and provide for system maintenance.
 - Update the landscape irrigation ordinance to continue reducing the use of potable water for landscape irrigation to CALGreen requirements. All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater.
 - Establish incentives for use of water efficient fixtures and fittings.
 - Expand the current landscaping ordinance for parking lots (Section 18.168.210 of the Municipal Code) to encourage the use of drought tolerant species.
 - Promote the use of permeable surfaces for hardscape. Impervious surfaces such as driveways, streets, and parking lots should be minimized so that land is available to absorb stormwater, reduce polluted urban runoff, recharge groundwater, and reduce flooding.
 - Incorporate water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality, and decrease flooding into the urban landscape.
- 5-A.24 Implement the following programs to increase the use of reclaimed and other non-potable water and decrease the use of potable water for irrigation (Sustainability Plan):
- Conduct rainfall runoff capture and other system research and pilot studies;
 - Develop guidebooks for irrigation Best Management Practices (BMPs) and other systems;
 - Update ordinances to allow for the use of reclaimed water for landscape irrigation;

- Update ordinances to allow for use of various greywater sources for used as subsurface landscape irrigation per CA plumbing code.
 - Require inclusion of dual plumbing that allows greywater from showers, sinks, and washers to be reused for landscape irrigation in the infrastructure of new development where appropriate.
- 5-A.25 Seek funding sources to implement renewable energy sources determined to be feasible for water and wastewater operations (Sustainability Plan)
- 5-A.26 Permit greywater use for irrigation, and adopt ordinance or other measures allowing for expanded use of graywater as permitted by the California Plumbing Code. (Staff recommendation)
- 5-A.27 Reduce consumption of carbon-based fuels for conveyance and treatment of water and wastewater. (Sustainability Plan)

5.3 WASTE REDUCTION AND RECYCLING

Principle

- 5-P.7 Reduce the generation of solid waste, including household hazardous waste, and recycle those materials that are used, to slow the filling of local and regional landfills. (1995 General Plan)

Actions

- 5-A.28 Implement measures specified in the Source Reduction and Recycling Element and the Household Hazardous Waste Element. (1995 General Plan)
- 5-A.29 Meet the State’s policy goal that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020; and reduce landfill disposal of household hazardous waste as much as feasibly possible. (1995 General Plan; updated target date and percentage to reflect new State legislation)
- 5-A.30 Develop programs to divert food waste and other biodegradable waste to composting facilities rather than disposing of them in the landfill. (GPSC recommendation)
- 5-A.31 Mitigate impacts associated with the expansion of existing landfills or development of new landfills to include effects on streets and highways, drainage systems, groundwater, air quality, natural resources, aesthetics, and property maintenance. (1995 General Plan)
- 5-A.32 Improve commercial recycling diversion rates (including those for multi-unit housing) through education, including electronic and mailing campaigns, and partnerships with large employers, organizations, and institutions such as University of Redlands. (combination of goals and actions in Sustainability Plan)
- 5-A.33 Work with private industry to encourage the reduction and reuse of construction and demolition materials through deconstruction and other methods. (GPSC recommendation)

- 5-A.34 Invest in new infrastructure and technology and partnerships that contribute to increased waste diversion and capture/reuse of methane gas emissions from the landfill. (Sustainability Plan)
- 5-A.35 Work with public and private entities to generate creative new opportunities that use solid waste as a resource. (Staff recommendation)
- 5-A.36 Promote design in new development that incorporates space for recycling containers and other waste diversion facilities. (Staff recommendation)

5.4 GREEN BUILDING AND LANDSCAPES

Principle

- 5-P.8 Promote sustainability by reducing the community’s greenhouse gas (GHG) emissions and fostering green development patterns—including buildings, sites, and landscapes. (Staff recommendation)

Actions

- 5-A.37 Continue implementation and enforcement of the California Building and Energy codes to promote energy efficient building design and construction. (Staff recommendation)
- 5-A.38 Promote Leadership in Energy and Environmental Design (LEED) certification program for the design, operation, and construction of high-performance green buildings. (Staff recommendation)
- 5-A.39 Promote energy conservation and retrofitting of existing buildings through: (Staff recommendation)
 - Encourage point-of-sale residential energy and water efficiency audits. Provide information on upgrading requirements and/or incentives if necessary;
 - Providing financial incentives and low-cost financing products and programs that encourage investment in energy efficiency and renewable energy within existing residential buildings; and
 - Educating residents about the availability of free home energy audit programs and encouraging the implementation of audit findings.
- 5-A.40 Adopt a construction and demolition waste recycling ordinance that requires, except in unusual circumstances, all construction, demolition and renovation projects that meet a certain size or dollar value to divert from landfills 100 percent of all cement concrete and asphalt concrete, and an average of at least 75 percent of all remaining non-hazardous debris. (Staff recommendation)
- 5-A.41 Decrease the need for artificial cooling, heating, and lighting, and promote outdoor lifestyles in Redlands’ moderate climate by: (Staff recommendation)
 - Updating the Zoning Ordinance to provide for adequate private and common open spaces as part of multi-family developments; and

- Encouraging residential and office buildings to have windows that open to the outside in all habitable rooms and maximize the use of daylight.
- 5-A.42 Prepare a Landscape Manual or enhance landscape standards in the Municipal Code to mitigate urban heat island effects through maximum tree canopy coverage and minimum asphalt and paving coverage—particularly for denser areas like Downtown, transit villages, shopping centers, and industrial and other areas with expansive surface parking. Consider the reflectance of stone and rock ground cover in heat generation. (Staff recommendation)

5.5 GREENHOUSE GAS (GHG) REDUCTION

Principles

- 5-P.9 Undertake initiatives to enhance sustainability by reducing the community’s GHG emissions. (Staff recommendation)
- 5-P.10 Demonstrate leadership by reducing the use of energy and fossil fuel consumption in municipal operations, including transportation, waste reduction, and recycling, and by promoting efficient building design and use. (adapted from Sustainability Plan)

Actions

- 5-A.43 Prepare a Climate Action Plan to systematically evaluate and design strategies to reduce GHG emissions from buildings and landscapes. (Staff recommendation)
- 5-A.44 Demonstrate City leadership by giving preference to or providing incentives for climate-friendly purchasing. (Sustainability Plan)
- 5-A.45 Use the City’s Climate Action Plan as the platform for delineating and implementing measures to improve energy conservation, and increasing renewable energy use (such as solar) in existing and new development. (Staff recommendation)
- 5-A.46 Support a regional approach to study the feasibility of establishing Community Choice Aggregation (CCA) or another program that increases the renewable energy supply and maintains the reliability and sustainability of the electrical grid. (Staff recommendation)