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**WHAT ROLE WILL LOCAL POLICE DEPARTMENTS  
ASSUME IN THE INVESTIGATION AND ENFORCEMENT OF  
ENVIRONMENTAL PROTECTION LAWS DURING THE NEXT DECADE?**

This study explores the future role of local police departments in the enforcement of environmental protection laws. It examines a series of possible futures, proposes a specific set of desired policies and articulates an implementation procedure.

**SCOTT D. SWANSON  
Lieutenant**

**SANTA ROSA POLICE DEPARTMENT**

**Command College  
Class Seven**

**NCJRS**

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WHAT ROLE WILL LOCAL POLICE DEPARTMENTS  
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SCOTT D. SWANSON

EXECUTIVE SUMMARY

This study examines past, present and future issues related to the role of local police departments in the investigation and enforcement of environmental protection laws.

The study has found that despite government efforts to manage environmental protection needs, environmental quality indicators have continued to decline. Toxic contamination of air, water, and land resources is increasingly viewed as a direct public safety issue. Although police environmental enforcement activities historically have been quite limited, mounting contamination threats will lead to a call for active police environmental protection efforts.

With background information as a foundation, futures research methodologies have been used to evaluate changes affecting the role of local police in the enforcement of environmental law during the next decade. Current trends and possible future events are forecast to determine their future impact on police-environmental protection interactions. This information has been used to develop three scenarios that depict three distinct law enforcement futures that may occur during the next decade.

One of the futures has been selected as both desirable and attainable from social, law enforcement, and environmental perspectives. That future presumes that local police will implement policies enabling their assertive involvement in the environmental protection process. In order to reach the desired future a strategic plan has been subsequently developed.

Techniques have been used during the strategic planning process that identify police strengths and weaknesses, specific mission statements and viable policy alternatives. Policies have been analyzed in light of competing law enforcement demands and varying community interests. Five policies have been ultimately selected to comprise the core of the strategic plan. They include developing an environmental enforcement program, developing education programs, streamlining police services, enacting alternative funding programs and increasing allied agency cooperation.

A transition management component of the strategic plan uses techniques that involve commitment planning, responsibility charting, and communication enhancement procedures. The techniques are intended to effectively manage the

uncertainties that accompany the change process. Although the plan has been developed for use in one specific police jurisdiction, it has applicability to all local policing agencies.

The study concludes by stressing the need for an assertive local police environmental enforcement program designed to meet community safety needs of the next decade.

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PROJECT BACKGROUND

**Police Tradition.**

The preservation of life and protection of property are typically cited as the basic mission of local law enforcement services. Police departments traditionally have focused their primary efforts on activities that relate to the general maintenance of public order, security of the home from external threat, and the ability to respond to a wide variety of public safety emergencies on short notice. Local law enforcement has always been quick to direct resources to combat the street-level crime citizens find most threatening. It is within this basic context that the provision of most police services has occurred.

Despite the traditional nature of police services, some notable changes have occurred during the past decade. Police have been thrust into a variety of task and investigatory arenas that previously have been considered outside the purview of local law enforcement. Domestic violence, child abuse and computer crime are but three areas to which an active police role has been extended. This signifies a trend wherein the traditional definition of police responsibility to the preservation of life and protection of property is being expanded.

Expansion of police involvement into a variety of seemingly non-traditional roles has occurred because police personnel are skilled in investigatory and enforcement tasks, and are able to rapidly respond to perceived needs and successful at performing assigned tasks. Police personnel also exist in relatively large numbers.

We are now in an era of rising demand for public safety services. Because funding and personnel resources have not increased proportionately with demand, additional tasks have been assumed by using existing resources. By way of this process, local police have seen their traditional roles expand into newly surfaced issues that impact the well-being of persons and property.

#### An Emerging Issue.

As we prepare to enter a new decade, it is incumbent upon law enforcement leaders to evaluate trends that will affect the future provision of public safety services. One such significant trend is the growing public concern with environmental degradation. A 1986 New York Times/CBS Poll has found that 55 percent of American adults agreed that "protecting the environment is so important that requirements and standards cannot be too high, and continuing environmental improvements must be made regardless of cost" (Plissner, 1986). That percentage reflects a 21 percent increase over the 1981 sampling. A September 1988 national opinion poll for Time Magazine has found that 70 percent of adult Americans will support an increase in federal income taxes if the additional revenues are used for environmental protection (Time, 1988).

During the summer of 1988, our country endured many highly publicized environmental problems. For example, urban ozone pollutant levels were experienced at their highest levels in the past ten years. A national report on cleanup of toxic wastes cited ill-designed and ineffective efforts to control the contamination of water, air, and land resources (Environmental Defense Fund 1988). Even our presidential campaign involved a national dialogue about the need to protect the environment.

Public perceptions that environmental problems are worsening is leading to

increased calls for governmental action. Many of these problems threaten persons and property, which is a direct police concern. Thus there is an evolving recognition that environmental degradation is a direct public safety concern, which means police departments can anticipate a trend toward enhanced environmental protection responsibilities in coming years.

The intent of this study is to explore the role that police departments will assume in the investigation and enforcement of environmental protection laws during the next decade. Preparation for assuming environmental protection responsibilities will result in the more effective management of attendant public safety problems. Yet prior to examining the future police role in environmental protection, it is necessary to understand some of the environmental issues confronting citizens in the cities our police serve. Absent an awareness of those issues, the need for police involvement in the environmental protection arena will not be properly assessed.

### Environmental History

The United States was once a sparsely settled land of great natural wealth and stunning biological diversity. Over the past 100 years, however, it has been transformed into a series of landscapes significantly impacted and molded by the actions of a rapidly growing urban civilization. Destruction and degradation of environmental resources has occurred over time with little public concern. These adverse environmental impacts have been socially offset by rising levels of economic prosperity and real improvements in the standard of living. Yet it has become clear that the nation's economic success has come at the expense of environmental quality.

The decades of the 1960's and 1970's were marked by social turbulence and

pronounced technological change. It was during this era that the first truly national dialogue on environmental matters developed. The legislative accomplishments of that period were impressive and yielded some very beneficial environmental results. Some of the more significant pieces of federal and state environmental legislation enacted during that era are listed below.

- 1967 - The Mulford-Carrell Air Resources Act - to protect the air resources of the state.
- 1969 - The National Environmental Policy Act - to review federal projects in light of environmental protection needs.
- 1970 - The Clean Air Act - to protect and improve the nation's air resources.
- 1970 - The Porter-Cologne Water Quality Act - to regulate and protect the state's water quality.
- 1972 - The Clean Water Act - to protect and improve the nation's water resources.
- 1972 - The California Hazardous Waste Control Act - to regulate management of hazardous waste disposal.
- 1974 - The Hazardous Materials Transportation Act - to provide protection against hazardous materials transportation risks.
- 1976 - The Resource Conservation and Recovery Act - to regulate treatment, storage and disposal of hazardous wastes.

Federal environmental protection efforts resulted in the formation of the Environmental Protection Agency (EPA) in 1970. Environmental protection management at the state and local level involved a multitude of agencies. A vast infusion of federal monies made an impact in some areas, most notably in the cleanup of municipal and industrial waste water discharges. Very definite gains and many environmental holding actions occurred during this decade of

environmental activism. The lasting legacy of this period, however, was the framework of environmental law from which cleanup efforts and enforcement actions could be initiated (Cahn, 1985).

In the 1980's several more legislative accomplishments have been added in the effort to control the release of toxic chemicals into the environment. The 1980 Comprehensive Environmental Response, Compensation and Liability Act, and the 1986 Superfund Amendments have dramatically increased the potential for federal involvement in the response to and cleanup of toxic contamination. Yet outside of those efforts, the federal role in aggressively pursuing environmental protection issues has waned. The EPA has been rocked by several scandals. It and other environmental agencies lack the forceful direction evident in the 1970's, and there has been a growing trend of federal delegation of environmental enforcement matters to the state and local level. The EPA and other agencies responsible for environmental protection have found themselves without adequate enforcement capabilities and without the funding to fully carry out the legislative mandates of the previous twenty years. It has become clear that legislation alone cannot protect people and the environment.

During the past few years Californians have come to be even more aware of the dangers posed by environmental contamination. The Stringfellow Acid Pits in Southern California is one of the nation's most severely polluted toxic sites. The fisheries of San Francisco Bay have been contaminated by toxic runoff. Many of our cities have toxic contamination sites. A recent report detailing current and future environmental contamination issues in California noted the following:

- At the current rate of toxic site identification and cleanup, the number of state superfund sites in California could reach thousands by the turn of the century.
- Leaking underground storage tanks and toxic pits pose severe

environmental and health risks.

- The number of legal toxic disposal sites is declining.
- Water quality is being adversely affected by toxic contamination and this poses human health risks.
- Air quality in Southern California is the worst in the nation and several California locales do not meet federal clean air standards. (California Assembly Office of Research 1987)

As people are confronted by environmental ills occurring in and about the places they live, there grows a sense of urgency to protect the environment. One example of this feeling of urgency occurred in 1986 when Californians overwhelmingly voted approval of the Safe Drinking Water and Toxic Enforcement Act, also known as Proposition 65 (Collins, 1987). Among its legal provisions are new conditions for the issuance of permits for the discharge of toxics into drinking water sources, opportunities for citizen initiated law suits and monetary rewards, and toxic exposure warning requirements for businesses. The act, borne of the citizens initiative process, is a concrete manifestation of the high degree of public anxiety surrounding contamination of the environment. A reflection of enhanced citizen awareness of environmental health issues, its passage places government agencies on notice that the public expects assertive action to protect them from toxic pollutants. Environmental protection has become a direct public safety issue.

#### The Police Role

Until now the role of local police departments in the environmental protection arena has been quite limited. During the past five years the California Vehicle Code has given law enforcement primary responsibility for

management of hazardous materials spills occurring on a street or highway. This responsibility has been assumed reluctantly by police agencies, yet much of their hesitance has been softened by specialized training that allows law enforcement to competently respond to and manage hazardous materials incidents.

The purpose of this study is to identify the future role local police departments will assume in the investigation and enforcement of environmental protection laws. Policing concerns of relevance to this study include efforts to identify, arrest and convict those persons who violate environmental protection statutes. It also includes efforts to minimize the risk that persons and property encounter if environmental protection laws are violated. This study will not focus on a need for new environmental legislation or a need for new investigative agencies. Rather it will focus on existing legislative mandates and existing enforcement agencies that can be used to limit damage to persons, property and the environment.

## OBJECTIVE ONE

### STATEMENT

The first objective of this study is to explore the general nature of the primary issue utilizing futures research methodologies. The outcome will be three futures scenarios that will define a distinct set of future social environments. The general issue under study is stated as follows: What role will local police departments assume in the investigation and enforcement of environmental protection laws during the next decade?

In order to more fully understand the general study area, one must evaluate past, current, and future issues that may affect it. Accordingly, a preliminary review of pertinent data has yielded the following related past issues.

1. Why were enhanced environmental protection laws mandated?
2. How effective were government agencies in the enforcement of environmental protection laws?
3. What was the expectation of local police agencies in the investigation and enforcement of environmental law violations?
4. Should environmental protection concerns be within the primary purview of federal, state or local agencies?
5. To what extent should local police agencies become involved with environmental safety issues?

Review during the background portion of this study finds that these issues have continuing relevance. Of note is the fact that government agencies have accomplished acts beneficial to the environment, but those efforts need to be sustained and expanded.

Following a consideration of past issues, an attempt has been made to

identify those current issues that have an impact upon the study area. Some of those with a pronounced impact are listed below.

1. What is the effect of the static or decreasing role of federal and state agencies in the enforcement of environmental protection laws?
2. What is the effect of hazardous materials incident management responsibility on local police agencies?
3. Are local police agencies able to deal effectively with the wide range of non-traditional demands for service now being placed upon them?
4. What role do local communities expect of their police departments in the protection of the environment?
5. How effective are government efforts to control environmental degradation?

Following identification of present issues, consideration has been given to those issues that might emerge during the next decade and thus can have an impact on the development of futures scenarios. These future issues have been identified and are listed below.

1. Will decreasing environmental quality set the stage for more environmental legislation and/or an increased demand for enforcement?
2. What will be the respective roles of federal, state and local agencies in environmental law enforcement in light of changing political and economic forces?
3. How will local police agencies obtain the technical, fiscal and personnel resources to manage environmental protection issues?
4. How will local communities react to police controls pursuant to the enforcement of environmental protection laws?
5. Will specialized local police units be created to enforce environmental protection laws?

## METHODS: IDENTIFICATION

The following methods and techniques have been used to attain the stated objective of this section.

1. Scanning and review of literature in each of the Social, Technological, Environmental, Economic and Political (Steep) Typologies has been accomplished. Environmental literature found in the Reference List has been evaluated for relevant information.
2. Structured interviews have been conducted with persons having expertise in both the environmental and enforcement arenas. Those interviewed include persons from the United States Department of Justice, United States Department of the Interior, United States Environmental Protection Agency, California Water Quality Control Board, California Department of Public Health, California Highway Patrol, National Audubon Society, Natural Resources Defense Council, National Wildlife Federation and numerous other state and local organizations.
3. A Nominal Group with membership consisting of persons having knowledge of law enforcement and/or environmental matters has been assembled. Standard Nominal Group Techniques (NGT) have been used to structure the issue and subsequently explore trend and event forecasting.
4. The Nominal Group has identified a list of trends and events of relevance to the study. The group has then selected five trends and five events for futures forecasting purposes.
5. Persons involved in the NGT process have conducted a Cross Impact Analysis of selected trends and events.
6. Three futures scenarios are written on the basis of information developed during the NGT process.

## METHODS: IMPLEMENTATION

The first step in this objective is the scanning and review of literature providing background analysis of past, present and future environmental problems. There is a wealth of formal research as well as popular literature detailing the nature of American environmental issues. One such reference that intricately details future trend assessments is State of the Environment: A View Toward the Nineties (Conservation Foundation, 1987).

The second method used to gather information is through the structured interview process. Persons having expertise in environmental matters have been consulted and asked to identify current and future environmental problems. Additionally, those experts have been asked to define the practical role that local police can assume in an effort to protect citizens from identified environmental hazards. Prosecutors, law enforcement officials and industry representatives also have been asked for their views of the topic.

The scanning, review, and interview processes has generated an initial list of relevant trends and events. This list has been shared during the subsequent meeting of persons involved in the NGT futures forecasting procedure. Membership of the NGT group consists of persons representing various government entities, industrial firms, citizen activist groups, and environmental organizations. The group has evaluated identified trends and events and ultimately selected a list of five trends and five events that they believed had relevance to the issue under study.

### Trend Selection

The Nominal Group has developed a list of more than fifty trends from which they have selected the five they think have had the greatest relevance to the study. All trends have been evaluated with reference to conditions or

circumstances prevailing in California. Group members have been queried and a process has been followed, resulting in the selection of the following five trends.

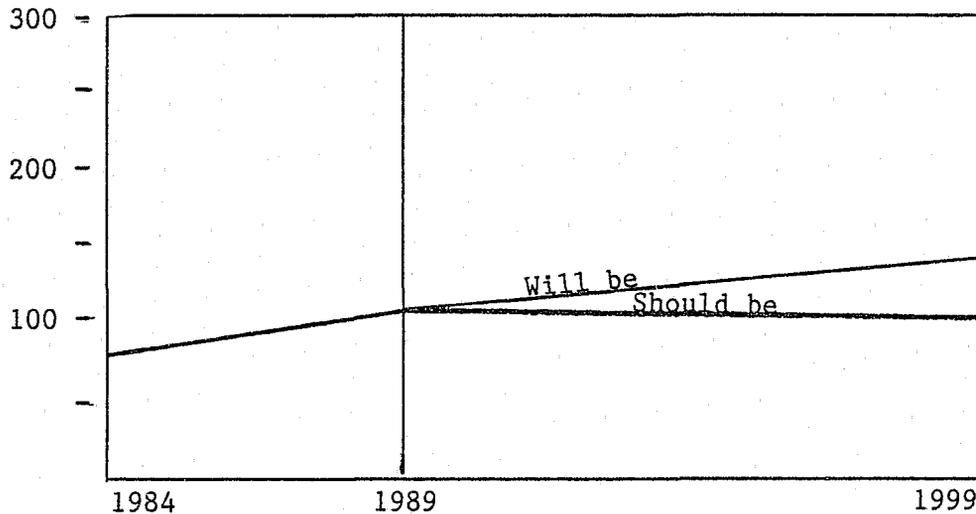
1. The level of waste materials generated.
2. The level of prosecution of environmental crimes by federal, state and local prosecutors.
3. The level of government funding for, and implementation of programs that are environmentally beneficial.
4. The level of funding for local police services.
5. The level of quality of air and water resources.

#### Trend Definitions

All trend levels have been assigned a present day value of 100. The NGT panel has been asked to interpret what the respective trend level was five years ago. Trend direction and level for the next decade has then been projected according to the expected interplay of ongoing forces. Lastly, the group has been asked to assess where the trend levels "should be" if favorable policies and actions occurred during the ensuing ten years. The median value established by the group for each trend level is documented on the figures that follow.

Figure 1

Trend 1: Level of Waste Materials Generated



Level Values : 1984 - 75 1989 - 100 1999 - Will be 135/Should be 95

Trend One Analysis. Waste materials generated include the production of substances having no utilitarian or recovery value. Unwanted by-products from manufacturing, processing and packaging as well as substances emitted to air and water resources are included in this category.

It is the consensus of the group that the overall generation of waste materials will continue its historic increase through the next decade absent intervening forces. California's population is growing rapidly and is projected to increase by more than four million persons in the next decade (Conservation Foundation, 1987). Although reduction of per capita waste generation is expected as technological advances and economic motives intervene, the sheer number of Californians will cause increases in the level of total waste generation.

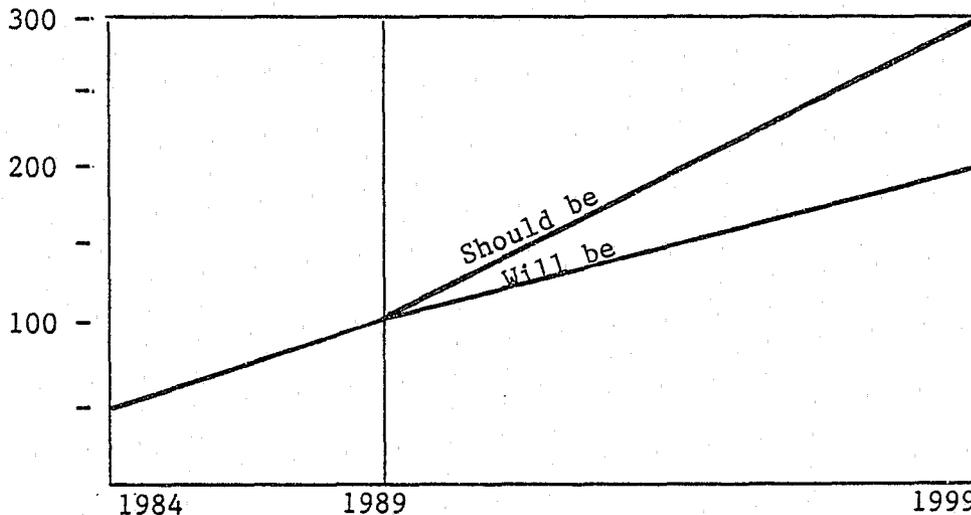
The group believes this an important trend to monitor as wastes often end up

as environmental contaminants. Current waste management practices are such that land disposal, emission into the atmosphere and dilution in water are the most prevalent techniques in use. Whenever toxic wastes are disposed into the environment, a potential risk to life and property results.

Panelists believe that the potential exists for a total reduction in the level of generated waste regardless of California's growth characteristics. They also feel that joint government-industry efforts can reduce waste generation levels without significantly impairing the economy. Incentives for technologies that recycle wastes or, more importantly, reduce the level of waste generation will be of great value. Even should this most optimistic of assessments occur, the group believes that the type and level of wastes generated by our society will pose serious environmental risks for the future.

Figure 2

Trend 2: Level of Prosecution of Environmental Crimes



Level Values: 1984 - 50 1989 - 100 1999 - Will be 200/Should be 300

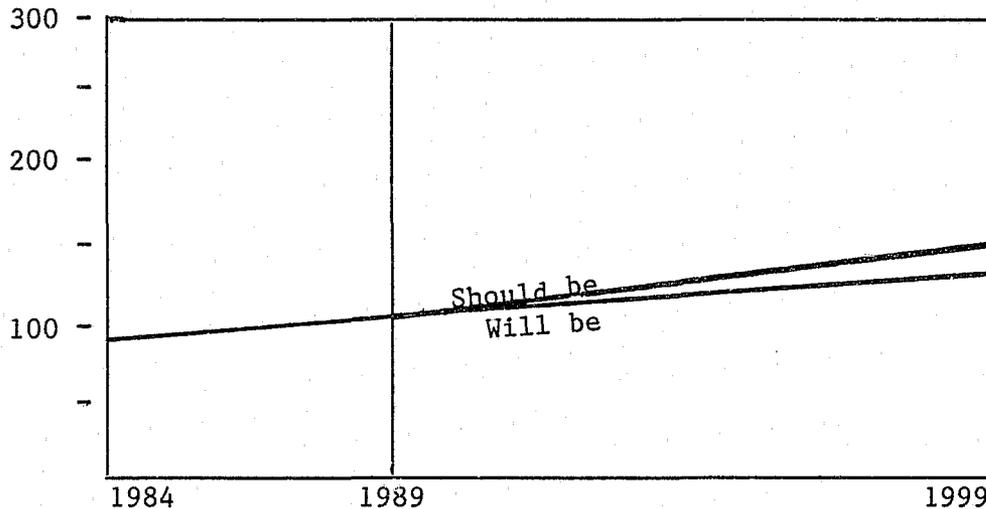
**Trend Two Analysis.** The group has expressed the unanimous opinion that the level of prosecution of environmental crimes will increase quite markedly during the next ten years. Past enforcement efforts to gain compliance with environmental laws have been characterized as mostly involving administrative or civil actions. The contemporary political and social climate has been such that criminal enforcement of environmental protection laws has not been a priority concern of prosecutors. Even the most blatant violations brought before the criminal justice system did not result in substantive criminal sanctions. Yet the group states there is an emerging trend to bring more criminal prosecutions of environmental law violations.

The panel believes this trend important to monitor as it gauges several critical factors. It indicates public demand for action, environmental problem awareness, and the level of environmental contamination. The group is of the opinion that as environmental ills become more evident, the public will tend to view law violations as truly criminal acts. Prosecutors will then be more likely to find the resources to take assertive criminal action.

The level of desired prosecution was still significantly above expected prosecution by the end of the decade. The group did feel that many positive environmental actions could be accomplished without criminal prosecution. Among the possibilities: new laws, government grants, industry incentives and civil actions. However, the group firmly believed that stronger criminal enforcement is morally appropriate and will provide a definite incentive for compliance with environmental law. The group felt that without increased prosecution efforts, the level of environmental problems will not decrease.

Figure 3

Trend 3: Level of Government Funding For And  
Implementation Of Programs That Benefit The Environment



Level Values: 1984 - 90 1989 - 100 1999 - Will be 130/Should be 150

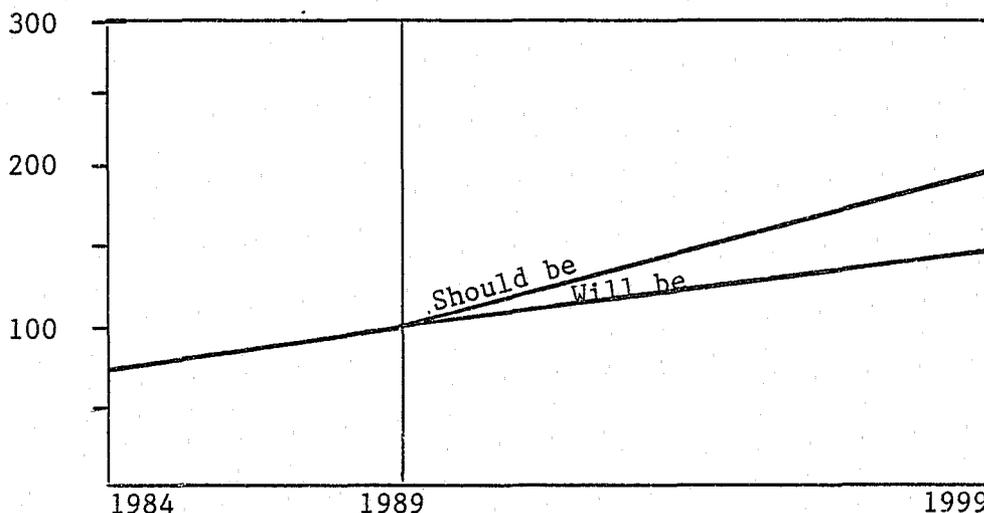
Trend Three Analysis. The NGT group expects the level of government involvement, both fiscally and legislatively, to increase moderately during the next decade. The past five years have not witnessed much environmental activism, particularly at the federal level. Budget deficits and the lack of presidential direction has resulted in actual losses in some environmental areas. Yet as public pressures mount, the group forecasts a government environmental responsiveness that has not been seen in some time. New laws and environmental protection programs may be enacted that will result in environmental gains. Yet the federal deficit shall continue to grow and thus restrain massive environmental funding.

The group evaluated this as an important monitoring trend because it has

been government efforts that have provided the major framework for environmental protection. The nature of most environmental problems will not be appropriately addressed unless some government action occurs. The group believed significantly enhanced government efforts should be made in the area of funding and program implementation. It felt that environmental protection was a major concern directly linked to our nation's well-being. Reordering of priorities could achieve significant investment in the effort needed to cleanup many sources of contamination. The government is the appropriate body to provide impetus to implement technological and social change that will be required to manage environmental problems.

Figure 4

Trend 4: Level of Funding For Local Law Enforcement Programs



Level Values: 1984 - 75 1989 - 100 1999 - Will be 150/Should be 200

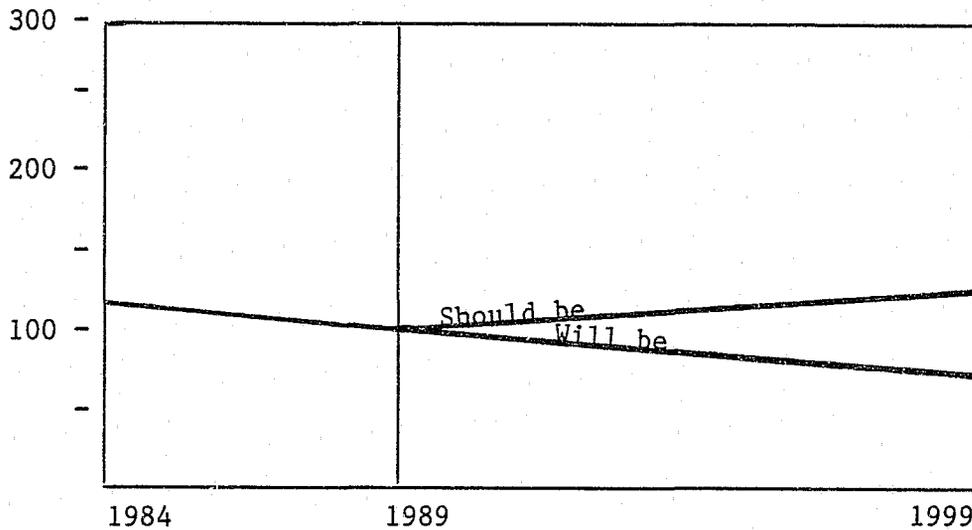
**Trend Four Analysis.** This trend has generated particular interest among law enforcement representatives as they see this as a key to future efforts. The group foresees substantive growth in local law enforcement budgets during the coming decade because of continuing crime problems. Total expenditures for local law enforcement are perceived as having experienced regular growth during the past five years, and in spite of overall government budget constraints, public safety funding is expected to continue historic growth patterns. The group sees as a facet to this trend the beginnings of law enforcement agency efforts to generate revenues to fund policing programs.

This trend is deemed important as it provides a measure of resource availability for expanded enforcement activity. Without increased funding or a reordering of priorities, local police agencies will be hard pressed to actively assume environmental enforcement actions. Again, it was the group's feeling that some of the increases in funding could come from law enforcement revenue generation.

The group feels that significantly more money than will likely be available is needed by police agencies if they are to meet the growing level of demands for services. Although projected funding growth will be significant, it will fall short of a level that will afford local law enforcement the means to assertively meet perceived public safety needs. Mitigation of this funding shortfall can be accomplished through increased use of professional volunteer resources and alternatives to current policing practices.

Figure 5

Trend 5: Level of Quality Of Air And Water Resources



Level Values: 1984 - 115 1989 - 100 1999 - Will be 75/Should be 125

**Trend Five Analysis.** The group strongly perceives this trend as decreasing over the next decade in the absence of significant intervening social and technological action. The overall quality of air and water resources is seen as having recently diminished and is seen on a continuing downward trend. The group has discussed whether an increasing trend of environmental degradation is occurring or whether present monitoring techniques have been identifying the consequences of past acts of environmental contamination. The consensus is that both factors have occurred. Many of the environmental problems we will discover during the next decade will be result of past technological practices.

This trend is assessed as being the most critical of all that are noted. Police resource commitment is being contemplated because of the direct threat to persons and property that is posed by a deteriorating environment. As the

environment is perceived as becoming less safe, the need for police involvement increases.

Upon analysis, the group believes that overall qualitative improvements in the environment can be accomplished during the next decade. Although population and industrial growth is forecast to continue, a reduction of environmentally abusive lifestyles and technologies can be instituted. Assertive enforcement of environmental law will result in real improvements to the environment.

#### Event Selection

The preliminary list of events prepared prior to the NGT meeting is based upon information developed from persons interviewed during the proposal background process. The NGT group has brainstormed an additional list of possible events that would be of exploratory value. The two lists were compiled and the group selected the five events it thought of most value to the futures scenario process. The events selected for evaluation are listed below.

Event One: A United States Transportation Accident Involving The Unintended Spillage Of A Hazardous Substance Occurs, Killing More Than Fifty People. During the past ten years a great many government and industry efforts have been expended in an attempt to make the transportation of hazardous materials safe. Container redesign, emergency response planning and special handling procedures all have occurred in conjunction with legal mandates and safety considerations. Yet our nation is dependent on a steady flow of materials whose chemical makeup has the inherent potential for causing significant personal injury and property damage. Air, rail, highway and water are the primary urban transportation

corridors upon which those hazardous substances are transported.

Despite efforts to improve the safe management of hazardous materials transportation, serious risks still exist. Losing more than fifty lives from hazardous substances released in a transportation accident will result in dramatic national attention. As happens in the aftermath of many tragedies, there will be calls for legislative action and an analysis of what has gone wrong. Such an event will undoubtedly provide the impetus for increased enforcement vigilance and greater safety precautions.

**Event Two: Two Year California Drought Occurs, Reducing Runoff To 40 Percent Of Normal.** The state's economic, social and environmental well-being depends on the availability of clean, usable water supplies. Without sufficient quantities of water California's irrigation-dependant agriculture will wither, cities will face social disruption, hydropower generation will dwindle, industrial demands will go unmet, and ecological damage will be widespread. Government subsidies and pricing structures do not take into account environmental damages caused by water use, thus, the true cost of clean water and its use has long been underassessed. Yet public awareness of water related health and environmental contamination issues is growing. The citizen initiative process that has led to the passage of Proposition 65 demonstrates the importance now being placed on clean water.

Serious droughts have occurred before and will likely happen again. Additionally, current assessments of the "Greenhouse Effect" lend credence to the fear that American droughts may become more routine and pronounced. Among associated environmental problems that accompany a drought are the hot dry conditions that exacerbate air pollution problems. A prolonged drought will

lead to greater police involvement in the protection of water quality from external toxic contamination and protection of air quality.

**Event Three: Earthquake Of More Than Seven Richter Magnitude Occurs Somewhere In California.** The threat of a major earthquake in California is an ever-present danger. Although earthquake forecasting techniques are imperfect, a catastrophic earthquake in southern California during the next decade has a good probability of occurring if past quake patterns are repeated. When and where a major quake strikes determines the type and level of damages that will result. An earthquake of a seven-plus Richter magnitude occurring in a large urban area will result in significant loss of life and property.

This event will impact police services wherever it is felt. Environmental concerns arising from a catastrophic earthquake include the breakage of pipelines carrying all types of liquid substances, rupture of hazardous materials storage tanks and resultant air and water contamination. The environmental damages caused by an earthquake will take years to repair.

**Event Four: The Last Legal Class One Hazardous Waste Dump In California Closes.** Currently there are but two hazardous materials dumps in California classified as "Class One" facilities. One is in the Kettleman Hills and the other is in Caswellia. These facilities receive hazardous materials that cannot be legally placed at any other dump site in the state. Due to mounting environmental protection standards, public pressures and liability concerns the number of legal hazardous waste dumps in the state has decreased dramatically. Those remaining open have use fees that are markedly above historic levels.

As the legal disposal of hazardous wastes becomes more expensive, the incentive for illegal dumping increases. Since an offender encounters minimal risk of apprehension, the economic incentive to violate the law becomes highly important. Additionally, the closure of the last "Class One" facility in the state will necessitate the transportation of hazardous materials out of state, which creates more opportunities for a transportation accident.

Event Five: United States Unemployment Level Exceeds 15 Percent. The current American unemployment level is below 6 percent and economic activity is robust. A serious recession can be precipitated by any one of a plausible series of events including Third World nations defaulting on accumulated debt, an oil embargo against Western nations, or continuing massive federal deficit spending. Economic recessions are accompanied by notable rises in unemployment and have the potential to cause widespread social turmoil.

Unemployment levels of 15 percent will pose a tremendous burden on government services during a time of reduced revenues. Maintenance of public order and provision of basic needs for impoverished persons will be the government's prime mandate. Environmental protection and cleanup may be viewed as a luxury that could not be afforded during such difficult times.

#### Event Assessment

The five events selected by the Nominal Group have been evaluated for a variety of factors. Chart 1 on page 24 depicts the findings of the event evaluation. The median value for each of the group's responses is used for charting purposes.

CHART 1

Event Assessment

EVENT STATEMENT	PROBABILITY			NET IMPACT ON ISSUE AREA -10 to +10	NET IMPACT ON LAW ENFORCEMENT -10 to +10
	Yr. First Exceed Zero	By 1994	By 1999		
U.S. Hazardous Materials Transportation Accident Kills 50 People	1989	50%	80%	+3	+1
Two Year California Drought Reduces Runoff To 40 Percent of Normal	1989	40%	60%	-4	-2
7 + Richter Earthquake Occurs in California	1989	20%	50%	-6	-8
Last Legal Class One Hazardous Waste Dump in California Closes	1990	20%	30%	-4	-2
U.S. Unemployment Exceeds 15 Percent	1991	40%	50%	-2	-9

## Cross Impact Analysis

A Cross-Impact Analysis is a method that gauges interrelationships between events and trends. Each of the five events is listed and an analysis is done to gauge the effect that each event will have on other noted events and trends. This process has been completed by select members of the Nominal Group.

Chart 2 on page 26 depicts the findings of the Cross-Impact Analysis. Values of one on the chart indicate no change in occurrence probabilities. Values less than one indicate a lowered likelihood of occurrence while values above one indicate a heightened likelihood of occurrence.

The following is a synopsis of the findings of the interrelationships between each event and other events and trends.

**Event One: U.S. Hazardous Materials Transportation Accident Kills 50 People.** The positive impacts of this event are:

1. Increases in environmental funding and law enforcement efforts for protection, cleanup, and prosecution as a result of after-accident public concern and political action.
2. Reductions in the likelihood of similar future events.
3. Accrual of environmental benefits due to a subsequent reduction in waste generation and transportation safety improvements.

The negative impact of this event is the increased likelihood that Californians will demand closure of last Class-One hazardous waste dump site due to real environmental concerns and public hysteria following major accident.

Suppose that this event with this probability actually occurred.....How would the probability of the events and trends shown below be affected?

EVENT	By 1999	EVENTS					TRENDS				
		Transport Accident 1	Two Year Drought 2	7+ Richter Earthquake 3	Hazardous Dump Closed 4	Unemployment + 15% 5	Waste Materials 1	Crime Prosecution 2	Government Funding 3	Law Enf. Funding 4	Air/Water Quality 5
Transport Accident (1)	80%		1.0	1.0	1.15	1.0	.9	1.2	1.1	1.05	.95
Two Year Drought (2)	60%	1.05		1.0	.95	1.05	.9	1.2	1.1	1.0	1.15
7+ Richter Earthquake (3)	60%	1.35	1.0		1.2	1.25	.85	1.3	1.3	1.2	1.1
Hazardous Dump Closed (4)	30%	1.05	1.0	1.0		1.0	.9	1.15	1.0	1.0	1.05
Unemployment + 15% (5)	50%	1.05	1.0	1.0	1.0		.85	.80	.75	1.0	1.0

Event 1 - US hazardous material transport accident kills 50 people  
 Event 2 - Two year California drought  
 Event 3 - 7+ Richter earthquake in California  
 Event 4 - Last California "CLASS ONE" hazardous waste dump closed  
 Event 5 - US unemployment exceeds 15%

Trend 1 - Level of waste materials generated  
 Trend 2 - Level of environmental crime prosecution  
 Trend 3 - Level of government environmental funding  
 Trend 4 - Level of funding for law enforcement  
 Trend 5 - Level of air and water quality

Event Two: Two Year California Drought Reduces Runoff to 40 Percent of Normal. The positive impacts of this event are:

1. Reduction in the level of waste generation due to less water availability and greater contamination fears.
2. Reduction of likelihood of Class One dump closure as desire to centralize toxic disposal intensifies.
3. Increased environmental and law enforcement funding for protection, cleanup, and prosecution as a result of drought induced reductions of environmental quality.

The negative impacts of this event are:

1. Increased transportation risks as greater materials movement occurs (e.g. fuel to supplement lost hydropower).
2. Increased likelihood of economic disruption and unemployment.
3. Further reduction of air and water quality levels.

Event Three: 7 + Richter Earthquake in California. The positive impacts of this event are:

1. Reduction in the level of waste material generation will occur as a result of toxic hazards exposed by a major earthquake.
2. Increased funding and emphasis on environmental protection and prosecution.

The negative impacts of this event are:

1. Severe economic disruption and social chaos.
2. Greatly reduced environmental quality in quake impacted area.
3. Increased likelihood of transportation accident during or after quake.
4. Increased likelihood that hazardous materials dumps will be closed for

fear of toxic releases.

Event Four: Last California Class One Hazardous Waste Dump Closed. The positive impacts of this event are:

1. Provided impetus for reductions in waste generation.
2. Increased level of environmental enforcement.

The negative impacts of this event are:

1. Increased transportation demands thus increasing accident likelihood.
2. Increased likelihood of environmental contamination by unlawful disposal of wastes.

Event Five: U.S. Unemployment Exceeds 15 Percent. The positive impact of this event is reduced industrial output which reduces waste generation.

The negative impacts of this event are:

1. Increased potential for transportation accident as safety standards wane.
2. Reduced funding for, and likelihood of, environmental protection and enforcement programs due to other economic priorities.

### Futures Scenarios

From the study data, three futures scenarios have been developed. The three scenarios explore a "Most-Likely," a "Worst Case," and a "Desired and Attainable" future. Each scenario uses trend and event data to explore possible futures that can impact the role of local police departments within the environmental

protection arena. Use of these scenarios allows law enforcement to consider the challenges and opportunities of the future. The scenarios are not predictions, rather, they are forecasts of the future based upon projections of trends and events. The strategic and transition plans that follow in this study are designed to achieve results described in the "Desired and Attainable" future.

#### Scenario Number One - Explorative - "Most Likely".

Date: September 30, 1999

Place: The American Environment Seminar Series, Saint Kellogg Junior College

The instructor, Dr. Everett Johnstone, strides up to the podium to address the gathering of 450 students. The lecture series on the American environment has proven quite popular with the students, whose interest is no doubt sparked by a markedly deteriorating environment. Prior to speaking, Dr. Johnstone clears his throat, which is something he finds he has to do far too often, thanks to the noxious state of the urban air he has to breathe.

"Good afternoon. I must apologize for my being late as I have been caught up in traffic." Johnstone feels almost embarrassed about the often repeated apology. The overwhelmed roadways seem to cause him to be tardy no matter where he goes. Today's traffic jam, caused by an overturned tanker truck, has required a large public safety response.

"Today I'd like to continue where we left off last week and discuss the role of government, specifically local police departments, in the protection of our environment." Several youthful looking students laugh, one caustically remarking, "The only environment the police want to protect is the inside of Winchell's Donut Shop."

Johnstone hesitates slightly, realizing that there is good reason to be critical of the historic failure of local law enforcement officers to aggressively involve themselves with protection of the public from toxic contamination. He begins again. "In the mid 1980's, local police were given the responsibility to manage hazardous materials spills that happened on our streets. Some agencies undertook that task willingly and did a creditable job. Unfortunately, many other police departments did the bare minimum and delegated their responsibilities whenever possible. You see, local police as a group didn't believe that protection of you and me from toxic contamination was part of their job, particularly in light of what they thought their primary function should be, and that was catching crooks. Honest to goodness, shoot-em-up type crooks."

Johnstone tempers himself. No use getting upset, but still it is hard. He had spent the better part of a year putting together a strategic plan back in 1989 that would have put police into the mainstream of environmental protection. Yet few back then were willing to even listen.

Doctor Johnstone continues, "Contamination of our air and water resources became a serious issue in the 1980's. Many of you may recall hearing about Proposition 65. It was supposed to provide the legal framework to help cleanup our water. Problem was, there just weren't enough enforcement resources out there to get the job done right. For example, let's talk about disposal of toxic wastes."

This is an issue very close to Johnstone's heart. He personally knows several families in his old neighborhood whose children have developed cancers caused by toxic dumping. The children, it seems, have played in a creek that carries within it grossly contaminated waters. The police had been called at one time but they referred the problem to another agency, who referred to it another

agency...Well, it never did get cleaned up.

"Because of liability and public pressures, most of the legal toxic dump sites in our state closed by 1992. Yet there still existed a significant volume of hazardous wastes that needed safe and legal disposal. Rising disposal costs and only spotty enforcement led to increased midnight dumping of toxic wastes. One of the favorite targets of illegal dumpers was in the impoverished inner cities where drums of contaminated waste could be spilled without much notice."

Johnstone pauses as he nods acknowledgement to a student's pending question.

"Hasn't the incidence of environmentally caused health problems increased during the past decade?" Joan Distilrath, a pre-med student asks.

"It sure has. Medical science has been able to link many health disorders to common environmental contaminants that we previously only speculated posed risks to people. Perhaps had this direct medical evidence been available sooner, police would have more readily enforced environmental protection laws. It's only now, after continuing environmental damage and personal suffering that the police are getting actively involved with environmental protection concerns," says the good doctor.

The students listen intently as they sit in a modern auditorium that reflects much of the best that technological society can offer. Yet beyond the advanced air filtration system, beyond the auditorium walls, is the real world. A brown, ozone-laden pall hangs over the campus like a sinister cloak -- the inescapable refuse of a profligate society.

Johnstone continues. "When our national economy began the upturn from the recession of the early 90's, industrial output surged, people went back to work in record numbers, and the political climate changed. The environment became the focus of increased protection efforts. The police, after decades of fighting a

losing war on drugs, finally realized that education, rehabilitation and decriminalization were far more effective and successful approaches. Resources redirected from the narcotics front and a new infusion of funding allowed most departments to develop environmental protection task forces that worked in conjunction with other agencies. What they found were decades of toxic contamination at sites throughout their jurisdictions. It wasn't until the last two years that local police, with appropriate personnel and technological resources, have enforced environmental laws quite well. The tragedy is that they didn't begin sooner, for now their task is far more difficult."

Johnstone pauses, his throat still bothering him. He thinks to himself that we have been very lucky. It is true air and water contamination is worse than it was a decade ago in most places, but no massive environmental catastrophes have occurred. Localized contamination sources have harmed many people and regional air pollution has shortened lives, yet we still have the opportunity to improve that which we have so degraded.

Before Johnstone can continue, however, a solemn voice on the public address system intones, "Due to an anticipated Environmental Protection Air Advisory Alert this afternoon all classes are being dismissed early. Please make every effort to use public transportation systems if you must travel. All persons are advised to stay in-doors whenever possible and to avoid physical exertion."

Dr. Johnstone slowly shakes his head and then whispers in a raspy voice, "Class dismissed."

Scenario Number Two - Hypothetical - "Worst Case".

Dear Diary:

Well, here it is, October 1, 1999. I've been a cop for thirty years, and now it's time to retire. The first twenty years of my career have gone by so fast; it's all such a blur right now. During the last ten years of my police service, we seemed overwhelmed by issues such as drug abuse, street crime, budget limitations, AIDS. We thought that we did the best we could, but looking back it seems like so much went wrong -- so much we could have prepared for and didn't. We sure didn't see the environment as one of our concerns; too bad, because lots of people suffered for it. Anyway I took the time today to go through my files and here's some of what I found.

Seeing the bodies of the children limp upon the ground, that's what hurt me most. It always seems to be the innocent who are the victims of society's ills. It was June 3, 1993, when that tanker truck loaded with toxic liquids overturned in front of the elementary school playground. Forty-seven children, six school teachers, the truck driver and two of our officers were killed that day in the toxic vapor cloud that escaped the leaking tanker. "Methyl-ethyl/bad-stuff," that's what we had always called the proverbial toxic substance that we all knew could kill but for which we didn't prepare.

It turned out that the truck was illegally carrying wastes from a chemical company that didn't want to pay the costs of legal disposal in Nevada. Californians didn't help the matter by closing down the last of their legal hazardous materials waste dumps in 1992. That forced responsible disposers to ship their wastes out of state, increasing the likelihood of transportation accidents. It also gave those who chose to ignore the law greater incentive to illegally dump their wastes into landfills, waterways and sewage systems.

When one considered the sorry state of environmental enforcement efforts,

it was no wonder that people readily violated the law. Federal environmental enforcement programs suffered through the '80s and well into the '90s as successive administrations took a hands-off approach to environmental protection. The federal government passed plenty of environmental legislation but funding and actual application of the law wasn't forthcoming. Delegation to the states and local jurisdictions was the federal method of dealing with mounting national environmental contamination problems.

Of course, the major economic depression of 1992 to 1994 forced political considerations that relegated environmental problems to a less important status. With unemployment levels exceeding 15 percent, the last thing government wanted to do was impede industrial recovery. As long as new jobs were created or old ones preserved, the government was willing to look the other way for anything but the most extreme of environmental violations. The lessons of the 1960's and 1970's, it seemed, weren't well remembered.

One of the most maddening aspects of the failure to control environmental contamination at the local level was exemplified by the catastrophic results of the 1995 earthquake that hit the central Sierra foothill region. Seven point five was what the quake measured on the Richter Scale. Incredibly, the loss of life was limited to 36 people. However, the level of property damage was tremendous. Damage assessment teams found illegally or improperly disposed hazardous materials at literally hundreds of locations. In many places the wastes were exposed by the shifting ground during the violent quake. Water supplies were contaminated, vegetation and wildlife killed, toxic aerosols were released into the atmosphere, and human health was threatened.

The local police response was to assist with evacuation, close access to contaminated sites and treat the matter as a short term public disruption. The police did little to pursue the persons or businesses who caused the

contamination, preferring instead to presume that other agencies would manage investigations and enforcement actions. But, with rare exception, those investigations and enforcement actions never happened.

The police instead continued in their traditional mindset that led them to provide priority services to the investigations of traffic accidents, minor thefts and non-substantive public safety issues. The sincere, yet ineffective, police response to the national drug problem was to attack symptoms rather than problems. Arrests alone could not solve the drug crisis. The unlawful behavior of the person who grew marijuana was far more likely to result in arrest and conviction than was the unlawful behavior of the businessman who carelessly dumped toxic wastes into a river. We just never recognized that pollution was a public threat the police could have addressed. The error wasn't solely ours; our political leaders and the public showed the same lack of foresight as did we.

The evidence all seems so clear now. Environmental contamination hurts people. It can kill them. We really knew years ago that air pollution shortened lives, that toxins in our drinking water caused health problems. With few exceptions, though, we couldn't get prosecutors interested in an environmental case. "We're too busy," "Not enough resources," "It's just not a big enough problem around here," prosecutors would say, and willful polluters would walk free. The rare exception to this was during the bad drought of 1995-1996 when water supplies all over the state were threatened. Then prosecutors got involved, jailed a few polluters, and accepted their public acclaim for being the great protectors of our drinking water. But as soon as the rains returned in 1997 it was back to business as usual.

There was so much we could have done. Concerted efforts by local police departments could have produced an effective, nationwide response to environmental abuse. Now we're catching the heat for years of neglect. The

massive civil actions brought against us and our cities for failing to protect our constituents from known dangers will cost us plenty. And it's already cost us so much. Lives have been needlessly lost, public health jeopardized and property destroyed.

I'm going to close for now because the warning sirens have just sounded. Another air pollution alert today. Cops get plenty of environmental action now as they have to enforce the driving-prohibition laws during Level Five Alerts.

### Scenario Number Three - Normative - "Desired and Attainable"

Date: December 2, 1999

The past decade and a half marks a period in which local law enforcement has undergone many changes in the type and manner of services it provides. Following a series of hazardous materials transportation accidents suffered throughout our nation, California police agencies have been thrust into the role of managing on-highway hazardous materials incidents. The transition to an environmental protection role is seen in its beginnings in the mid 1980's. In 1986, the California electorate, overwhelmingly approving the passage of the Safe Drinking Water and Toxic Enforcement Act, has clearly served notice on government officials that the public wants assertive environmental enforcement.

Resistance to enhanced environmental enforcement programs by some business interests and powerful politicians made itself felt by a brief period of inaction. The political agenda was to focus increased law enforcement efforts on the visible effects of the illicit drug trade and neglect the needs associated with increased environmental protection vigilance. However, in the fall of 1989 a narrowly averted tragedy resulted in major environmental enforcement gains.

At 4:00 a.m. on October 7, 1989, a tanker truck carrying a toxic substance

collided with a passenger car on Interstate 5 in Los Angeles. The tanker ruptured, sending a slow but steady stream of the highly toxic liquid onto the roadway. A rapid and coordinated public safety response to this hazardous materials incident resulted in containment of the toxic material before it entered storm drains leading to the Los Angeles River channel. On-scene investigators from the California Highway Patrol determined that the tanker truck was part of a suspected illegal toxics disposal ring. That information led to the summoning of members of the Los Angeles County Toxics Strike Force.

Toxic Strike Force investigators, representing an array of law enforcement and public safety agencies, linked information garnered from the collision to past incidents. The investigation uncovered seven illegal toxic disposal sites in Los Angeles County previously unknown to public officials. Three of the sites were the source of plumes of toxic underground water that would have contaminated public drinking water supplies. The discovery of the vast extent of the illegal toxic disposal, the organized nature of those conducting the illegal disposal and the direct threat posed to public welfare was highly publicized in the media. A series of investigative reports conducted by the Los Angeles Times highlighted the toxic dangers facing Californians and the creditable job that the Los Angeles County Toxics Strike Force accomplished in this noted case. The series of toxics and enforcement articles won several prestigious journalistic awards and, more importantly, helped place environmental protection on the political front burner.

California took the lead in national environmental activism as the decade of the 90's dawned. Funding for specific environmental enforcement programs came from a variety of sources, including substantial monies collected from penalties assessed against polluters. Prosecution efforts were greatly increased as public and political pressures demanded aggressive government action.

The local police role in such environmental matters also assumed a sophisticated and assertive level. As police activism mounted, it was discovered that toxic contamination was far more widespread than previously thought. Unlawful discharges of contaminants from auto repair shops, small retail outlets and the general population were found to exacerbate water contamination problems. The reduction of non-point source water pollution became a police environmental concern, as did stepped-up enforcement of laws related to vehicle emission control systems. Inoperative or faulty emission control systems were significant contributors to health impairing concentrations of ozone and nitrous oxide in the urban air.

Specialized planning, training and support efforts accompanied police efforts to reduce environmental contamination. The Commission on Peace Officer Standards and Training implemented a two-week formal training program for environmental investigations management. Environmental law enforcement concerns also were taught in a block of basic academy instruction and in advanced officer classes.

All of these efforts combine to greatly mitigate the public safety and environmental effects of the 1994 earthquake that hit the Bakersfield area. Coordinated responses to the multitude of contamination sources loosed by the earthquake minimized subsequent loss of life and property. Training and pre-planning allowed law enforcement officers to identify hazards, manage containment efforts and investigate instances of law violation.

In the mid 90's California was still receiving a steady stream of new residents. Managing environmental quality concerns with a growing and more urban population became increasingly difficult. Waste reduction techniques, however, had taken effect and mitigated the need for expanded hazardous waste dump facilities. The major hazardous waste facilities that operated in 1995 were

state-of-the-art and were well regulated by enforcement personnel.

The 1997/98 drought in California was extensive and caused some agricultural disruption. Yet the quality of drinking water supplies was maintained due to advance planning and protection of the resource base. Enforcement and cleanup activities enhanced surface and ground water quality levels throughout the state. Environmental protection laws were enforced and violators prosecuted.

Even the most recent economic recession of 1998, when unemployment levels reached 10 percent, did not result in a lessening of environmental standards. Almost a decade's worth of assertive enforcement programs were in place and capable of withstanding adverse short term social trends.

Today the enforcement of environmental protection laws is a regular component of a police officer's job. Despite improved technological resources, effective environmental education programs, and aggressive enforcement efforts, environmental contamination still occurs. Police officers conduct a wide range of vehicle inspections that check for the presence and operation of emissions systems and make sure vehicles are using the legally specified fuel. Police work in task forces with federal, state and regional prosecutors, water quality inspectors and health officials to investigate and prosecute violations of toxic disposal laws. Almost every police department having more than 50 officers has full-time staff devoted to environmental protection investigations. Police are assisted by environmentalists and professional volunteers who lend their time and expertise to environmental protection efforts. Neighborhood "Environmental Watch" programs assume a role similar to the one neighborhood crime prevention programs have played over the past 20 years.

The effort to minimize the level of environmental contamination in this state of 31 million is never ending. Though threats to people and property still exist, police and other environmental enforcement agencies have been able to

substantially reduce the level of unlawful contamination of the environment. Thanks to the efforts of more than 50,000 California peace officers, the goal for an environment free of toxic threats is closer to reality.

## OBJECTIVE TWO

### STATEMENT

The intent of the second objective is to develop a strategic plan and management process that will define the role of local police departments in the investigation and enforcement of environmental protection laws during the next decade. This plan will provide a situation assessment, evaluate law enforcement strengths and weaknesses, identify and define policy considerations, and structure the implementation process. The result of this objective is an articulated strategic plan that will take local police departments from the present to a desired future.

### METHODS: IDENTIFICATION

The following methods and techniques have been used to attain the stated objectives of this section.

1. Structured interviews with subject area experts have been conducted.
2. A WOTS-UP/Capability Analysis has been utilized to evaluate the strengths and weaknesses of local police operations. Additionally, the threats and opportunities posed to local police by the study area trends are explored.
3. A group process has been held to brainstorm policy considerations.
4. A modified Policy Delphi has been conducted to select policies for implementation.
5. A mission statement has been articulated for general policing and specific environmental protection needs.

6. The Strategic Assumption Surfacing Technique is employed to identify key stakeholders and evaluate their positions in the policy implementation process.
7. Negotiation strategies have been developed that will facilitate implementation of desired policies.

#### METHODS: IMPLEMENTATION

The first step in achieving this objective is to further evaluate information gained during the background portion of this study. Subject-matter experts have been specifically queried for their assessment of the nature of urban environmental problems and the role local police can play in resolving those problems. The perspectives of these experts provides a clearer picture of the current environmental situation and desired future policy direction. What follows is a situation assessment as provided by a synopsis of expert opinions.

#### Situation Assessment

1. Environmental Law Enforcement Personnel. These persons see their role as being on the frontline of environmental issues. They have a wealth of information that defines the toxic threats found in our environment, and they express a deep sense of commitment to what they perceive as their understaffed, inadequately funded, and insufficiently supported effort. They welcome line police officers into what they clearly see as an underrecognized threat to public safety. Police officers who respond to a variety of environmental hazards, including illegal waste disposal and air pollution, are viewed as necessary elements in the quest for environmental protection. Environmental law

enforcement personnel believe that these enforcement concerns must be philosophically mainstreamed into the police consciousness.

2. **Environmental Law Prosecutors.** Prosecutors at the federal, state and local level state that a multitude of environmental ills are allowed to exist because of inadequate investigatory and enforcement resources. A solid framework of regulatory and statutory law exists to authorize action, yet without adequate forces to develop cases and prosecute them, the laws are often ignored. The local police officer is consistently viewed as an ideal resource to investigate environmental crime due to their assertive investigative skills and response flexibility.

3. **Government Environmental Specialists.** Consistently acknowledging that many environmental problems affect human health, environmental specialists also focus on other aspects of environmental concern such as biotic diversity, landscape aesthetics and long-range climatic variability. Environmental problems are seen as consequential and rapidly growing. Environmental specialists see technological and social adaptations to a more environmentally tolerant lifestyle as essential in order to avoid catastrophic environmental disruption. Police officers are seen as a potentially valuable resource to combat local environmental ills.

4. **Public/Non-Profit Environmental Group Representatives.** Demonstrating a keen technical awareness and deep personal sensitivity to environmental

problems, environmentalists express frustration both with inconsistent government efforts to assertively enforce long-standing environmental law and ineffective future strategies to reduce toxic dangers confronting Americans. They see a need to directly identify environmental degradation as a threat to human health and, hence, a direct public safety issue. They reason that local police are in a critical position to serve as community environmental "ombudsmen." As police are readily available first responders, they are capable of conducting preliminary investigations and mitigating immediate public safety threats. The police can then obtain the assistance of other agencies in managing ultimate resolution of environmental problems. Police officers are viewed as being more assertive in the investigation and enforcement of law than are regulatory or non-police investigating personnel.

#### Trend Assessment

The following five trends have been identified in Objective One as impacting the future role definition of police involvement with environmental protection matters. The specific threats and opportunities that each trend poses for local police are discussed below. Threats are defined as conditions that pose a negative consequence to police resources while opportunities are defined as conditions that can enhance police services.

**Trend One: Increasing Level of Waste Materials.** It is easy to see the threat posed by this trend, as it will further exacerbate the waste-disposal problem we currently experience. Qualitatively and quantitatively, our society produces a level of waste materials for which we are ill-equipped to cope. Many

of our wastes are toxic, and common disposal techniques may place health-impairing substances into the open environment. These worsening disposal problems will impact police resources as officers are called upon to investigate and manage associated public safety concerns.

It is difficult to see a major opportunity from this trend beyond demonstrating the need for assertive enforcement efforts. Some revenue may be generated by environmental protection services fees. Although the entire environmental protection arena is one that will cause a further demand for police services, it may provide the impetus for increased police funding and training.

**Trend Two: Increasing Level of Environmental Crime Prosecution.** As prosecution of environmental crimes becomes more commonplace, the demand for active police investigations will necessarily rise. One of the reasons local law enforcement has been reticent about environmental involvement is lack of aggressive prosecutorial support. As that support materializes, the onus will be on the police to find and direct additional resources into environmental investigation.

This added demand for police services is again an opportunity to garner additional police resources and improve overall public safety protection. Over the long term, enhanced prosecution will result in less environmental degradation, greater public protection from toxic threats, and ultimately a decrease in the need for future police resources. In the short term, increased prosecution may also lead to enhanced police revenue realized from pollution fines.

**Trend Three: Increased Level of Government Funding for and Implementation of Favorable Environmental Programs.** What would seem as welcome news does pose one serious police consideration. As the public and government get more involved with environmental protection and enhancement programs, there is a greater likelihood that the police will be called upon to also become involved.

It appears that this trend is an opportune one. Greater government environmental vigilance and action may ultimately reduce the level of environmental problems confronting local police.

**Trend Four: Increased Level of Law Enforcement Funding.** Funding has been and will continue to be a major concern for law enforcement. The increases in crime and population and the resultant expansion of police services have offset any potential for real funding improvements during the past decade. The increased responsibilities thrust upon law enforcement when investigating environmental crimes will further stretch police budgets.

The belief that funding increases will continue is a fiscal dream that for many government agencies will not come true. Thus, the police are in the somewhat enviable position of seeing overall fiscal growth beyond many other agencies. Police also have the opportunity to generate revenues in a variety of ways, including recovery of potentially substantial penalties associated with many environmental crimes.

**Trend Five: Decreasing Level of Air and Water Quality.** Threats posed by this trend are multiple and of prime importance. It is because of this trend that it is now quite likely that local police will become involved in an

environmental enforcement role. Environmental enforcement is likely to become a direct police concern because decreasing environmental quality means increasing threats to people and property. If this trend continues we can expect a further demand on police resources.

Defining an opportunity from this trend involves circuitous reasoning. The true opportunity lies with the good that can come from police involvement in protecting the public from toxic contamination. Although there are serious demands that come with this opportunity, it is one that will enhance the public and professional standing of local police.

#### Capability/Resources Analysis

A select group of law enforcement personnel has been utilized to identify those law enforcement related areas in which police organizations demonstrate strengths or weaknesses. A capability analysis rating process has been used, focusing on police capabilities and including related environmental enforcement activities. Chart 3 on page 49 depicts the group's findings. Evaluation of the data developed in this process demonstrates a belief in the basic soundness in many levels of police organizations despite the tremendous problems confronting their future. Important functional categories, such as supplies, community support, pay and benefit issues, and enforcement concerns, have been found to be within an acceptable range, although improvements will certainly be welcomed.

Police organizational strengths are defined below.

1. Management Skills - Management/supervisory ranks are well trained, capable and innovative in spite of resource limitations.
2. Police Officer Skills - Police officers are well trained and possess unique investigatory abilities that are well suited to varied tasks.

3. Response Time - The police response time to serious calls for service is significantly below that experienced from most other government agencies. Round-the-clock field staffing is a major attribute.
4. Training - Training opportunities for law enforcement personnel are superb, largely as a result of programs sponsored by the California Commission on Peace Officer Standards and Training (POST).
5. Specialties - Police agencies typically have a variety of assignments that are available to officers and they are able to provide specialized services to the public.
6. Growth Potential - Environmental enforcement opportunities exemplify an emerging policing concern where qualified personnel will encounter an expanding service base and consequent organizational expansion.

Police organizational weaknesses are defined below.

1. Personnel Adequacy - Insufficient staff for current and anticipated policing demands is cause for remedial action.
2. Money - Not enough money is currently available to fund critical service demands to a desirable level.
3. Calls for Service - Public demands for service are expanding faster than is law enforcement's ability to answer them.
4. Technology and Equipment - Resources do not represent state-of-the-art, although recent improvements have been made.
5. Justice System Support - The present justice system is overburdened and inefficient. District attorney offices are understaffed, courts are busy, and jails are full.

CHART 3

Capability Analysis

Strategic Need Area:

General Police Organizational Capabilities  
With Emphasis On Environmental Enforcement Demands

Each item was evaluated on the basis of the following criteria:

- I Superior. Better than anyone else. Beyond present need.
- II Better than average. Suitable performance. No problems.
- III Average. Acceptable. Equal to competition. Not good, not bad.
- IV Problems here. Not as good as it should be. Deteriorating. Must be improved.
- V Real cause for concern. Situation bad. Crisis. Must take action.

The noted ratings reflect the median value established by the rating group.

Category:	I	II	III	IV	V
Personnel Adequacy	_____	_____	_____	X	_____
Technology	_____	_____	_____	X	_____
Equipment	_____	_____	_____	X	_____
Facility	_____	_____	X	_____	_____
Money	_____	_____	_____	X	_____
Calls for Service	_____	_____	_____	X	_____
Response Time	_____	X	_____	_____	_____
Management Skills	_____	X	_____	_____	_____
Police Officer Skills	_____	X	_____	_____	_____
Training	_____	X	_____	_____	_____
Attitudes	_____	_____	X	_____	_____
Image	_____	_____	X	_____	_____
Council Support	_____	_____	X	_____	_____
City Manager Support	_____	_____	X	_____	_____
Specialties	_____	X	_____	_____	_____
Justice System Support	_____	_____	_____	X	_____
Sworn/Non-Sworn Ratio	_____	_____	X	_____	_____
Pay Scale	_____	_____	X	_____	_____
Benefits	_____	_____	X	_____	_____
Turnover	_____	_____	X	_____	_____
Community Support	_____	_____	X	_____	_____
Complaints Received	_____	_____	X	_____	_____
Enforcement Index	_____	_____	X	_____	_____
Supplies	_____	_____	X	_____	_____
Growth Potential	_____	X	_____	_____	_____

## Future Adaptability

The capability analysis process has also involved an evaluation of organizational operating environments. Evaluation of data developed in this process demonstrates the belief that police organizations operate in what is referred to as the "marketing mode." That is to say that police, as a whole, are receptive to and will seek familiar change within most operating environments. Law enforcement entities have been well known for their basic conservative approach to many public safety issues. As a rule they have been required to operate in a fluid social environment in which managed, familiar change has been the most continuous operating principle.

However, an area of concern within the police operating structure is seen as residing with the line personnel category. Line personnel are perceived as tending more toward a "production mode", where adaption only to minor change is the operating premise. It has been conceded that top managerial staff is more attuned to innovation and flexibility than line personnel who feel more comfortable in traditional police roles.

## Situation Summary

Based upon research, it is apparent that environmental degradation and consequent human exposure to toxic contamination is a serious problem. Delegation of many federal environmental protection responsibilities to the state and local level has created a need for an assertive local enforcement presence. Local police are seen as a viable resource to be used to help effect that necessary enforcement presence.

The strategic and transition plans that follow are intended to be applicable, with modification, to all California police departments. The plans,

however, have been drafted using one specific northern California police jurisdiction as a case study. In Objectives Two and Three, the study jurisdiction is referred to as "Vine City." A general description of Vine City follows.

Vine City is located in northern California and is surrounded by agricultural and forested landscapes varying from valleyland to mountains several thousand feet high. The population exceeds 100,000 people inhabiting more than 35 square miles. The city is the primary government-business-service center for a large portion of northern California and it is rapidly growing. Many urban attributes are found here, yet the physical environment is of renowned quality. Typical urban policing problems involving drugs, alcohol, violence and associated public safety concerns exist although the reported crime rate for the city is not considered high.

Quality of life issues are important to this economically successful community. Many persons have relocated here, coming from either the Los Angeles basin or San Francisco bay area. Air quality is very good and the surrounding geographical environs are quite beautiful. An identified federal Superfund toxic cleanup site does exist immediately adjacent to the city and quality of wastewater discharges is a major regional political issue. To date, the city appears to have relatively little known toxic contamination; however, the city is growing, its industrial base is expanding, and past contamination sources are being identified. An active slow-growth political movement appears to be coalescing and local environmental issues are anticipated to be of growing public concern.

## Mission Statement

Based upon analysis of information gathered during the course of background research, project discussions and scenario building, the following mission statements have been developed. The first deals with the generic mission of local law enforcement. The second articulates the specific police mission of environmental protection and enforcement. Both statements reflect the law enforcement missions that evolve between the present and 1999.

### Law Enforcement Mission:

1. To protect life and property.
2. To maintain social order.
3. To prevent crime.
4. To apprehend violators of law and bring them before the justice system.
5. To perform in such manner that serves the community and facilitates respect for the organization.
6. To perform in accordance with codified law and moral expectation.

### Police Environmental Protection Mission:

1. To protect persons, property and the environment from the effects of environmental contamination.
2. To identify violations of environmental law, conduct comprehensive investigations and ensure criminal prosecution of offenders.
3. To enhance public awareness of the dangers of environmental degradation and provide assistance when called upon.
4. To help create a community climate wherein unlawful contamination or

destruction of environmental resources will not be tolerated.

5. To work with allied environmental agencies, criminal justice agencies and other community forces to achieve desired environmental goals.

#### Modified Policy Delphi

A select group of law enforcement personnel and environmental specialists has been asked to provide possible policy suggestions that will lead police environmental enforcement efforts to a desired future. A list of policy suggestions has been developed and the policies have been rated using a policy delphi rating sheet. Evaluating each policy's feasibility and desirability has led to discussions and ultimate selections of those policies thought most relevant to the study. Some combining of policies occurs when overlapping intent exists.

A second round of discussion and evaluation has occurred in which five policies that received high desirability and feasibility ratings have been identified. These policies have been selected for further analysis. They are

1. To develop a police environmental protection program.
2. To implement police and public environmental education programs.
3. To ensure efficiency and effectiveness of the delivery of police services to allow for expanded environmental enforcement activities.
4. To secure additional police revenues through cost recovery, penalty forfeiture, and public donation programs.
5. To work with other government agencies and private interests to protect environmental quality.

## Policy Considerations

The proposed policies selected are not intended to be all-encompassing but rather representative of the concerns and needs requiring action if a meaningful police environmental protection program will be enacted. A more thorough description of the content of each selected policy follows.

**Policy Number One: Environmental Protection Program.** A formal program shall be instituted that defines the primary laws to be enforced; that clearly defines the police staff's responsibilities; that clearly identifies the support agencies that will share or assume enforcement tasks, and that ensures appropriate followup. The police organization must state that environmental protection is important. It must also take concrete steps to train, direct, obtain support equipment for, and hold accountable, those to whom the environmental protection mission has been entrusted. The patrol officer who witnesses oily residue leading from the rear exit of a business to a drainage culvert, the dispatcher who receives a phone call from a citizen reporting unusual odors from a dry cleaning establishment and the detective who notices rusting barrels stacked in a field must all be trained to take appropriate action to deal with such commonly encountered but often mishandled-environmental concerns. Personnel and technical resources must be made available commensurate with program demands.

**Policy Number Two: Police and Public Education Programs.** It is apparent that neither the public nor the police have an extensive knowledge of environmental issues. Many persons engage in environmentally unsound practices

out of ignorance. Education programs are recommended because they provide persons with the knowledge to act in an environmentally sound manner.

Police staff need to become thoroughly acquainted with the legal statutes they will be expected to enforce. Police quite often witness violations of environmental law without actually realizing it. Enhanced training and the provision of support materials will greatly improve police awareness of the public safety threats inherent in environmental contamination. Very specific technical training needs to be provided to those police officers who will be entrusted with primary environmental enforcement duties. Such training will include instruction on techniques associated with the gathering of evidence, special case preparation needs, and interagency coordination.

Much of the public does not know that they face daily environmental contamination risks, nor do they know what actions they can take to assist in the risk minimization process. Placement of used motor oil in residential garbage for routine disposal, for example, is something millions of people do. Yet in California it is a violation of law to do so, as used motor oil contains many toxic substances that pose environmental hazards if not properly handled. A public education campaign will assist in mitigating some environmental hazards, raise community environmental awareness and garner support for police enforcement efforts. An environmental education component of crime prevention and Neighborhood Watch programs will serve police and community needs.

**Policy Number Three: Efficient and Effective Police Services.** Policing agencies are often required to provide services not directly related to protecting public safety. For example, many police departments have officers tow abandoned vehicles and most departments still write reports on non-prosecutable

traffic accidents. Due to political reality and community expectation, many of those services will continue to be provided. As an enhanced environmental protection role will necessitate dedication of police personnel and fiscal resources, it is incumbent upon the police agency to make current delivery of police services efficient and effective. Consideration ought to be given to reducing those police services that result in no public safety gain whenever possible. Role expansion of civilian personnel, alternative reporting techniques and private contracting for non-critical services are among proposals that can free up personnel for an increased police commitment to environmental protection. Additionally, persons having specific professional expertise (e.g. chemists, environmental specialists, toxicologists) are well suited to serve as police citizen volunteers to assist with environmental education and enforcement efforts.

**Policy Number Four: Police Funding Alternatives.** In an era of fiscal conservatism and increasing competition for available monies, it behooves police departments to secure additional funding through non-traditional or innovative ways. These monetary concerns relate not only to environmental enforcement programs but to the entire realm of police services. Cost recovery, penalty forfeiture, and public donation programs are but three techniques that can be instituted in an effort to maximize police funding. For example, pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) penalties of \$2,500 per violation per day may be assessed against violators. Up to 10 percent of all civil and criminal financial penalties collected under those provisions are given to the local law enforcement agency that investigate the violation. Up to another 25 percent of those monies can be provided to

prosecutorial agencies to assist with their efforts. With a growing public concern, voter initiatives to raise taxes may be passed that would fund specific police environmental enforcement programs.

**Policy Number Five: Interagency Cooperation.** The successful resolution of environmental ills will require development of a close working relationship between police and a multitude of other agencies, businesses, and individuals. Police have established working relationships with district attorneys, justice agencies and other criminal law enforcement organizations. However, the specific nature of environmental law enforcement will require that police interact with environmental regulatory and administrative personnel at the local, state and federal level. Many effective enforcement statutes are within the federal prosecutory purview, thus federal and local co-development of criminal cases is a strong likelihood. Additionally, police will be required to work closely with fire investigators, health officers, fish and game biologists, and others with whom the police have only sporadic contact. Police need to recognize that their relative inexperience within the environmental-protection arena necessitates at least an initial reliance upon others for technical resource support.

#### Execution

The next phase of this objective is to develop and implement the strategic plan that will pave the way to the "desired and attainable" future.

#### Stakeholders

A "stakeholder" is defined as a person, persons or organization that may affect or be affected by an issue area under discussion. Analysis of policy

considerations must include a stakeholder analysis so that viability of a final strategy can be determined. The final list of 12 stakeholders has been distilled from a much larger stakeholder list and contains a representative sampling of the more significant stakeholders, including several that seem peripherally involved but can affect the issue. Accordingly, the following list of stakeholders is identified for strategy decision making purposes.

1. The Local Community
2. Elected City Officials
3. City Management Staff
4. Police Officers
5. Criminal Justice Support System
6. State Law Enforcement Component
7. Federal Environmental Support Component
8. News Media
9. Environmentalist Groups
10. Chamber of Commerce
11. Education System Components
12. Labor Unions

#### Assumptions

Once the list of primary stakeholders has been developed, the stakeholders' respective assumptions related to the policies are discussed in the following sections. Chart 4 on Page 64 depicts the relative importance of each stakeholder and its respective policy positions.

1. **The Local Community.** Environmental issues that focus on growth control and water quality have been of recent import to the community. As the community prides itself on a perceived high degree of environmental quality, police efforts to assertively investigate violations of environmental law will presumably be welcome. However, that support can be jeopardized if the community perceives that they are confronted by more immediate threats such as violence and rampant drug abuse. In that case the community will no doubt expect the police to address traditional crime issues before expanding into the environmental protection area.

Uncertainties exist regarding the community's reaction to streamlining police services. If the community perceives that desired police services are being reduced so that environmental tasks can be assumed, there may be adverse public reaction. The community will, however, be supportive of the other noted policies which make good use of available resources and focus funding needs away from general tax revenues.

2. **Elected City Officials.** This group consists of the mayor and city council. These leaders will support policies that are acceptable to both the community at large and influential business interests. If the council is convinced that environmental task assumption by the police can occur with little or no adverse public reaction and minimal additional cost, the council will support environmental task assumption. If, however, the council fears that such an expansion of the police role will cause public controversy, it may oppose the program. If environmental policing tasks are seen as impediments to community economic growth, more vigorous opposition can be anticipated. Yet, as environmental protection concerns become more vocalized at the local level, the

receptivity of local politicians to environmental enforcement efforts will increase.

Elected officials will support the other policies if public resistance is not forthcoming. The streamlining of police services is a sensitive issue that the council will want to closely monitor. Opportunities to enhance revenues without generating public opposition will be welcome. Much of the policy direction from this group will be dependent on input from community and business leaders.

3. **City Management Staff.** This group includes the city manager, assistant city managers, city attorney and department heads. The policy position of these leaders is influenced by elected officials and the general community, thus, they will be unlikely to initiate extremely unpopular policies unless legal mandates so require. Support for all policies other than a specific environmental protection program is presumed. Environmental enforcement programs will be supported if costs are managed effectively and the community doesn't object. Department heads may express some uncertainty about the nature of police involvement into a realm formerly associated primarily with the Fire Department.

4. **Police Officers.** Overall, police officers can be expected to support implementation of the policies. Some, no doubt, will question the expanding role of law enforcement into an arena not traditionally viewed as a direct policing problem. That concern will need to be assertively addressed prior to policy adoption. Additionally, officers will need to be convinced that enhanced environmental protection responsibilities will not result in a consequential

increase in what they currently perceive as a maximized workload. However, police officers will support policies that will allow them to arrest serious criminal offenders.

5. **Criminal Justice Support System.** This group consists of judges, district attorney staff, probation officers, and the sheriff's department, among others. The focal policy concerns of this group will be dependent upon the level of community support for assertive environmental enforcement efforts. Without a strong public constituency, assertive prosecution, and criminal sanctioning will not be a priority. Due to current staffing limitations and traditional criminal prosecutorial demands, the district attorney's office does not take a strong environmental enforcement posture. If appropriate public support is achieved and resources are made available, the policy facets of this plan will be acceptable to this group.

6. **State Law Enforcement Component.** This formidable array of resources includes agencies such as the Office of the Attorney General, Department of Fish and Game, Commission on Peace Officer Standards and Training, Water Quality Control Board, Air Resources Board and the Department of Health Services. These agencies and their local staffs will support implementation of designated policies particularly as those policies assist state agencies in the pursuit of articulated environmental quality goals. POST historically has provided innovative and detailed training in areas of public safety import and will undoubtedly support law enforcement environmental training efforts if a need and demand are demonstrated.

7. **Federal Environmental Support Component.** The federal government has provided much guidance and funding in the area of environmental protection during the past twenty years. California representatives of the EPA, prosecutors with the Department of Justice and investigators with the Department of Interior all have expressed a willingness to offer technical and support services to local agencies undertaking environmental enforcement investigations. Although federal policy during the past eight years has been to delegate many responsibilities to the local level, federal representatives serving the study area presumably will support or react favorably to policy implementation.

8. **News Media.** The news media have the unequalled potential to inform the public and influence decision-making. It is uncertain how the news media will react to police environmental enforcement actions. It is due in part to past negative media attention, however, that law enforcement has become involved in the management of hazardous materials incidents. If local police are supported by representative community interests and an effort is undertaken to fully brief the media about environmental protection programs, media support for policy implementation ought to be attained. Due to the uncertainties that exist whenever the news media report on policing programs, however, long term media support for the developed policies is not certain.

9. **Environmental Groups.** This coalition of groups with varying philosophies is united by the shared goal of environmental protection and enhancement. Environmental interests have many eloquent representatives and the influence they can exert is often considerable. They will support policy

implementation and would be a most valuable community resource.

10. **Chamber of Commerce.** A multitude of business and professional interests comprise the membership of this promotional and lobbying organization. Chambers typically represent vested business concerns and promote activities that benefit them. If the chamber views a police environmental enforcement program as anti-business, the Chamber of Commerce will actively oppose implementation. The chamber has the ability to mobilize the business community as a political coalition, so its position must be considered. Because businesses often receive special police services, they will be adverse to policy directives that will reduce preferential police service availability. Funding alternatives will be generally supported although a possible fear of the civil penalty provisions of law may concern some businesses.

11: **Educational System.** Educational institutions and educators presumably will support policy implementation and can assist with its educational components. As long as police services to the schools are not reduced, educators and parents groups can be allied with the effort to engage in assertive environmental protection programs.

12. **Labor Unions.** Unions have financial and political resources that bear reckoning. If union interests see assertive policing on the environmental front as threatening the economic vitality of their membership, policy opposition will be forthcoming. If such programs are viewed as protecting labor membership from the dangers of environmental contamination, support will be more likely.

CHART 4

Stakeholder Assumptions

STAKEHOLDER	IMPORTANCE	POLICY				
		1	2	3	4	5
1. The Community	Very Important	+	+	?	+	+
2. Elected City Officials	Very Important	?	+	?	+	+
3. City Management Staff	Very Important	?	+	+	+	+
4. Police Officers	Very Important	+	+	+	+	+
5. Local Criminal Justice Support System	Very Important	?	+	+	+	+
6. State Law Enforcement Component	Important	+	+	+	+	+
7. Federal Environmental Support Component	Important	+	+	+	+	+
8. News Media	Could Be Important	?	+	?	?	+
9. Environmentalist Groups	Could Be Important	+	+	+	+	+
10. Chamber of Commerce	Snaildarter *	-	+	-	?	+
11. Educational System	Could Be Important	+	+	+	+	+
12. Labor Unions	Snaildarter *	?	+	+	+	+

- Policy 1 Environmental Protection Program
- Policy 2 Police/Public Education Program
- Policy 3 Effective/Efficient Police Services
- Policy 4 Police Funding Alternatives
- Policy 5 Interagency Cooperation

+ = Will Support Policy

- = Will Oppose Policy

? = Uncertainty

\* = "Snaildarter" - Described as an entity whose relevance to the issue is not direct but could impact the implementation process.

## Negotiation and Implementation Strategies

Evaluation of identified stakeholder assumptions demonstrates divergent positions on the policy proposals. In order to implement a strategic plan that will result in successful adoption of an environmental law enforcement program, it is necessary to articulate negotiation and implementation strategies. Arrival at the desired future state is dependent upon this implementation process.

**Policy Number One: Environmental Protection Program.** This policy is the one that encounters the most uncertainty from stakeholder groups. It places police in a new task arena. It adds to already heavy service-level demands. It will cost money and it will result in enforcement actions. In spite of the uncertainty that arises from the previous factors, police environmental protection actions will make for a safer community and, in the long term, save the community money that otherwise will be spent for toxic cleanup, and, possibly, litigation.

Negotiation strategies designed to gain support for this policy ought to make every effort to accommodate the reasonable worries of stakeholder groups. During the development of a police environmental enforcement program, stakeholder representatives ought to be brought into the planning process. A rational presentation highlighting community environmental risk factors coupled with consideration for reasonable policing alternatives will facilitate implementation. Emphasis must be placed upon defining the specific attributes police have that makes them an important addition to the environmental protection arena.

As the Chamber of Commerce is identified as the only stakeholder to take a definitive position against program enactment, a special effort ought to be taken

to manage and alleviate fears of the business community. A strategy that aims for a mutual gain is recommended. The business community must be given fair warning of proposed enforcement efforts. Those efforts must be sold as positive actions that will ultimately improve the quality of life and community image. This approach will help ensure that a reliable and coordinated police environmental protection effort will occur.

As a police department undertakes this new task, organizational support and communication will be critical. It is incumbent upon the chief of police and department administration to clearly articulate that environmental protection issues are direct police concerns that should involve all levels of the organization. A process of mainstreaming the philosophy of environmental protection must occur within the organization due to the seemingly nontraditional nature of this task. Crimes that harm the environment must be viewed as serious crimes that constitute direct dangers to people and property.

An environmental protection program must have clearly defined goals that can be attained. The major policing emphasis will be upon air and water quality, disposal of contaminants, transportation of toxic materials and associated environmental concerns. An identified person needs to be assigned the task of coordinating department environmental enforcement efforts, and of ensuring that all levels of the organization become involved in the process.

The implementation of an active environmental protection program is predicated upon the implementation of Policy Numbers Two through Five. Adoption of these policies will remedy the weaknesses identified in the capability/resources analysis. These policies are needed to provide the support that implementation of a formal environmental protection program would require. Thus, implementation time for Policy Number One is projected as occurring within 18 months.

Policy Number Two: Police/Public Education Program. This policy encounters no obvious opposition from any of the stakeholder groups. Education programs are basic to understanding the nature of problems that we confront and response to them has always been positive. Negotiation needs attendant to this policy do not appear consequential as the policy does not pose immediate threats to any of the stakeholders.

This policy will assist in building support for, and executing, Policy Number One. Without an adequate knowledge of environmental problems and laws, enforcement efforts will be stymied. Specific training programs for police personnel can be obtained through other government agencies. The federal government offers local law enforcement several environmental enforcement programs through its Federal Law Enforcement Training Center in Georgia. Many other federal, state and local environmental agencies will provide training assistance if so requested.

The Commission on Peace Officer Standards and Training also has a series of courses that trains responders to hazardous materials incidents. With POST assistance, new environmental enforcement training programs could be developed.

Environmental organizations such as the National Audubon Society, Natural Resources Defense Council and National Wildlife Federation have the ability to provide resources that could be used for both police and public education programs. The value of the local school systems ought not be overlooked in this policy as they offer much in the way of support needed to attain educational goals.

Police-sponsored crime prevention and Neighborhood Watch programs can be utilized to disseminate valuable environmental information to the community. The formidable resources of the news media also ought to be used to inform the public of police-community environmental protection concerns.

Implementation time of the initial education efforts should occur within six months and be ongoing.

**Policy Number Three: Efficient and Effective Police Services.** This is another of the policies that encounters some opposition and uncertainty. People are all for the concept of efficient and meaningful police services, yet a commonly accepted definition of "efficient and meaningful" is not available. For example, the assignment of police officers to foot patrol duties in a pleasant downtown business district is viewed as a provision of critically needed police services by members of the business community. Police officers, however, may see that assignment as an ineffective use of resources that could otherwise address specific crime problems elsewhere in the community.

In order to properly manage this policy, it is critical that an appraisal be made of existing police services. Services deemed ineffective or inefficient need to be changed if allowed by law, labor contracts, and the political climate. Every effort must be made to use civilian and volunteer resources whenever possible. This will reduce the workload on sworn officers and provide services at reduced cost.

A negotiation strategy that attempts to avoid win-lose situations is most desirable. Some policing inefficiencies will remain, due to the need to accommodate powerful community interests. Ensuring that police services are efficient and effective whenever possible is particularly important as it can reduce the level of unnecessary police services and reduce costs. This will allow the police department an opportunity to accept its new environmental responsibilities without major organizational disruption. Implementation of this policy should be within twelve months.

**Policy Number Four: Police Funding Alternatives.** As this policy calls for developing alternative police funding sources, it impacts people and interests who use police services. Like Policy Number Three, the people who are adversely impacted by policy implementation will be most vocal. Segments of the business community, as well as individuals, will be required to pay for some services that previously have been subsidized by general tax revenues. Thus it is critical that service fees be sound and reasonable.

All city services must be examined for the potential to recover costs associated with the provision of discretionary services. Although this is a trend that is becoming more pronounced in California, the community needs to be apprised of impending change and be given an opportunity for input. City leaders, as well as the police, must be aware of and support these efforts.

Revenue generation programs that rely on penalty recoveries are less politically volatile because they are paid for by persons or businesses that have violated the law. Thus, negotiation strategies need to be less flexible and more inclined towards win-lose situations.

This policy can provide funding that will be needed to fully implement Policy Number One without additional fiscal support from general city revenues. Staff efforts must begin to identify and implement those funding programs that will have a substantive result. This policy ought to be implemented within six months and be ongoing.

**Policy Number Five: Interagency Cooperation.** This policy has support from all stakeholder groups as it implies efficient utilization of government resources. Spinoff concerns exist, however, because the desired interagency cooperation will require an increased or redirected workload in all involved

agencies. Specific preplanning efforts that are responsive to each agency's needs must be accomplished as the same constraints that the police encounter may be impediments to allied agencies.

The police department needs to meet with all agencies that will be involved with environmental protection efforts, both individually and collectively. Identification of the needs of each agency in light of a specific police environmental program must be made. For example, the police must work with the district attorney to secure additional prosecutorial staff. Planning efforts can then be directed towards implementing Policy Number One. This process needs to start within six months and to be ongoing.

#### Summary

Evaluating the five policies suggested for consideration indicates all are viable. In order to meet the growing demand on local law enforcement to enter the environmental protection arena, all of the policies are deemed integral. Each can be implemented at the local level and with minimal initial funding needs. Although not all policies have the same implementation time, they are geared toward enactment of a formal police environmental protection program within 18 months.

Enactment and subsequent administration of these policies will require planning. Most of the California law enforcement community operates in what is referred to as the periodic planning mode. This is usually found in an operating environment in which changes occur on a regular basis with a fairly constant degree of predictability.

Social and environmental concerns associated with toxic contamination have been such that emerging policing needs are fairly clear. A continuing planning

system needs to be implemented to ensure the viability and success of the proposed policies. A system wherein law enforcement personnel assess policy progress at least semi-annually is suggested. Changes in strategies would be evaluated and, if desired, be implemented during the ensuing six month period.

### OBJECTIVE THREE

#### STATEMENT

The third objective of this study is to facilitate the effective and efficient implementation of the strategic plan developed in Objective Two. This transition process is geared toward achieving the desired future state while ensuring that the needs of stakeholders are properly managed. Problem-free and surprise-free implementation of desired policies is a primary goal of Objective Three.

#### METHODS: IDENTIFICATION

The following methods and techniques were used to attain the stated objective of this section.

1. A map of the change process has been defined for the specific needs of the implementing jurisdiction.
2. Critical mass identification and charting have been conducted to determine those stakeholders needed for policy implementation.
3. Commitment planning has been evaluated to project the necessary commitment from critical mass members.
4. Responsibility charting is identified as a management control technique to ensure task completion.
5. Team building and value clarification processes are considered that would assist appropriate follow through efforts.

## METHODS: IMPLEMENTATION

The first step in this objective is to define the context within which the transition process would occur. While the strategies identified in the previous objective have application to police departments throughout the state, one specific jurisdiction serves as the reference point for planning efforts. It is this specific police jurisdiction upon which transition management concerns are focused. This jurisdiction is "Vine City" as previously described on page 51 of this study.

### Change Process

As previously noted, the purpose of the transition management process is to address the issues raised in Objective One by facilitating implementation of the policies contained in Objective Two. The transition plan will ensure that appropriate structure and accountability is afforded to enact desired ends. This process is similar to a map in that it illustrates how to get from one point to another. It will identify stakeholder positions, responsibilities and organizational transition needs. Use of this "map" is vital to the smooth implementation of the proposed strategic plan in Vine City. The change process drives the implementation of the strategic plan.

### Critical Mass Identification

The critical mass consists of those stakeholders whose support is needed to gain successful implementation of the strategic plan. The intent of analyzing the critical mass is to determine those actions necessary to change or influence positions held by the critical stakeholders. The following identifies the Vine

City critical mass and their strategy positions.

1. **The Local Community.** A definite member of the critical mass, the local community is the ultimate benefactor of environmental protection programs initiated by the police department. As previously mentioned, Vine City currently enjoys what is perceived as a high level of environmental quality. An increasing level of concern, however, is being voiced about rapid growth and the potential for declining environmental quality. Currently the community holds a "let change happen" position. With proper planning and education, the community as represented by various neighborhood and interest groups can actually help changes occur by making a pro-plan position known to the mayor, city council and city management staff. Environmentalist groups can spearhead the effort to mobilize community support.

2. **Elected City Officials.** This group, consisting of the mayor and city council, is also a member of the critical mass. These elected officials govern the provision of city services through policy directives and funding control. Because of continuing public concern over the management of the wastewater treatment and disposal system, the council is sensitive to volatile environmental issues.

Based upon current political factors, it is not likely that this group will actively "make change happen." As with implementation of many progressive policing programs, they will let change occur, which is the minimum position needed to accomplish strategic goals. If appropriate citizen support is mobilized, the council can move to the desired "help change happen" position.

3. City Management Staff. This critical mass component is considered to be the most important stakeholder group with reference to strategic plan implementation. The city manager and chief of police are the two actors having most influence on the proposed plan. Others involved in the administration of city services are also within this critical mass group. The chief of police has the capacity to use the resources of the police department to effect most of the changes necessary to implement the strategic plan. The chief will only do so, however, with the support of the city manager and cooperation of other city departments.

The current position of "let change happen" needs to be advanced to a position of "make change happen." The chief, with his administrative and support staff, needs to accomplish the planning efforts that precede policy implementation. Identification of community environmental risk factors, presentation of a strategic plan and effective community support will move this critical mass group to a "make change happen" commitment. Consistent with that commitment is the need to obtain the support necessary to secure the additional resources needed for strategic plan adoption. These efforts will be managed by police department staff under the direction of the chief of police.

4. Police Officers. Although this critical mass stakeholder group consists of sworn officers, it must also include the police department support staff who accomplish vital police functions. Police officers and support staff are the persons to whom the major part of the environmental protection mission will fall. They will be supportive of new policing programs provided they are given adequate resources and are not unduly burdened with tasks. They are in a position to "help change happen" and will do so if the police administration

ensures appropriate support needs. The police administration must convince police officers that environmental enforcement efforts will be recognized as important career undertakings.

### **Commitment Planning**

The commitment charting and planning process entails listing stakeholders on a chart. Chart 5 on page 78 illustrates the current level of strategic plan support from each stakeholder and the desired level of their support. This charting procedure allows those persons responsible for managing the transition process to know where each stakeholder stands with respect to the proposed change. Transition managers can then focus their energies on those stakeholders whose commitment level they wish to change. Negotiation strategies, as previously described, may then be used in the transition process.

### **Commitment Strategies**

Elected city officials, city management staff and members of the local criminal justice support system comprise the Vine City stakeholders who need to be the focus of further transition targeting. A brief analysis of commitment strategy follows.

1. **Elected City Officials.** The mayor and city council need to be fully apprised of the nature of environmental threats to the community, the potential for criminal and civil ramifications of environmental contamination, and strategic plan implementation opportunities. This process is best implemented under the direction of the city manager, who facilitates information flow to the council. With an understanding of environmental issues, this influential group

will be in better position to support the implementation of an effective environmental enforcement program. Advance education efforts will provide the council with the opportunity to respond to any issues attendant to ultimate plan adoption.

2. **City Management Staff.** The city manager and his staff are key actors who can shape city policy and influence council members. It is incumbent upon the transition manager, who will be a police administrator under the direction of the chief of police, to work with the city manager's office to obtain the support needed for plan enactment. Presentation of sound planning strategies focusing on community health issues will assist manager commitment. As cost factors are a critical concern of the manager's office, the transition commitment strategy needs to include specific fiscal data, particularly that which demonstrates revenue enhancement opportunities for Vine City.

3. **Criminal Justice Support System.** The most relevant members of this group are the district attorney's office and local judges. Without the direct assistance of the district attorney's office, many of the proposed enforcement efforts will not result in a desired criminal disposition. The district attorney's staff currently faces a substantial criminal case load, thus any new prosecutorial demands will initially have an adverse impact on that staff.

Efforts must be made to increase the district attorney's resources or to reduce the level of non-essential matters referred to them. The district attorney's office has the potential to reap substantive revenue gains from environmental prosecutions, which is a benefit that should be highlighted.

CHART 5

Commitment Planning

STAKEHOLDERS	STRATEGIC PLAN COMMITMENT NEEDS			
	BLOCK IT	LET HAPPEN	HELP HAPPEN	MAKE HAPPEN
The Community *		⊗		
Elected City Officials *		○ →	⊗	
City Management Staff *		○ →		⊗
Police Officers *			⊗	
Criminal Justice System		○ →	⊗	
State Law Enforcement			⊗	
Federal Environmental Support			⊗	
News Media		⊗		
Environmental Groups			⊗	
Chamber of Commerce	○ <sub>S</sub> →	⊗		
Educational System			⊗	
Labor Unions		⊗ <sub>S</sub>		

Symbols

- O = Current Position
- X = Position Needed to Effect Change
- = Commitment Movement Flow
- \* = Members of the Critical Mass
- S = Snaildarters

Commitment is needed from the judges who will ultimately hear environmental matters. An educational program designed to give them an understanding of environmental law and the threats to life and property posed by environmental degradation must be implemented.

### Transitioning

The ultimate goal of the strategic plan is to make our communities safer by means of the assertive enforcement of environmental laws. The management structure that facilitates the implementation of the strategic plan must have the power and resources to affect the desired change. Effective leadership that is respected across ideological/philosophical spectrums and that can obtain the trust of individuals within both existing and future organizational structures is a must in the transition management structure. Lastly, strong communication skills that do not depend on sheer force will greatly benefit the transitioning process.

A variety of techniques exist to facilitate the transition process. Each technique is aided when those within the management structure and affected organizations have a clear picture of the desired future state and are committed to its attainment. Without a shared vision or commonality of purpose, the transition process may be compromised. The following are among the techniques that will be used in the transition management process.

## Responsibility Charting

Responsibility charting is a technique that involves the identification and clarification of role relationships within the transition management team. Consensus regarding the assignment of specific task responsibilities allows involved individuals to feel a sense of "buy-in" and leads to greater workload equitability. The end result of this procedure is to further a sense of team work in which an understanding and appreciation for other members can be achieved.

Responsibility charting can be helpful in Vine City because of the various organizations involved in the strategic plan. The critical mass evaluation identified city management staff as being the most influential in the strategic plan implementation process, while major components of the plan will be accomplished by members of the police department. In order to determine task responsibilities, role clarification must first be addressed. Some of the individual police responsibilities that will be assumed during transition include the following:

1. **Vine City Chief of Police.** The chief, as department head, is ultimately responsible for ensuring organizational effectiveness and accountability. The strategic plan does not move forward without his approval and support. He will play an active role in the plan's implementation through contact with political and government leaders. Although many decisions will be required of the chief, he will delegate transition manager responsibilities to one of his division commanders.

2. **Transition Manager.** The commander of the Vine City Police Department's Field Services Division will serve as transition manager. It is his division

that currently has responsibility for all field policing activities. His role is such that he routinely works with city and allied agency administrators, and he has the delegated authority to effect change. The transition manager will oversee and direct the implementation of the strategic plan as he has the knowledge and resources to accomplish the task.

3. **Environmental Enforcement Coordinator.** The lieutenant who manages the Operational Support Unit will be responsible for preparing a specific environmental enforcement program. The environmental enforcement program would spell out department responsibilities and methods of accomplishment. This lieutenant currently manages the department's Hazardous Materials Incident Program and has special task-specific knowledge that would assist with planning efforts. He regularly interacts with other city administrative and management personnel who will affect or be affected by the strategic plan. He will be in good position to include within the planning process those in city government, particularly members of the Fire and Community Development Departments.

This lieutenant will also be assigned the role of liaison with allied agencies. The strategic plan requires involvement from a variety of agencies thus it is critical to manage attendant needs. The Vine City chief of police attends the regular meetings of the County Law Enforcement Chiefs Association, which includes the police chiefs, the county sheriff, district attorney, probation department chief, etc. It is within this local law enforcement forum that the strategic plan and the interagency liaison can be introduced. The lieutenant will also be responsible for developing initial contact with allied federal, state, and local agencies which will be involved with the police environmental enforcement program.

4. **Service and Funding Analyst.** The Administrative Support Unit lieutenant who is assigned to coordinate special projects, will lead efforts to identify police services that could be streamlined or abolished. That person will also be responsible for proposing cost recovery or alternative funding opportunities to offset costs associated with strategic plan implementation. As the special projects role has previously included planning efforts dealing with service and funding issues, it is suited to the new objective.

5. **Training and Education.** The police supervisor who heads the department's Training and Crime Prevention Unit will manage identified training and education programs. The supervisor will work with POST representatives, local law enforcement academy providers and environmental experts in drafting a viable environmental protection training plan. Initial efforts will focus on providing police officers with the basic knowledge they need to investigate law violations. This can be accomplished through the annual advanced officer training session. Specialized training needs will also be addressed. The supervisor also manages crime prevention/Neighborhood Watch programs, to which an environmental protection component will be added.

CHART 6

Responsibility Chart

Policy Number Two - Police Environmental Education Program

DECISIONS/ TASKS	ACTORS					
	Chief of Police	Transition Manager	Environ- mental Enforcement Program Manager	Training Manager	POST Consultant	Local Police Academy
Manages Project	A	R	S	S	S	S
Develops Training Plan	I	I	A	R	S	S
Obtains Course Presenters	I	I	I	A	S	R
Obtains POST Approval	I	I	I	R	A	S
Selects Dates and Presents Course	I	I	A	S	S	R

Symbols

- R = Responsibility for Task
- A= Approval Required
- S= Support Given
- I= Informed of Progress

Chart Application. One of the strategic policies that lends itself to responsibility charting deals with police training programs. Chart 6 demonstrates a practical application of this process. It depicts the major actors involved in the implementation of a police environmental education program as well as their respective responsibilities.

## **Teambuilding**

The teambuilding process is a tool in which persons working toward a common goal are given the opportunity to discuss the uncertainties, anxieties and conflicts inherent to a transition process. Open, honest, direct and responsive communication must be a priority. The teambuilding process can assist with the appropriate management of communication and conflict resolution issues.

Sharing a vision or ensuring commonality of purpose is perhaps the most important role that teambuilding can play. Often, a group of persons to whom a task has been entrusted do not share a common understanding of their mission. Without mutual understanding among participants, the goal achievement process is jeopardized.

## **Feedback**

Consistent with the needs addressed in the teambuilding process, the opportunity to provide and receive constructive feedback is important to project success. Members of the transition team need to solicit feedback from each other, from stakeholders and from other interests involved in the implementation process. Acceptance and responsiveness to feedback assists not only planning issues, but speaks to organizational well-being concerns. Thus, a system ensuring feedback should be established during the transition period.

## **Task Force**

The implementation of defined strategies will affect and involve all stakeholders. Although the primary mission rests with the Police Department, a significant number of other persons will be called upon to provide expertise and

input. A series of small task force groups may be appropriate to solicit the information and support that effective plan implementation requires.

The respective transition team managers may invite participation from all levels of affected organizations so as to ensure that all viewpoints are evaluated. For example, the Operational Support Unit lieutenant will want to include police officers, police managers, criminal justice representatives, business persons and representatives of a cross section of other affected city departments in his enforcement program planning efforts. This procedure will enhance cooperation and gain commitment from involved parties. It will also produce a more effective program.

#### **Summary**

The transition plan is intended to assist with the effective implementation of the policies developed in Objective Two. If done right, transition management can greatly mitigate the organizational disruption that can occur during times of change. Consideration and accommodation of the needs that arise from the stresses and demands of change greatly enhance the opportunity for strategic success.

## CONCLUSION

### The Future

The purpose of this study is to explore the role of local police departments in the investigation and enforcement of environmental protection laws during the next decade. To that end, Objective One has developed a future scenario that is deemed "desired and attainable" if appropriate policies are enacted.

The "desired and attainable" future involves local police efforts to assertively investigate and take action upon substantive violations of environmental law. A coordinated law enforcement program to enforce environmental protection laws is found to be critical in light of a resource intensive and technologically oriented population that is rapidly growing. Local police departments of the late 1990's are seen as having staff that are specially trained and equipped to handle multi-faceted environmental enforcement and protection programs. Their efforts are supported by the community who comes to view environmental enforcement as a necessary public safety function. Accomplishments by police are seen as reducing many toxic threats confronting people and property that otherwise might not have been appropriately addressed.

### The Strategic Plan

The result of Objective Two is development of a strategic plan that will assist reaching the "desired and attainable" future state. The plan evaluates law enforcement capabilities, policy concerns, stakeholder needs and implementation strategies. The five policies selected for adoption are

1. To develop a police environmental protection program.
2. To implement police and public environmental education programs.
3. To ensure efficiency and effectiveness of the delivery of police services to allow for expanded environmental enforcement activities.
4. To secure additional police revenues through cost recovery, penalty forfeiture and public donation programs.
5. To work with other government agencies and private interests to protect environmental quality.

#### The Transition Plan

The result of Objective Three is the development of a transition plan that will effectively implement the policies identified in Objective Two. The transition plan provides structure to the implementation process and suggests techniques to mitigate the uncertainties that accompany change. Critical mass analysis, commitment planning, responsibility charting and enhanced communication abilities are each highlighted as essential components of the transition plan.

Although the transition plan described in this study is designed with one specific locale in mind, with selected revisions it has statewide applicability.

#### Concluding Remarks

During the course of this study, many persons involved in the provision of local law enforcement services have been asked about the role that they think police ought to assume in the enforcement of environmental protection laws. The majority of people initially have responded that such enforcement concerns are

not basic police responsibilities. Yet, when an ensuing discussion identifies decreasing environmental quality trends that can be clearly related to personal experience, an attitudinal change often results. A begrudging admission has been voiced that local police ought to play an assertive environmental enforcement role. Although most law enforcement personnel feel more attuned to the policing needs associated with crimes such as murder, rape, robbery and drug use, they see an emerging police obligation to enforce environmental laws. They reason that if unabated violations of environmental law are allowed to occur, the physical well being of entire communities could be put at risk. There is an emerging consensus that the person who unlawfully dumps toxic materials into the environment is no less a dangerous criminal than the person who chooses to commit an armed robbery.

A police environmental protection role will create several opportunities. The foremost opportunity will be to increase the level of local environmental safety. Toxic threats exist in all of our communities due to the very nature of materials we need to support our society. Threats resulting from violations of codified law and that pose immediate safety risks to persons and property must be effectively addressed. Minimizing those potential and real dangers is a legitimate use of police resources.

A secondary opportunity arising from a police environmental role is increased professional standing and recognition. Almost all environmental experts, prosecutors, community leaders and educators questioned during this study express a great deal of respect for police officers. Investigative know-how, intuitiveness, assertiveness and integrity are traits and skills that police officers are acknowledged as possessing. As environmental quality concerns are going to be the focus of the public's attention during coming years it seems logical for police to put their many assets and abilities to work in an

area that would be appreciated and supported by the community.

This study has begun with a primary question and a series of sub-questions. Each of those questions has been addressed during the course of the project. The answers to many of them requires the formulation of policies and strategies that comprise the greater portion of Objective Two and Three.

On the basis of the response to each of the questions posed, it appears evident that the public safety role of local police is expanding and changing. The enhanced expectations of local communities for provision of a growing variety of policing services will mean that police will continue to experience new task involvement. Increased local control over a wide range of government services is a trend that will mean that local police agencies will find themselves asserting their powers in areas relatively new to them. As part of this trend, local police have the responsibility to evaluate the changing nature of future community public safety needs.

Regardless of the level of new tasks that are assumed, it is well recognized that the police still face formidable traditional foes that include drug and alcohol induced crime. Clearly, those problems must continue to command consequential police attention and resources. Yet we cannot afford to be complacent about threats to our environment, for not only is the welfare of current generations affected, but so is that of future generations. Local police departments must do their part to meet the challenge of protecting local communities from the dangers of toxic contamination and environmental degradation. This challenge will be met by enactment of an assertive police environmental protection enforcement program that will be developed and implemented during the next decade.

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APPENDIX A: THE NOMINAL GROUP PROCESS

NOMINAL GROUP PARTICIPANTS

1. Charles Behlmer, Hewlett-Packard Corporation
2. Rachael Carter, League of Women Voters
3. Chip Demarest, United States Environmental Protection Agency
4. George Ellman, Sonoma County Audubon Society
5. Brien Farrell, Santa Rosa City Attorney's Office
6. Eileen Kortas, Santa Rosa Fire Department
7. Michael Lambert, Santa Rosa Police Department
8. Jeff Lewin, Sonoma County Department of Public Health
9. Randi Rossman, Santa Rosa Press Democrat Newspaper
10. Ron Suess, Pacific Gas and Electric Company
11. Robert Tancreto, North Coast Regional Water Quality Control Board

INITIAL TREND MONITORING SUGGESTIONS

1. Population growth
2. Number of endangered and threatened species
3. Suburban growth
4. Refuse/Waste generation
5. Cost of legal disposal of hazardous wastes
6. Overall crime rates
7. Public concern for environmental quality/protection
8. Government expenditures for environmental protection
9. Quality of environmental resources - air/water/land/wildlife
10. Chemical compounds in use
11. Prosecution of environmental crimes
12. State of the economy - GNP
13. Number of environmental protection laws
14. Human health problems caused by environmental contaminants
15. Level of government involvement in environmental protection
16. Citizen/Group initiated environmental litigation
17. Price of oil
18. Assertion of citizen rights via initiative process (e.g. Prop. 65)
19. Growth control initiatives
20. Amount of illegal disposal of environmental contaminants
21. Public safety program funding
22. Environmental group membership
23. Industrial components (i.e. "Smoke-Stack" Industry vs. "Service" Industry)
24. Media focus on environmental issues

25. Refuse incineration projects
26. Recycling of materials
28. Police involvement in "non-traditional" areas
29. Number of vehicles
30. Stratospheric ozone depletion
31. Delegation of environmental monitoring and enforcement from federal to state/local level
32. Unlawful commercial utilization and sale of wildlife resources

TREND STATEMENT		LEVEL OF THE TREND (Ratio: Today = 100)			
		5 Years Ago	Today	"Will be" in 10 Years	"Should be" in 10 Years
			100		
			100		
			100		
			100		
			100		
			100		

### INITIAL EVENT SUGGESTIONS

1. Transportation accident involving spillage of a hazardous substance killing more than 50 people.
2. U.S. unemployment level exceeds 15%.
3. Smog Alert brings L.A. Basin to a halt; 3,000 persons succumb to pollution induced effect of air contaminants during one week period.
4. 90% of California sea otter population dies as a consequence of an off-shore oil spill.
5. Major petroleum company executive sentenced to prison for corporate environmental crime.
6. Two year California drought cuts runoff to 40% of normal.
7. Member of a radical environmental group assassinates a major political leader.
8. Statewide environmental quality initiative mandating significant air/water improvements passes.
9. Civil judgment of \$100 million given to health impaired users of contaminated municipal water supply system.
10. Proposition 65 overturned by California State Supreme Court.
11. Seven Richter magnitude earthquake in California.
12. Closure of last class one hazardous dump in California.
13. San Francisco Bay closed to all fishing as a result of toxic contamination.
14. Diablo Canyon nuclear reactor mishap kills 50 workers.
15. Vehicle emission control device that reduces pollutants by 80% is invented.

APPENDIX B: THE POLICY PROCESS

POLICY DELPHI PARTICIPANTS

1. Robert Anderson, Santa Rosa Police Department
2. Chip Demarest, United States Environmental Protection Agency
3. Eileen Kortas, Santa Rosa Fire Department
4. James Kuskie, Santa Rosa Police Department
5. Michael Lambert, Santa Rosa Police Department
6. Leroy Marsh, Santa Rosa Police Department
7. Donald McDonald, El Dorado County Sheriff's Department
8. Robert Tancreto, North Coast Regional Water Quality Control Board
9. Richard Wheeler, Private Businessman

POLICY DELPHI RATING SHEET

Each policy alternative was evaluated and scored using the following feasibility/desirability index. The policy alternatives with the highest scores were used in the Strategic Plan.

Alternative					
Feasibility	DF	PF	PI	DI	SCORE=
	(3)	(2)	(1)	(0)	
Desirability	VD	D	U	VU	
	(3)	(2)	(1)	(0)	

---

Feasibility:	
Definitely Feasible	no hindrance to implementation no R&D required no political roadblocks acceptable to the public
Possibly Feasible	indication this is implementable some R&D still required further consideration to be given to political or public reaction
Possibly Infeasible	some indication unworkable significant unanswered questions
Definitely Infeasible	all indications are negative unworkable cannot be implemented

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Desirability:	
Very Desirable	will have positive effect and little or no negative effect extremely beneficial justifiable on its own merits
Desirable	will have positive effect, negative effects minor beneficial justifiable as a by-product or in conjunction with other items
Undesirable	will have negative effect harmful may be justified only as a by-product of a very desirable item
Very Undesirable	will have a major negative effect extremely harmful

### POLICY SUGGESTIONS

1. Educate officers to have a basic understanding of significant environmental statutory law.
2. Conduct environmental awareness training for police.
3. Initiate a specially equipped Hazardous Materials Incident Police Task Force.
4. Reduce police efforts in non-critical public safety activities (e.g. non-injury accident investigations).
5. Utilize professional talents of community members more effectively.
6. Increase enforcement of vehicle emission control laws.
7. Increase planning/coordination between police and primary environmental enforcement and regulatory agencies.
8. Cross train police and environmental regulators.
9. Increase enforcement of vehicles transporting hazardous substances.
10. Create an "Environmental Czar" to focus all city environmental efforts.
11. Increase federal/state/local environmental cooperation through task force concept.
12. Lobby for increased pro-environmental legislation.
13. Seek new funding for environmental enforcement programs.
14. Increase police and public's sense of environmental ethics - education programs.
15. Achieve aggressive prosecution of environmental law violations.
16. Obtain support from council, city manager, and police administration that environment enforcement is an important police function.
17. Create a "Crimes Against the Environment" police unit.
18. Enhance police-media relationships with specific reference to environmental needs.
19. Get officers out of their cars and into areas where toxic contamination may occur.
20. Cultivate police-environmental group relationship.
21. Create a police environmental complaint reference service (ombudsman role).

22. Expand Neighborhood Watch programs to include environmental concerns.
23. Educate police dispatchers in the appropriate handling or referral of environmental complaints.
24. Police provide support to regulatory investigators.
25. Develop enforcement efforts that will generate revenues.
26. Develop an environmental information computer data base.
27. Adopt a clear police mission statement and organizational policy on environmental enforcement.
28. Implement reward system for environmental informants.
29. Give all field training officers specialized environmental enforcement training.
30. Keep police involvement in the environmental arena to a minimum - give it to the fire department.

## POSSIBLE STAKEHOLDERS

1. Judges
2. Educators - Educational institutions
3. District Attorney
4. Local politicians
5. The local community - citizens
6. Police officers
7. Anti-tax groups
8. California League of Cities
9. Labor unions
10. News media
11. Victims rights groups
12. Chamber of Commerce
13. Environmental interest groups
14. American Civil Liberties Union
15. Insurance companies
16. State Legislature
17. State law enforcement agencies
18. Federal environmental support agencies
19. Minority groups
20. Attorneys
21. Oil companies
22. Land developers
23. Banking
24. City government officials
25. Farmers

APPENDIX C: EXAMPLES OF ENVIRONMENTAL STATUTES AVAILABLE FOR POLICE USE

PENAL CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
1. 370	Anything injurious to health or indecent, or offensive to the senses or an obstruction to the free use of property, or unlawfully obstructs the free passage or, use, in the customary manner of any navigable lake, or river, bay, stream, canal, or basin or any public park, square, street or highway is a nuisance	(1) JAIL - 6 mos.		(1) \$1,000/day

FISH AND GAME CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
2. 5650 and 12022 (a) (b)	Strict Liability - to deposit, to permit to pass into, or place where it can pass into the waters of the State:			
	(A) Petroleum and related products	JAIL - 1 year		\$2,000
	(B) Solid or liquid refuse from any factory	JAIL - 1 year		\$2,000
	(C) Sawdust, shavings, slabs, engines	JAIL - 6 mos.		\$1,000
	(D) Factory refuse, lime, or slag	JAIL - 6 mos.		\$1,000
	(E) Any cocculus indicus	JAIL - 6 mos.		\$1,000
	(F) Any substance or material deleterious to fish, plant life, or bird life	JAIL - 6 mos.		\$1,000

Provided courtesy of Mr. Norm Healy, Alameda County District Attorney's Office

HEALTH AND SAFETY CODE  
(Hazardous Waste Control Act)

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
3. 25189.5 (a)(b)	Know or reas. should have known - <u>Disposing</u> or causing disposal of hazardous waste at unpermitted facility or unauthorized point	PRISON - 16, 24, 36 mos. or JAIL - 1 year		<u>Mandatory</u> \$5,000-\$100,000 per day
4. 25189.5 (c)	Know or reas. should have known - <u>Transporting</u> or causing transport of hazardous waste to an unpermitted facility or unauthorized point	PRISON - 16, 24, 36 mos. or JAIL - 1 year		<u>Mandatory</u> \$5,000-100,000 per day
5. 25189.5 (d)	Acts under (b) or (c) causing GBI or substantial probability of death	ADD up to 36 mos.		<u>Mandatory</u> UP to \$25,000 per day
6. 25191(a) (1) M / F (1) (2)	Knowing - falsification in any compliance documents, e.g., labels, manifests, permits, etc.	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 25,000/day (1) \$2,000- 50,000/day
7. 25191(a) (2) M / F (1) (2)	Knowing - possession of altered or concealed compliance documents	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 50,000/day (2) \$2,000- 50,000/day
8. 25191(a) (3) M / F (1) (2)	Knowing - destruction alteration, or concealment of compliance documents	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 25,000/day (2) \$2,000- 50,000/day
9. 25191 (a) (4) M / F (1) (2)	Knowing-withholding of information after request of "real and substantial danger"	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 25,000/day (2) \$2,000- 25,000/day

HEALTH AND SAFETY CODE  
(Hazardous Waste Control Act - Continued)

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
10. 25191(a) (5), (6), (7) M / F (1) (2)	Knowing - transport without manifest <u>or</u> transport without registration as hauler <u>or</u> violation of regulations relating to transport	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 25,000/day (2) \$2,000- 25,000/day
11. 25191(D) M / F (1) (2)	Knowing - treatment or storage of hazardous waste at unpermitted facility or unauthorized point	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) \$2,000- 50,000/day (2) \$5,000- 50,000/day
12. 25160(d)	Transporting hazardous waste in a vehicle without manifest	(1) JAIL - 6 mos.		(1) \$1,000
13. 25190 M / F (1) (2)	Violation of any code section, regulation, permit	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) UP to \$25,000/day (2) \$2,000- 50,000/day
14. 25507/ 25515 M / F (1) (2)	Failure to immediately report release or threatened release of a hazardous material	(1) JAIL - 1 year (2) PRISON - 16, 20, 24 mos. <u>or</u> JAIL - 1 year		<u>Mandatory</u> (1) UP to \$25,000/day (2) \$2,000- 25,000/day
15. 25299(c) M	Falsification of monitoring records for underground storage tank or knowing failure to report an unauthorized release	(1) JAIL - 1 year		<u>Mandatory</u> (1) \$5,000- 10,000/day

VEHICLE CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
16. 23112.5	A failure to notify CHP (or local police) by responsible party after dumping, spilling or causing the release of hazardous waste upon highway. (Notification shall be made as soon as possible after responsible party has knowledge of spill)	JAIL - 6 mos.		<u>Mandatory</u> Not less than \$2,000
17. 34506(b)	Failing to comply with any rule or regulation adopted by the CHP regarding hazardous material transportation. (CHP adopts Title 13, California Administrative Code -see 1160-1165- and Title 49, Code of Federal Regulations -see 172.400- These regulations cover shipping paper, manifest requirements, registration, packaging, marking, labeling, placarding, loading and securement, safety equipment, etc.)	JAIL - 6 mos.		\$1,000

WATER CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
18. 13387(a) M	Willful or negligent - discharge of <u>pollutants</u> (navigable waters); <u>OR</u> violation of effluent standard, national standard of performance, or toxicity or pretreatment standard; <u>OR</u> refusal to comply with regulations controlling disposal of pollutant into wells; <u>OR</u> violation of cease and desist order, prohibition or waste discharge requirement	JAIL - 1 year		(1) \$5,000-25,000/day
19. 13265(c) M	Strict Liability - discharge of hazardous waste to waters of the State	JAIL - 6 mos.		\$1,000
20. 13265(c) (d) M	If negligent - <u>and</u> fail to report discharge of hazardous waste to waters of the State	JAIL - 6 mos. plus Civil Liability		\$1,000 \$5,000/day-Admin \$25,000/day-Court
21. 13271(c) M	Failure to notify of discharge of hazardous substance to waters of the State	JAIL - 1 year		\$20,000

HEALTH AND SAFETY CODE  
(Air-Criminal Offense)

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
22. 42400 M	Any violation of code, order, permit, rule or regulation	JAIL - 6 mos.		\$1,000

FOOD AND AGRICULTURE CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
23. 12996(B) F	Intentional violation of any code section or regulation relative to pesticides which create or reasonably could have created a hazard to human health or the environment	PRISON - 16, 24, 36 mos. <u>or</u> JAIL - 1 year		\$5,000-50,000
24. 23996(a) M	Any violation of any code section or regulation relating to pesticides	(1) JAIL - 6 mos.		\$500-10,000

HARBORS AND NAVIGATIONS CODE

SECTION	OFFENSE	CUSTODY	AND/OR	FINE
25. 133 M	Strict Liability - discharge oil from vessel to navigable waters of the State	JAIL - 6 mos.		\$1,000
26. 135 M	Strict Liability - to permit or cause transfer of petroleum, chemical, or other hazardous substance between ship and shore unless continuously monitored transfer devices used	JAIL - 6 mos.		\$1,000