

General Plan

Hazardous Materials

Element

BACKGROUND TO THE 1993 GENERAL PLAN AS AMENDED

The background section text and maps were not updated as part of the 2011 amendments to the County General Plan.

County of Sacramento
Community Planning and Development Department

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SACRAMENTO COUNTY GENERAL PLAN HAZARDOUS MATERIALS ELEMENT BACKGROUND

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SACRAMENTO COUNTY GENERAL PLAN HAZARDOUS MATERIALS ELEMENT

Background Section

INTRODUCTION

Hazardous materials are found under kitchen sinks, traveling down our highways, and in most places of employment. Over the past three decades, concern over the proper use, handling, and disposal of hazardous materials has prompted an array of regulations from different levels of government. Budget crises have put much of the responsibility for inspections and enforcement on local governments. Sacramento County has taken this opportunity and developed programs that will benefit the environment and residents of the county. This Hazardous Materials Element and the programs included represent the ongoing commitment by Sacramento County to public and environmental safety.

INTENT AND ORGANIZATION

This section contains background, policies, and implementation recommendations. An equally important purpose is to raise public awareness of hazardous materials, and more specifically to their existence in Sacramento County. The Impact portion of this introduction (page 4) examines how hazardous materials affect the environment, human health, and economic situations. It is then followed by hazardous material information specific to the county, and a summary of the local, state, and federal legislation. Section II outlines handling and management practices of various departments and local agencies in Sacramento County. Lastly, policy language and accompanying implementation measures are found in Section III.

HISTORICAL BACKGROUND

Hazardous materials have been in use for years, some having been developed as early as the 1800's. Since World War II several of the most important sectors of the Sacramento economy (aerospace, electronics, and agriculture) have increased their reliance on chemicals in producing their products. As the use of chemicals increased, legislation such as the Clean Air Act and Clean Water Act restricted traditional methods of disposing of waste. This led to an increasing reliance on land disposal, which has its own risks. Sacramento County has been involved in regulating some aspects of hazardous materials since the 1940's beginning with state legislation that gave the County Department of Agriculture responsibility for regulating pesticides in order to protect pollinating bee populations.

Outside of the agricultural area, most regulation regarding hazardous materials remained at state or federal level until the early 1970's, when the Sacramento Regional County Sanitation District took over water pollution control issues. In 1980, the Board of Supervisors passed an ordinance which contained provisions for industrial wastewater pretreatment to satisfy EPA and State Water Resources Control Board requirements.

The Sacramento Air Pollution Control District (APCD) formed in 1959 regulates emissions throughout the county. The agency worked primarily on smog-related issues until 1981. Hazardous materials in the form of toxic air contaminants came to the attention of the APCD that

year after reviewing a proposed polychlorinated biphenyl (PCB) incineration program at McClellan Air Force Base. The permit review process for toxic air contaminants, finalized in 1982, sets limits for toxic air emissions.

In late 1981, a Hazardous Materials Task Force formed in the County to provide advice on hazardous materials regulation, management, and coordination.

In 1982, the first household hazardous waste collection day took place. This was expensive to provide, had no specified funding source, and relied upon periodic budget appropriations by the Board of Supervisors. More permanent collection facilities are now in operation.

In late 1982, the County contracted with the Sacramento City Fire Department to provide a Hazardous Materials Response Team for the unincorporated area for a period of five years. This program continues to serve the county today.

In 1983, the county adopted the Hazardous Material Disclosure Ordinance. It requires firms using or handling significant amounts of hazardous materials to disclose to the county the nature, quantity, and location of those chemicals. This information is transferred by the Environmental Management Department to the Fire Dispatch Center; which provides it to fire crews responding to emergencies at facilities containing hazardous materials. The ordinance also provides for public access to this information, subject to trade secret protections.

In late 1983, the Board of Supervisors adopted an ordinance regulating underground storage tanks. Local governments that did not meet the deadline by which to develop a regulatory program for underground storage tanks, had to comply with state standards. Sacramento County met this deadline and today has a set of regulations more stringent than those of the state government.

In mid 1984, the County Executive formed a second Hazardous Materials Task Force to review relevant state legislation. Reporting back in late 1984, it recommended developing this Hazardous Materials Element, a Comprehensive Hazardous Materials Management System for the County, and a joint Air and Hazardous Materials Advisory Board. The County Health Department acted as lead agency for hazardous materials programs.

In the fall of 1985, work began on developing a Comprehensive Hazardous Materials Management System for Sacramento County. This effort is directed at improving coordination between existing programs within County agencies. At the same time, work began on this General Plan Element, and the programs that will carry out the policies adopted with it. The section intends to provide background information, goals and policies to guide a coordinated County effort, and a description of program intent.

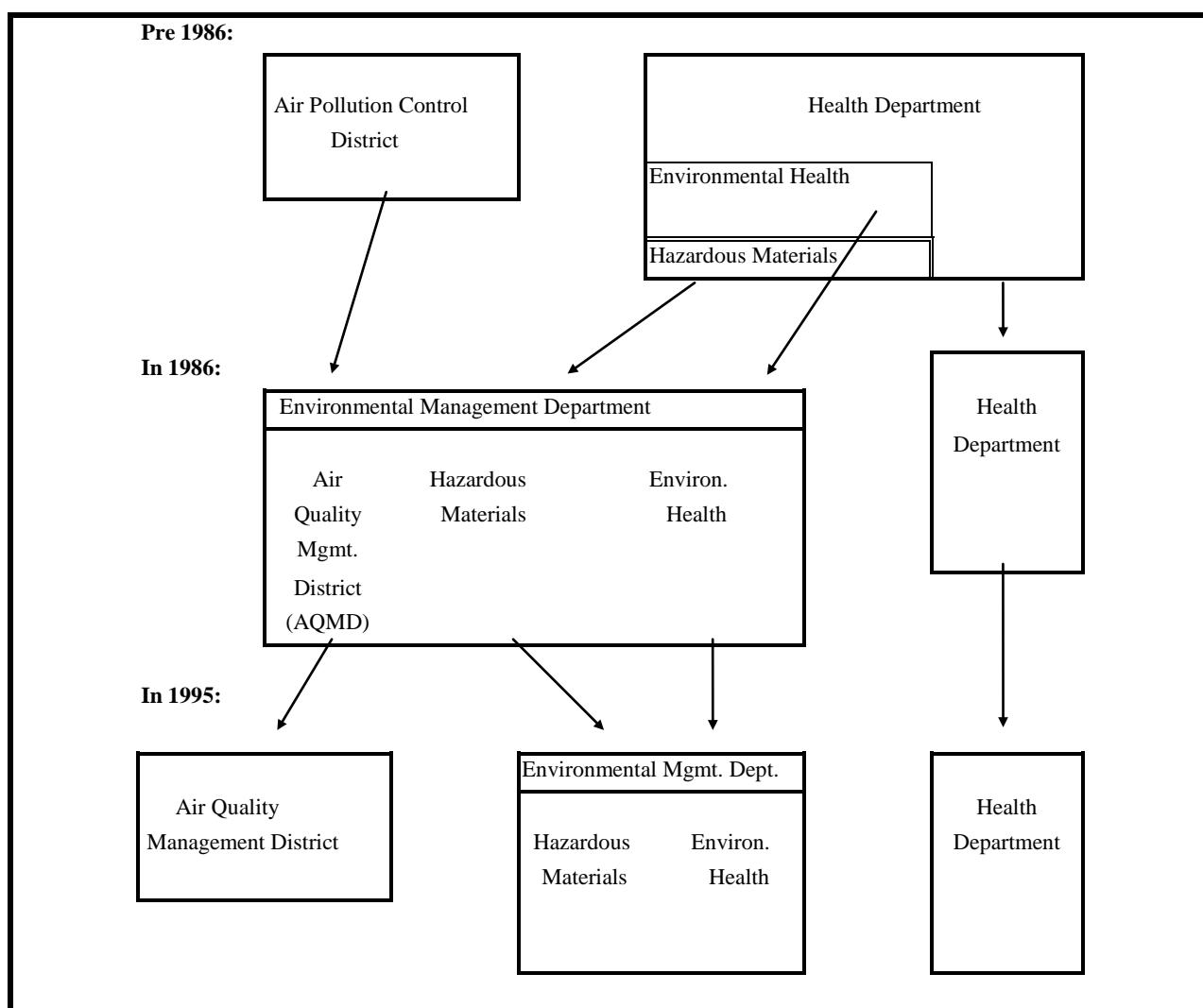
Three advisory committees once operated at the county level in the area of hazardous materials. The Air Pollution Control Advisory Board served as one of these, under the title of Hazardous Materials and Air Pollution Advisory Board, and they considered policy issues. A Toxic Substance Technical Advisory Committee provided advice on technical issues to the Advisory Board, the Air Pollution Control Officer, and the Hazardous Materials Section of the Environmental Health Branch of the County Health Department. In the Spring of 1986, the Board of Supervisors formed the Toxics Commission, which had nine months to review the County's hazardous materials programs. The commission recommended that the programs be restructured.

In 1986 the restructuring began with formation of the Environmental Management Department (EMD). EMD consisted of the Air Quality Management District (AQMD), and both the Hazardous Material and Environmental Health sections that were previously part of the Health

Department. An Environmental Commission, appointed jointly by the City Council and the Board of Supervisors, formed to advise EMD.

July 1, 1995 brought further structural changes. The Air Quality Management District (AQMD) became an independent district. As a result, the EMD now consists solely of the Hazardous Materials and Environmental Health Divisions.

FIGURE I-1
**Restructuring of Hazardous Materials
Programs from 1985 to 1995**



DEFINITION

For the purposes of this Element, Sacramento County uses the definition of "hazardous materials" in the California Health and Safety Code, Division 20, Chapter 6.95, Section 25501 which states:

(a) "Hazardous material" means 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 if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous wastes, 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.

This definition is not limited to just those chemicals with long-term detrimental effects. It also includes materials which present a hazard because of their physical nature (explosive, corrosive, flammable, etc. see Table I-1.) This General Plan Element addresses all types of hazardous materials, and refers to individuals or firms that manufacture, store, use, ship, recycle, or dispose of these materials as "handlers."

IMPACTS OF HAZARDOUS MATERIALS

HEALTH IMPACTS

An increasing body of evidence points to the long-term health impacts that humans can suffer if exposed to certain hazardous materials. Unfortunately, much of this knowledge has been gained only at the expense of individuals exposed in the workplace or at home. The lack of reliable health related information is due, in part, because those studies conducted prior to the wide spread use of certain hazardous materials are often found to be inadequate. For example, the full impacts of substances on human health are impossible to determine from studies with laboratory animals. The end result is that in many cases the general population serves as test subjects. Numerous examples point to injuries or deaths that have occurred in the past, but might have been avoided through more effective local programs.

Often workers lack training, safety equipment, and information about the hazardous substances in their workplace. Recently, a Central Valley firm involved in the manufacture of the pesticide DBCP had to compensate workers for fertility and reproductive problems associated with that substance.

Sanitation workers are often injured by hazardous substances improperly placed in household trash.

Residents may be exposed over long periods of time to low levels of contamination in drinking water supplies. The State's primary drinking water standards are listed on Table I-2, Pages 1-4.

Fishermen may find their catches are contaminated by urban and agricultural runoff. The State of California periodically issues warnings about excessive consumption of fish from contaminated waters.

In most of these examples, the health risk can be lowered by local programs to educate, inspect, assure safe handling practices, engineer solutions, and enforce regulations. Protecting the public health is a trust which Sacramento County has committed itself to, and so will continue to work to improve upon the programs currently in place to ensure the lowest health impacts possible.

TABLE I-1
Hazardous Materials Definitions
(for transportation)

EXPLOSIVES	A chemical or mixture designed to function by a substantially instantaneous release of gas and heat.
FLAMMABLE LIQUID	A liquid with a flash point below 100 degrees Fahrenheit.
COMBUSTIBLE LIQUID	A liquid having a flash point above 100 and below 200 degrees Fahrenheit.
CORROSIVE	A material that causes visible destruction of human skin tissue or a liquid that has a severe corrosive rate on steel.
FLAMMABLE GAS	A gas meeting certain ignitability requirements.
FLAMMABLE SOLID	A solid which ignites easily through friction or heat, or which when ignited burns so vigorously it presents a hazard.
OXIDIZER	A substance which readily provides oxygen for combustion.
POISON	A substance which is dangerous or toxic to man or other life in very small quantities.
IRRITANT	A non-poisonous substance which gives off dangerous or irritating fumes upon contact with fire or air.
ETIOLOGIC AGENT	A microorganism or its toxin which may cause human disease.
RADIOACTIVE MATERIAL	A material that spontaneously emits ionizing radiation with an activity greater than 0.002 microcuries per gram.
FORBIDDEN	A material that must not be transported.
ORM	Other Regulated Materials.

Source: Adopted and simplified from the Code of Federal Regulations, Title 49 Transportation.

TABLE I-2, Page 1
 CALIFORNIA STATE DEPARTMENT OF HEALTH SERVICES
 SANITARY ENGINEERING BRANCH
PRIMARY DRINKING WATER STANDARDS

NON-COMMUNITY	TYPE OF CONTAMINANT	NAME OF CONTAMINANT	HEALTH EFFECTS OF CONTAMINANTS	MAXIMUM CONTAMINANT LEVEL (MCL) (Mg/L)	MONITORING REQUIREMENTS	
					SOURCE	ROUTINE SAMPLING AND TESTING
	INORGANIC CHEMICALS	NITRATES	SHORT TERM—Temporary blood disorder in infants	45 Mg/L * may be allowed up to 90 Mg/L if: a) Water not available to infants 6 months and younger. b) Continuous posting is maintained. c) State and local authorities are notified. d) No adverse health effects shall result.	SURFACE AND GROUND	At least once; additional samples may be required at Department's option.
	TURBIDITY	TURBIDITY	SHORT TERM—Interfere with the disinfection process by shielding organisms, thereby possibly exposing the consumer to disease causing organisms	A) Surface water exposed to significant sewage hazards or recreational use shall receive, as a minimum, pre-treatment filtration and disinfection. Daily turbidity shall be less than 0.5 TU on a monthly average. B) Surface water not exposed to significant sewage hazards or recreational use: The MCL measured daily is 1) 1 TU monthly average except that 5 TU or fewer may be allowed if the higher turbidity does not: a) Interfere with disinfection. b) Prevent maintenance of an effective disinfection residual. c) Interfere with microbiological determination. 2) 5 TU based on average of two consecutive days	SURFACE in whole or in part	Surface water sample daily unless the State determines a reduced frequency will not pose a risk to public health.
	MICROBIOLOGICAL CONTAMINANTS	COLIFORM BACTERIA	SHORT TERM—The presence of these bacteria indicate that other disease-causing organisms may be present.	Multiple Tube Technique 10 ML portion (if 100 ML portions are used. See Title 22, Page 1707) Coliform shall not be present in 1) More than 10% of portions per month. 2) 3 or more portions in more than one sample when less than 20 samples. 3) 3 or more portions in more than 5% of the samples when 20 or more samples are examined per month. ----- Membrane Filter Technique Coliform shall not exceed 1) 1 per 100 ML as the arithmetic mean of all monthly samples	SURFACE AND GROUND	Examine at least one sample shown to be in compliance. Frequency of further sampling may be determined by the Department based on a sanitary survey and/or other data.

TABLE I-2, Page 2

NON-COMMUNITY	TYPE OF CONTAMINANT	NAME OF CONTAMINANT	HEALTH EFFECTS OF CONTAMINANTS	MAXIMUM CONTAMINANT LEVEL (MCL) (mg/L)	MONITORING REQUIREMENTS		
					SOURCE	ROUTINE SAMPLING AND TESTING	
	MICROBIOLOGICAL CONTAMINANTS	COLIFORM BACTERIA		2) 4 per 100 ML in more than one sample when less than 20 samples are examined per month. 3) 4 per 100 ML in more than 5% of the samples when 20 samples or more are examined per month. Accepted only when the laboratory is specifically approved by the Department.			
COMMUNITY	INORGANIC CHEMICALS	ARSENIC	LONG TERM-Sometimes can cause fatigue and loss of energy, dermatitis	0.05	SURFACE AND GROUND	For All Inorganic Contaminants Listed Surface Water Every Year Ground Water Every Three Years	
		BARIUM	LONG TERM-Increased blood pressure and nerve block	1.0			
		CADMIUM	LONG TERM-Concentrates in the liver, kidneys, pancreas and thyroid, hypertension is a suspected health effect.	0.010			
		CHROMIUM	LONG TERM-Skin sensitization and kidney damage	0.05			
		LEAD	LONG TERM-Brain and kidney damage, birth defects	0.05			
		MERCURY	LONG TERM-Toxic to central nervous system and may cause birth defects	0.002			
		SELENIUM	LONG TERM-Red staining of fingers, teeth and hair, general weakness, depression, and irritation of the nose and mouth.	0.01			
		SILVER	LONG TERM-Permanent grey discoloration of skin, eyes, and mucous membranes	0.05			
		FLUORIDE	LONG TERM-Ingestion of excessive amounts may cause stained spots on teeth (mottling). Ingestion of optimum has beneficial effect of reducing the occurrence of tooth decay.	FLUORIDE CONC			
		Annual Avg. of Max Daily Air Temp - BELOW	53.7 53.8 58.4 63.9 70.7 79.3	Lower 0.9 0.8 0.8 0.7 0.7 0.6	Optimum 1.2 1.1 1.0 0.9 0.8 0.7	Upper 1.7 1.5 1.3 1.2 1.0 0.8	MCL 2.4 2.2 2.0 1.8 1.6 1.4
		NITRATES (AS NO ₃)	SHORT TERM-Temporary blood disorder in infants	45			

TABLE I-2, Page 3

COMMUNITY	TYPE OF CONTAMINANT	NAME OF CONTAMINANT	HEALTH EFFECTS OF CONTAMINANTS	MAXIMUM CONTAMINANT LEVEL (MCL) (MG/L)	MONITORING REQUIREMENTS					
					SOURCE	ROUTINE SAMPLING AND TESTING				
ORGANIC CHEMICALS	CHLORINATED HYDROCARBONS-PESTICIDES			0.0002 0.004 0.1 0.005	SURFACE AND GROUND	Surface Water Every Three Years Ground Water Department Option				
	ENDRIN LINDANE METHOXYCHLOR TOXAPHENE	LONG TERM-Exposure may cause convulsions and liver damage. Lindane suspected of being carcinogenic.								
	CHLOROPHENOXY HERBICIDES									
	2,4-D 2,4,5-TP SILVEX	LONG TERM-Liver damage, gastrointestinal irritation.		0.1 0.01 0.01						
	TOTAL TRIHALOMETHANES			0.10	SURFACE	Surface and Ground Water. Four samples per water treatment plant per quarter				
	TTHMS	LONG TERM- Considered potential carcinogens								
TURBIDITY	TURBIDITY	SHORT TERM-Interferes with the disinfection process by shielding organisms thereby possibly exposing the consumer to disease causing organisms	b) a) Surface water exposed to significant sewage hazard or recreational use shall receive as a minimum pretreatment, filtration and disinfection and meet a 0.5 TU monthly average. Surface water not exposed to significant sewage hazard or recreational use shall meet a 1 TU monthly average may apply at Department option provided it does not 1) Interfere with disinfection. 2) Prevent maintenance of C12 residual in system. 3) Interfere with bacteriological tests	SURFACE	Surface Water Sample Daily					
	COLIFORM BACTERIA	SHORT TERM-The presence of these bacteria indicate that other disease causing organisms may be present in the water.	Multiple tube technique 10 ML portion (if 100 ML portions are used (see Title 22, page 1707) Coliform shall not be present in: 1) More than 10% of portions per month. 2) 3 or more portions in more than one sample when less than 20 samples are examined per month. 3) 3 or more portions in more than 5% of the samples when 20 or more samples are examined per month.	SURFACE AND GROUND	The total number of samples are based on the number of service connections See table Title 22 Example Active Source Samples Per Connections Week 601 1650 1 1651 2650 2					

TABLE I-2, Page 4

COMMUNITY	TYPE OF CONTAMINANT	NAME OF CONTAMINANT	HEALTH EFFECTS OF CONTAMINANTS	MAXIMUM CONTAMINANT LEVEL (MCL) (MG/L)	MONITORING REQUIREMENTS	
					SOURCE	ROUTINE SAMPLING AND TESTING
	MICROBIOLOGICAL CONTAMINANTS	COLIFORM BACTERIA		Membrane filter technique: Coliform shall not exceed: 1) 1 per 100 ML as the arithmetic mean of all monthly samples. 2) 4 per 100 ML in more than one sample when less than 20 samples are examined per month. 3) 4 per 100ML in more than 5% of the samples when 20 or more samples are examined per month.	SURFACE AND GROUND	
	RADIOLOGICAL CONTAMINANTS	NATURAL GROSS ALPHA COMBINES Ra226 and Ra228	LONG TERM-Bone cancer	Natural: Gross Alpha = 15pCi/L Ra-226 + Ra-228 = 5pCi/L Screening: If gross alpha exceeds 5pCi/L then test for Ra-226. If Ra-226 exceeds 3pCi/L test for Ra-228.	SURFACE AND GROUND	Every four years (four consecutive quarterly samples)
		MAN MADE GROSS BETA TRITIUM STRONTIUM 90	LONG TERM-Bone cancer	Man Made: Gross Beta = 50pCi/L Tritium = 20,000pCi/L Strontium 90 = 8pCi/L	Surface greater than 30,000 service connections	Every four years

ENVIRONMENTAL IMPACTS

Most people place a high value on nature. Ultimately, human life on the planet depends on minimizing the burden we place on the environment. Poisoned water and air supplies threaten all life forms and upset the balance of the earth's natural systems. There are many cases where the chemicals that man has introduced into the environment caused harm to other species. A few instances include:

Birth defects in waterfowl nesting at the Kesterson Reservoir in Merced County caused by selenium-laden agricultural drainage water.

Common household items like motor oil and paint thinner which are illegally dumped into storm drains often flow through the small natural stream systems in the county and ultimately enter the American or Sacramento Rivers. The presence of even small amounts of such materials is disastrous to aquatic life in these streams.

Premature releases of agricultural drain water treated with rice herbicides were responsible in the past for mass fish kills in the Sacramento River system.

In these and many other cases, hazardous materials releases disrupted the delicate natural systems that all living things depend upon. Sacramento County intends to continue efforts in areas where problems can be addressed through County programs.

FINANCIAL IMPACTS

Accidental or improper releases of hazardous materials can have severe financial impacts on the responsible party, insurance companies, nearby residents, and government programs. These costs include insurance fees, legal expenses, medical expenses, compensation for injury or death, fines, relocation expenses, and monitoring. Even in cases where no injury, environmental damage, or litigation results from a spill, cleanup costs are routinely much higher than the cost of proper handling.

The improper use of hazardous materials is costly, and diverts funds from other, more productive activities. Some firms (Johns-Manville is an example) have gone into bankruptcy due to their financial liability for hazardous materials damages. The State of California Commission for Economic Development made the following recommendations to the State Legislature to minimize the costs associated with hazardous materials to the state's economy:

- Focusing on prevention.
- Developing a cancer registry.
- Improving government information services.
- Training programs both for government employees and for employees of small businesses.
- Clear delegation of authority between agencies.

County programs are constantly being updated with the latest technologies and research. By taking the steps to avoid an unintentional spill or release, Sacramento County can reduce the total cost to the business community of using hazardous materials, while providing a climate that is conducive to expansion and investment.

REGULATORY ISSUES

SAFETY AND EXPOSURE STANDARDS

It is important to understand that there are legally enforceable standards of "safety" for only a fraction of the hazardous materials in the marketplace, and little agreement on acceptable levels of exposure.

For example:

The Federal Food and Drug Administration has set an action level (which is not legally enforceable) for mercury in the edible portion of fish at 1.0 ppm, while the National Academy of Sciences recommended guideline for mercury is 0.5 ppm in the whole fish (State Water Resources Control Board, "1983 Toxic Substances Monitoring Program", Water Quality Monitoring Report No. 85-1-WQ.)

The State of California Maximum Concentration Level (MCL) for Trihalomethanes in public water systems with publicly owned treatment works is 100 ppb. The EPA Suggested No Adverse Response Level (SNARL) for Trihalomethanes in drinking water is only 0.19 ppb, one five-hundredth of the state level

Federal and state standards for concentrations of certain substances in air, water, and tissue were set using generally accepted methods that use lab animals for test subjects. In very few instances are officials absolutely confident that the results from these tests can be related directly to human health. Worse still, complete tests have been performed on only 10 to 20 percent of the over 70,000 chemicals that are in the marketplace.

Despite this uncertainty, regulations attempt to set standards or action levels that will keep human health impacts at acceptable levels. The general attempt is to set standards at levels that will limit human health effects caused by a single substance to below one case per one million population over a 70-year life span. Such standards or action levels vary depending upon a number of factors including duration of exposure, concentration levels, and if the exposure is voluntary (in the workplace) or involuntarily in the general environment.

Agencies responsible for worker safety often allow higher exposure levels of toxic substances in the workplace than other agencies allow in the general environment. In California, the approach is to set conservative ambient standards that reduce the risk of cancer to one case per million population. Workplace standards are seldom as stringent. This method accounts for the fact that workplace exposure typically occurs for only 8-hour periods, with recovery times in between. It is also worth noting that in many cases exposure limits are more a reflection of economically practicable control technologies than human health knowledge.

The set standards do not account for the possibility of synergistic effects or recombinations. Synergism occurs when two or more substances in combination cause damage greater than the simple sum of their individual effects. Recombination occurs when two chemicals present in a medium combine together to form a third substance. The results might be an entirely new set of health threats, not addressed by the standards developed for each individual component.

The emphasis of County programs is on information, inspection, and enforcement of those standards. Only where appropriate, due to particular local situations, will the County consider developing additional requirements.

RISK MANAGEMENT

Risk management is a technique for evaluating the benefits and costs of safety regulations. It functions to aid decision-making and prioritize possible courses of action. This is done not only to balance costs and benefits of control programs, but also to weigh the relative merits of different programs so that limited financial resources may be put to the best use. Before risk management is applied, a risk assessment must be completed. Risk assessment is a term which describes the methods used to estimate human health impacts from bioassay or epidemiological data. This is a very complex task which is only partially completed for many common chemicals.

A detailed explanation of risk assessment is beyond the scope of this element, but several factors make it an imperfect science at best. These include:

Our poor understanding of the true risk of illness, cancer, or death from exposure to many chemicals. This uncertainty makes it impossible to exactly quantify risk.

The impossible task of isolating the effects of a single chemical from the thousands we are all exposed to in our lives. Sunlight and trace elements in air and water supplies are all potentially harmful. Low levels of many chemical agents are present in our food, drink, clothing, and air. Most individuals live in several places during their lifetimes, hold several jobs, and routinely use a variety of potentially harmful household products. In any of these situations, a person may be exposed to a substance that harms them, and the harm may not be apparent for years. This is particularly true of cancers and problems with fertility.

Placing dollar values on environmental damage, esthetics, and human death or illness.

The fact that even if risk management were a perfect, quantitative science, its application is in the political arena. The decision which results may not be that suggested by the analysis.

The use of risk assessment to set standards and choose programs will always raise these issues and others. One of the most difficult is that allowing a certain level of pollution or choosing not to implement a program with high costs and low returns may condemn some unknown individuals to illness or death. Risk management is best used by federal or state agencies to set action levels or standards, since local governments will seldom have the research resources to develop the necessary information.

INTERAGENCY COORDINATION

Regulations developed by different levels of government seldom work in perfect harmony. Hazardous material legislation is no exception to this rule. The combined effect of programs imposed by federal, state, and local government agencies varies from well coordinated to inconsistent, duplicative, or incomplete.

For example, in a society like ours where materials are extremely mobile, transportation is best regulated by higher levels of government. This avoids an inconsistent and confusing multitude of local regulations that would make compliance difficult for transporters crossing jurisdictional boundaries. Similarly, exposure standards should be set at the federal level because they reflect our understanding of the impacts of these substances on human health, and few state and local jurisdictions have the resources to perform health impact tests on the thousands of substances in use.

There are, however, many programs that are best carried out at the local level. Certainly this is true of those requiring routine inspections or monitoring, such as programs for underground storage tanks or business emergency plans. Often a program can be better implemented with a local agency's faster response and knowledge of local conditions. Sacramento County has developed programs in areas where it is most appropriate for a local government to act, and where the most good will result.

HAZARDOUS MATERIALS USE IN SACRAMENTO COUNTY

Chemical substances play a major role in the high standard of living we enjoy. Among other things, these substances resulted in improvements in our clothing, food, shelter, transportation, and entertainment. Yet over the last few years reminders that these benefits are not without cost are becoming evident. Sacramento County has not escaped from hazardous materials problems, and we remain vulnerable to further incidents that could affect our economy, environment, and health.

Sacramento's employment base relies primarily on state government, the military, and private transportation firms. Large facilities owned by the government or private firms are responsible for a number of chemical-related problems, particularly the contamination of drinking water supplies. These problems, and others caused by smaller industrial, commercial, and agricultural operations, indicate the need for effective county programs.

HAZARDOUS WASTE STORAGE, TREATMENT, AND DISPOSAL

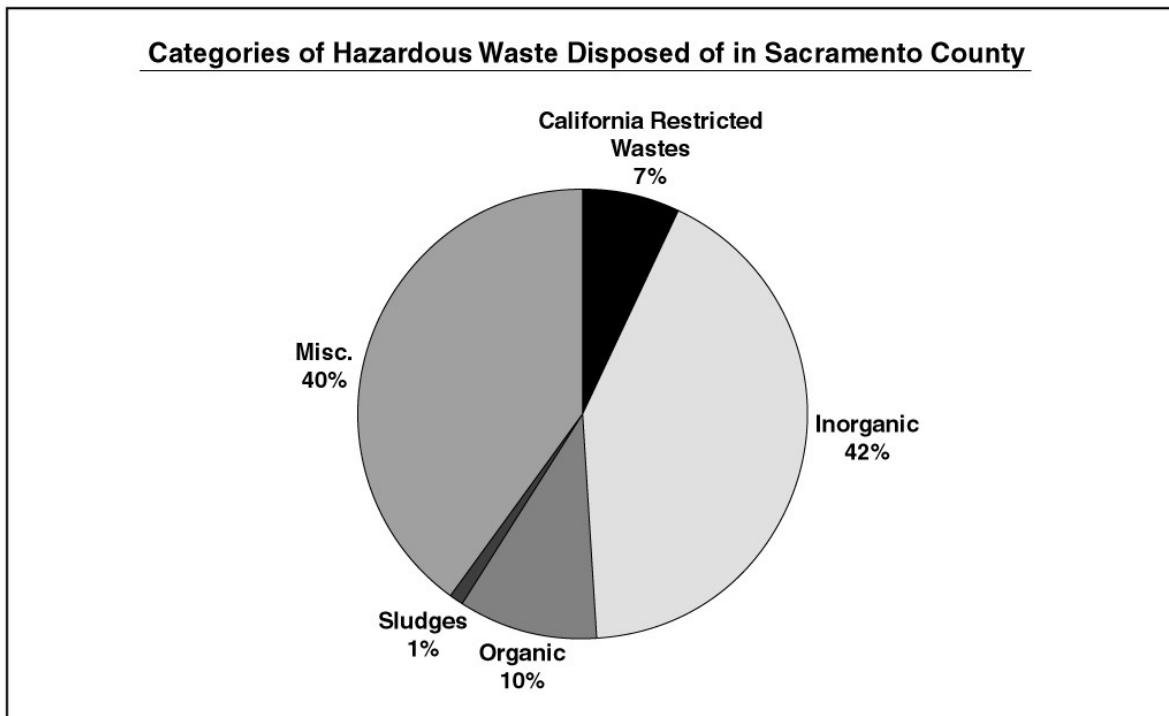
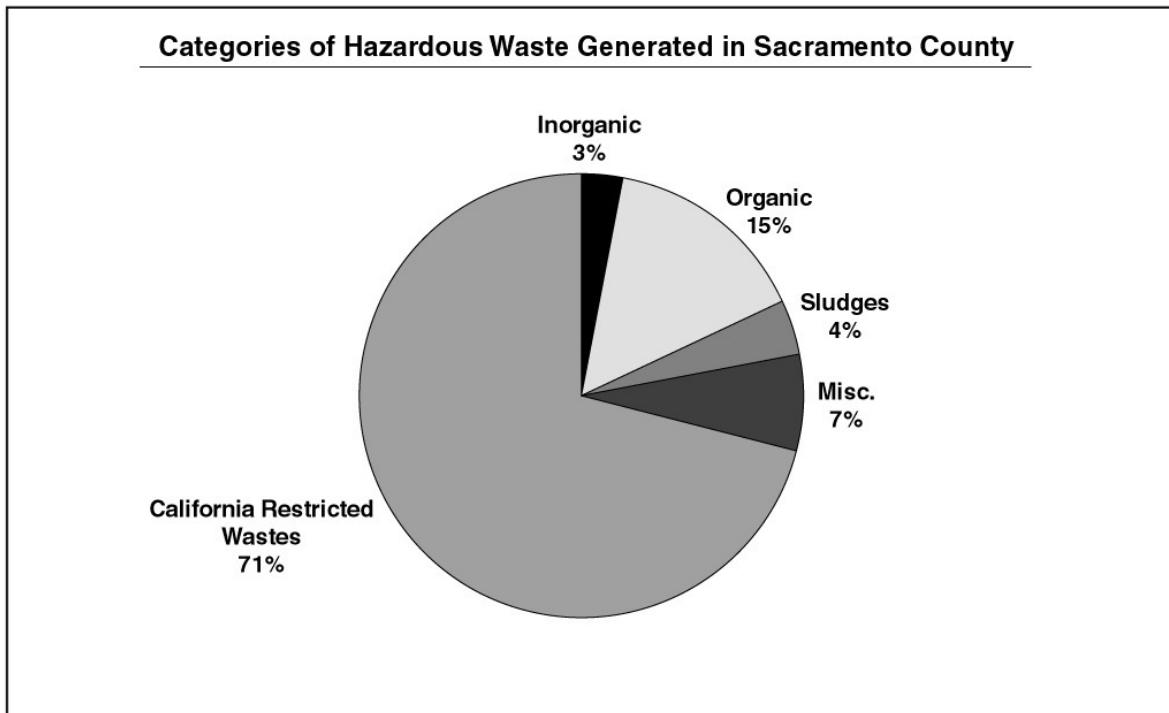
Complete information on every aspect of hazardous materials manufacture, storage, use, and disposal is difficult to obtain. What data is available demonstrates that even though Sacramento County has been fortunate, the volume of hazardous materials in use in the county is large, and the potential for serious incidents is real.

A significant decrease in the tons of hazardous waste being generated each year is a result of legislation regulating the use, transport, storage, and disposal of such materials, as well as by rising disposal costs. In 1988 State Department of Health Services records indicated that over 150,000 tons of hazardous waste was generated in Sacramento County. In contrast, only 63,024 tons of waste was generated in 1993. Although this decrease is positive, the threats caused by improper management of hazardous materials are still very serious. For instance, in addition to manifested hazardous waste, a large volume of hazardous material moves through the community in commercial and small-scale channels without being tracked on paper. A single accident involving a vehicle transporting hazardous materials could be detrimental to both the environment and the community. Figure I-2 illustrates a 1993 breakdown of hazardous materials generated and disposed of in Sacramento County.

ANNUAL PESTICIDE USE IN SACRAMENTO COUNTY

Pesticide applications in the county run from Aldicarb to Xylene. The California Department of Food and Agriculture reported applications of 122,000 pounds of restricted pesticides in 1992 in this county, down from roughly 170,000 pounds in 1983. This represents only a portion of the total (see Table I-3). Reporting is required only for commercial applicators and for certain restricted pesticides. If mishandled, some of these chemicals pose a threat to wildlife and drinking water supplies.

FIGURE I-2
Hazardous Wastes Generated and Disposed of in Sacramento County



Source: State of California
Dept. of Toxic Substances Control

TABLE I-3
Annual Restricted Pesticide Use in Sacramento County

PESTICIDE	PRINCIPLE USES	(POUNDS)		
		1974	1983	1992
Aldicarb	Sugar beets, nursery stock	679	500	498
Aldrin	Structural	7,217	571	0
Aluminum Phosphide	Grain fumigation	Not reported	813	3,781
Carbaryl	Corn, ornamentals	12,735	12,339	3,249
Carbofuran	Alfalfa, rice	2,539	4,325	6,419
Chlordane	Structural	23,768	17,185	0
Chloropicrin	Structural	18	1,140	n/a
2, 4-D	Wheat, rights-of-way	32,312	14,184	8,055
2, 4-DB	Clover	0	2,667	0
Demeton	Clover, sugar beets	1,196	0	0
Dieldrin	Residential, structural	775	0	0
Endosulfan	Tomatoes, pears	6,942	1,363	0
Ethion	Pears, corn	2,221	1,450	0
Guthion	Pears, clover	12,840	7,808	21,861
Lindane	Structural	3,573	1,226	2
MCPA	Rice, wheat	7,585	17,053	5,706
Methomyl	Corn, tomatoes	1,125	1,544	270
Methyl Bromide	Structural, soil fumigation	3,485	25,220	31,002
Methyl Parathion	Tomatoes, alfalfa	1,310	234	0
Molinate	Rice	0	21,986	27,532
Paraquat	Fallow land, grapes	3,339	2,694	1,679
Parathion	Rice, tomatoes	3,592	999	0
Propanil	Rice	382	8,344	4,114
Thiobencarb	Rice	0	19,913	7,923
Toxaphene	Pears, tomatoes	37,524	3,602	0
TOTAL:		165,157	167,160	122,091

Source: Sacramento County Agricultural Commissioner

SUPERFUND SITES

The Cal/EPA Department of Toxic Substance Control's (DTSC) "State Priority Ranking List" (Superfund List) for the fiscal year of 1994-1995 indicates ten federal superfund site are located within the boundaries of unincorporated Sacramento County (see Table I-4 and Figure I-3). The federal listing includes an additional fourteen sites, and 7 locations are included on both state and federal lists. Though the lists are controversial at times, there is no conflict in acknowledging the serious need for clean up in these Superfund areas. Superfund sites are among the most polluted in the state, and the most crucially in need of clean up.

In any complex operation which involves large quantities of toxic chemicals, some contamination seems almost inevitable. Private facilities beyond those listed above, and all three large military bases in Sacramento County (all in the closure process) experienced problems with soil and groundwater contamination. Sacramento County houses one of the Nation's most polluted Superfund sites. McClellan Air Force Base, located seven miles Northeast of the Capitol, is ranked by the United States Environmental Protection Agency as being America's worst polluted Air Force base. Residents near McClellan remember seeing ponds of black oil on the base. These open pits were used for disposal until 1980 and have since been covered. As a result of such practices over 12 billion gallons of ground water beneath the base are severely contaminated, as is 13% of its soil.

TABLE I-4
State & Federal Superfund Sites in Sacramento County

<u>SITE</u>	<u>STATE OR FEDERAL</u>	<u>COMMUNITY</u>
1. Aerojet General Corporation	S & F	Rancho Cordova
2. American Waste Container Serv. Inc	F	Rancho Cordova
3. Auto Wrecking Yard	F	N. Sacramento
4. CalTrans, I-5 Q Street Off-ramp	S	Downtown
5. Campbell Soup Company	F	S. Sacramento
6. Chromalloy/General Radiator	S	S. Sacramento
7. Eagles Nest Paint	F	Vineyard
8. Folsom Shooting Club	F	Folsom
9. General Electric Medical Systems	F	Rancho Cordova
10. Gold River	F	Rancho Cordova
11. Hudson Oil Company	F	N. Sacramento
12. Jibboom Junkyard	F	Downtown
13. Mather Air Force Base	S & F	Rancho Cordova
14. McClellan Air Force Base	S & F	N. Highlands
15. McDonnell Douglas-inactive test site	S	Rancho Cordova
16. PG&E	S & F	Downtown
17. Sacramento Army Depot	S & F	S. Sacramento
18. Sacramento Housing & Redevelopment	S	Downtown
19. Safety-Kleen Corp.	F	Rancho Cordova
20. Sierra Battery Sales	S & F	N. Sacramento
21. Signetics Corp.	F	South Natomas
22. Sonoma Avenue Site	S	N. Sacramento
23. Southgate Norge Cleaners	F	S. Sacramento
24. SP-Purity Oil	S	N. Sacramento
25. SP, Sac-Car Shop Nine	S	N. Sacramento
26. SP, Sac-Central Corridor	S	N. Sacramento
27. SP, Sac-Central Shop	S	N. Sacramento
28. SP, Sac-Lagoon	S	N. Sacramento
29. SP, Sac-Northern Shops	S	N. Sacramento
30. SP, Sac-Ponds and Ditch	S	N. Sacramento
31. Union Pacific Railroad	S & F	Land Park-Pocket

Source: California Environmental Protection Agency,
Department of Toxic Substances Control.

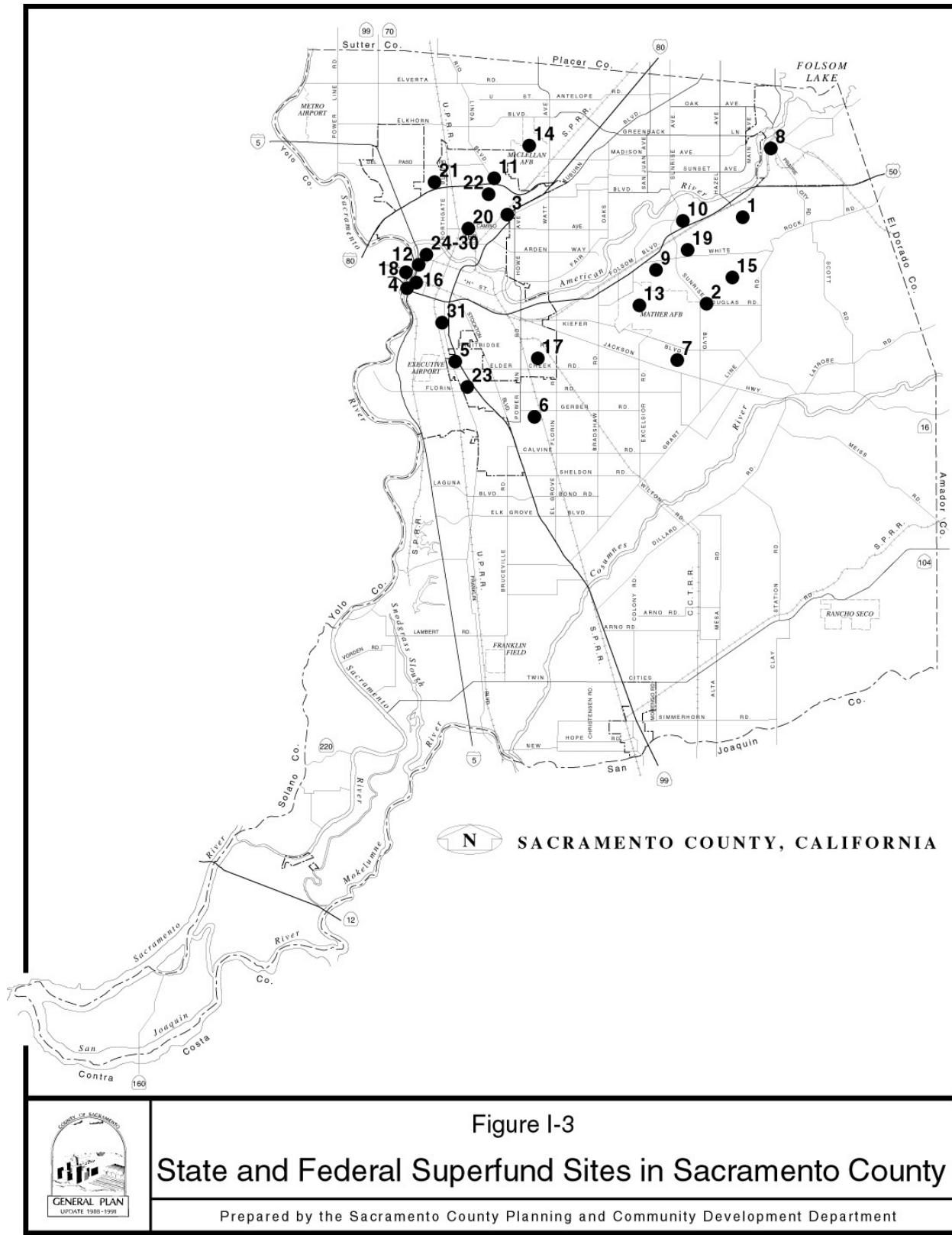


Figure I-3
State and Federal Superfund Sites in Sacramento County

Prepared by the Sacramento County Planning and Community Development Department

In 1987, 550 nearby homes were taken off of their normal water supply due to contamination of well sites by McClellan. Declared a public health hazard in 1993, a recent study of residents within 1.5 miles west of McClellan, where the contaminated ground water flowed, has shown increased health problems. Residents have significantly higher instances of intestinal disease, headaches, and tingling in the fingers and toes, to name a few of the side effects detected.

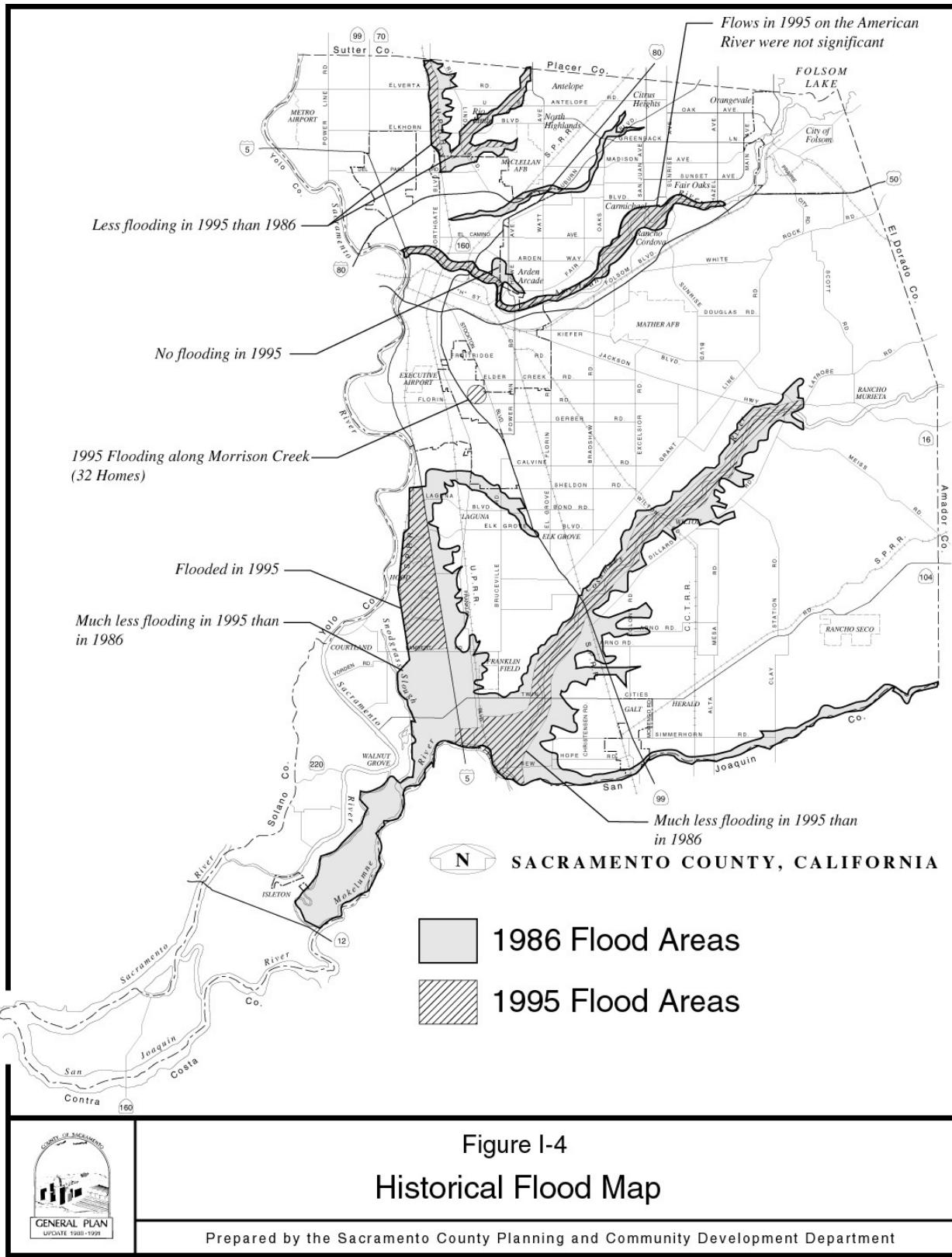
The Air Force is beginning an effort to remediate the pollution created from forty years of disposal practices. This is, however, a significantly long period of pollution and remediation will take time. The Air Force created Environmental Management (EM), a department designed to oversee all business on the Base and to begin clean up efforts. EM is making efforts to restore groundwater quality, decrease the volume of toxics used, develop soil remediation methods, run an effective recycling program, restore historic sites, and preserve natural habitats. All of these are valiant efforts on their part, but progress is slow, and they must still take responsibility for the hazard they have created.

With the pending closure of the Base, its clean up has become vital. At this time clean up is estimated at \$900 million over a forty year period, or \$2 billion for an accelerated time period of twenty-three years. With McClellan's original \$25 million clean up budget this year, cut by \$1.8 million, there is concern that this task may not be completed. If the land is to be privatized as the government claims, then there is a pressing need for fast clean up. Businesses are reluctant to purchase land with such extensive and unknown environmental problems. The liability involved could potentially bankrupt a company.

The hazardous materials polluting McClellan are of concern to all Sacramento County residents. Such wastes must be handled, stored, and transported properly so as to avoid further contamination and health hazards. Clean-up of this site will take years and in the remaining time the hazards of living near one of the nations most toxic sites will continue to exist. It is easy to believe that hazardous waste is not a problem when it isn't visible on a daily basis.

FLOOD HAZARDS

The problems involved with hazardous materials are further complicated by Sacramento's tendency towards flooding. Flooding of waste disposal or storage sites can cause serious contamination of surrounding areas. The floods of 1986 (shown on Figure I-4.) inundated the site of a tire disposal yard fire, presumably spreading the zinc-contaminated ash over a wide area. That storm also flooded numerous commercial establishments in Rio Linda, the south area, and the Delta, as did the more recent 1995 floods. Chemicals stored below flood levels can be lost, mixed, and dispersed in such a situation. Such incidents demonstrate the need to restrict or improve storage standards for hazardous materials in flood-prone areas like Sacramento County.



STATE AND FEDERAL LEGISLATION

Legislative efforts to control hazardous materials began a century ago as the federal government moved to protect waterways from pollution. The intent of the original legislation was to protect agricultural and health interests. Between 1960 and 1980 came a barrage of environmental legislation. During this time, most of the strongest environmental laws such as the Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Clean Air Act, Federal Drinking Water Act were passed. In 1985, legislation turned towards hazardous materials regulation, and by 1987 most of the existing regulations were in place. Since 1987, most of the changes in hazardous materials regulation have been smaller, in the form of amendments to earlier legislation (See Figure I-5). The State of California ranks above most states in the country for its efforts to control hazardous materials. The state passed legislation that has advanced or significantly expanded the scope of hazardous materials regulation. Many of these programs are designed for local government implementation.

Local government agencies interact with the network of regulations covering hazardous materials in six ways. Each determines the ability of local government to act to address a problem. These situations are:

1. Mandate--Some federal or state regulations require local agencies to implement a program, and often provide little flexibility to modify the program to suit local resources or needs. Local governments are often placed in the position of having to collect fees or otherwise provide for the funding for a state-mandated program.
2. Conditional Authority--Local government may be given the authority over a regulatory program, provided certain conditions are met (typically, the local government has to be capable of administering the program, and has to request the authority).
3. De minimis--Strictly interpreted, this phrase means state and federal governments will not concern themselves with small matters. Practically speaking, it means local governments may have an opportunity to impose more restrictive standards or requirements than are contained in state or federal regulations.
4. Unregulated Area--An area or program not mentioned at all in federal or state statutes. The Federal Constitution leaves unregulated matters to the states. The California Constitution provides local governments the authority to regulate unmentioned areas.
5. Exemption--Some products or areas may be specifically exempted from federal or state regulations, and local governments are precluded from imposing any restrictions. Claims are occasionally made that federal facilities are exempt from local regulation.
6. Preemption--The authority to regulate some areas is specifically reserved by higher levels of government, and local governments are unable to impose any restrictions, even within their own communities.

A complete analysis of hazardous material legislation is far beyond the scope of this Element. Furthermore, so many new bills are introduced and adopted each year that any compilation

would rapidly become outdated. The following information includes only the major areas and legislation that local, state, and federal government programs cover.

SUMMARY OF LOCAL GOVERNMENT PROGRAM COVERAGE

Mandates:

- The County Agriculture Department is responsible through its information gathering and field inspection efforts for enforcing compliance with federal and state pesticide regulations.
- The County Health Department must gather information about pesticide poisonings, and monitor the health of pesticide workers.
- Local Air Pollution Control Districts must regulate local stationary source emissions, including toxic air contaminants when standards are set.
- Publicly Owned Treatment Works (POTWs) are required to regulate discharges of wastewater to the public sewer system in accordance with Federal Pretreatment Standards.
- An expanded Disclosure Ordinance which will also cover agricultural materials and compressed gas is mandated by Health and Safety Code, Chapter 6.95.
- Inspections of facilities where hazardous materials are handled in quantities equal to or greater than the 55 gallon, 500 pound, or 200 cubic feet thresholds is required by Health and Safety Code, Chapter 6.95.
- Local Underground Storage Tank programs are required by California law.
- Local governments must regulate land use. Within this mandate, they have broad powers to protect public welfare by separating incompatible land uses, restricting the location of certain land uses and by imposing conditions on developments.
- CEQA requires local governments to evaluate the potential adverse impacts of hazardous materials when reviewing development proposals, and identify less harmful alternatives.
- Local Health Departments have been required by recent California legislation to perform one-time tests for organic chemicals in selected small water systems.
- Local governments may soon be required to implement programs to reduce water pollution from non-point sources.

Conditional Authority:

- The County Environmental Management Department and the District Attorney have authority to enforce Title 22, Health and Safety Code, Chapter 6.95 through a Memorandum of Understanding with the Cal/EPA Department of Toxic Substances Control (DTSC).
- Local governments may be authorized to designate routes for hazardous materials transportation, provided the designation does not restrict commerce or negatively impact another community.

De-minimis Standards:

- Sacramento County does not impose more stringent standards or requirements on hazardous material handlers than are in state or federal law.

Exemptions:

- Although consumer products packaged for and distributed to the consumer are exempt from the local Disclosure Ordinance they still have to complete a registration form and submit it to the County's Hazardous Materials Division.
- Fuel in motor vehicle tanks is exempt from the local Disclosure Ordinance.

Preemption:

- Local government hazardous materials programs may not regulate military armament shipments, military or commercial radioactive materials, or other "sensitive" military materials.
- Local governments are preempted from regulating most aspects of transportation because conflicting local regulations would impede commerce.
- The Federal Consumer Product Safety Act preempts local requirements that are not identical with federal regulations.
- Local governments are preempted from imposing additional pesticide regulations by Section 11501.1 of the California Food and Agriculture Code.

SUMMARY OF STATE LEGISLATION DIRECTING LOCAL PROGRAMS

Alternative Technology:

SB 509--Requires the incineration of volatile organics after January 1, 1988. Mandates standards to determine which substances are subject to the new requirement on or before January 1, 1987. Allows for exemptions or variances. Changes the tax computations for hazardous incinerator waste. Allows cities, counties, agencies or joint power entities to contract for offsite transfer or treatment facilities. (Chapter 1338 of Statutes of 1985)

Education:

AB 296--Requires the DTSC to annually compile and publish laws relating to handling, transportation, and disposal of hazardous substances and waste, pesticides and radioactive waste and distribute at cost. (Chapter 213 of Statutes of 1985)

Household Hazardous Waste:

AB 1809--Establishes a program for household hazardous waste collection within the California Waste Management Board. Gives cities and counties the option to increase solid waste collection fees as a revenue source. Requires solid waste elements in county general plans to address the disposition of household hazardous waste generated in the county. (Chapter 574 of Statutes of 1986)

Storage:

Health and Safety Code, Chapter 6.95--Requires any business which uses a hazardous substance to establish an emergency response plan for the release or threatened release of the substance. Also authorizes the administering agency to establish an emergency response plan. Businesses are required to immediately report any release or threatened release to the local administering agency and to State Office of Emergency Services (OES). Counties and cities would levy and collect fees to pay for the countered costs. (Chapter 1167 of Statutes of 1985)

Program Requirements:

AB 1638--Defines an air pollutant for toxic air contaminant purposes as discharges, releases or other propagation into the atmosphere external to buildings and into the indoor interior spaces of residential buildings and other buildings to which the general public has access. (1985)

AB 2948--Provides funding for local jurisdictions to develop a hazardous waste management plan as part of their General Plan. Provides that decisions regarding a local land use permit for a new or expanded hazardous waste facility can be appealed to an ad hoc appeals board. Bans certain land disposal practices. (Chapter 1504 of Statutes of 1986)

AB 3750--Expands CEQA requirements to include a determination of whether the project will be located on soil or use water which is contaminated. Project, for the purposes of this bill, means residential housing or neighborhood commercial facilities. (Chapter 1048 of Statutes of 1986)

AB 2490--Requires counties, if requested by an organization representing local businesses, to determine the need for consultation services for businesses on hazardous materials laws. Authorizes counties to establish such services to cover regulatory programs on hazardous waste control, underground storage tanks, and hazardous materials emergency response planning. Authorizes counties to collect fees to implement such programs. (Chapter 1432 of Statutes of 1987)

AB 816--Clarifies the authorization for and the enforceability of land use restrictions on contaminated properties. AB 816 allows property owners to enter into a voluntary agreement to restrict the land uses on their property without first designating their property as hazardous waste property or border zone property, and requires local agencies to record and review land use restrictions on contaminated properties within their jurisdiction. AB 816 also requires the Department of Toxic Control to notify local agencies of any land use restrictions, and authorizes local agencies to assess property owner a fee for recording costs. (Chapter 906 of Statutes of 1989)

AB 109--Enacts the Medical Waste Management Act. Authorizes local agencies to implement a medical waste management program with specified components. Medical waste management plans are required to be initiated by April 1, 1991. Authorizes the enforcement agency to charge specified fees. Prescribes requirements for small quantity medical waste generators. Imposes penalties on violators of the Act. (Chapter 1613 of Statutes of 1990)

AB 1934--Allows county attorneys, in addition to district attorneys, city attorneys, and the Attorney General, to sue violators of the Hazardous Waste Control Law (Chapter 6.5 of Division 20 of the Health and Safety Code) on behalf of the people of the State. (Chapter 44 of Statutes of 1993)

Health and Safety Code, Chapter 6.11--Requires the Secretary of Cal/EPA to develop a hazardous waste regulation and permitting program which consolidates the permit and enforcement activities of DTSC, State Water Resources Control Board and the California state and regional water quality control boards. Also requires the Secretary to develop and implement a unified hazardous materials management regulation program which would delegate the administration of certain regulations pertaining to generators and certain facilities to local government. Allows certified local agencies, as defined, to consolidate the permitting and enforcement activities of state and local agencies for these generators and facilities. Requires the certified local agency to consolidate into a single fee certain fees levied by state and local agencies. Requires Cal/EPA and its constituent units to implement a fee accountability program by December 31, 1995 and to institute quality government programs by December 31, 1996, to achieve specified goals. (Chapter 418 of Statutes of 1993)

SUMMARY OF FEDERAL LEGISLATION DIRECTING LOCAL PROGRAMS

Solid Waste Disposal Act/Resource Conservation and Recovery Act:

1984 amendments imposed new requirements on treatment, storage and disposal facilities. Bulk or non-containerized hazardous liquid wastes are prohibited from disposal in any landfill, as well as on the disposal of nonhazardous liquids in hazardous waste landfills. Minimum technological standards were set for new landfills and surface impoundments requiring, in general, double liners, a leachate collection system, and groundwater monitoring. Established under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901-6991k)

HR 2194:

Requires federal facilities to comply with the (federal) Solid Waste Disposal Act. Waives sovereign immunity, allowing the EPA Administrator and authorized states to issue civil and administrative orders and to collect fines and penalties for federal agencies' violation of hazardous waste law. Authorizes states to take criminal enforcement action against an employee, officer, or agent of a federal facility for violating hazardous waste laws. (Public Law 102-386, 1991)

Underground Storage Tanks (UST): 1984 RCRA amendments requires registration of most underground tanks, bans the installation of unprotected tanks, sets federal technical standards for all tanks, coordinates federal and state regulatory efforts, and provides for federal inspection and enforcement. Established financial responsibility requirements for UST owners and operators to cover costs of taking corrective action and to compensate third parties for injury and property damage caused by leaking tanks.

Hazardous and Solid Waste Amendments of 1984 (HSWA): Inclusion of small-quantity hazardous waste generators (those producing between 100 and 1,000 kg of waste per month) in the hazardous waste regulatory scheme. Regulations issued to govern those who produce, distribute, and use fuels produced from hazardous waste, including used oil.

Superfund:

Cleanup program created by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, P.L. 96-510). Authorizes the federal government to respond to spills and other releases (or threatened releases) of hazardous substances, as well as to leaking hazardous waste dumps.

Superfund Amendments and Reauthorization Act of 1986 (SARA, P.L. 99-499): Attempt to accelerate the cleanup, and to resolve questions of jurisdiction that have arisen.

Community Environmental Response Facilitation Act, P.L. 102-426: Allows portions of bases which are not contaminated to be sold or transferred, while cleanup continues at the contaminated portions. U.S. Government remains responsible for any further cleanup of hazardous substances or petroleum products that might be required.

Emergency Planning and Community Right-To-Know Act (42 USC 11001-11050): Title II of the Superfund Amendments and Reauthorization Act (P.L. 99-49) requires local emergency planning to cope with chemical emergencies and ensures that responsible officials are provided with relevant information from local businesses about their activities involving hazardous chemicals. Requires companies to provide information to local regulatory agencies, and provide for the protection of trade secrets.

Under Section 301, each state creates a State Emergency Response Commission (SERC), designates emergency planning districts, and establishes local emergency planning committees (LEPCs). Committees are required to work with facilities handling extremely hazardous substances to develop response procedures, evacuation plans, and training programs.

Toxic Substances Control Act (TSCA, 15 U.S.C. 2601 et seq):

Authorizes EPA to screen existing and new chemicals used in manufacturing and commerce to identify potentially dangerous products or uses that should be subject to federal control.

Asbestos Hazard Emergency Response Act (AHERA) (P.L. 99-519): Requires EPA to set standards for responding to the presence of asbestos in schools. Standards set at levels adequate to protect public health and the environment, identify appropriate response actions that depend on the physical condition of asbestos. School District representatives are required to inspect for asbestos containing material and to develop and implement a plan for managing any such material.

Local, state, and federal regulations listed above do not cover all existing legislation. These, along with Figures I-5, I-6, I-7, and I-8 provide an overview of the three levels of hazardous materials regulation in Sacramento County, and how they interact. Section II of this Element will further describe the role of each agency involved with hazardous materials, and the programs that they have implemented, in the county's attempt to comply with the various legislation discussed above. The Element also provides recommendations for further program development.

ACCOMPLISHMENTS

The original Hazardous Materials Element, completed in 1986, included a section labeled Hazardous Materials Program Recommendations, with sixty-one recommendations for new and existing programs. In the following years, all but three were acted upon. Some of the more significant accomplishments include the establishment of a Disclosure Program which requires that hazardous materials in commercial or industrial settings be reported to the Environmental Management Department and local fire districts. Two interim household hazardous waste collection sites have been established. Also, the County signed a Memorandum of Understanding (MOU) with the State Department of Toxic Substance Control (DTSC) giving the County regulation authority over hazardous waste generators, with the exception of facilities or portions of facilities that have a Treatment Storage and Disposal permit (TSD). These accomplishments are discussed in further detail later in the Element. Overall, Sacramento County has made major progress since 1986 and this effort will continue.

FIGURE I-5
History of Hazardous Materials Regulation

STATE AND FEDERAL	COUNTY
Early water, food, agriculture, & consumer regulation	Pre 1950 Agricultural Inspections
Federal insecticide, Fungicide, & Rodenticide Act (FIFRA)	1955 Sacramento Air Pollution Control District (APCD)
Federal Hazardous Substances Act California Hazardous Substances Act	1960
ARA, Porter-Cologne Act, National Environmental Policy Act (NEPA)	1965
Clean Air Act, Federal Road Safe, Occupational Safety and Health Act (OSHA), California Environmental Quality Act (CEQA), Poison Prevention Packaging Act, Sherman Act, Consumer Product Safety Act, Clean Water Act, California OSHA, Federal Safe Drinking Water Act, Hazardous Waste Control Act (HWCA), Federal Environmental Pesticide Control Act (FEPCA), Hazardous Materials Transportation Act (HMTA)	1970
Resource Conservation and Recovery Act (RCRA) Toxic Substance Control Act (TSCA), Occupational Carcinogens Control Act (OCCA), California Poison Prevention Act, California Safe Drinking Water Act	1975
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Hazardous Substance Information & Training Act, Hazardous Substance Account Act (HSAA)	1980 Pretreatment program adopted, APCD begins to review toxics air contaminants, first hazardous materials task force, first hazardous materials collection day, contract with city of hazmat response team, disclosure ordinance adopted, Underground storage tank ordinance adopted, second hazardous materials task force
Toxic Pits Cleanup Act (TPCA), Hazardous & Solid Waste Amendments (HSWA), Underground Storage Tank (UST-RCRA)	1985 Hazardous material management study begins, Hazardous Materials General Plan Element Prepared, Toxic Task Force formed
AB 2185, SB 509, AB 296, AB 2185, AB 1638	1986
AB 1809, AB 2948, AB 3750, Superfund Amendments & Reauthorization Act (SARA), Emergency Planning and Community Right to Know Act	1987 Environmental Management Department formed
AB 2490	1988
Asbestos Hazard Emergency Response Act	1989 Environmental Commission formed
AB 816	1990
AB 109	

FIGURE I-6
State Laws and Regulations
Relating to Toxic Substances and Hazardous Wastes

Activity	Manufacturing/ Processing	Commercial Distribution	Emissions, Effluent	Trans- formation	Imports	End Use (Products)	Storage	Disposal	Exposure Standards
Prohibitions Bans		APCR			CHSA		HWCA		CAL/OSHA
Quantity Limitations			PORTER- COLOGNE						
Guidelines, Standards, Quality, Criteria	SFDCL APCR HWCA		MULFORD/ CARROLL PORTER- COLOGNE	APCR HWCA		APCR SFDCL	HWCA APCR	HWCA APCR	CAL/OSHA HSIIA
Required Labeling, Packaging Provisions	CHSA SFDCL CPPPA APCR			HWCA	CHSA SFDCL APCR	CHSA SFDCL CPPPA APCR	HWCA TITLE 22	HWCA TITLE 22	CAL/OSHA
Registration, Certification or Permits	CH&SC Ch. 6.95 APCR SFDCL	APCR SDDCA	TITLE 17	HWCA	APCR	APCR SFDCL	HWCA TITLE 22 TITLE 23	HWCA TITLE 22 TITLE 23	
Recall Replace Repurchase Seizure		APCR				SFDCL APCR			
Notice of Hazards	CH&SC Ch.6.95						TITLE 22		CAL/OSHA
Disposal, Clean-up & Spills							CH&SC- Ch. 6.95	TITLE 22	
Imminent Hazards	CH&SC Ch. 6.95	APCR	CH&SC. Ch. 6.95 HWCA	APCR	APCR	APCR SFDCL	CH&SC- Ch. 6.95 HWCA	CH&SC- Ch. 6.95 HWCA	CAL/OSHA HSIIA

FIGURE I-7
Federal Laws and Regulations
Relating to Toxic Substances and Hazardous Wastes

Activity	Manufacturing/ Processing	Commercial Distribution	Emissions, Effluent	Trans- formation	Imports	End Use (Products)	Storage	Disposal	Exposure Standards
Prohibitions Bans	TSCA CAA SPSA	TSCA, FIFRA, CAA, LPSA, FHSA	CWA SDWA	TSCA CPSA HMTA	TSCA, CPSA, FHWA, FFDCA, FIFRA	CPSA	RCRA	TSCA RCRA	OSHA
Quantity Limitations	TSCA CPSA CWA	TSCA	CAA CWA	TSCA HMIA	TSCA CPSA	ISCA			
Guidelines, Standards, Quality, Criteria	TSCA CAA RCRA		CWA CAA SDWA	FIFRA RCRA HMTA CWA	TSCA CPSA FFDCA	ISCA CAA CPSA FIFRA FFDCA	FIFRA RCRA	CWA FIFRA RCRA ISCA	OSHA AHERA
Required Labeling, Packaging Provisions	TSCA	TSCA		ISCA RCRA HMIA	ISCA FIFRA CPSA FHSA FFDCA	PPPA, ISCA, FFDCA FIFRA CPSA FHSA	RCRA	ISCA RCRA	OSHA
Registration, Certification or Permits	FFDCA CPSA CAA FIFRA	CAA FIFRA CAA FFDCA	CWA SDWA	HMTA RCRA	FIFRA CPSA	FIFRA CPSA FFDCA CAA	RCRA	RCRA CWA	
Recall Replace Repurchase Seizure	TSCA CPSA FHSA	CPSA FHSA FIFRA			FIFRA	TSCA FIFRA CPSA FHSA FFDCA			
Notice of Hazards	TSCA		CWA			CPSA			OSHA
Disposal, Clean-up & Spills							EPCRTKA	CERCLA SARA	
Imminent Hazards	TSCA	CPSA TSCA FIFRA	CWA CAA RCRA SDWA	TSCA RCRA HMIA CWA	TSCA CPSA FHSA FIFRA	TSCA, CPSA, SDWA, FHSA, FIFRA PPDCA	RCRA	RCRA TSCA	OSHA

FIGURE I-8
Federal and State Hazardous Materials Statute

AREA OR REGULATION	FEDERAL LEGISLATION	STATE LEGISLATION
MANUFACTURING Work Place Safety 	Testing/Registration  OSHA TSCA FIFERA FEPICA	CAL/OSHA OCCA HSITA CALIFORNIA AGRICULTURE CODE
TRANSPORTATION 	HMTA RAILROAD SAFETY ACT	CALIFORNIA VEHICLE CODE
STORAGE 	RCRA	CH&SC Chapter 6.95
USE Industry  Consumer Protection/Household  Agriculture 	OSHA TSCA FOOD, DRUG & COSMETIC ACT HAZARDOUS SUBSTANCES ACT CONSUMER PRODUCT SAFETY ACT POISON PREVENTION PACKAGING ACT	CAL/OSHA CALIFORNIA AGRICULTURE CODE SHERMAN CODE POISON PREVENTION PACKAGING ACT HAZARDOUS SUBSTANCES ACT
ENVIRONMENTAL PROTECTION Environmental Impact Assessment  Air Quality  Water Quality 	NEPA CLEAN AIR ACT CLEAN WATER ACT SAFE DRINKING WATER ACT	CEQA MULFORD-CARROL ACT PORTER-COLEGNE ACT SAFE DRINKING WATER ACT
DISPOSAL AND CLEAN-UP 	CERCLA RCRA	HWCA HSAA TPCA

SACRAMENTO COUNTY GENERAL PLAN

HAZARDOUS MATERIALS ELEMENT

Section II

EXISTING SACRAMENTO COUNTY PROGRAMS

INTRODUCTION

In order to establish effective and efficient management programs it is important to identify the inherent problems associated with hazardous materials. To alleviate the problem of fragmented program implementation it is equally important to understand the roles of the applicable local regulatory agencies. Understanding the regulatory process is also beneficial in formulating strategies that allow for coordination and consolidation of the various agencies which, in turn, will reduce future occurrences of inconsistent policy implementation. While consolidation service of inspections to improve efficiency should always be a goal, it can at times be counterproductive. Care should be taken to assure that agencies are not assigned duties that are outside their area of expertise, outside their traditional area of concern, or of little professional value to individuals within the agency. Figure II-1 represents an overview of the County's organizational breakdown.

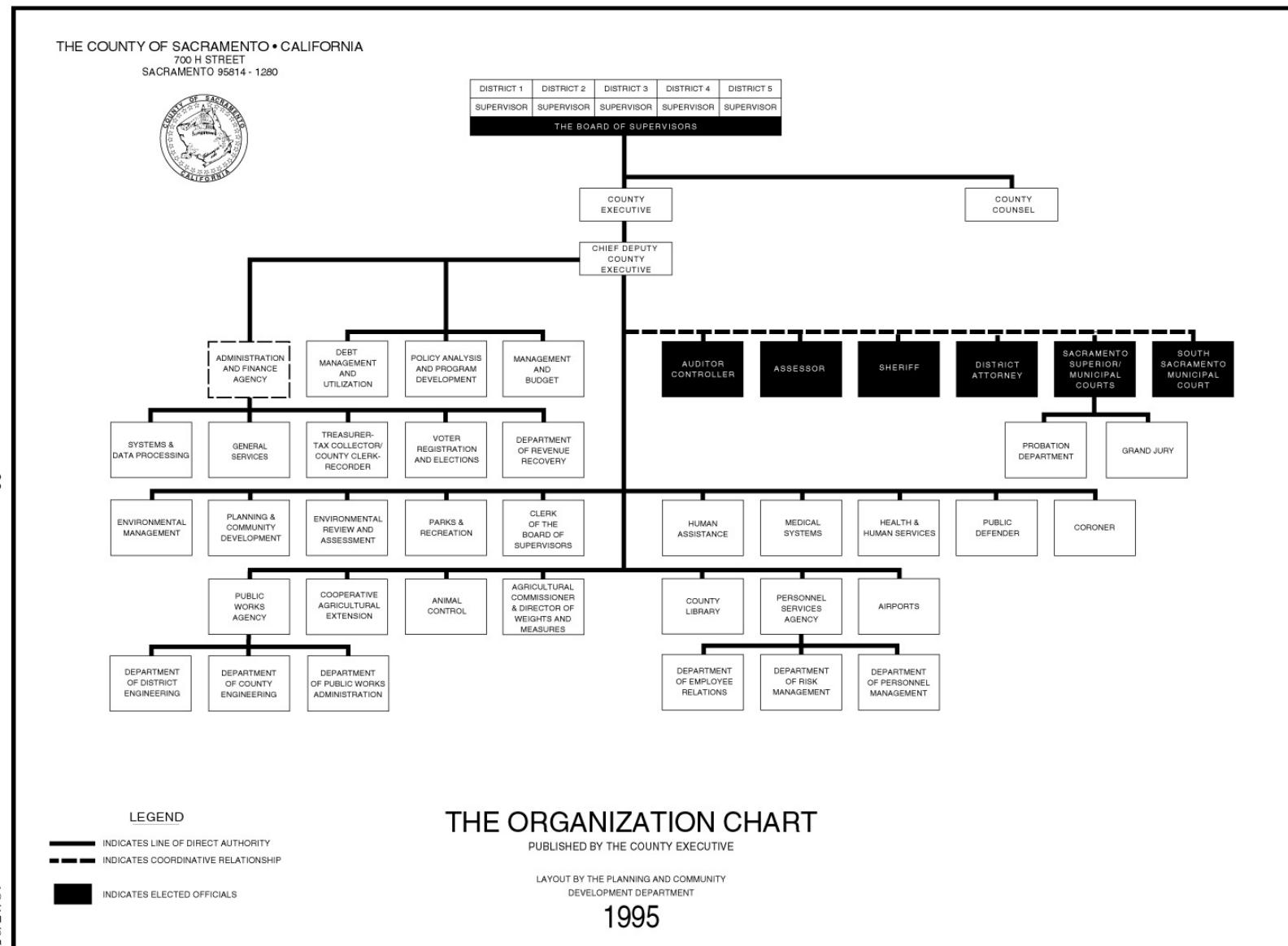
ENVIRONMENTAL MANAGEMENT DEPARTMENT, HAZARDOUS MATERIALS DIVISION

The Hazardous Materials Division is the County's lead regulatory agency and is responsible for a variety of tasks related to the storage, handling, and management of hazardous materials. For example, as set forth in County Code Chapter 6.5 (Health and Safety) the Division conducts inspections of all facilities that generate hazardous wastes. Significant amounts of staff time are also devoted to dealing with the nearly 1000 complaints received each year. The nature of these complaints can vary greatly, ranging from a neighbor dumping waste oil along a fence line to a large-scale business improperly storing hazardous materials. The Division is also one of three local agencies that have a 24-hour hazardous materials incident response team; the City Fire Department and the County's Transportation Division being the other two. The Division responds to all Level II and III incidents involving chemical releases, as well as any other hazardous materials situations (see Fire Department Section for definitions). Lastly, the Division has recently been appointed by the Secretary of Cal/EPA to be the Certified Unified Program Agency (CUPA), under the Health and Safety Code, Chapter 6.11. The purpose of this chapter is to streamline and consolidate the regulation of hazardous materials and hazardous waste within counties. The Division currently oversees a number of programs including the following:

DISCLOSURE PROGRAM:

In 1985, the California Legislature passed Assembly Bill 2185, which requires all local jurisdictions to prepare and implement a disclosure ordinance that covered all hazardous materials. It is interesting to note that Sacramento County's disclosure or "community right to know" ordinance was approved in 1983, prior to the adoption of AB 2185. As set forth in the County's ordinance (Health and Safety Code, Chapter 6.95) firms that are storing or using reportable quantities of hazardous materials must inform the Hazardous Materials Division of the Environmental Management Department of the nature, volume,

FIGURE II-1



and exact location of these materials. This information is of utmost importance to emergency personnel responding to a spill or fire, as well as to the general public.

UNDERGROUND STORAGE TANKS:

Legislation passed in 1983 required the State Water Resources Control Board to develop regulations covering underground storage by January 1, 1984. The legislation contained provisions which allowed any local government initiating its own equivalent Underground Storage Tank (UST) Ordinance before that date to continue that program and not be forced to implement the state regulations. Sacramento County qualified under this provision, had an ordinance in place before the deadline. The County's UST Ordinance is consistent with the adopted state guidelines, with the following exceptions:

The County Fire Marshal's Association prohibits cutting of tanks for lining repair. Lining repair is permissible provided access to the interior of the tank is accessible via a maintenance-way.

The County places increased reliance on precision tank and line testing, and inventory reconciliation with less reliance on ground water monitoring than the state guidelines. This approach provides for (1) easier detection of leaks, (2) less soil contamination under a tank in the event of a leak, and (3) fewer test well borings, which can themselves carry contaminants into the ground water.

Sacramento County's Environmental Management Department (EMD), Hazardous Materials Division serves as the lead agency for the enforcement and regulation of the Underground Storage Tank Ordinance. The Sacramento Metropolitan Air Quality Management District must also review and approve tank installation. A Memorandum of Understanding (MOU) between EMD and the State Regional Water Control Board provides oversight responsibility of leaking tanks.

Although the intent of the state and county programs is to protect the overall environment, the protection of ground water supplies from contamination due to chemicals leaking from underground storage tanks or pipelines is of special concern. Leaking tanks are not only very expensive to monitor and cleanup, but the worse cases can make ground water unusable for many years. The County's underground storage tank program requires owners to acquire a permit for their tanks and to develop an approved monitoring program providing for early leak detection. Monitoring programs, as outlined in the state UST Regulations, may be visual monitoring, non-visual quantitative, or non-visual qualitative leak detection monitoring. This program also includes standards for new and existing USTs as well as equipment, operation, and closure. For example, each tank must undergo precision leak testing prior to monitoring program approval, in order to identify those tank systems which are correctly installed or are currently leaking and in need of repair or removal.

Approximately 2,300 underground storage tanks are currently registered in Sacramento County, including the incorporated areas of Folsom, Isleton, Galt, and Sacramento. Of these, approximately 1,100 are state-of-the-art double wall systems (secondary containment), with continuous leak detection monitoring systems. The remaining tanks are subject to inventory control measures with annual precision testing. As illustrated on Table II-1, the types of substances held in these tanks vary greatly, with gasoline and diesel fuel being the most common.

Table II-1

Underground Tanks in Sacramento County	
Substance	%
Gasoline and Diesel fuel	75
Aviation fuels	2
Waste oil	10
Other chemicals	6
Empty, unknown, or abandoned	7

The Hazardous Materials Division of EMD is actively working with tank owners to meet a forthcoming Environmental Protection Agency (EPA) mandated requirement which calls for all underground storage tank systems to have secondary containment. The deadline for compliance is December 22, 1998. Compliance measures include upgrades of the current systems, removing and replacing systems, or reevaluating individual or company needs and, if viable, eliminating their tanks altogether.

GROUND WATER MONITORING:

Pursuant to the California Code of Regulations, Title 22, Division 4, Chapter 15, the water quality monitoring must be performed for all “small water systems” in the State (those systems with between 5 and 200 connections). The Sacramento County Environmental Health Division is responsible for monitoring the water quality of approximately 160 small water systems in the County. The monitoring includes, bacterial, inorganic, organic, radioactive, and other testing that may be required by federal or state standards. If monitoring tests indicate that contaminant levels exceed standards in a particular water system, then the Environmental Health Division notifies the administrators of the system to take the necessary action to bring the water quality into compliance.

THE PUBLIC WORKS AGENCY

INDUSTRIAL WASTE PROGRAM:

The Sacramento County Public Works Agency, Water Quality Division is responsible for implementing the Sacramento Regional County Sanitation District (SRCSD) Pretreatment Program. Initiated in January of 1982 the program is mandated under federal law and must meet EPA requirements. The program requires sewer users to pretreat effluent that does not meet applicable standards. The pretreatment program consists of the following individual programs, plans, and ordinances:

Legal Authority:

The SRCSD Sewer Use Ordinance: This ordinance governs use of the sewer system in the District’s service area. In 1992, amendments to the ordinance were approved at both the state and federal levels.

Local Limits: In accordance with federal regulations and under the direction of the Regional Board, the SRCSD is evaluating the need for limits on the discharge of specific

pollutants to the sewer system. Local limits developed in accordance with EPA guidance and approved by the state and EPA are enforceable pretreatment standards.

Monitoring:

Influent/Effluent/River Monitoring Programs: Monitoring of influent and effluent at the Sacramento Regional Wastewater Treatment Plant (SRWTP) occurs twice annually for all of the constituents on the EPA Priority Pollutants list (metals, cyanide, etc.), plus those additional pollutants proposed for listing in the state water quality guidelines. Monitoring of high priority pollutants occurs on a monthly basis. Information gained through the sampling process is used to evaluate the effectiveness of the Pretreatment Program and helps to identify “pollutants of concern” at the SRWTP. The discharge of pollutants into the system has decreased over the past two years. However, fewer of the permitted users, excluding those under a “zero discharge” permit, are complying with established federal limits (i.e., 63% in compliance in 1993 vs. 26% in 1994). This result is attributed to the adoption of more stringent regulations in combination with the implementation of more diligent enforcement of all components of the Pretreatment Program.

Biosolids Monitoring Program: Biosolids (municipal treatment plant sludge) are monitored at the SRWTP monthly. The results of this program help to ensure compliance with disposal requirements and determine the type of treatment process that is appropriate for those pollutants discharged to the sewer system.

Permits:

Discharge Permit Classification Questionnaire: The submittal of a completed Discharge Permit Classification Questionnaire is required of all non-domestic users as part of the permitting process. Information contained in this questionnaire helps aid the Water Quality’s Industrial Waste Section (IWS) to identify and locate industrial users which might be required to participate in the Pretreatment Program.

Wastewater Discharge Permits: The Industrial Waste Section also issues and administers Wastewater Discharge Permits for specific categories of sewer users. Permits are required for any user who is a “significant industrial user” as defined in the federal regulations or other users who have the potential for significant impact on District operations. Currently, wastewater discharge permits are required for categorical industries (as defined by the EPA), major industries, ground water discharges, liquid waste haulers, and dry cleaners. All of these permitting programs include components of permitting, inspections, surveillance, sampling, enforcement, and cost recovery.

Temporary Permits: In addition to regular wastewater discharge permits, the Industrial Waste Section issues temporary permits for discharges of limited duration which require specific authorization in accordance with the SRCSD Sewer Use Ordinance. Ground water well purge/development water and discharges of sump waste by car washes and repair shops through liquid waste haulers are typical discharges requiring a temporary permit.

Enforcement:

Enforcement Response Plan: The operators of a Publicly Owned Treatment Works (POTW) such as the County's Water Quality Division, are now required to develop a detailed plan describing how they will investigate and respond to instances of industrial user noncompliance. The District adopted the Enforcement Response Plan (ERP) in April 1995. The ERP has since been approved by both the State Regional Water Quality Control Board (SRWCB) and EPA.

Waste Minimization:

Waste Minimization Programs: In anticipation of more stringent effluent limits, the SRCSD is developing a Waste Minimization Program targeting specific user groups. With strict controls on the industrial sector already in effect, the greatest opportunities for additional pollutant reductions are in the commercial and residential sectors. Targeted commercial users will be given guidance materials and technical assistance to help them reduce wastewater discharges of the District's pollutants of concern. The District also supports and implements a variety of public information and outreach efforts targeting residential users.

There are two regulatory changes anticipated which could have a profound effect on the Pretreatment Program. One such change is the proposed Metal Products and Machinery Rule. Proposed categorical standards for this industrial group could result in at least a ten-fold increase in the number of "significant industrial uses". Promulgation of state water quality objectives for inland waters could force the District to establish stringent local limits on certain pollutants.

SOLID WASTE MANAGEMENT PROGRAMS:

The Waste Management and Recycling Division (WMRD) has the responsibility to see that the operation of the county landfill, located near Sloughhouse, does not impair ground water quality. This is accomplished by the employment of engineered safeguards in concert with restricting and monitoring the materials that are allowed in the landfill. The department has designated trained staff members which monitor incoming refuse at all county disposal facilities for hazardous wastes. Loads containing household hazardous waste or other unsuitable material are diverted from disposal for proper management and enforcement measures, as deemed appropriate. This loadcheck program also includes public education and outreach programs. The WMRD meets all state requirements and takes other necessary actions to protect ground water quality. Figure II-2 show ten former and existing landfill operations that are known sources of ground water contamination in the south county. Figure II-3 shows those sites/facilities where a groundwater remediation program is currently underway.

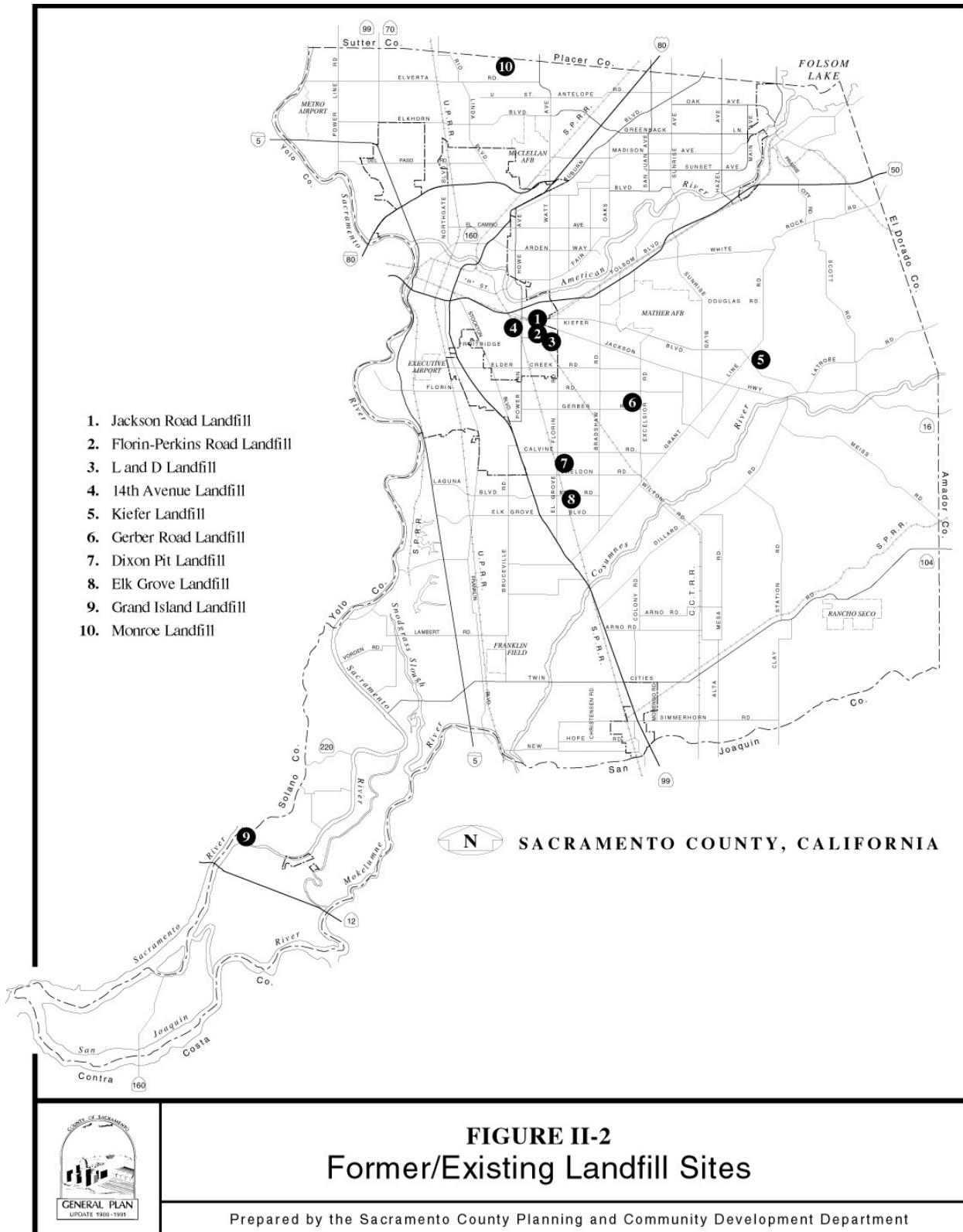
Many common consumer products such as paints, solvents, cleansers, and pesticides contain hazardous chemicals. The misuse or improper disposal of these products can cause severe environmental or health impacts. For example, undetected leaks of hazardous materials can result when the containers are compacted during transfer to the landfill sites. These types of accidental leaks have the potential to cause fires, ground water contamination, or other adverse reactions. To make the disposal process more convenient, the County's Waste Management and Recycling Division (WMRD) has established two interim collection facilities that receive certain recyclable household hazardous wastes (HHW). These facilities, which became operational in January of 1995, are located at the County's South Area Transfer Station (SATS), at 8550 Fruitridge Road and the North Area Transfer Station (NATS), at 4450 Roseville Road. These facilities accept automotive batteries, used motor oils, used motor oil filters, anti-freeze, and latex paint from residential customers free of charge. The WMRD has also implemented a

curbside collection program for used motor oil. This collection service is available to 170,000 single-family households located within the unincorporated area of the county. Lastly, as of July 1, 1995, the WMRD became responsible for administering the County's periodic toxic HHW collection program. Seven collection events are scheduled annually. These events, in addition to four similar activities sponsored by the City of Sacramento provide area residents with an equivalent of almost one disposal day per month throughout the year. The results of these events conducted between March 1994 and November 1994 are illustrated on Table II-2

In sum, in an effort to provide a long-term solution for the disposal of household hazardous waste, the WMRD is proposing the development of up to three permanent HHW collection facilities. Possible locations are the NATS, the SATS, a proposed Materials Recovery Facility to be established adjacent to the Kiefer Landfill. These facilities would except all HHW, be open on a regular basis, and be accessible to all county residents. However, it should be noted that the proposed sites would have to go through appropriate environmental and land use review on a project-by-project basis before a permanent facility could be sited and developed. As indicated on Table II-3 there are several measures that can be employed by the average resident that will help to reduce exposure to household chemicals.

TABLE II-3
Methods to Reduce Household Hazardous Waste

- Purchase less toxic or non-toxic items whenever possible.
- Buy only the amount needed to do the job.
- If viable, give leftover paint to a neighbor to use.
- Avoid the use of aerosols as they are a high source of indoor air pollution.
- Recycle motor oil at a participating service station or other certified collection center.
- Keep products in their original containers
- Use products in well-ventilated area (an open door or window may not be sufficient).
- Wear protective clothing.
- Never mix products unless instructions call for it. Incorrect mixing could lead to adverse chemical reactions.
- Use only the recommended amount. “More” is not necessarily better.
- Consider whether the product can be used less frequently.
- Keep products out of reach of children and pets



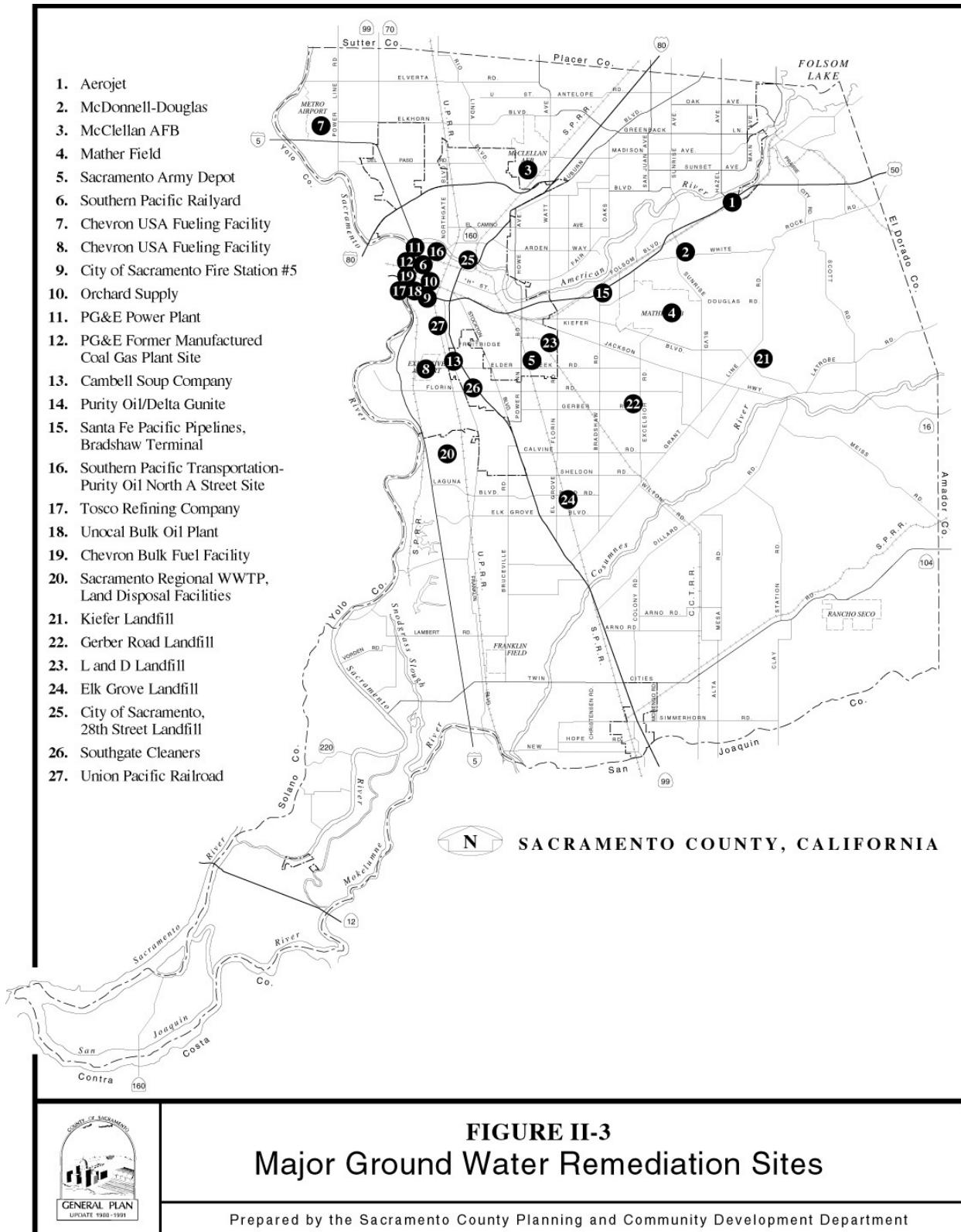


TABLE II-2
Household Hazardous Waste Collection Programs for the County of Sacramento

RECYCLE EVENTS:	3/12/94	5/14/94	7/9/94	9/10/94	11/12/94
Location	21st and W St.	9660 Ecology Ln.	21st and W St.	9660 Ecology Ln.	21st and W St.
Participation Rate	595 vehicles 706 households	533 vehicles 403 households 5 businesses	368 vehicles 453 households	315 vehicles 378 households	345 vehicles 392 households
Auto Batteries Received	236	178	172	156	159
Waste Oil Received	1,970 gallons	579 gallons	1,200 gallons	660 gallons	600 gallons
Latex Paint Recycled	1,100 gallons	941 gallons	605 gallons	825 gallons	440 gallons
Latex Paint Diverted for Reuse	50 gallons	0	50 gallons	0	100 gallons
Used Oil Filters Recycled	150	1-55gdrum	25	1-55ddrum	650
Antifreeze Recycled	210 gallons	242 gallons	65 gallons	150 gallons	160 gallons
Latex Paint(petrol contaminated)	0	55 gallons	0	0	0

TOXIC EVENTS:	2/12/94	4/9/94	6/11/94*	8/13/94	10/8/94
Location	9660 Ecology Ln.	21st and W St.	9660 Ecology Ln.	21st and W St.	9660 Ecology Ln.
Participation Rate	674 vehicles 782 households 14 auto body shops	636 vehicles 743 households	677 vehicles 816 households	679 vehicles 783 households	282 vehicles 329 households
Auto Batteries Received	348	127	201	86	80
Waste Oil Received	1090 gallons	835 gallons	960 gallons	869 gallons	249 gallons
Latex Paint Recycled	0	550 gallons	1540 gallons	798 gallons	0
Flammable Liquids Diverted for Blended Fuel	2065 gallons	1500 gallons	0	1500 gallons	165 gallons
Oil Based Paints, Kerosene and Gasoline (bulked)	40cu yd (dumpster)	220 gallons	1485 gallons	330 gallons	8 cu yd (dumpster)
Lab Packs	0	120	124	102	0
Radiator Coolant Recycled	0	120 gallons	0	205 gallons	0
Used Oil Filters	0	50	55	100	0
Flammable Gas	0	385 gallons	0	0	0
Antifreeze	95 gallons	0	130 gallons	0	101 gallons
Waste (stored in drums)	5060 gallons	0	0	0	3575 gallons
Gasoline Mixture	0	0	165 gallons	0	0

* Recycle and Toxic Event

TRANSPORTATION:

The Transportation Division is responsible for responding to and mitigating hazardous material incidents occurring within right-of-ways, roadways, easements, waterways, and drainage systems in the unincorporated area of the county. The Division's hazardous material team consists of five supervisors and ten employees. This team has 24-hour response capability to perform cleanup of most Level I and II hazardous material spills (see Fire Department Section for definitions). For those spills that are larger in scale or more serious in nature, the Division typically defers their cleanup responsibilities to private contracted companies.

WATER RESOURCES:

The Water Resources Division is responsible for the storm drain system in Sacramento County. In June of 1990, Sacramento County, along with the cities of Folsom, Galt and Sacramento jointly obtained a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges. This permit was issued by the California Regional Water Quality Control Board, Central Valley Region, in response to recently adopted EPA regulations which address discharges of municipal stormwater runoff. Stormwater discharges of medium sized municipalities (100,000-250,000 people), large municipalities (over 250,000 people), and industrial facilities are regulated by this permit. Implementation of the permit is the responsibility of Sacramento County.

Pursuant to the NPDES permitting process, the Water Resources Division has developed and implemented a number of programs designed to reduce the impacts of urban stormwater discharges on local receiving waters to the "maximum extent practicable". These programs comprise the Comprehensive Stormwater Management Program. A list of the individual programs are as follows:

- Construction Site Management Program
- New Development Management Program
- Public Education and Awareness Program
- Industrial Discharge Management Program
- Illegal Discharge and Illicit Connection Program
- Public Agency Program
- Monitoring Program

As a note, construction projects five acres or larger in size and facilities defined by EPA regulations are subject to a separate permit process. Stormwater discharges generated by these types of activities are regulated by the state via the "General Permit" process. Both the State Water Resources Control Board and the Regional Water Quality Control Board are responsible for administration and enforcement of general permits. Sacramento County has a vested interest in the overall effectiveness of this permitting process as discharges from large construction sites and industrial facilities eventually converge and mix with stormwater discharges covered under the County's permit.

In sum, the storm drain system sometimes improperly becomes the disposal solution for household and commercial users of hazardous materials. Urban runoff entering this system eventually makes its way to the County's natural waterways. As a result, reducing or limiting the amount of pollutants which enter this system is a key element in protecting the aesthetic and environmental values associated with these waterways.

FIRE DEPARTMENT

SPILL RESPONSE:

All local fire districts within Sacramento County provide incident management and routine fire suppression duties. However, the technical tasks performed during emergency response to hazardous material spills in the unincorporated area of Sacramento County are provided by the Sacramento Metropolitan Fire District and the City of Sacramento Fire Department through a five-year contract. Four specially trained Hazardous Material Response Teams provide the County with twenty-four hour coverage.

Whenever one of the fire districts operating in the unincorporated area encounters a situation that may involve hazardous materials, the incident is classified according to the following standards:

Level I: The incident is relatively minor, and can be handled by the fire district crew first responding. An example of such an incident would be cleaning up a small spill of swimming pool chemicals.

Level II: The Sacramento Metropolitan Fire District or the City of Sacramento Fire Department (whichever agency has the closest HazMat unit to the incident) and the Hazardous Materials Division of the County's Environmental Management Department are asked to respond to the incident, and the Hazardous Material Response Team is able to contain and clean up the spill with its own personnel and equipment (with the possibility of non-emergency assistance from the Sacramento County Department of Public Works). Such an incident might involve chemicals more toxic and less common than swimming pool chlorine, but in quantities small enough to be handled by the Hazardous Materials Response Team.

Level III: The City of Sacramento Fire Department Hazardous Material Response Team arrives, but the spill is severe enough that additional assistance is required. In a major spill of this type, an approved private firm will typically be asked to respond. This firm will then work under state or federal authority, which can bring in Superfund money to finance the clean up. The decisions to involve state or federal agencies in the clean-up rests with the County Executive, and is dependent on the type, size, and severity of the spill. An example of a Type III incident would be an accident on a county road involving a large truck in which many containers of pesticides and fertilizers are punctured.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

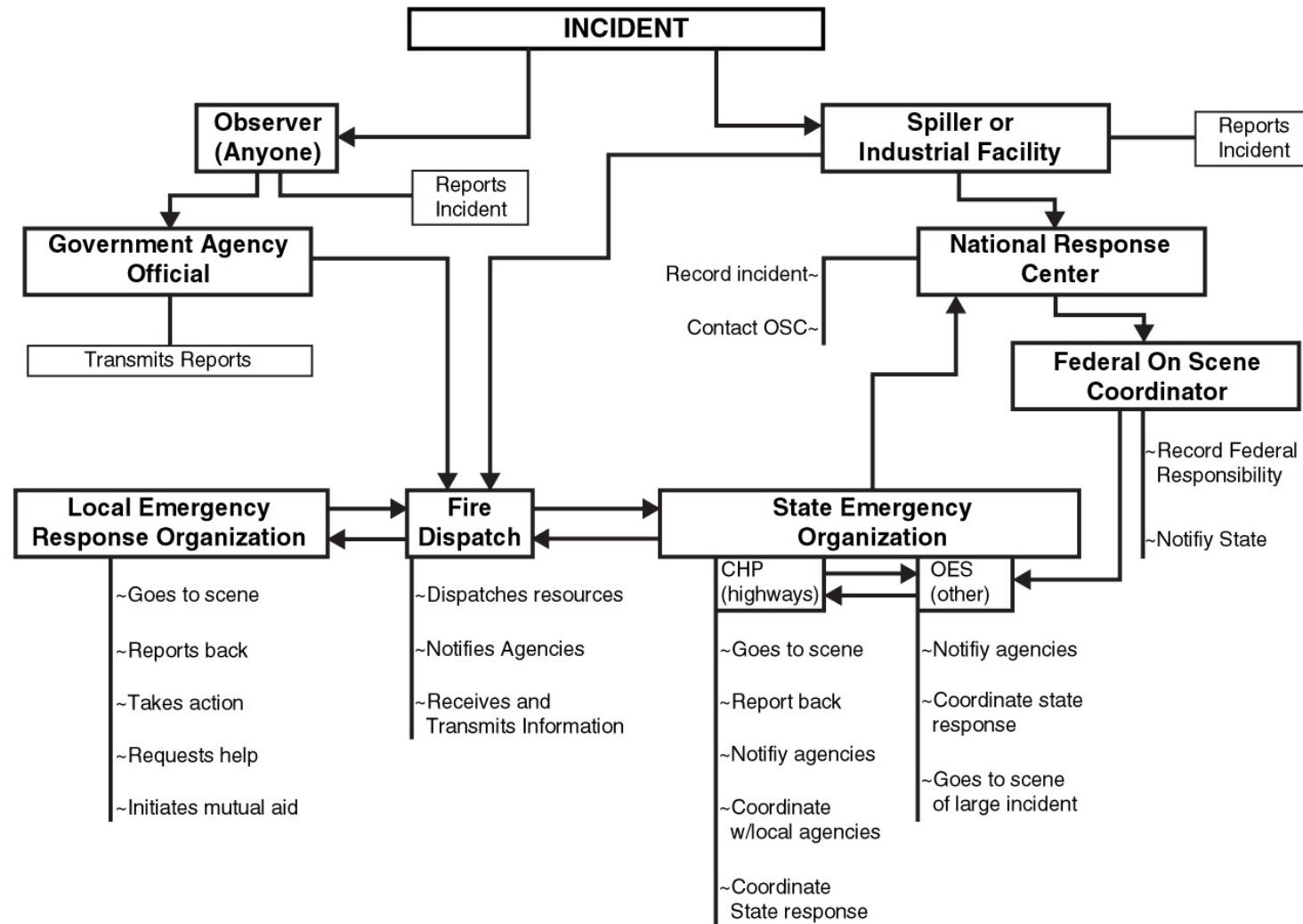
In California, air pollutant emission regulations for stationary sources are adopted and enforced by air quality management districts. The Sacramento Metropolitan Air Quality Management District (AQMD) has implemented a policy for the control of toxic pollutants based on its authority to regulate public nuisances. Policy development began in 1981 with the establishment of a risk assessment methodology for the evaluation of toxic air pollutant emissions from new stationary sources. The primary stationary sources affected by this policy are contaminated soil and water cleanup operations. Due to recently amended regulations set forth in the Air Toxic Hot Spots Information and Assessment Act of 1987 the risk assessment process now includes existing stationary sources. AQMD, via a permitting process, enforces specific prohibitory regulations for toxic air pollutants developed by the California State Air Resources Board and the U.S. EPA (i.e., medical waste incinerators, ethylene oxide sterilizer, chrome plating processes, and asbestos removal in demolition projects).

GENERAL SERVICES

EMERGENCY PLANNING:

Sacramento County's Department of General Services, Emergency Operations Division has the responsibility for overall planning, coordination, and implementation of emergency and disaster plans for the unincorporated area of the county. The Emergency Operations Division, in cooperation with EMD's Hazardous Materials Division, is also responsible for the Hazardous Materials Incident Response Plan. This Plan contains current information from all responding agencies [i.e., fire, law enforcement, Public Works (see Figure II-4)]. General Services makes a concerted effort to keeps all contacts identified in the plan updated. Lastly, the Division will continue to collect on-scene data information with the intent of establishing specific procedural guidelines which, in turn, will lead to improved interagency coordination and incident response.

FIGURE II-4
Response Initiation Process



Source: State of California Hazardous Material Incident Contingency Plan

AGRICULTURAL COMMISSION

Agricultural chemicals are divided into two broad classes: fertilizers and pesticides. The California Department of Food and Agriculture regulates fertilizers. Pesticide use is regulated by the Department of Pesticide Regulations (DPR). The DPR routinely evaluates these chemicals for side effects, residues, economic benefit alternatives and correct representation. Registrations must be renewed annually, and only registered chemicals may be applied in California. California's minimum registration standards are equivalent to those imposed by the EPA, under the Federal Environmental Pesticide Control Act (FEPICA). In some cases more stringent testing and additional information is required.

The Food and Agriculture Code delegates most of the enforcement responsibilities to the local Agricultural Commissioner. As present, the Sacramento County Office of the Agricultural Commissioner and Director of Weights and Measures is comprised of 27 employees. Seven inspectors are assigned to urban and rural agricultural pesticide control, respectively. These inspectors, along with staff biologists, have a number of responsibilities which include (1) offering advice to growers as well as the general public, (2) determining appropriate application methods, (3) issuing permits for pesticide use, (4) conducting inspections, and (5) taking action against violators.

Some pesticide uses are regulated through a permit system. In order to obtain a permit an individual must hold a license or be examined on the laws and regulations of using a pesticide and knowledge of pesticides. This approach minimizes improper applications, injury to the applicator and the environment. To avoid regulatory duplication the County Agricultural Commissioner makes every effort to coordinate with the DPR, the Structural Pest Control Board, the Sacramento Valley Regional Water Quality Control Board, and the Cooperative Agricultural Extension.

DISTRICT ATTORNEY

The prosecution of cases involving the unlawful disposal of hazardous material and hazardous waste is handled in Sacramento County by the Consumer and Environmental Protection Division of the Sacramento County District Attorney's Office. Within the division there is an environmental unit that is comprised of a deputy district attorney, a criminal investigator, a paralegal, and a legal secretary. The unit's full-time staff are collectively responsible for the investigation and prosecution of criminal and civil cases involving hazardous materials. The preparation and subsequent prosecution of hazardous materials cases has been a fairly steady process over the last two years. As example, in the years 1993 and 1994 the DA's office persecuted 32 and 24 cases respectively.

Members of the environmental unit work closely with the representatives from other regulatory and enforcement agencies, including the Hazardous Materials Division of the Environmental Management Department, the Sheriff's Department, Public Works, and fire departments. Members of the unit are also involved in a number of activities which affect the handling of hazardous materials in Sacramento County. These activities include the following:

- Emergency response to hazardous material incidents;
- Directing the activities of the County Environmental Task Force;
- Opposing and supporting legislation relating to the handling of the unlawful disposal of hazardous material;
- Training of county personnel in those areas relating to the handling and collection of evidence in hazardous material cases;
- Investigation of hazardous material incidents;

Prosecution of cases involving the unlawful disposal of hazardous materials.

COUNTY COUNSEL

Pursuant to Chapter 6.5, Section 25182 of the Health and Safety Code, the County Counsel's Office is also legally authorized to bring civil actions in support of enforcement proceedings for hazardous materials control. At the time of the preparation of this element there are no pending cases on file in the County Counsel's office. The enforcement of other hazardous material programs, such as business plans and the underground storage tank ordinance is handled by the District Attorney's Office, and if need be the Attorney General's Office.

PLANNING AND COMMUNITY DEVELOPMENT

HOME OCCUPATIONS:

To date approximately 10,000 home businesses have been licensed to operate in the unincorporated area of the county. Pursuant to the provisions of the Business License Ordinance and the Home Occupation Standards of the Zoning Code low intensive, small scale businesses can be conducted without the benefit of a commercial location (i.e., word processing, bookkeeping, or drafting services). All home occupations applications are checked by the Planning Department for compliance with the standards set forth in Zoning Code Sections 305-200 through 305-204. The primary focus is to ensure that these types of businesses will not result in increased noise or visual intrusion, traffic nuisances, or excessive amounts of material storage. In short, the operation of a home business must not adversely impact the residential character of the surrounding neighborhood.

Although the operation of certain home businesses may be consistent with Zoning Code standards the excessive storage of hazardous materials can still pose a risk to the surrounding neighborhood (i.e., chlorine for pool services and fertilizers for landscapers or gardeners). As a result of recent changes to the business license application form prospective applicants are now required to disclose the type and amount of hazardous material that will be used and/or stored in conjunction with the business. To further minimize the potential risks associated with hazardous materials storage the Zoning Code was amended in June of 1994 to limit the amount of storage to below the threshold established by the local fire district [see Zoning Code Section 305-201(O)].

As further regulated by the Zoning Code land uses within a given zone are divided into three basic groups: (1) those that are permitted outright, (2) those that are subject to the discretionary review and approval process (i.e., use permit), and (3) those that are prohibited altogether. As set forth in the Zoning Code those uses which handle or store significant quantities of hazardous materials will typically fall into either the second or third category. In sum, the primary intent of this review process is to ensure that the location and operational methods of new or expanding facilities are consistent with all federal, state and local regulations.