

## 9. SUSTAINABILITY ELEMENT

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### A. Purpose

This Sustainability Element's goals, policies, and programs facilitate environmental, social, and economic well-being for all Fort Bragg residents by encouraging green building, renewable energy, energy conservation, water conservation, recycling and waste reduction in all new construction and remodel projects. Element 4 Conservation and Open Space and Element 5 Circulation of this General Plan also address components of sustainability, including: stormwater management, habitat protection, parks, and bicycle facilities.

**Green Building.** Green Building consists of utilizing building siting, design, construction techniques, and building materials to reduce building operating costs and the negative impacts of buildings on the environment and its occupants. Green building techniques are applied to the treatment of the building site, to improve water and energy efficiency, in the selection of materials and resources, and to improve indoor environmental quality. Construction practices, building technologies, and best practices are likely to evolve, and new practices and technologies are likely to be developed during the life of the General Plan. Consequently, the General Plan focuses on performance-based requirements to achieve sustainability by using the US Green Building Council's LEED® (Leadership in Environment and Energy Design) rating system.

**Energy Conservation.** The City has adopted a green house gas (GHG) reduction goal of 20% by 2020. The City has also prepared a Climate Action Plan to help the City realize this goal. As nearly 40% percent of the nation's energy is consumed by homes and commercial buildings, the policies in this General Plan are needed to reach the City's GHG reduction goal. In addition, by making buildings more energy efficient, building owners will save on long term operating costs.

**Water Conservation.** The City of Fort Bragg depends on surface water flows to serve the water demands of city residents and businesses. Surface flows are highly dependent on annual weather patterns, and weather patterns are likely to change due to Climate Change. Thus water use minimization in all development is necessary to ensure that the City can continue to serve existing and new development. The Sustainability Element uses a multi-pronged approach to minimize consumption of potable water, including: minimization of water demand indoors and out; use of potable water for potable purposes; and encouraging reuse of storm water and grey water on-site for landscaping irrigation. Reducing water also saves energy, since water pumping and wastewater treatment require significant amounts of energy.

**Waste Reduction.** Waste reduction is as important as recycling, in that it saves natural resources, energy, disposal space and costs, and reduces pollution risks. Additionally, the waste leaving the City of Fort Bragg is hauled long distances and contributes to the City's GHG production.

## B. Goals, Policies and Programs

### Green Building

**Goal S-1: Maximize the use of green building practices and materials in new and existing development.**

Policy S-1.1 Building Reuse: Where existing buildings in the Plan Area are structurally sound and reuse is economically feasible, reuse of buildings in whole or part is preferred.

Policy S-1.2 Encourage Green Techniques: All green building techniques are encouraged, with preference given to techniques that address local issues, such as use of locally produced natural materials, water and energy conservation measures, and techniques that respond appropriately to Fort Bragg's cool, rainy environment, such as passive solar design and low impact development (LID) strategies.

Policy SD-6. LEED for Large Projects. All new development projects of more than 10,000 square feet shall achieve the LEED Gold rating.

Policy SD-8. Recycling. All new development shall provide a centralized location for all recyclables, including compostable materials.

### Energy

**Goal S-2 Encourage development that minimizes the demand for non-renewable energy and reduces Green House Gas (GHG) emissions.**

Policy S-2.1 Passive Solar Design Strategies: All building and site design shall use passive solar design strategies for space heating and lighting to reduce energy demand to the extent feasible.

Policy S-2.2 Alternative Energy: The development and use of alternative sources of energy such as wind, solar, and biomass to meet Fort Bragg's energy needs is encouraged.

Policy S-2.3: Minimize Energy Use. All Buildings are encouraged to reduce energy demand with a goal of Net Zero Energy Buildings. All new construction shall minimize energy use as required by the California Building Code. Net zero buildings and homes are encouraged. These homes produce as much energy (through conservation, photovoltaic panels, solar hot water, and wind, geothermal) as they consume.

Program S2.3.1: Modify the CLUDC to include planning incentives for projects that achieve net zero energy use. Incentives could include reduction in parking requirements, additional lot coverage, reduction in setbacks, etc.

Program S-2.3.2: Modify the CLUDC to include planning incentives for buildings and infrastructure that create and/or use locally and renewably generated energy

Program S-2.3.3: Modify the CLUDC to include planning incentives for building systems that include active strategies to reduce energy demand, such as the use of high-performance heating, ventilation, and air conditioning (HVAC) systems, glazing, and hot water systems.

Policy S-2.4: Require passive solar design in new construction, where feasible, as part of Design Review.

Program S-2.4.1: Modify the Citywide Design Guidelines to include guidelines that require passive solar design for residential and commercial new construction projects.

Policy S-2.5 Use of Local and Renewable Energy: Buildings and infrastructure that create and/or use locally and renewably generated energy are encouraged. Photovoltaic and wind energy systems are encouraged. The installation of solar panels or other clean energy power generation sources over parking areas is preferred.

Policy S-2.5 District Heating. District heating (i.e., heat generated in a central location) is encouraged. District heating is preferred for large development projects of more than 15 acres or 20,000 square feet.

Policy S-2.6 Climate Action Plan: Prepare and periodically update the City's greenhouse gas inventory and Climate Action Plan in order to achieve the City's GHG emission reduction targets.

Policy S-2.7 Energy Conservation Measures in existing Buildings: Encourage owners of existing dwellings to retrofit with energy-saving features.

Program S-2.7.1: Require retrofitting of energy-saving features in existing dwellings as a part of the City's Housing Rehabilitation Program by providing information, technical assistance, and requiring retrofits as part of any loan or grant program.

Program S-2.7.2: Develop programs to assist residential and commercial building owners with energy efficiency retrofits and the installation of alternative energy.

## Water

**Goal S-3: Minimize the use of potable water in new and existing development.**

Policy S-3.1 Reduce Water Use: Minimize the use of potable water in new and existing development. Development projects shall be designed and constructed to minimize water use through the installation of best available water conservation technology, fixtures and practices.

Program S-3.1.1: Modify the Coastal Land Use and Development Code to require that new development achieves a use rate of less than 50 gallons per person (job or resident) per day or per the State Standard.

Policy S-3.2 Rainwater Capture: The installation of cisterns is encouraged to capture rainwater from roofs for all water needs and for flood control during heavy storms. Cisterns may be located above or below ground. Rainwater Capture on the Mill Site. Rainwater cisterns may be sized and located throughout the Plan Area in order to encourage active rainwater collection, storage, and use. The installation of cisterns is encouraged to capture rainwater from roofs for all water needs and for flood control during heavy storms. Cisterns may be located above or below ground.

Policy S-3.3 Water Conservation Education: Business/property owners shall incorporate educational programs that promote water conservation habits and practices in all hotel, restaurant, and multi-family residential development.

Policy S-3.4 Drought Tolerant Landscaping: New development shall include drought tolerant landscaping for landscaped areas in commercial and multi-family residential uses.

Program S-3.4.1: Require landscaping for all new commercial and industrial development to use drought tolerant plants and no vegetative turf unless recreation needs or other area functions specifically requires turf.

Program S-3.4.2: Develop programs to educate single-family homeowners on water conserving landscaping methods and discourage the use of turf.

Program S-3.4.3: Encourage green roofs, landscape-based treatment measures, and pervious materials for hardscape, and other stormwater management practices to reduce water pollution are encouraged.

## **Waste**

### **Goal S-4      Reduce, recycle, and reuse solid waste generated in the City.**

Policy S-4.1 Recycling: All commercial, office, and multi-family residential developments shall provide a centralized drop-off location for recyclables and compostable materials.

Policy S-4.2 Recycling and Reuse of Solid Waste: Comply with State requirements to reduce the volume of solid waste through recycling and reduction of solid waste.

Program S-4.2.1: Continue to participate in the County's Integrated Waste Management Plan operated by the Mendocino Solid Waste Management Authority.

Program S-4.2.2: Continue to implement the City's Construction and Demolition Waste Recycling Ordinance. Periodically review the ordinance and consider increasing the target diversion amounts.