

## N. HAZARDOUS MATERIALS

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The purpose of this section is to assess the effects of *Draft General Plan* policies on hazardous materials<sup>1</sup> in the City of Berkeley. Products as diverse as gasoline, paint, solvents, film processing chemicals, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use, or processing, is considered to be a hazardous waste. Biohazardous wastes are composed of medical waste which may contain hazardous or infectious materials.

### 1 Setting

Beginning in the 1970s, governments at the federal, State, and local level became increasingly concerned about the effects of hazardous materials on human health and the environment. In order to investigate and mitigate these effects, the storage, use, transport, and disposal of hazardous materials and waste are highly regulated by federal, State, and local laws and regulations. A basic understanding of how hazardous materials could impact the Berkeley community requires an introduction to the regulatory agency framework and the responsibilities of the City under the Certified Unified Program Agency (CUPA) program and other hazardous materials programs. The CUPA program is explained in more detail below in Section b.

a0 Regulatory Agency Framework. As noted above, federal, State, regional, and local agencies are involved in the regulation of hazardous materials. A description of

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<sup>1</sup> The California Health and Safety Code defines a hazardous material as, A...any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.@(Health and Safety Code ' 25501)

agency jurisdiction is summarized below. It should be noted that because the regulatory framework for hazardous materials developed organically over time, some overlap exists in agency jurisdiction and responsibilities listed below.

(1) Federal Agencies.

(a) *Environmental Protection Agency (EPA).* The United States Environmental Protection Agency (US EPA) is responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. The federal regulations are primarily codified in Title 40 of the Federal Code of Regulations (40 CFR). The legislation is outlined in the Resource Conservation and Recovery Act of 1976 (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA); and the Superfund Amendments and Reauthorization Act (SARA). These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. The US EPA provides oversight and supervision for Federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

(b) *U.S. Coast Guard (USCG).* The USCG acts as the lead agency for spills in the San Francisco Bay and any oil spill clean up that could impact Berkeley's shoreline.

(2) State Agencies.

(a) *Department of Toxic Substances Control (DTSC).* In California, the California EPA (CalEPA), Department of Toxic Substances Control (DTSC) is authorized by the U.S. EPA to enforce and implement federal hazardous materials laws and regulations. Most State hazardous materials regulations are contained in Title 22 of the California Code of Regulations (CCR). DTSC provides cleanup and action levels for subsurface contamination; these levels are equal to, or more restrictive than, federal levels. DTSC acts as the lead agency for some soil and groundwater cleanup projects, although in Berkeley most authority for soil-only cases has been ceded to the City. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

(b) *Air Resources Board (ARB).* The California Toxic Hot Spots<sup>®</sup> Information and Assessment Act of 1987 requires that industry provide information to the public on emissions of toxic air contaminants and their impact on public health. The Act requires the ARB and local air quality districts to inventory sources of over 200 toxic air contaminants, to identify high priority emission sources, and to prepare a health risk assessment for each of these priority sources. Industry-wide health risk assessments

are in the process of being prepared for three common priority sources: auto body shops, dry cleaners and gasoline service stations.

(c) *State Water Resources Control Board (SWRCB)*. The State Water Resources Control Board (SWRCB) issues regulations on how to implement Underground Storage Tank (UST) programs. It also allocates monies to eligible parties who request reimbursement of funds to clean-up soil and groundwater pollution from UST leaks.

(d) *California Department of Fish and Game*. This agency responds to surface water pollution incidents on waters of the State only, which does not include Bay waters.

(e) *California Office of Emergency Services (OES)*. The OES State Warning Point compiles statistics on hazardous materials spills and releases, and acts as the Governor's 911 Dispatch Center, dispatching other regional, State and federal agencies to the scene, if necessary for spills and releases. The State Warning Point, under Federal SARA Title III requirements must be notified as soon as possible after a spill or release.

(3) Regional Agencies.

(a) *Regional Water Quality Control Board (RWQCB)*. The City of Berkeley is located within the jurisdiction of the San Francisco Bay RWQCB. The RWQCB is authorized by the Porter-Cologne Water Quality Act of 1969 to protect the waters of the State. Although the City of Berkeley oversees most groundwater contamination cases in the City, the RWQCB can act as lead agency to provide oversight for sites where the quality of groundwater or surface waters are threatened and can approve site closure. The RWQCB also responds if, in an emergency, surface and groundwater is impacted.

(b) *Bay Area Air Quality Management District (BAAQMD)*. The BAAQMD is the regional enforcement agency for ARB regulations. This regional agency regulates point source air pollutants, including many Berkeley businesses such as metal platers and auto body shops, as well as mobile sources (e.g., automobiles). BAAQMD staff also respond to odor and asbestos complaints from City staff or the general public.

(4) Local Agencies.

(a) *City of Berkeley Toxics Management Program (BTMP)*. The City of Berkeley Toxics Management Program (BTMP), as a Certified Unified Program Agency (CUPA), has primary responsibility for enforcing most regulations pertaining to

hazardous materials in the City of Berkeley. In addition, the BTMP often acts as lead agency to ensure proper remediation of contaminated sites and administers other hazardous material programs in the City of Berkeley.

(b) *Berkeley Fire Department.* The City of Berkeley Fire Department does not enforce any hazardous materials regulations, but may act as first responder to hazardous materials incidents within the City.

b0 CUPA Program.

(1) Background. The CUPA program was established under State Senate Bill 1082 in 1993 to reduce the cost and improve the efficiency of hazardous materials regulations. CalEPA began certifying local governments as CUPAs in December 1996; the City of Berkeley was certified as a CUPA effective March 1, 1997.<sup>2</sup> Most of the City of Berkeley's hazardous materials programs are administered and enforced under the CUPA program. The CUPA program encompasses several existing hazardous materials programs: *Hazardous Materials Management Plan* (HMMP) (commonly referred to as the *Hazardous Materials Business Plan*), California Accidental Release Plan (CalARP), UST programs, aboveground storage tank programs, and hazardous waste generation and treatment.

The City verifies compliance with hazardous material programs through inspections. The City has goals of inspecting all businesses in its programs at least once every 3 years, inspecting all facilities with USTs each year, and inspecting facilities with repeat violations several times each year. Enforcement actions for hazardous materials violations are handled by the Alameda County District Attorney, with whom City staff work closely. Most cases are resolved through an informal hearing process to encourage the violator to pay for clean-up and/or correct their site violations.

Although all California cities are eligible for the CUPA program, most of the CUPAs in the State are counties. Alameda County is unique in that eight cities (Berkeley, Fremont, Hayward, Livermore, Newark, Oakland, San Leandro, and Union City) have been certified as CUPAs, more than any other county in the State.<sup>3</sup> The City of Berkeley has monthly meetings with the Alameda County District Attorney and representatives of all the County's CUPAs to assist in maintaining uniformity in enforcement of hazardous materials regulations throughout Alameda County.

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<sup>2</sup> DTSC, April 1999. List of Certified Unified Program Agencies (CUPAs).

<sup>3</sup> Ibid.

CalEPA regularly audits CUPAs to ensure that they are properly administering and enforcing hazardous materials programs. The City of Berkeley was audited in January 1999, and was found to be in compliance with most aspects of the CUPA program. The exceptions to compliance identified in the audit were the lack of goal achievement for the number of inspections performed and lack of implementation of uniform database record management.

(2) CUPA Program Implementation. The hazardous materials sub-programs administered by the City of Berkeley under the CUPA program include the Hazardous Material Management Plan, the California Accidental Release Program, underground and aboveground storage tank programs, and hazardous waste generation and treatment, and are described below.

(a) *Hazardous Material Management Plan*. Under State law, facilities or businesses that use, produce, store or generate hazardous substances, or have a change in business inventory, are required to have a *Hazardous Materials Management Plan* (HMMP).<sup>4</sup> There are various required elements of the HMMP, including disclosure of the type and quantity of materials, storage location, and specific product information. Additionally, the law requires a site-specific emergency response plan, employee training and designation of emergency contact personnel. The City's HMMP has largely superseded the City's Hazardous Materials Disclosure Ordinance, originally adopted in 1985.

There are currently 366 facilities in the City that must report or disclose information under the requirements of HMMPs. The largest-quantity users of hazardous materials are mostly located in industrial sections of West Berkeley, but also include hospitals; the University of California, Berkeley; and Lawrence Berkeley Laboratory. The largest producers of hazardous materials required to comply with HMMPs are automobile repair shops (140) and dentists (52), which are scattered throughout the City.<sup>5</sup>

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<sup>4</sup> California Health and Safety Code, Chapter 6.95, Section 25500, et. seq.

<sup>5</sup> Al-Hadithy, Nabil, City of Berkeley, Director of Toxics Management, June 1999. *Personal communications* with Baseline Environmental Consulting

**Table IV.N-1  
BERKELEY FACILITIES REQUIRED  
TO SUBMIT CALIFORNIA  
ACCIDENTAL RELEASE PROGRAMS**

1. Alta Bates Medical Center, 2450 Ashby Avenue
2. Alta Bates Herrick Hospital, 2001 Dwight Way
3. Takara Sake USA, Inc., 708 Addison Street

Source: City of Berkeley BTMP Files, 1999.

(b) *California Accidental Release Program.* Effective January 1, 1997, the new California Accidental Release Prevention Program (CalARP) replaced the *California Risk Management and Pre-vention Program* (RMPP). CalARP is designed to protect people from the release of ~~A~~regulated substances@

into the environment. ~~A~~Regulated substances@ are chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane.<sup>6</sup> There are currently three facilities in Berkeley required to submit a CalARP program, listed in Table IV.N-1.

(c) *Underground Storage Tank Programs.* Because of fire hazards, flammable liquids, such as gasoline, have historically been stored in underground storage tanks which, over time, have tended to leak. Owners and operators of USTs must implement leak monitoring programs and prepare a response plan for unauthorized releases. The City's UST program, managed under the Toxic Management Program, is funded by permit fees charged to UST owners. Some State funds are available for those property owners unable to afford required remediation. BTMP staff are responsible for UST installation oversight and monthly monitoring.

Prior to removal of any UST, a detailed permit application must be submitted, and City Toxics Management Program staff must be present at the tank removal, once the permit has been approved. All remaining wastes must be properly documented via transport manifests and disposed of.

(d) *Aboveground Storage Tank Programs.* Inspections and permits are required for facilities storing hazardous materials in aboveground storage tanks (ASTs). In addition, any facility operating ASTs with a single tank capacity of 660 gallons or an aggregate tank capacity of 1,320 gallons must complete a Spill Prevention Control and Countermeasure (SPCC) Plan to provide an analysis of the potential for release from ASTs and the measures that can be implemented to reduce the release potential.<sup>7</sup>

<sup>6</sup> A comprehensive list of ~~A~~regulated substances@ can be found in Title 40, Code of Federal Regulations, Section 68.130.

<sup>7</sup> California Health and Safety Code, Section 25270.2.

(e) *Hazardous Waste Generation and Treatment.* Once a hazardous material has been used or processed, what remains is considered a hazardous waste. Nearly all businesses and residences in Berkeley generate some amount of hazardous wastes. The most common industrial hazardous wastes in Berkeley are generated from gasoline service stations, dry cleaners, automotive mechanics, auto body repair shops, machine shops, printers and photo processors, as well as potentially infectious waste from sources such as laboratories, clinics and hospitals.

At present there is no comprehensive source of current data on the hazardous waste stream within Berkeley. The best source of data about the types and quantities of hazardous waste may be from the number and classification of hazardous waste permits issued by the City of Berkeley (Table IV.N-2). Approximately 85 percent generate less than 55 gallons of liquid hazardous waste or 5 tons of solid waste per year. Under State and federal regulations, these generators would be considered small-quantity hazardous waste generators. Small-quantity generators are exempt from some hazardous waste reporting requirements and have less stringent time limits for storing and accumulating hazardous wastes than those for large-quantity generators. The remaining 47 businesses generate between 5 and 500 tons per year.

**Table IV.N-2  
BERKELEY HAZARDOUS WASTE  
GENERATORS BY CATEGORY**

Generator Category	Number
<b>Liquid Hazardous Waste</b>	
Less than 55 gallons/year	110
<b>Solid Hazardous Waste</b>	
Less than 5 tons/year	138
Between 5 and 25 tons/year	27
Between 25 and 50 tons/year	10
Between 50 and 100 tons/year	1
Between 100 and 250 tons/year	8
Between 250 and 500 tons/year	1
<b>Total</b>	<b>295</b>

Source: City of Berkeley BTMP Files, 1999.

The 1989 *Alameda County Hazardous Waste Management Plan* (ACHWMP) is intended to project future waste generation in the County, encourage an aggressive waste reduction strategy, and establish acceptable siting criteria which incorporated the fair-share principle. The City of Berkeley has adopted the County Plan, as well as the City's Hazardous Waste Importation Act, which imposes additional siting criteria for hazardous waste facilities in the City.

Three categories of hazardous waste are relevant in the City of Berkeley, including industrial hazardous waste, household hazardous waste, and medical waste, and are described below.

(1) *Industrial Waste.* As evidenced by *Draft General Plan* policies (discussed in Section d., below), pollution prevention, hazardous waste reduction, and source reduction are high priority efforts in the City of Berkeley. Community groups,

City residents and City staff have worked cooperatively on projects that encourage environmentally protective economic development.

While City staff stress hazardous waste minimization during site inspections, each facility is ultimately responsible for ensuring compliance with proper storage, labeling, record keeping and manifesting requirements. City staff look for best management practices, such as no obvious spills or staining on the floor area surrounding the storage area. A secondary containment area for spill or release containment is required. Because hazardous material transfer, storage, disposal and cleanup are usually costly efforts, hazardous waste generators are financially liable for their waste from cradle to the grave, so that all hazardous waste generators pay for some portion of the clean-up.<sup>8</sup> The City of Berkeley has also instituted a tiered risk-based permit fee system to encourage reduction in the numbers and quantities of hazardous materials used and generated by Berkeley business. The City is also planning a quarterly newsletter to educate businesses in techniques for minimizing the amounts of hazardous waste generated.<sup>9</sup>

(2) *Household Hazardous Waste.* Many of the items routinely used by Berkeley residents, such as paints and thinners, cleaning products, motor oil and other such items, are hazardous materials. An undetermined percentage of these materials are improperly stored and disposed of, and may be poured down storm drains, dumped into gardens, or placed into household garbage cans. These improper disposal methods expose occupants and refuse collectors to unnecessary risks, and could contaminate soils and groundwater at solid waste disposal sites.

The City's Public Works Department has established two waste oil recycling centers. For other household hazardous wastes, the individual must deliver the material to a hazardous waste storage or transfer station. The nearest transfer station presently accepting household hazardous wastes is in Oakland, and it is open irregular hours, which may discourage Berkeley residents from attempting to properly dispose of household hazardous waste. The City of Berkeley participated in household hazardous waste collection days, in conjunction with the Alameda County Waste Management Authority and the Cities of Oakland, Alameda, and Emeryville, which were successful but expensive to run.

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<sup>8</sup> California Health & Safety Code, Hazardous Waste Control Law, Section 25100-25249.

<sup>9</sup> Al-Hadithy, Nabil, City of Berkeley, Director of Toxics Management, *Personal communications* with Baseline Environmental Consulting, June 1999.

(3) *Medical Wastes.* Beginning in 1991, the Medical Waste Management Act established new handling, storage, treatment and disposal requirements for generators of medical waste.<sup>10</sup> In the City of Berkeley, the State enforces the *Medical Waste Management Act*. Medical waste generators who generate more than 200 pounds of medical waste per month and/or perform on-site treatment of medical wastes must register with the State.

c. Non-CUPA Hazardous Material Program. Besides the CUPA Program, the City of Berkeley also has programs and responsibilities for hazardous materials emergency response, clean-up of contaminated sites, storm water pollution prevention, and regulation of ozone-containing compounds.

(1) Emergency Response. The City's Toxics Management Program staff, in conjunction with the Fire Department, act as first responders to all chemical emergencies such as hazardous material spills, illegal dumping, complaints, or potential releases involving hazardous materials. The Toxics Management Program staff help identify substances spilled, notify responsible State agencies concerned with such incidents, determine how the public can best be protected from any harmful effects, and oversee site clean-up. For larger incidents, the Toxics Management Program staff assist the Berkeley Fire Department.

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<sup>10</sup> California Health & Safety Code, Section 117600-118350.

The City's Toxic Management Program maintains a 24-hour rapid response unit to aid in emergencies. Toxics Management staff are required to respond to an incident within 30 minutes of being called by the 911 Dispatch Center. The staff are regularly trained in analytical equipment use, rapid identification of chemicals, air modeling, air dispersion, limited risk assessment and chemical data base use. During 1998, Toxics Management staff responded to 73 calls for emergency response.<sup>11</sup>

As part of its responsibilities for emergency response, the City is required under State and federal law to have a *Hazardous Material Area Plan* that outlines the specific roles and authorities of the various City departments for their response to a hazardous materials incident. While the City's *Multi-Hazard Functional Plan* addresses the overall response and recovery, the *Hazardous Materials Area Plan* (HMAP) details the City's specific procedures for dealing with hazardous substances. The HMAP is scheduled to be updated by the end of 1999.<sup>12</sup>

(2) Contaminated Site Clean-up. The City of Berkeley Toxics Management Program coordinates with DTSC and RWQCB for clean-up of sites contaminated by hazardous material releases. The City oversees all contamination sites and closed sites with soil contamination. The BTMP oversees approximately 100 active contaminated sites in Berkeley.<sup>13</sup>

Once a required subsurface soil and water investigation is completed, the property owner is required to prepare and implement a corrective action plan. Once the corrective action plan prepared by the property owner is reviewed and approved by City staff, clean-up activities can begin. Once a site has been cleaned-up, which can take several years, it can be considered for closure. If the contamination affects soil only, City staff review the closure request and may close the site. If the contamination affects groundwater, City staff review the closure request and present it to the RWQCB.

(3) Storm Water Pollution Prevention. The City of Berkeley participates in the Alameda County Urban Runoff/Clean Water Pollution Prevention program, to monitor discharges into the storm water system. The authority for this program comes from the Federal Clean Water Act Amendments of 1990. Unlike discharges to the

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<sup>11</sup> Al-Hadithy, Nabil, City of Berkeley, Director of Toxics Management, *Personal communications* with Baseline Environmental Consulting, June 1999.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

sanitary sewer system, any discharge that enters the storm water system in Berkeley flows directly to San Francisco Bay without treatment. Under the Alameda County Urban Runoff/Clean Water Pollution Prevention program, the County has obtained an NPDES permit to discharge into San Francisco Bay. The City of Berkeley is currently implementing two parts of a series of programs as part of the NPDES permit: 1) unauthorized and industrial discharge identification; and 2) runoff control.

Education regarding storm water pollution prevention and Asbest management practices<sup>14</sup> is provided during HMMP inspections. The BTMP, in conjunction with the City's Public Works Department, also identifies businesses with unauthorized connections to the storm water system. Water quality is also discussed in Section J, Hydrology and Water Quality, in this report.

(4) Ozone-Containing Compounds. In 1990, the City of Berkeley passed an ordinance to prohibit the use locally of ozone-depleting compounds. Chloro-fluorocarbons (CFCs) have been shown to damage the stratospheric layer of ozone that protects the earth from harmful ultraviolet radiation.

The Ordinance requires any business that had been using freon or a related CFC to find an environmentally safer substitute; prohibits the use of ozone-depleting compounds in any process or activity involving the manufacturing, production, cleansing, degreasing or sterilization of any substance or product; and regulates foam packaging, building insulation, refrigeration/air conditioning systems, and halon fire extinguishers that use ozone-depleting compounds. In order to be able to continue to use these products, a company must apply for an exemption and provide technological and economical justification for their continued use. Since 1990, the goals of the Ordinance have been largely superceded by federal and State regulations and marketplace pressures, which have greatly reduced the number and quantities of CFCs and other ozone-depleting compounds released to the environment. Because of these conditions, the City of Berkeley no longer tracks compliance with this Ordinance.<sup>14</sup>

d. Draft General Plan Policies. The Transportation, Community Safety, and Environmental Management Elements of the *Draft General Plan* contain policies related to hazardous materials. For purposes of discussion, they have been divided into policies regarding hazardous material incidents, hazardous waste reduction, and household hazardous waste. Policies included in the *Draft General Plan* that pertain to hazardous materials are listed below.

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<sup>14</sup> Ibid.

(1 Hazardous Material Incidents. Six policies in the Transportation and Environmental Management Elements concern prevention and response to hazardous material incidents.

§ *Policy T-24: Truck Routes and Truck Traffic*. To the greatest extent possible, protect residential streets from hazardous or heavy traffic.

*Action:*

A. Revise and maintain signed truck routes throughout the City to facilitate movement of goods and materials and minimize the impact of trucks in residential areas and restrict tank vehicles with potentially hazardous materials in residential and other areas such as the Hazardous Fire Area.

§ *Policy T-29: Emergency Access*. Provide for adequate emergency access to all parts of the City and safe evacuation routes.

*Action:*

A. Do not install new full diverters or speed humps on streets identified on the Emergency Access and Evacuation Network Map unless it is determined by the Fire and Police Departments that the installation will not significantly reduce emergency access or evacuation speeds. The Fire Department should be able to access all locations within Berkeley within 4 minutes. (See Disaster Preparedness and Safety Element) All other proposed traffic calming devices or obstructions to the free flow of traffic on these streets should be reviewed by the Fire and Police Departments to ensure that the proposed change will not significantly increase emergency response times or hinder effective evacuation of adjacent neighborhoods.

B. Maintain and improve pedestrian pathways throughout the City that are dedicated for public use and provide an alternative to the streets in case of an emergency evacuation.

C. Maintain and make available to the public up-to-date maps of all emergency access and evacuation routes.

D. Where necessary, consider parking restrictions to ensure adequate access for emergency vehicle access and evacuation in hill area neighborhoods with narrow streets.

§ *Policy EM-12: 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.

*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-13: 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 or users.
- § *Policy EM-14: Risk Reduction.* Work with owners of vulnerable structures with significant quantities of hazardous material to mitigate potential risks.
- § *Policy EM-16: 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.

(2) Hazardous Waste Reduction. Four policies in the Environmental Management Element would encourage the reduction in the quantities of hazardous waste generated in the City:

- § *Policy EM-5: Reduce Wastes.* Continue to reduce solid and hazardous wastes generated within the city.

*Actions:*

- B. Manage wastes locally to the greatest extent feasible to minimize the export of wastes and pollution to other communities.
  - C. Discourage the Lawrence Berkeley Laboratory from storing radioactive and other wastes in seismically sensitive areas.
  - D. Encourage reduction in the use of toxic materials.
  - E. Encourage reuse, recycling, and composting.
  - F. Facilitate battery recycling and used oil.
  - G. Support programs and incentives to reduce the manufacture and use of materials which are non-recyclable or hazardous to people and the environment.
- § *Policy EM-9: Biodegradable Materials and Green Chemistry.* Support efforts to phase out the use of long-lived synthetic compounds and certain naturally occurring substances which do not biodegrade and long lived synthetic

compounds, such as pesticides and vehicle anti-freeze. Encourage efforts to change manufacturing processes to use biodegradable materials, recycle, reuse by-products and *Agreen@* chemistry and 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 non-toxic alternatives to hazardous products.

§ *Policy EM-10: 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-11: 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.

(3) Household Hazardous Waste. One policy in the Environmental Management Element addresses household hazardous waste.

§ *Policy EM-7: Recycling and Waste Transfer Stations.* Ensure convenient access for Berkeley citizens to transfer stations, recycling, composting, and collection of household hazardous waste products.

*Actions:*

- A. Seek to identify a site and develop a Berkeley hazardous waste drop-off facility or develop a citywide pick up program.

## 2. **Impacts and Mitigation Measures**

a. Significance Criteria. The proposed project would have a significant effect on public health and safety if it would:

- \$ Create a significant hazard to the public or the environment as a result of routine transport, use, production, upset or disposal of hazardous materials;
- \$ Bring people into direct contact with hazardous materials on a listed hazardous materials site compiled pursuant to Government Code section 65962.5; or
- \$ Interfere with an emergency response or evacuation plan.

b. Impacts and Mitigation Measures. Less-than-significant hazardous materials impacts are listed first, followed by significant impacts.

(1 Less-Than-Significant Hazardous Materials Impacts. The policies of the *Draft General Plan* listed above would not interfere with an emergency response or evacuation plan and *Policy T-29* would ensure continued access along designated emergency routes. Implementation of *Policy EM-7* would reduce improper disposal of household hazardous wastes by making it easier for residents to properly dispose of them. *Policy EM-12* would require regular inspections of businesses using, storing, transporting, or generating hazardous materials or wastes to ensure compliance with federal, State, and local regulations. *Policy EM-13* would protect future site users on lands where historical uses involved the use, storage, generation, or transportation of hazardous materials. The educational aspects of *Policy EM-10*, listed under Hazardous Waste Reduction, above, could also reduce the improper disposal of household hazardous wastes. These policies would constitute a beneficial environmental effect and would not create adverse hazards impacts.

The Hazardous Waste Reduction policies listed above would not establish any new City programs for hazardous waste reduction, but would officially encourage Berkeley businesses to reduce hazardous material use and waste generation, and provide education to promote this goal. They would not result in any adverse environmental impacts.

Although it is impossible to quantify the effect of the policies listed above under Hazardous Materials Incidents, their implementation would have the potential to reduce the number and severity of hazardous materials incidents within the City of Berkeley. In order to achieve this effect, these policies should be incorporated in the pending revision of the City's Hazardous Materials Area Plan.

**Impact HAZ-1: The effectiveness of certain policies addressing hazardous materials incidents (*Policy T-24, EM-12, EM-14 and EM-16*) would be enhanced and their implementation ensured if they were also incorporated into the City's Hazardous Materials Area Plan (HMAP). (LTS)**

Mitigation Measure HAZ-1: These policies shall be incorporated directly into the HMAP. (LTS)

(2) Significant Hazardous Materials Impacts. No potentially significant hazardous materials impacts would occur with implementation of the *Draft General Plan*.

