

ENVIRONMENTAL MANAGEMENT ELEMENT

ELEMENT OBJECTIVES:

The policies and actions of the Environmental Management Element are intended to make Berkeley a more environmentally sustainable community by achieving the following eight objectives:

1. Promote development and coordination of local and regional environmental management programs and facilitate community participation in environmental protection and conservation.
2. Reduce solid and hazardous wastes and minimize risk from hazardous materials.
3. Reduce emissions and improve air quality.
4. Conserve water, improve water quality, and facilitate creek restoration.
5. Protect, maintain, and enhance the urban forest (including street and park trees) and natural habitat areas.
6. Support and promote a local food system based upon sustainable regional agriculture to assure access to healthy, affordable, and culturally appropriate foods.
7. Reduce nonrenewable energy consumption and unnecessary glare from inappropriate lighting.
8. Protect the community from excessive noise levels.

POLICIES AND ACTIONS

ENVIRONMENTAL MANAGEMENT PROGRAMS

Policy EM-1 City of Berkeley Leadership

Maintain Berkeley's position as a leader in the adoption and implementation of environmental management programs.

Actions:

- A. Consider environmental and social costs in all decision-making and budget decisions.
- B. Ensure full disclosure of information about environmental consequences of City decisions.
- C. Continue to develop and use scientifically based environmental management principles to inform decisions regarding economic, social, and physical planning.
- D. Coordinate City regulatory and educational functions to facilitate environmental management goals.
- E. Adopt a comprehensive Environmental Leadership policy to integrate environmental policies and communicate the City's Environmental Leadership Mission to the public.

Policy EM-2 Sustainable Berkeley

Maintain Berkeley's position as a leader in the creation and implementation of sustainable community practices and programs.

Actions:

- A. Ensure that City activities are accomplished in a coordinated way, governed by our overarching goal of sustainability.
- B. Align City mission statements, budgeting, and operations with sustainability goals. Consider sustainability criteria in City policy, City purchasing, municipal operations, and program decisions.
- C. Consider establishing a coordinating body to spearhead and accelerate organizational and community implementation of sustainable practices and to ensure integration of environmental, economic, and social policies and programs.
- D. Report progress on sustainability goals regularly as part of the General Plan Annual Review. Conduct a Sustainability Assessment using the activity to set targets to meet goals and monitor future action.
- E. Obtain certification as a sustainable municipal operation.
- F. Promote the adoption of sustainable activities by the public, business, and organizations.

Policy EM-3 Regional Coordination

Promote the City's environmental management and sustainability policies and programs and encourage other cities in the region to establish similar or better policies and programs.

Actions:

- A. Coordinate Berkeley's sustainability and environmental management programs with other, related programs in the region.
- B. Support regional efforts to create economic incentives to encourage environmental management and sustainability by cities, businesses, and households.
- C. Support public-private environmental management and sustainability partnerships with the scientific, environmental, educational, and business communities to develop sustainable applications for public and private use and to implement educational programs for households, public agencies, and businesses.

EM-4 Green Building Certification

Develop a green building certification program.

Actions:

When developing the program consider:

- A. Requiring City-owned buildings, buildings developed by private developers on City-owned and controlled land, and projects that include City financial assistance to be Green Building certified.
- B. Encouraging all private buildings to be Green Building certified.

- C. Developing a green design assistance program.
- D. The minimization of greenhouse gases produced by new buildings especially as related to space heating efficiencies.

Policy EM-5 “Green” Buildings

Promote and encourage compliance with “green” building standards. *(Also see Urban Design and Preservation Policy UD-33.)*

Actions:

- A. Encourage, and where appropriate require, new construction and major remodel projects to be sited, designed, constructed, and operated to enhance the well-being of their occupants, and to minimize present and future impacts on the community and the natural environment. *(Also see Policy EM-39.)*
- B. Encourage landscaping for water and energy efficiency. *(Also see Policy EM-26.)*
- C. Encourage buildings to incorporate renewable energy and energy- and water-efficient technologies. *(Also see Policies EM-38 and EM-39.)*
- D. Encourage use of recycled-content construction materials. *(Also see Policy EM-6.)*
- E. Encourage efforts to improve indoor air quality and to provide a comfortable and healthy environment.
- F. Encourage reduction of construction and demolition waste. *(Also see Policy EM-6.)*
- G. Encourage construction of durable buildings.
- H. Establish a green design assistance and green building certification program.

Policy EM-6 Nuclear Free Berkeley

Continue to enforce the provisions of the Nuclear Free Berkeley Act. The City shall not invest in or contract with entities that are engaged in Nuclear Weapons work, except under the limited circumstances outlined in the Act. The City shall provide timely notice of proposals to waive the Nuclear Free Act, so that citizens are assured the opportunity to comment on any proposed waiver of the Nuclear Free Act. It shall therefore be City of Berkeley policy that the City supports First Amendment actions to defend the Berkeley Nuclear Free Act.

SOLID AND HAZARDOUS WASTE AND REGULATIONS

Policy EM-7 Reduced Wastes

Continue to reduce solid and hazardous wastes.

Actions:

- A. Achieve a 64% diversion of waste from landfills.
- B. Manage wastes locally to the greatest extent feasible to minimize the export of wastes and pollution to other communities.

- C. Encourage the Lawrence Berkeley Laboratory and the University of California to minimize to the greatest extent feasible the storage of radioactive and other toxic wastes in Berkeley.
- D. Encourage reduction in the use of toxic materials.
- E. Encourage reuse, recycling, and composting.
- F. Facilitate battery and used oil recycling.
- G. Support programs and incentives to reduce the manufacture and use of materials which are nonrecyclable or hazardous to people and the environment.
- H. Develop education and promotion programs to increase recycling by occupants of multi-family buildings.
- I. Through legislation and other means, reduce the use of plastic by eliminating multiple layers in packaging and encourage reusable shipping containers such as collapsible pallets and refillable bottles for bulk liquids.
- J. Encourage reusable bags and packaging such as reusable bottles, whether glass or plastic.
- K. Link collection of plastic to mandated recycled content in plastic packaging.
- L. Advocate at the state level for higher disposal fees for products which are designed for single use and for products that do not incorporate any post-consumer recycled content.

Policy EM-8 Building Reuse and Construction Waste

Encourage rehabilitation and reuse of buildings whenever appropriate and feasible in order to reduce waste, conserve resources and energy, and reduce construction costs. *(Also see Urban Design and Preservation Policy UD-6.)*

Actions:

- A. Encourage the reuse of demolition materials and recycling of construction scraps.
- B. Expand the existing yard waste recycling program to include restaurant and institutional food waste.

Policy EM-9 Recycling and Waste Transfer Stations

Ensure convenient access for Berkeley citizens to transfer stations, recycling, composting, and collection of household hazardous waste products.

Action:

- A. Seek to identify a site for and develop a Berkeley hazardous waste drop-off facility, or develop a citywide pickup program.

Policy EM-10 Materials Recovery and Remanufacturing

Support and encourage serial materials recovery and remanufacturing industries. *(Also see Economic Development and Employment Policy ED-7.)*

Action:

- A. Consider zoning changes to facilitate relocation and establishment of recovery and remanufacturing industries.

Policy EM-11 Biodegradable Materials and Green Chemistry

Support efforts to phase out the use of long-lived synthetic compounds, such as pesticides and vehicle anti-freeze, and certain naturally occurring substances which do not biodegrade. Encourage efforts to change manufacturing processes to use biodegradable materials, recycle manufactured products, reuse by-products, and use “green” products.

Actions:

- A. Encourage citywide efforts to phase out or minimize the use of synthetic fertilizers, hazardous household wastes, toxic cleaning agents, herbicides, and pesticides.
- B. Require City departments to use nontoxic materials whenever possible.
- C. Encourage retailers to stock nontoxic alternatives to hazardous products.

Policy EM-12 Education

Work with other State and local agencies to educate business owners and residents regarding safe use, recycling, and disposal of toxic materials; reducing hazardous household wastes; and substitutes for these substances.

Actions:

- A. Implement business operator education and hazardous materials minimization programs to avoid accidental releases of hazardous materials.
- B. Conduct periodic training exercises for the identification, containment, decontamination, and disposal of hazardous materials.

Policy EM-13 Hazardous Materials Disclosure

Continue to require the disclosure of hazardous materials usage and encourage businesses using such materials to prepare and implement a plan to reduce the use of hazardous materials and the generation of hazardous wastes.

Policy EM-14 Hazardous Material Regulation

Control and regulate the use, storage and transportation of toxic, explosive, and other hazardous and extremely hazardous material to prevent unauthorized and accidental discharges. *(Also see Disaster Preparedness and Safety Policy S-14.)*

Actions:

- A. Regularly inspect businesses using, storing, transporting, or generating hazardous materials or wastes to ensure compliance with federal, state, and local regulations.
- B. Require facility operators to write and implement contingency plans in preparation for emergency situations and accidental releases. Additionally, require facilities to train their employees on how to activate the contingency plans.

Policy EM-15 Environmental Investigation

When reviewing applications for new development in areas historically used for industrial uses, require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses would not have the potential to affect the environment or the health and safety of future property owners, users, or construction workers. *(Also see Disaster Preparedness and Safety Policy S-15.)*

Policy EM-16 Risk Reduction

Work with owners of vulnerable structures with significant quantities of hazardous material to mitigate potential risks. *(Also see Disaster Preparedness and Safety Policy S-13.)*

Policy EM-17 Warning Systems

Establish a way to warn residents of a release of toxic material or other health hazard, such as sirens and/or radio broadcasts. *(Also see Disaster Preparedness and Safety Policies S-1 and S-9.)*

AIR QUALITY

Policy EM-18 Regional Air Quality Action

Continue working with the Bay Area Air Quality Management District and other regional agencies to:

1. Improve air quality through pollution prevention methods.
2. Ensure enforcement of air emission standards.
3. Reduce local and regional traffic (the single largest source of air pollution in the city) and promote public transit.
4. Promote regional air pollution prevention plans for business and industry.
5. Promote strategies to reduce particulate pollution from residential fireplaces and wood-burning stoves.
6. Locate parking appropriately and provide adequate signage to reduce unnecessary “circling” and searching for parking.

Policy EM-19 15% Emission Reduction: Global Warming Plan

Make efforts to reduce local emissions by 15% by the year 2010. *(Also see Transportation Policy T-19.)*

Action:

- A. Continue to support and implement local emission reduction programs, such as the City of Berkeley Employee Fleet Bicycle Program, the Police Bicycle Program, and the actions recommended in the City of Berkeley Resource Conservation and Global Warming Abatement Plan.

Policy EM-20 City of Berkeley Fleet

The City should exceed Federal and State standards for all City fleet vehicles and use all means practical to reduce emissions of criteria pollutants and greenhouse gases. *(Also see Transportation Policy T-11.)*

Actions:

- A. Through attrition, eliminate all heavy-duty, diesel-fueled vehicles.
- B. All vehicle acquisitions should be of a size and fuel-type (including bicycles, ultra-light vehicles, electric vehicles and/or hybrid vehicles, and premium-efficiency conventional vehicles).that are appropriate for the tasks and have the least amount of emissions.
- C. Continue to convert fleet vehicles to natural gas, electricity, and other alternative fuels. Substitute bicycles for energy-powered vehicles whenever possible.

Policy EM-21 Alternative Fuels

Work with the University of California, the Berkeley Unified School District, and other agencies to establish natural gas fueling and electric vehicle recharging stations accessible to the public.

Policy EM-22 Public Awareness

Increase public awareness of air quality problems, rules, and solutions through use of City publications and networks.

Action:

- A. Work on a local and regional level to improve air quality for Berkeley residents and the region.

WATER QUALITY AND CREEKS

EM-23 Water Quality in Creeks and San Francisco Bay

Take action to improve water quality in creeks and San Francisco Bay.

Actions:

- A. Work with the East Bay Municipal District (EBMUD) to ensure that wastewater discharges comply with the requirements of EBMUD's Wastewater Control Ordinance No. 311 to manage wastewater treatment discharges to protect San Francisco Bay.
- B. To minimize storm sewer pollution of San Francisco Bay, maintain an effective street sweeping and cleaning program.
- C. Identify and eliminate cross connections between the sanitary sewer and storm sewer systems.
- D. Restore a healthy freshwater supply to creeks and the Bay by eliminating conditions that pollute rainwater, and by reducing impervious surfaces and encouraging use of swales, cisterns, and other devices that increase infiltration of water and replenishment of underground water supplies that nourish creeks.
- E. Increase public awareness of the value of promoting healthy watersheds and aquifers. Use mailings and similar methods to educate residents, particularly creekside property owners, about how they can protect and improve water quality, lessen erosion, and improve habitat and creek restoration projects. Support education campaigns to eliminate dumping of paint, chemicals, and other pollutants into the storm drain system.
- F. Encourage the maintenance and restoration of creeks and wetlands and appropriate planting to cleanse soil, water, and air of toxins.

Policy EM-24 Sewers and Storm Sewers

Protect and improve water quality by improving the citywide sewer system.

Actions:

- A. Adequately fund sewer system improvements necessary to maintain water quality in natural areas and reduce public health hazards.

- B. Identify and eliminate illegal roof-leader and other illegal connections to the sewer system.
- C. Establish a program for the identification and remediation of faulty laterals on private property. Consider requiring inspection and repair as a condition of property transfer.
- D. Identify alternative funding sources for essential infrastructure improvements such as grants, public-private partnerships, and special benefit districts.
- E. Ensure that new development pays its fair share of improvements to the storm sewerage system necessary to accommodate increased flows from the development.
- F. Coordinate storm sewer improvements with creek restoration projects.

Policy EM-25 Groundwater

Protect local groundwater by promoting enforcement of state water quality laws that ensure nondegradation and beneficial use of groundwater.

Policy EM-26 Water Conservation

Promote water conservation through City programs and requirements.

Actions:

- A. Encourage drought-tolerant landscaping and low-flow irrigation systems.
- B. Consider participation in the East Bay Municipal Utility District’s East Bayshore Recycled Water Project to make recycled water available for irrigation and other nonpotable uses.

Policy EM-27 Creeks and Watershed Management

Whenever feasible, daylight creeks by removing culverts, underground pipes, and obstructions to fish and animal migrations. *(Also see Disaster Preparedness and Safety Policy S-28 and Land Use Policy LU-20.)*

Actions:

- A. Seek funding sources to acquire and preserve land within creek corridors for restoration or daylighting.
- B. Establish, where appropriate or feasible, pedestrian and bicycle paths along creekside greenways to connect neighborhoods and commercial areas.
- C. Encourage daylighting of creeks on public lands as well as along creeks that are substantially open and accessible to the public.
- D. Restrict development on or adjacent to existing open creeks. When creeks are culverted, restrict construction over creeks and encourage design solutions that respect or emphasize the existence of the creek under the site.
- E. Ensure that creek daylighting proposals include appropriate landscaping, allow for adequate access, and carefully consider the urban context, the impact on existing recreational spaces, and the economic impact on the property and nearby properties.

- F. Work in cooperation with adjoining jurisdictions to jointly undertake creek and wetland restoration projects, to improve water quality and wildlife habitat, to allow people to enjoy creeks as part of urban open space, and to create creekside transportation corridors for pedestrians and bicycles, as described in the 1995 Joint Watershed Goals Statement.
- G. Regulate new development within 30 feet of an exposed streambed as required by the Creeks Ordinance and minimize impacts on water quality and ensure proper handling of stormwater runoff by requiring a careful review of any public or private development or improvement project proposed in water sensitive areas.).
- H. Consider amending the Creek Ordinance to restrict parking and driveways on tops of culverts and within 30 feet of creeks.
- I. Consider replacing culverts under streets with open bridging when feasible.

HABITAT AND THE URBAN FOREST

Policy EM-28 Natural Habitat

Restore and protect valuable, significant, or unique natural habitat areas. *(Also see Open Space and Recreation Policy OS-9.)*

Actions:

- A. Restore the natural habitat and improve water quality in the Aquatic Park lagoon.
- B. Where appropriate, balance increased use of open space and public lands with enhancement of natural habitat.
- C. Preserve and enhance coastal and riparian areas and water flows necessary to support natural habitat and wildlife.

Policy EM-29 Street and Park Trees

Maintain, enhance, and preserve street and park trees to improve the environment and provide habitat.

Actions:

- A. Develop a street and park tree management plan to create a vibrant and well maintained tree population throughout the city. Wherever possible, tree replacement should emphasize native tree and plant species and maintain, to the extent feasible, street tree canopies over the street. *(Also see Urban Design and Preservation Policy UD-9.)*
- B. Prioritize South and West Berkeley for additional street tree planting.
- C. Ensure that new development preserves existing trees, wherever feasible, and adds trees in the public right-of-way, where appropriate.
- D. Maintain standards to ensure parking lot tree canopy coverage.
- E. Maintain programs to ensure the timely removal and replacement of unhealthy or inappropriate street or park trees.

- F. Preserve and protect heritage trees, including native oaks and other significant trees on public and private property whenever feasible.
- G. Discourage the filling of planter strips with concrete.

Policy EM-30 Native Plants

Use native tree and plant species to enhance ecological richness.

Action:

- A. Where appropriate, use native landscaping in new and replacement plantings and remove non-native plants to create ecological corridors for wildlife habitation.

Policy EM-31 Landscaping

Encourage drought-resistant, rodent-resistant, and fire-resistant plants to reduce water use, prevent erosion of soils, improve habitat, lessen fire danger, and minimize degradation of resources.

Policy EM-32 Inter-Jurisdictional Coordination

Encourage efforts by neighboring jurisdictions and agencies, such as the East Bay Regional Park District, the University of California at Berkeley, and the Lawrence Berkeley National Laboratory, to restore historic coastal grasslands and native trees in the hill area to provide natural habitat and reduce fire danger in the area.

Policy EM-33 Citizen Efforts

Encourage citizen efforts to restore ecological resources and open space areas, such as pathways and stairways.

Action:

- A. Work with citizens and businesses to maintain clean streets, sidewalks, and building exteriors.

LOCAL FOOD SYSTEMS

Policy EM-34 Local Food Systems

Increase access to healthy, affordable, and culturally appropriate foods for the people of Berkeley by supporting efforts to build more complete and sustainable local food production and distribution systems. *(Also see Open Space and Recreation Policy OS-8.)*

Actions:

- A. Encourage efforts by the Berkeley Unified School District, the University of California, and other institutions to provide training and instruction in food and plant production.
- B. Support community outreach and education to strengthen organic sustainable food systems in the city and the region.
- C. Promote the purchase of food from local producers for school, senior center, after-school programs, food provision programs, and other social programs. Encourage the donation of fresh produce from community gardens to local food programs.
- D. Continue to make the City's composted waste available to community and school gardens.

- E. Promote seed distribution, lead testing, and composting programs for community gardens.
- F. Provide sites for local farmers' markets and community gardens.
- G. Encourage buildings that incorporate rooftop gardens that may be used for gardening.
- H. Encourage neighborhood initiatives to grow native and fruit-bearing trees.

ENERGY AND LIGHTING

Policy EM-35 Energy-Efficient Design

Promote high-efficiency design and technologies that provide cost-effective methods to conserve energy and use renewable energy sources. *(Also see Urban Design and Preservation Policy UD-33.)*

Action:

- A. Promote statewide code revisions necessary to enable the use of new methods and materials to conserve resources and prevent pollution.

Policy EM-36 Energy Conservation

Continue to implement energy conservation requirements for residential and commercial buildings at the time of sale and at time of major improvements.

Actions:

- A. Encourage patterns of development, building designs, and construction methods that are energy-efficient and reduce pollution.
- B. Encourage the use of lighting that is energy-efficient and nonintrusive.

Policy EM-37 Partnerships

Support public-private organizations established to implement energy conservation practices within the community.

Policy EM-38 Alternative Sources

Support efforts to produce energy through local alternative sources.

Actions:

- A. Consider establishing a program of incentives to encourage conversion of residential, commercial, and/or institutional buildings to local alternative energy sources.
- B. Consider establishing a subsidy program to enable low-income households to benefit from conservation and alternative power programs.

Policy EM-39 Business Energy Conservation

Encourage all businesses to implement energy conservation plans.

Policy EM-40 Market Support

Support the market for energy-efficient technologies and services.

Policy EM-41 Fossil Fuel

Encourage and support efforts to reduce use of fossil fuel and other finite, nonrenewable resources.

Actions:

- A. Wherever feasible, purchase low-emission, fuel-efficient vehicles and phase out use of diesel-fuel vehicles.
- B. Encourage actions that provide access by proximity, such as locating housing closer to transportation, commercial services and job centers. *(Also see Transportation Policy T-16, Housing Policy H-16, and Land Use Policy LU-23.)*
- C. Encourage use of “bio-diesel” fuel as an alternative to fossil fuel.

Policy EM-42 Outdoor and Street Lighting

Outdoor lighting should be chosen to avoid glare and provide an attractive nighttime environment with “fully shielded” fixtures to limit light rays emitted above the horizontal plane.

NOISE

Policy EM-43 Noise Reduction

Reduce significant noise levels and minimize new sources of noise.

Actions:

- A. Increase enforcement of the Noise Ordinance to reduce noise impacts.
- B. Consider improvements to the Noise Ordinance to improve the City’s ability to reduce noise impacts.
- C. Promote increased public awareness concerning the negative effects of excessive noise on humans.

Policy EM-44 Noise Prevention and Elimination

Protect public health and welfare by eliminating existing noise problems where feasible and by preventing significant future degradation of the acoustic environment.

Actions:

- A. Incorporate noise considerations into land use planning decisions.
- B. Ensure the effective enforcement of City, State, and Federal noise levels by appropriate City departments.
- C. Coordinate with the California Occupational Safety and Health Administration (Cal-OSHA) to provide information on and enforcement of occupational noise requirements within the City of Berkeley.
- D. Support Federal and State legislation to lower allowable noise level on all motor vehicles.

Policy EM-45 Traffic Noise

Work with local and regional agencies to reduce local and regional traffic, which is the single largest source of unacceptable noise in the city.

Actions:

- A. Encourage neighborhood traffic calming strategies that cause motorists to slow down and decrease noise levels in all residential areas. *(Also see Transportation Policy T-20.)*
- B. Through the taxi permit process, restrict taxis and shuttles from honking in neighborhoods..
- C. Minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures.
- D. Promote and encourage new vehicle technologies to reduce transportation noise levels.
- E. Construct a noise barrier for Aquatic Park. *(Also see Open Space and Recreation Policy OS-8.)*
- F. Enforce muffler laws.
- G. Work with AC Transit to reduce bus noise. *(Also see Transportation Policy T-2.)*
- H. Establish noise emission limits on City public works projects and vehicles, such as refuse collection trucks, and work with other large institutions in the city, such as BUSD, to reduce vehicle noise emissions.

Policy EM-46 Noise Mitigation

Require operational limitations and all feasible noise buffering for new uses that generate significant noise impacts near residential, institutional, or recreational uses.

Actions:

- A. Promote use of noise insulation materials in new construction and major rehabilitation.
- B. Mitigate significant noise impacts on parks and public open space, whenever feasible. *(Also see Open Space and Recreation Policy OS-12.)*

Policy EM-47 Land Use Compatibility

Ensure that noise-sensitive uses, including, but not limited to, residences, child-care centers, hospitals and nursing homes, are protected from detrimental noise levels.

Actions:

- A. Noise sensitive development proposals should be reviewed with respect to the Land Use Compatibility Guidelines below.

If the noise level is within the normally acceptable level, noise exposure would be “acceptable” for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.

If the noise level is within the conditionally acceptable level , noise exposure would be “conditionally acceptable”; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g.,

at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.

If the noise level is within the “normally unacceptable” level, analysis and mitigation is required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.

If the noise level is within the “clearly unacceptable level”, new construction or development should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce exposure of people to unacceptable noise levels.