

HOW WILL A LARGE URBAN LAW ENFORCEMENT AGENCY ADDRESS
LOCAL CRIMES AGAINST THE ENVIRONMENT
BY 2008?

A project presented to
California Commission on
Peace Officer Standards and Training

By

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This Command College project is a FUTURES study of a particular emerging issue in law enforcement. Its purpose is NOT to predict the future, but rather to project a number of possible scenarios for strategic planning consideration.

Defining the future differs from analyzing the past because the future has not yet happened. In this project, useful alternatives have been formulated systematically so that the planner can respond to a range of possible future environments.

Managing the future means influencing the future; creating it, constraining it, adapting to it. A futures study points the way.

The view and conclusions expressed in this Command College project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training (POST).

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CHAPTER I
ISSUE IDENTIFICATION

Statement of the Issue

The prevention, detection and mitigation of environmental crimes are non-traditional responsibilities for large urban law enforcement agencies. However, because these offenses negatively impact the health and welfare of a community, the resulting blight, disease or death are causes for concern for a local law enforcement agency.

The issue upon which this project is based is: How will a large urban law enforcement agency address local crimes against the environment by 2008? For the purposes of this project, local crimes against the environment are defined as those unlawful actions, deliberate or otherwise, which adversely impact local natural resources.

Introduction

In the study of systems theory, it is commonly taught that there exists an interconnectedness in life wherein each and every system, natural or social, is a subsystem of a larger cooperative. Connecting relations between peoples and species may be far too large to imagine, or far too small to see. However, incidences occurring in one subsystem may have meaning, positive or negative, for other subsystems, or for the world as a whole. Accordingly, ramifications of those acts that take place today may range from beneficial to negligible to catastrophic, and their true natures may be immediate or they may not be realized for years to come.

Such is the plight of the Puget Sound area in the State of Washington. Following years of toxic releases by a number of sources, including repeat violations by commercial

and governmental agencies, area sea life is suffering from reproductive deficiencies and “some 92,000 acres of mud and sand on the seafloor are considered moderately to highly contaminated.”¹ Usha Varanasi, a federal researcher, states that, “It’s not large companies we can point to so much - -it’s all of us.”²

Often, the subtleties of these systemic relationships are difficult to imagine and to reconcile. Absent a grasp of the relationships to be impacted, one may question the need to stop development upon the discovery of a Snail Darter fish or of a California Clapper Rail bird. To many, these are obscure species of little renown and of little value. To nature, these species represent a portion of the whole, and each plays a unique role in the ecosystem. The true ramifications of their losses may only be realized upon extinction.

Environmental Scanning

Local Law Enforcement and Environmental Crime

Environmental offenses impact all aspects of the natural world. Land, air and sea are not exempt from the hand of man. Likewise, no species, including mankind, is free from effect. The question becomes one of priority. When facing the threat posed by an armed assailant, the universal and immediate reaction is a demand for rescue and capture. When the threat is posed from the unlawful disposal of sewage into a small rural creek miles away, the demand for immediate action may not be as strong or as urgent. This threat may be just as real and just as deadly as the first, yet the perception can be that the offense is “out of sight and out of mind.”

Because these offenses are rarely at the forefront of consciousness, they are frequently overlooked by law enforcement personnel. Mired in the traditional role of the police officer as a keeper of the peace and an enforcer of law, the sometimes obscure

criminal actions that negatively impact the ecology are frequently undetected and uninterrupted.

In many instances, there are financial incentives to violate these laws. The Santa Clara County District Attorney's Office has cited the lack of treatment facilities and the ability for a hauling company to save the disposal costs (approximately fourteen cents per gallon) as prime factors. Because of the cost savings, unscrupulous businesses are able to undercut legitimate bids when in competition for lucrative hauling contracts.³

Indicative of a range of local environmental violations, the Santa Clara County District Attorney's Office posted a series of press releases to their web site concerning recent offenses prosecuted by that office.⁴ Violations prosecuted included the washing of caustic wastewater into a storm drain by a steam cleaning service, the illegal sales of abalone in an area restaurant, the unlawful dumping of thousands of gallons of grease into a local waterway and the unlawful storage of hazardous waste, waste specifically hidden from inspectors. Sanctions for these violations included fines ranging from \$13,500 to \$95,000. Some violations required imprisonment for the convicted offender.

Environmental crimes have local impacts. As highlighted by the Santa Clara County District Attorney's Office, ramifications of prosecuted violations included negative impacts to area wildlife through poisoning or black market sales, damage to waterways and threats of hazardous fire from unlawfully stored combustible materials. Similarly, offenses of this nature contribute to the blight and deterioration experienced by the surrounding community.⁵

Environmental offenses are increasing. In 1994, the National Institute of Justice (NIJ) published the results of a survey of local prosecutors in jurisdictions with populations exceeding 250,000.⁶ The survey determined that prosecutors noted

substantial increases in the numbers of environmental violations. The survey identified the dramatic increase in environmental crime prosecutions “between 1990 and the first half of 1992” as being a key issue.⁷ Additionally, in the key findings, the survey reported that “the most common environmental offenses involve illegal waste disposal; the most common substances involved in these offenses are hazardous wastes.”⁸

Of particular importance for local law enforcement was a finding by the NIJ in the 1994 survey indicating that “the most significant factor for rejecting the prosecution of environmental offenses is insufficient evidence or inability to recognize appropriate evidence ...”⁹ Prevention, detection and mitigation of these offenses is not commonly taught to line staff in an urban law enforcement agency. It can be argued that when those agencies normally tasked with these responsibilities are capable of error in these investigations, the line officer is certain to follow suit.

Emphasizing the Need for Local Preparation

While the numbers of numbers of environmental violations are increasing, efforts to combat the issues at the federal level are on the decline. Public Employees for Environmental Responsibility (PEER) conducted an analysis of cases referred by the U.S. Environmental Protection Agency (EPA) in fiscal year 2001.¹⁰ In this analysis, PEER asserts that the number of cases referred by the EPA declined by twenty percent. Additionally, PEER cites 80 percent decreases in violations of the Toxic Substance Control Act, 54 percent decreases in violations of the Clean Air Act and 53 percent declines in violations of the Clean Water Act.¹¹ This analysis was predicated upon a review of statistics compiled by the U.S. Department of Justice.

In addition to the reductions in offenses referred for investigation already experienced, there are a number of proposed budget cuts that may negatively impact federal environmental enforcement and inspection capabilities. In an analysis of the proposed EPA budget for fiscal year 2003, the League of Conservation Voters identifies the proposed reduction of the EPA enforcement staff by in excess of 100 positions.¹² In addition, this report cites the recommendation that \$15 million dollars be distributed amongst the states in the form of grants for enforcement purposes. Likewise, PEER cites the redirection of resources to the “State and Tribal Assistance Grant appropriation to support the Agency’s efforts to redirect enforcement responsibilities to the states.”¹³ In effect, the provision of block grants to regional governing bodies will require that local agencies undertake responsibilities previously addressed by federal authorities.

As with cuts in federal positions, the proposed budget for the state of California includes recommendations to eliminate thirty-one vacant positions in the Department of Fish and Game.¹⁴ It can be argued that local law enforcement may be required to assume these duties.

Acknowledging the Issue

In recognizing the need to undertake these nontraditional responsibilities, some agencies have established specialized investigative units devoted to the investigation of environmental crime. The Los Angeles Police Department has established the Hazardous Materials/Environmental Crimes Unit.¹⁵ This unit is responsible for the investigation of environmental crimes, enforcement of hazardous materials regulations and for assisting federal investigative agencies with regard to related forms of terrorism. The Philadelphia Police Department has established the Environmental Response Unit to address similar

ecological concerns.¹⁶ The state of Massachusetts has established the State Office of the Massachusetts Environmental Police, whose officers undertake the responsibility for environmental enforcement on a statewide basis. These agencies are representative of those jurisdictions that have acknowledged that local law enforcement plays a key role in the protection of the local environment.¹⁷

Purpose

The protection of land, sea and air resources are nontraditional roles for the urban patrol officer and for the metropolitan law enforcement agency. As the focus at the federal level shifts to one of homeland defense, as funding availability fluctuates and as violations mount and ramifications become known, there will be an emphasis placed upon those working in local jurisdictions to address environmental matters of local concern. Clearly, there are a variety of ways in which an informed agency may choose to alleviate these concerns; however, the informed agency will choose action over inaction.

The purpose of this paper is to research and to answer the issue of how a large urban law enforcement agency will address local crimes against the environment by 2008. This analysis will consist of a review by subject matter experts, the formulation of a recommended strategic plan and a plan for transition management to facilitate implementation. These topics will be addressed in subsequent chapters, commencing with a study of trends and events of particular concern, as identified by experts in related fields.

CHAPTER II

FUTURES FORECASTING

About the Process

In order to adequately establish a framework to position an organization for future change, it is important to identify those trends and events that can have impact upon an organization's mission, resources and abilities. Through the use of a structured analysis of probabilities, an organization becomes versed in a myriad of internal and external social, technological, environmental, economic and political factors that may present significant challenges or opportunities. Adequate advance preparation enables the organization to position itself to address rising challenges, or to prevent them from occurring. Conversely, this analysis allows the organization to anticipate opportunity and to capitalize upon it from its inception.

Absent a grounded and logical reasoning process, anticipating future organizational roles and resource requirements becomes an exercise in inefficient and unsupported guesswork. Without adequate preparation and study, it is likely that an organization will not recognize and seize opportunities as they arise. Similarly, the organization that fails to plan for the future has a greater likelihood of misusing resources, either by incorrectly allocating them into areas of lesser concern or by underutilizing them in areas of greater need.

The Nominal Group Technique

In support of this project, and to guide efforts to develop specific and reasoned recommendations for organizational preparation, a panel was convened to identify and analyze significant trends and events that could have impact upon the issue statement.

The panel was comprised of five subject matter experts, each representing a different professional field directly involved with environmental and/or law enforcement concerns. Representatives from the business community, law enforcement, public resource management and from the legal community were included in the panel. Panel members assisting in these efforts were employed by IBM, the Santa Clara County District Attorney's Office, the Santa Clara Valley Water District and by the San Jose Police Department. One attorney on the panel is a sole practitioner who has developed specialized knowledge and expertise in the legal area of water rights (see Appendix A).

Commonly referred to as the Nominal Group Technique (NGT), the method used to diagnose forecasted trends and events was a structured event. Prior to attending the NGT, each panelist was notified by letter describing the format of the process. Each panelist was supplied with definitions for the terms trend and event. Each panelist was asked to identify five trends and five events prior to attending the session.

The process commenced as each panel member compiled trends as observed in the course of their respective careers. After identifying 29 trends and clarifying meanings of each trend for other panel members, the panel then voted on the trends that they found most compelling. Ten trends were then selected and reviewed for their present levels relative to five years ago, five years into the future and, finally, ten years into the future. Each selected trend was then reviewed by the panel for its individual level of concern with regard to the issue statement.

After reviewing current trends, the panel then identified 19 events. Each event was identified and clarified for other panel members. Each event, were it to occur, had the potential to impact the issue statement. As with the trends discussion, the panel then voted on, and identified, the top ten events for review. Each event was then analyzed for

years, its potential to occur within the next ten years and its level of impact upon the issue statement.

Trends

For the purposes of this exercise, trends have been defined as a series of incidents or events taking place which seem to indicate a direction in which a particular issue may be heading. Participants were asked to identify environmental trends, as viewed from their respective professions. All trends identified by the panel are listed in Appendix B. In identifying trends for analysis, each member of the panel independently selected from the list those trends that he or she saw as having the most pertinence. In doing so, each panelist voted for what, in their professional opinion, were the ten most important trends to him or her. The ten trends chosen for review were those which received the most votes from the panel members.

Table 2.1 presents the trends selected by the panel for review and the panel's historical and future analysis for each. The score of 100 is an arbitrary value for the level of a each trend as it stands today. The historical and future scores represent the level of each trend compared to today, using the mean of all panelists' ratings. Additionally, the level of concern is a mean score derived from the panel's input and reflects the level of concern of each trend to the issue statement.

Trend	Trend	-5 Years	Today	+5 Years	+10 Years	Concern
T1	Public outreach to community (i.e. schools, event booths)	82	100	119	134	7.4
T2	Designated systems for the public to report environmental crimes	77	100	110	122	7
T3	Impact of the prevailing economy on environmental compliance	114	100	111	116	7.4
T4	Criminalization of sanctions for violation of environmentally based laws	81	100	108	120	7.2
T5	Gross volume of regulated waste material	84	100	119	136	7
T6	Quantity of environmental safety equipment for personnel	85	100	107	115	4
T7	Costs associated with meeting regulatory compliance requirements	109	100	110	119	6.4
T8	Acts of environmental terrorism against utility infrastructures	99	100	117	121	8.6
T9	Conflicts between local, state and federal agencies regarding enforcement of laws	71	100	121	134	7
T10	Individual awareness of environmental issues	82	100	118	135	7

Trend Summary Table

Table 2.1

The following summarizes the panel’s collective understanding of each trend:

Trend One: Public outreach to community (i.e. schools, event booths)

The panel determined that the number of public outreach programs with respect to environmental offenses are going to increase into the foreseeable future. The panel believed that each generation is becoming more sensitive to environmental factors than its predecessor and that a deep concern for environmental factors will become the norm. The panel anticipated that this concern will carry over into outreach programs, as citizens are educated as to the nature and ramifications of environmental offenses. The panel felt that this trend would be of concern, as an increased awareness of offenses is likely to lead to increases in incidences that are reported for investigation.

Trend Two: Designated systems for the public to report environmental crimes

The panel believed that this trend is likely to progress into the future, as emphasis is placed upon collaboration and as technology improves. Historically, environmental crimes have been handled by separate agencies, each bearing responsibility for a small segment of the environment (i.e. water, air, and land). The panel felt that in the past, citizens have been confused about where certain events are to be reported and that the proper routing of information has been handled within the enforcement community. The panel felt that as interagency cooperation is maximized and as online and similar reporting methods become more available, the trend toward specifically-directed methods of reporting would continue. The panel felt that this trend is of concern to law enforcement, as ease of reporting is likely to produce increases in reported incidents.

Trend Three: Impact of the prevailing economy on environmental compliance

In this instance, the panel felt that the state of the national economy weighs on one's ability to comply with regulatory statutes. The panel believed that five years ago, the economy was such that businesses and individuals could afford to comply with restrictions. The panel believes that, while today's economy has a lessened impact on compliance, technology and processes have been improved and have offset the economic factors. The panel also believed that a continued downturn will yield a negative capacity to comply and, consequently, increased impact on compliance. As businesses continue to struggle to survive in a negative economic climate, maintaining marketshare and retaining employees becomes critical to survival. Compliance efforts that were in effect are likely to be reduced as cost-saving measures, as their continuance may threaten the financial health of the business enterprise.

Trend Four: Criminalization of sanctions for violation of environmentally-based laws

The panel felt that the strengthening of sanctions against environmental crimes is ongoing and that this trend will continue into the future. The panel believed that many substantial punitive changes have occurred in the past five years and that this process may slow in the near term. The panel also believed that within the next ten years the next generation of legislators will be likely to move ahead with renewed zeal. The panel further felt that as natural resources risk depletion, the likelihood of strengthened sanctions will increase and this will contribute to legislative efforts. The panel believed that this posed a concern, as future generations continue to seek remedies for these issues, which stem from the awareness and reporting of incidents.

Trend Five: Gross volume of regulated waste material

The panel clarified this issue as being the gross volume of waste that is now, or will become, regulated. Highlighting recent changes wherein some electronic waste is now classified as hazardous, the panel believed that new technologies will yield new waste products. The panel cited examples of genetically altered waste, as well as forms of biological and medical refuse to illustrate this point. Additionally, the panel believed that this will become a significant issue within the ten-year time frame, thereby becoming a trend to watch, as new concerns of waste come to the forefront of the consciousness of an aware and enlightened generation.

Trend Six: Quantity of environmental safety equipment for personnel

The panel viewed the quantity of environmental safety equipment for responders and investigators one that will continue to grow, despite posing a lesser concern for law

enforcement. The panel believed that increases in awareness of environmental contaminants increased following the events of September 11, 2001 and the series of anthrax-related assaults. The panel believed that these concerns led to reevaluation of policies and equipment and that these reviews will continue. The panel felt that this has a lesser impact for law enforcement in that personnel are presently equipped with personal protective gear and that newer devices will be supplied as needs dictate. The panel felt that while needs will continue to be assessed, impacts of this trend have already been seen and that subsequent benefits or ramifications will be of a lessened extent.

Trend Seven: Costs associated with meeting regulatory compliance requirements

The panel felt that while costs of conforming to environmental regulations have decreased with improvements in technology, costs are likely to increase again in the near future. The panel believed that although regulations have remained relatively consistent, newer generational concerns, newer forms of waste and undiscovered health impacts might become catalysts for change. Costs associated with compliance were understood to be measured in varying forms of resources including financial, material or human. As a result of regulatory changes, the panel felt that the relative costs of compliance would increase for the specified period. Compliance with newer regulations will mandate changes in utilization of specific resources to meet requirements. To abide by new restrictions, resources will have to be added or reallocated from other areas or divisions, creating new costs to be borne. As with economic impacts, the board felt that businesses and individuals who experience difficulty in meeting new requirements are likely to violate applicable statutes, requiring additional enforcement and inspection efforts.

Trend Eight: Acts of environmental terrorism against utility infrastructures

The panel felt that acts of ecoterrorism, as manifested by assaults on utility infrastructures (air, land, and water) is a trend that is likely to continue with time and publicity. Here, the panel believed that publicity surrounding individual acts is likely to spur additional or copycat acts of terrorism. The panel believed that utilities that rely on natural resources are particularly vulnerable for a variety of reasons. Assaults upon these resources are likely to cause problems affecting public health, community fear and economies on a regional or national basis. Resources managed by utilities are also vulnerable because of the vast nature which makes them particularly difficult to defend. The panel felt that most acts of vandalism or terrorism will have an isolated or minimal impact and that a growing intolerance of localized incidents may inhibit certain acts. Nonetheless, the panel also believed that the potential exists for widespread damage should certain key facilities be victimized. Defense of these facilities, intelligence gathering and prevention were seen as critical duties of law enforcement. Additionally, the panel felt that while short term gains in defenses may prevent some acts, it will take only one particularly creative and effective act of terrorism or vandalism to undo prior gains.

Trend Nine: Conflicts between local, state and federal agencies regarding enforcement of laws

With respect to this trend, the panel cited numerous recent incidents wherein local authorities have acted in manners consistent with local interests, while openly defying federal mandates or laws. The panel believed that this defiance is likely to become more widespread as time progresses and that federal environmental concerns may not be adhered to at the local or state level. Increases in lawsuits between governmental

agencies, refusal of aid and a strengthening of the local voice will propel this trend into the future. This trend is of growing concern to law enforcement, as local agencies are placed in the center of growing controversy, affecting objectivity in enforcement efforts and subsequent interagency cooperation.

Trend Ten: Individual awareness of environmental issues

The panel believed that public awareness of environmental concerns has steadily increased over the past several decades and that this trend will continue into the future. The panel felt that improvements in methods of communication will speed the distribution of information and that the populace will become more widely versed in the elements that constitute environmental violations. Increases in the publicity of offenses and ramifications, school environmental curriculums and resulting environmental impacts will lead to heightened awareness and increases in the reporting of suspected violations. Generational attitudes toward recycling and environmental sensitivity will contribute to the propagation of this trend.

Events

An event was defined as being a singular occurrence that takes place at a specific time and date. For the purpose of this analysis, the panel identified ten potential events. The panel then reviewed each event for its first year of possible occurrence and its probability of occurring within the next five years and within the next ten years. The percentages depicted in the following table represent the mean percentage as derived from input from the panel. The panel then looked at each event's potential level of impact, positive or negative, upon a large urban law enforcement agency's ability to

address local crimes against the environment. These findings are summarized in Table 2.2. All events identified by the panel are listed in Appendix C.

		Years > 0	+5 Years	+10 Years	Level of Impact	Impact + or -
E1	Terrorist group steals 10,000 lbs. of ammonia nitrate from a private company	1	6%	7%	7.2	+
E2	Terrorist event involving biohazard material shuts down water system for 1 month	1	.6%	1.8%	9.8	+
E3	Release of toxic gas injures 5,000 people	1	5%	7%	6.2	+
E4	POST mandates environmental training in police academies	1.8	12%	41%	9.4	+
E5	New law mandates restaurant grease handling and documentation	2.2	44%	75%	8	+
E6	Grease hauler dumps 500 gallons of grease into storm drain	1	100%	100%	0	N/A
E7	Environmental Crimes Unit shuts down, personnel transferred elsewhere	1	17%	20%	8	-
E8	Public schools mandate curriculum regarding environmental awareness	1	9%	24%	6.5	+
E9	Terrorist event shuts down western electrical grid for 14 days	1	8.75%	15%	6	+
E10	Hazmat tanker truck accident shuts down major freeway for 24 hours	1	86.25%	100%	1.75	+

Event Summary Table

Table 2.2

The following summarizes the panel’s collective understanding and projection of occurrence of each event identified:

Event One: Terrorist group steals 10,000 lbs. of ammonia nitrate from a private company

The theft of a chemical compound from a private company was identified as being an event with a low probability of occurrence and a high level of impact should it

occur. Citing the destructive potential of the stolen material, the board believed that the large scale theft of this, or any other destructive substance, would create a backlash wherein law enforcement would eventually benefit in terms of enlarged budgets, additions of personnel and equipment purchases. Citing events following September 11, 2001, as an example, the board felt that negative events of this nature have longer-term positive benefits for law enforcement agencies.

Event Two: Terrorist event involving biohazard material shuts down water system for one month

An attack upon a natural resource was identified as being a high impact event with a low likelihood of occurrence. The panel felt that despite the short-term inconveniences experienced during the period following an assault upon a local water system, longer-term benefits would follow to thwart subsequent attacks. The board saw this as being a negative event with longer-term positive benefits for law enforcement's ability to confront crimes against the environment through the addition of resources.

Event Three: Release of toxic gas injures 5,000 people

The release of an airborne toxin that results in injury was seen as an impacting event with a low probability of occurrence. Whether a result of deliberate action, accident or negligence, the eventual results would benefit local law enforcement through the addition of new training and other associated resources.

Event Four: POST mandates environmental training in police academies

Mandating of environmental training for recruit officers by POST was seen as an event with a moderate potential of occurrence within the next ten years. The panel believed that as the populace becomes more environmentally conscious, pressure may be

placed upon legislators to train officers in the recognition and investigation of these offenses. The panel also believed that this event would significantly strengthen a law enforcement agency's ability to detect and to respond to environmental offenses.

Event Five: New law mandates restaurant grease handling and documentation

New legislation treating industrial grease as a hazardous material was seen as an event likely to come to pass within the next ten years as a direct result of political pressure emanating from the local level. Requiring vehicles transporting industrial grease to display placards and carry manifests would enhance an agency's ability to identify and to trace shipments. Passage of a law of this nature is likely to dissuade future dumping violations.

Event Six: Grease hauler dumps 500 gallons of grease into storm drain

The likelihood of a grease hauler dumping 500 gallons of waste into a local storm drain was seen as a certainty by the board. While seen as a significant, yet isolated event, the board felt that a single occurrence of a violation of this nature would not be sufficient to impact the local law enforcement agency in either a positive or a negative manner.

Event Seven: Environmental Crimes Unit shuts down, personnel transferred elsewhere

Some larger agencies, such as the Los Angeles Police Department, have the benefit of having sworn personnel devoted to the detection, prevention and investigation of environmental crimes. Disbanding of a unit of this nature in favor of resource reallocation was seen as a significant event with some chance of occurring within the next ten years. Absent budgetary improvements, reassignment to higher profile

investigations was seen as a possibility. Certainly, this would have a significant negative impact upon the agency's ability to conduct these investigations.

Event Eight: Public schools mandate curriculum regarding environmental awareness

As public concern for resource protection increases, the board believed that there is a possibility of curriculums being developed in the public school systems which seek to promote environmental awareness, resource management and recycling. Were this to transpire, the board believed that an eventual outcome would be an increase in individual responsibility, resulting in lessened incidences of violations. Additionally, with increased awareness would come increased witnessing and reporting, creating another positive impact upon an agency's ability to investigate these violations.

Event Nine: Terrorist event shuts down western electrical grid for 14 days

As with other low probability, high impact events, the board believed that attacks upon electrical utilities would culminate in additional resources being devoted to law enforcement to prevent future incidents.

Event Ten: Hazmat tanker truck accident shuts down major freeway for 24 hours

The board felt that a large accident wherein a truck carrying hazardous materials spills its load thereby closing a freeway is a certainty. Possibly resulting from unlawful hauling or storage, this event would have minimal long-term impacts upon the local agency. The collective opinion was that these occurrences are to be expected and plans should already be in place.

Cross Impact Analysis

In furtherance of the objective of making reasoned recommendations for preparation to address environmental offenses, the above-cited trends and events were reviewed in terms of foreseeable impacts. In order to accomplish this end, the author created a “Cross Impact Table” (Table 2.3) wherein events, were they to occur, were reviewed for their impacts upon the listed trends. These determinations were predicated upon discussions held by panel members. Additionally, the findings draw upon the panel’s professional expertise and individual experiences.

The magnitude of impact is measured on a scale of one to five, with a rating of five having the highest level of impact and a rating of one, the lowest. The level of an event’s impact was also reviewed for its positive or negative effect upon a particular trend. The positive or negative impact is indicated through the addition of either a “+” or a “-“ symbol. Also addressed in this section is an assessment of the resulting implications for an agency’s ability to address environmental enforcement should an event come to bear upon a particular trend.

	T-1	T-2	T-3	T-4	T-5	T-6	T-7	T-8	T-9	T-10
E-1	0	0	0	0	0	+3	-3	+5	0	0
E-2	0	0	0	0	0	+5	-3	+5	+2	+5
E-3	+2	0	0	+3	0	+5	-2	0	+2	+5
E-4	0	0	0	0	0	0	0	+1	0	+1
E-5	+2	0	-2	+2	-1	0	-2	0	0	+2
E-6	+2	+1	0	+1	0	0	0	0	+1	+2
E-7	-2	-1	0	0	0	-2	0	-2	0	-1
E-8	+5	+1	0	0	0	+2	0	+1	0	+5
E-9	+5	+3	-1	0	0	0	0	-5	+4	+5
E-10	+3	0	-1	+1	0	0	0	0	0	+1

Legend:

E1	Terrorist group steals 10,000 lbs. of ammonia nitrate from a private company
E2	Terrorist event involving biohazard material shuts down water system for 1 month
E3	Release of toxic gas injures 5,000 people
E4	POST mandates environmental training in police academies
E5	New law mandates restaurant grease handling and documentation
E6	Grease hauler dumps 500 gallons of grease into storm drain
E7	Environmental Crimes Unit shuts down, personnel transferred elsewhere
E8	Public schools mandate curriculum regarding environmental awareness
E9	Terrorist event shuts down western electrical grid for 14 days
E10	Hazmat tanker truck accident shuts down major freeway for 24 hours

T1	Public outreach to community (i.e. schools, event booths)
T2	Designated systems for the public to report environmental crimes
T3	Impact of the prevailing economy on environmental compliance
T4	Criminalization of sanctions for violation of environmentally based laws
T5	Gross volume of regulated waste material
T6	Quantity of environmental safety equipment for personnel
T7	Costs associated with meeting regulatory compliance requirements
T8	Acts of environmental terrorism against utility infrastructures
T9	Conflicts between local, state and federal agencies regarding enforcement of laws
T10	Individual awareness of environmental issues

Cross Impact Table

Table 2.3

The following is a discussion of key impacts of concern, as illustrated in Table 2.3.

In preparing this discussion, the author drew upon comments and observations made by panel members during the nominal group process.

1. Event 1 – Terrorist Group Steals 10,000 Pounds of Ammonia Nitrate +3
Trend 6 – Quantity of environmental safety equipment for personnel

In this instance, the theft of a chemical compound is likely to heighten awareness of dangers encountered by public safety personnel. While this information is not usually made public, it is used for contingency and emergency planning. Planning often results in appropriations of additional safety equipment, training and inter-governmental agency cooperation. Acquisition of new equipment is a positive event and is likely to occur under the circumstances. Purchases of updated equipment will facilitate an agency's ability to detect, deter and investigate future environmental events.

2. Event 1- Terrorist Group Steals 10,000 Pounds of Ammonia Nitrate +5
Trend 8 - Acts of environmental terrorism against utility infrastructures

The theft of explosive materials would enhance an organization's ability to conduct acts of terrorism against infrastructure targets. This event would have a positive effect upon the trend of environmental terrorism by enabling such acts, while being a negative event for law enforcement and society as a whole. An emphasis on terrorism may draw resources away from other investigations and only those environmental investigations tied to terrorism will stand out as areas of concern, negatively impacting an agency's ability to address other criminal environmental acts.

3. Event 2 - Terrorist Event Involving Biohazard Shuts Down Water System +5
Trend 10 – Individual Awareness of Environmental Issues

A negative event of this magnitude will absolutely impact individual awareness by bringing reality to the forefront of consciousness. While a deliberate assault upon a resource is without question a negative event, it will have a positive effect upon the

public's general knowledge of the issues and the ramifications. It will also cause the general public to be far more vigilant in noticing behaviors and conditions that may precede an event of this nature. Increased awareness of these issues will assist law enforcement in these efforts through increases in reporting of real and suspected events.

4. Event 2 - Terrorist Event Involving Biohazard Shuts Down Water System +5
Trend 6 – Quantity of environmental safety equipment for personnel

An act of terrorism against a natural resource will be a negative event in the short term, however these events will likely translate to increased funding for personal protective gear and training. This event will have a positive impact upon the trend. New equipment acquisitions will assist in better preparing department personnel to respond to and investigate these events.

5. Event 2 - Terrorist Event Involving Biohazard Shuts Down Water System +5
Trend 8 - Acts of environmental terrorism against utility infrastructures

The destruction of a water system, and its resulting implications, would accomplish many of the psychological and economic goals commonly sought by terror groups. Success in this arena may well encourage additional similar acts against critical infrastructure, causing a positive impact upon the trend of environmental terrorism. Acts of this nature may refocus an agency on acts of terrorism and will deplete resources available to investigate other environmental crime.

6. Event 3 - Release of toxic gas injures 5,000 people +5
Trend 6 - Quantity of environmental safety equipment for personnel

Intentional, or negligent, releases of toxic materials will be a negative event in the short term. However, an event of this nature will likely translate to increased funding for personal protective gear and training, a positive impact on the amount of safety equipment available for personnel. These additions will assist in better preparing department personnel to respond to and investigate these events.

7. Event 3 - Release of toxic gas injures 5,000 people +5
Trend 10 - Individual Awareness of Environmental Issues

An event such as this will absolutely impact individual awareness by bringing threat awareness to the forefront of consciousness. While an intentional, or negligent, release of caustic materials, resulting in injury, is without question a negative event, it will have a positive effect upon the public's general knowledge of the issues and the ramifications. It will also cause the general public to be far more vigilant in noticing behaviors and conditions that may precede an event of this nature.

8. Event 6 – Law Passed Mandating Grease Handling and Documentation -2
Trend 7 – Cost of Compliance to Regulatory Laws

Any legislative change that mandates that additional regulatory measures be undertaken will adversely impact costs associated with compliance. Additional record-keeping systems may need to be created; personnel will require training, and inspection capabilities will have to be established. While adding a relatively low level of bureaucracy, costs of enactment will ensue. This results in a negative impact upon the cost of compliance. Increased costs may have a detrimental impact when viewed in light of an organization's ability to implement and abide by these

changes, increasing the chances that law violations will transpire as higher costs are avoided.

9. Event 7 – Reassignment of Environmental Crimes Unit Personnel -2
Trend 1 – Public Outreach to the Community

Reassignment of personnel from a position in which community interaction and education play an integral role will have an adverse impact upon an agency’s ability to conduct outreach. In addition to the obvious concerns of maintaining sufficient staffing levels in order to provide these services, reassignment of personnel also has the ability to convey a realignment of organizational priorities. Moving resources from this area to other positions communicates the unstated message that concern over environmental offenses has lessened and that the agency no longer views this arena as a priority. An act of this nature can detract from ongoing outreach programs.

10. Event 8 – Public Schools Mandate Environmental Curriculum for Schools +5
Trend 1 – Public Outreach to the Community

Any increases in mandated education will have a direct and positive impact upon community outreach programs. Education of this nature is likely to be brought into the home, and the parenting generation is likely to be exposed to, and benefit from, this information as well. Additional exposure will increase attention to, and acceptance of, community-based environmental messages.

11. Event 8 - Public Schools Mandate Environmental Curriculum for Schools +5
Trend 10 - Individual Awareness of Environmental Issues

Any increases in mandated education will have a direct impact upon community awareness and involvement. Education of this nature directly affects one’s personal knowledge of environmental issues, a knowledge likely to be passed on to others.

Additional exposure will increase attention to, and acceptance of, community-based environmental messages. Ultimately, the increases in awareness and concern will translate to increased reporting of suspected violators and decreased instances of illegal behavior by individuals.

12. Event 9 - Terrorist event shuts down western electrical grid for 14 days +5
Trend 1 - Public Outreach to the Community

An event such as this will impact public outreach in a positive fashion by mandating that information about the event, and similar possible events, be broadcast on a widespread basis. An intentional, albeit short-term, disruption of an electrical utility service is a negative event. Nonetheless, it will have a positive effect upon the public's general demands for knowledge of the issues and the ramifications. It will also cause the general public to be far more vigilant in noticing behaviors and conditions that may precede an event of this nature. Similarly, an event of this nature will give rise to calls for increases in staffing, training and equipment.

13. Event 9 - Terrorist event shuts down western electrical grid for 14 days +5
Trend 8 - Acts of environmental terrorism against utility infrastructures

An event of this nature will accomplish many of the goals sought by terror groups and may encourage similar destructive acts. Similarly, an act of this nature will have a positive impact upon the trend, as others seek to emulate the successes achieved through such a horrific act. As with other negative events, the long-term ramifications for law enforcement will be enhanced training and the acquisition of newer equipment in order to prevent successive attacks on public resources. An additional potential ramification is the passage of legislation benefiting law enforcement's ability to detect and investigate potential acts of terrorism.

14. Event 9 - Terrorist event shuts down western electrical grid for 14 days +5
Trend 10 - Individual Awareness of Environmental Issues

An act of terrorism that is as disruptive as the interruption of power in a large community will bring a great deal of attention to acts of terrorism and associated environmental crimes. It is conceivable that information as to the potential for contaminants to be added to environmental resources will be included in outreach programs. Under this scenario, public awareness will dramatically increase. Again, this is a catastrophic event in the short-term; however, the benefits to law enforcement's ability to implement environmental investigation will be realized through increases in training and equipment acquisition.

Scenarios

This paper is not designed, and does not purport, to predict the future. This paper is designed to act as a catalyst for thought and as an inspiration for preparation. As previously stated, proper planning provides the opportunity to identify opportunities and to benefit from them. Proper planning also allows an organization to foresee pitfalls and setbacks and to avoid or lessen their impacts.

Pessimistic, Optimistic, and Normative Case Introduction

One manner of preparing for the future is through the process of scenario writing. In this context, an agency drafts alternative futures in order to visualize possibilities and to paint a picture of potential impacts. Through the process of scenario writing, the agency becomes versed in positive, negative and neutral futures, allowing for insightful

discussion and debate. The following scenarios are drafted so as to incorporate information garnered from the NGT panel's expertise and input. Three scenarios are presented herein, demonstrating futures envisioned as having positive, negative or normative outcomes.

Normative

In the year 2008, the City of Pulmon del Hierro is home to over nine hundred thousand people. Located in an affluent area comprised of notable high technology firms, the city is host to a number of corporate headquarters, sporting venues, cultural opportunities and institutions of higher learning. As a direct result of its educated and affluent populace, the city's public safety resources are well-maintained and its employees are well-compensated.

As with any industrialized area, the city is also a creator of vast amounts of waste. Waste products from automotive repair facilities, restaurants, manufacturing plants and medical offices are generated in staggering quantities. Accordingly, some enterprising firms have flourished, as the need to dispose of this waste has become a daunting task and one well beyond the capability of municipal resources.

Following many years of positive economic growth, this area has been subject to an economic correction that has offset many of the prior gains. Businesses have lost lucrative contracts and cost-cutting measures have been employed. A1 Removal has not been exempt from these changes. A transport system for medical waste from local physician's offices, A1 has been forced to lay off thirty-five percent of its staff. Cuts have been particularly unkind in the service division, as fifty-two percent of the drivers have been let go. Nonetheless, A1 has managed to maintain its more lucrative and

sizable contracts. The remaining drivers are feeling consumed by the time pressures created by reduced staffing and by larger personal workloads.

It is because of these pressures that some rogue drivers have taken to the unlawful disposal of medical waste. Rather than transporting old syringes, chemical samples and other human byproducts for proper disposal, these drivers have determined that it is more expedient to transport these items to a remote portion of a city recreational area and to dispose of them out of sight.

It is during the evening hours that one driver, parked in a darkened area is contacted by a Pulmon del Hierro patrol officer. The officer finds the driver sitting in the marked A1 service vehicle and initiates a conversation. The officer is aware of increased discoveries of old hypodermic syringes by hikers, yet he fails to associate these discoveries with a medical waste firm, instead operating under the assumption that these locations have increased in popularity with intravenous drug users. After ensuring the welfare of the driver, the officer departs without making an effort to identify the driver or to ascertain the reasons for his presence. These offenses continue uninterrupted until such time as citizens witness the violations and the information is then relayed to county health and environmental professionals who subsequently initiated an investigation.

Optimistic

It is the year 2008. In the preceding six years, the City of Pulmon del Hierro commenced and finalized a citywide campaign to promote interagency cooperation. Driven by economic recession experienced in the early parts of the decade, city staff adopted the approach that its finite resources could best be utilized by partnering with other governmental agencies to address mutual concerns.

As with other city departments, the Pulmon del Hierro Police Department has been forward thinking and has stressed strategic alliances in a myriad of areas. After being alerted to increases in unlawful disposals of hazardous materials, the department assigned one investigator to a county environmental task force on a collateral basis. This investigator has been tasked with the responsibility of obtaining and disseminating intelligence information to staff.

It has been the task force's experience that most violations transpire during the evening hours when county resources and personnel are either not available or response times are extended. Accordingly, the investigator routinely publicizes environmental trends and events that are likely to be encountered by patrol officers. Through information sharing, the investigator was made aware of increases in unlawful disposals of commercial waste products and has made this information available to patrol officers.

It is during the evening hours that one driver, parked in a darkened area is contacted by a Pulmon del Hierro patrol officer. The officer finds the driver sitting in the marked A1 service vehicle and initiates a conversation. The officer is aware of increased discoveries of old hypodermic syringes by hikers. Noting that the driver has identified himself as a route driver for a waste collection firm, the officer makes the effort to identify the driver and the reasons for his presence. The officer continues with his investigation and notes that the driver has a number of hypodermic syringes in plain plastic bags without proper markings or company identification. The officer does not detect any immediate violations and the driver is sent on his way. This information is relayed to the investigator and to the task force.

Based upon the officer's discoveries, surveillance is initiated by task force personnel. During the course of the surveillance, A1 drivers are observed as they

systematically collect and unlawfully dispose of hazardous waste. This information results in numerous criminal charges being filed against the drivers and the company itself. Because of the criminal charges, and as a result of the fine levied against A1 for its unlawful business practices, the business is forced to close and these violations cease.

Pessimistic

It is the year 2008. Despite several years of economic recession, the management of the Pulmon del Hierro Police Department remains traditional in its view of the role of the police. Members of the command staff see their role as one dedicated to the enforcement of traditional criminal violations. The department has not undertaken any sweeping movements to address quality of life issues and remains steadfast in its enforcement role. This attitude is taught to newer employees and the culture is such that nontraditional roles and partnerships are routinely rejected as fads. It is within this culture that the line staff operates.

During the evening hours, an A1 driver is contacted by an officer in a remote portion of a municipal recreational area. The officer neglects to identify the driver and does not ascertain the purpose for his presence. The driver is sent on his way after minimal conversation.

Subsequent to this event, line personnel receive information from citizens that people have been seen leaving unknown items in this area with increasing frequency. These citizens have also reported an increase in the numbers of syringes that have been encountered in this somewhat rural area. The department personnel in receipt of this information listen to the complainants and send them on their way. Seeing this as a

minor littering offense best handled by another agency, these officers discount the information and do not forward it to any other investigative bodies.

Despite repeated contacts with police officials, the citizenry have not seen any decrease in this activity. It was therefore inevitable that the child of a hiker would locate, pick up and injure himself with a used hypodermic syringe. Because of the transmission of a viral infection from the syringe, the child contracts meningitis and is hospitalized in intensive care. The child does not survive. The Police Department is subsequently sued for its failure to take action in spite of repeated complaints. The department is forced to settle this case out of court and out of the public eye for an amount that significantly impacts the municipality's fiscal health.

Summary

In this instance, the Nominal Group Technique has illustrated areas of concern for local law enforcement and for the need to see beyond traditional roles. As one of the few governmental operations that are immediately available twenty-four hours per day and seven days per week, law enforcement officers, and patrol officers in particular, are the governmental representatives most likely to encounter criminal acts that are predominantly environmental in nature. Traditionally, police departments have played limited roles in addressing these concerns, and these offenses have often gone undetected or have been ignored.

Information garnered from the Nominal Group Technique will be used in creating recommended strategies for improvement in this area. With the assistance of professionals in these concerned fields, it becomes easier to identify strategic relationships that will enhance an agency's ability to identify, respond to and resolve

these types of offenses. Line staff are not expected to become experts in hazardous materials handling and natural resource management. They should be expected to take an interest in, and assume responsibility for, ensuring that environmental crimes are sufficiently investigated, that pertinent evidence is collected, that concerned agencies are notified and that violators are held responsible. These responsibilities will be addressed in the following sections where the NGT and scenarios will assist in developing a roadmap for change. Ultimately, fielding a staff that is adept in these skills will position an agency to prevent, identify and respond to local environmental crime.

CHAPTER III
STRATEGIC PLAN

Introduction

It is clear from research, and from the input of professionals from related fields, that crimes against the environment are cause for local concern and that reasonable steps should be taken to prevent or to mitigate these offenses. In order to address these concerns, management must be willing to commit to a course of action that promotes the training of personnel, the fostering of new partnerships and the enhanced role of the municipal police officer.

To accommodate these needs, a strategic plan must be premised upon a reasoned and objective review of environmental factors that may impact the program. The strategic plan must take into account the specific assets and liabilities facing the agency and the needs and interests of the variety of stakeholders likely to be affected by changes in missions and objectives. In preparation for the presentation of alternative strategies, each of these subject matter areas will be addressed independently. Subsequent to this review, alternatives for consideration will be presented.

Environmental Scanning

To adequately review those factors that may facilitate, or impede, the implementation of any new program it is important to adopt a comprehensive approach to conducting an environmental survey. The STEEP method of environmental scanning provides a well-rounded approach to identifying such factors. In this analysis, an agency reviews the Social, Technological, Environmental, Economic and Political climates, advances and setbacks that will play upon the program. The following is a review of

such factors as premised upon information gleaned from research and from contributions of the subject matter experts during the Nominal Group process.

Social

- Environmental consciousness of the populace

As previously identified, each subsequent generation appears to become more aware of environmental impacts than its predecessor. Such changes will alter demands and behaviors affecting environmental concerns.

- Behavior with respect to waste products

As previously identified, behaviors with respect to treatment of waste are likely to change as individual means of disposal come to be understood in terms of their systemic impacts.

- Levels of social activism

Environmental concerns have often given rise to intense feelings and to corresponding levels of activism.

- Terrorism

The proliferation of acts of terrorism, and the fears thereof, will impact concerns for the defense of environmental resources.

- Education

Educational inroads into teaching systems theory will promulgate increasing concerns for environmental protectionism.

- Training for line level personnel

As seen in the recent past, advances will continue in the quantity and quality of training made available to line level personnel from governmental and corporate resources.

Technological

- New weapons of mass destruction

Newly-devised means of impacting society through environmental contamination (chemical, biological or nuclear) on a small or large scale will impact response capabilities.

- New forms of waste products

New toxins, or other associated byproducts, that arise as the result of changes in manufacturing processes will require appropriate handling and disposal. Similarly, newer and cleaner processes will continue to alleviate existing concerns.

- Avenues available for reporting of suspected violations

Technology will advance as a manner of reporting information about suspected past and in-progress violations.

- Advances in safety equipment

As new hazards, and existing deficiencies, are identified, corresponding advances will be made in the ability of safety equipment made available to first responders and to investigators.

Environmental

- Systemic impacts of environmental offenses

The actual systemic impacts of environmental offenses are likely to be realized only after a great deal of time has passed.

- Increases in volumes of waste products

As new forms of waste products are identified as hazardous or in need of special handling, issues of volume disposal and associated costs will continue to be addressed.

- Defenses for resources

In order to protect environmental resources from intentional harm, site surveys, impacts, weaknesses and ramifications of harmful action will continue to be updated and revised.

Economic

- Budgetary constraints

Absent a significant correction in economic conditions, economic conditions providing for the expansion of services are unlikely to be available at the local level. Reorganization at the federal level is likely to result in block grants to states to provide environmental services formerly a federal responsibility. In this respect, some funding may become available for these purposes.

- Availability of training and equipment through strategic partnerships
With the safety of the community in mind, partnering with private industry to provide training and equipment for environmental responses remains a viable alternative.
- Ability of industry to comply with regulations
Costs associated with processing of materials will decrease as methods for disposal are improved. Conversely, increases in the discovery of associated hazards will negatively impact processing costs.
- Decreases in funding at the federal level
With the creation of the Department of Homeland Defense and the emphasis on the defense against acts of terrorism, budgetary reductions for the Environmental Protection Agency have been proposed. Limitations of enforcement abilities by this agency will force other agencies to compensate, and it is likely that some of these responsibilities will shift to the local jurisdictions experiencing these offenses.

Political

- Increases in regulatory laws
Proposals for increases in sanctions for environmental offenses and mandated changes in the manner in which some forms of waste are treated may be enacted. Such laws may criminalize more actions, causing increased investigative workload, while causing those prone to commit violations to do so in more covert manners.

- Consequences of negligent planning

It is believed that local jurisdictions could be penalized for failure to adequately plan for environmental emergencies.

- Cooperation amongst governmental agencies

The present state of international affairs has forced a cooperation amongst governmental agencies not previously attainable. These cooperative efforts could extend to other areas of government as shared responsibilities develop.

- Relinquishment of responsibilities

As previously indicated, it has been proposed that block grants be issued to the states to assume responsibilities formerly held by federal authorities. Dismissal of duties to other branches of government could force local jurisdictions to address offenses occurring within their jurisdictional boundaries.

Strengths, Weaknesses, Opportunities and Threats (SWOT)

In order to position an organization to address new challenges brought by a change in role or mission, management should review the organization's capacity to respond to the new duties under a recommended strategy. A review of this nature traditionally focuses upon the strengths, weaknesses, opportunities, and threats posed by the newly-recommended program. It is equally essential that challenges and opportunities that originate both internally and externally to the organization be examined. Strengths and weaknesses are evaluated internally, while opportunities and

threats arise externally. This approach can be especially important when suggesting the adoption of a non-traditional role such as the prevention and investigation of environmental crime. The following is a list of issues likely to arise in reviewing a newly-developed environmental enforcement plan.

Strengths

- Availability to respond to in-progress events

Unlike most other agencies, police resources are available to address these concerns rapidly both day and night. Similarly, patrol forces are likely to encounter violations during routine patrol functions during the evening hours. Other agencies are frequently closed for business and operate on an on-call basis during these times.

- Resources available

Unlike most other agencies, large urban law enforcement agencies have the luxury of fielding a variety of resources at all times. Often times the size of the patrol force is much greater than that of the traditional investigative agency. The abundance of available personnel allows the agency to respond to, or detect, these crimes.

- Existing relationships

Large, urban law enforcement agencies typically have established relationships with the community, political leaders, the business community and other governmental agencies that can be identified and strengthened through planning of this nature.

- Investigative expertise

Large, urban law enforcement agencies often times have access to experienced investigators at all times. Investigative expertise may be a critical necessity in the early moments of a significant event.

- Prior grant funding experience

While block grants have the capability of transferring duties to a lower level, they also bestow some control over how these instances are addressed by local authorities . Prior experience in writing, obtaining and administering grant funding will assist an agency as it pursues new environmental avenues.

- Employee satisfaction

Department employees, like other community members, are often concerned about the state of the community wherein they, and their families, reside, work and play. Enforcement of these types of offenses and the promotion of a cleaner and healthier community will lead to a greater sense of career satisfaction.

Weaknesses:

- Disinterest of personnel

Personnel entering the law enforcement arena often come into the field with perceptions of essential job functions formed through media representations of traditional duties. Assuming responsibilities for investigating environmental offenses of this nature does not carry the

stature of a homicide investigation. While in the end, the result may be the same, seeing the bigger picture may be difficult for some employees.

- Availability of training and resources

In terms of the ever-expanding demands placed upon law enforcement at the local level, duties of this nature may not rate highly in funding prioritization. Costs for training and safety equipment may be borne first in other areas of higher concern.

Opportunities

- Capitalizing on public concern for the environment

Preservation of natural resources and the environment is one of the few seemingly universal interests that a community possesses. Few, if any, would like to see harm done in this manner, so support for protectionism is likely to be capitalized upon.

- Likelihood of political support

Failure to back environmental concerns by any politician can be a delicate posture to take. Advancing an agenda that promotes defense of local resources against intentional harm is likely to be well received by local governing officials.

- Increased involvement of the business community

While some rogue businesses are likely to engage in unlawful activities that harm the environment, the vast majority of the business community is prone to support enforcement in this area. On a very basic level, environmental violations endanger the health of the workforce and

are detrimental to commercial operations. In a large municipality, it is likely that training, information and resources will result from strengthened partnerships with the business community. Partnering in this fashion will lead to the generation of greater intelligence information and enhanced investigations.

Threats

- Low frequency/high impact events

Environmental offenses of greater magnitude can be low frequency events with high levels of impact. Because these crimes may not always be at the forefront of consciousness, desire to implement or sustain these programs can waiver as other priorities are identified.

- Visibility of environmental impacts

Environmental offenses pose threats that may not be realized for great periods of time. Unlike the removal of a serial criminal from the street, the benefits of a program of this nature are not quickly realized and actual impacts are difficult to substantiate and to document.

- Other governmental agencies

Competition for funding and resources often times places governmental agencies at odds with one another. Impacted agencies sharing similar responsibilities may argue against a program of this nature from a defensive posture.

- Service demands

The demands for service placed upon a large municipal agency may not provide for the time to actively seek out and address these issues. It is likely that offenses of this nature would be relegated to being addressed in a reactive fashion.

- Perceptions of responsibility

It is conceivable that conflicts over authority and responsibility are likely. Politicians, other agencies and citizens alike may question the agency's desire or need to branch into this area of criminal investigation. Lack of external support can undermine implementation.

Stakeholders: Identifying the Players

The final area of analysis to be reviewed prior to considering alternative resolutions is the identification of stakeholders. Stakeholders are those persons who are affected by proposed changes. Generally, stakeholders have the ability to positively or negatively impact the implementation or success of a program. Identifying concerned stakeholders early on positions an agency to capitalize on supportive interests, while allowing management to respond in advance to concerns. Additionally, early identification of concerned persons allows management the opportunity to work with those individuals to refine a plan, to allow an opportunity to alleviate concerns and to provide critics with a voice in the process. Providing this forum ultimately serves to enhance the program's chances of success.

In identifying those parties likely to be considered as stakeholders, management should look in detail at all possible impacts of the adoption of a role in the prevention,

detection and mitigation of environmental crimes. Internal and external impacts should be reviewed and a comprehensive understanding of primary effects should be garnered.

It is very likely that a new program will result in secondary and later impacts.

Management must make the commitment to move forward with implementation and cannot afford to become overly burdened with greatly extrapolated concerns. The primary stakeholders affected by the adoption of a resolution to target local environmental crimes are as follows:

Department Management

Department management is charged with the creation, implementation and eventual success of new environmental investigative ventures. Management is responsible for identifying specific equipment and training needs and alternative funding sources, for establishing fostering relationships and for staffing the venture with the appropriate personnel. Management is also charged with ensuring that negative impacts of the environmental program, both internal and external to the organization, are minimized and that results are cost effective. Management must ensure that prevention, intervention and enforcement efforts are targeted in manners that are perceived as equitable.

Department Line Staff

Department line staff, as first responders and as investigators, are responsible for the successful detection, investigation and mitigation of criminal environmental acts.

District Attorney's Office

The District Attorney's Office is responsible for supporting environmental investigations through legal counsel and prosecution. Operations of this nature can be jeopardized should prosecutions and subsequent sanctions become viewed as inadequate in comparison to the amount of effort expended to complete investigation.

City Council

As the governing body, the city council is responsible for ensuring that all interests are represented, considered and given a voice. The city council provides an avenue for community input. The city council is also charged with the responsibility for creation and enactment of ordinances to address issues of local concern. As elected officials, the city council is directly responsible to the electorate for ensuring that community environmental safeguards are in place.

Environmental Protection Agency

The Environmental Protection Agency (EPA) is ultimately responsible for aspects of environmental regulation, investigation and clean-up. The EPA is also responsible for providing guidance, training and expertise to governmental agencies.

Local Environmental Regulatory Agencies

Regulatory agencies vary by region and by segment of the environment addressed. In the Santa Clara County area, police officials might interact with representatives from Air Quality Management, the Santa Clara Valley Water District, the County Department of Toxic Substance Control or a number of other related environmental offices. Each office is responsible for specific environmental control, mitigation, investigation and enforcement.

Related State and Federal Law Enforcement Agencies

From the Federal Parks Service to the Department of Fish and Game, many other law enforcement agencies share responsibilities related to environmental enforcement.

The Community

The community as a whole has a definite interest in the preservation of the local environment, as this sets the stage for the quality of life issues governing the ability to live, work and play in a specific area.

The Business Community

As previously stated, the business community has a vested interest in ensuring that the surrounding environment is a safe location for its employees and their families, for its businesses and for its clientele. Business is responsible for complying with regulatory requirements. Business is also capable of providing specific expertise when required.

Stakeholder Negotiations

After identifying those parties critical to the implementation of a successful environmental enforcement program, management must meet with each stakeholder group early in the process to alleviate concerns and to ensure buy-in. In preparation, it is beneficial to become aware of the roles that each group will play in ensuring that the environmental enforcement program is successfully implemented. The following analysis is designed to provide an overview of duties and roles expected to be performed by various stakeholder groups during the implementation process.

Department Management

Department management, with the assistance of the City Attorney's Office, is responsible for negotiating Memorandums of Understanding with other governmental agencies should such partnerships be formed. Management is responsible for negotiating with the labor union to ensure that working conditions are in line with contractual expectations. Management is also responsible for negotiating with the business community to provide contemporary training and resources. Management is not responsible for negotiating sentencing terms upon conviction.

District Attorney's Office

The District Attorney's Office is responsible for negotiating criminal penalties for convictions of environmental offenses. The District Attorney's Office is not responsible for negotiating staffing and equipment needs for program implementation.

City Council

The city council is responsible for ensuring that the program goals are in line with city policy. The city council has a limited role in the implementation of an environmental enforcement program. The city council is, however, beholden to the electorate to ensure that the program is administered in an equitable and efficient manner.

Local Environmental Regulatory Agencies

Local environmental regulatory agencies are also responsible for negotiating Memorandums of Understanding in partnership settings. Included in these documents should be a discussion as to individual agency responsibilities, financial commitments and staffing commitments. These agencies are not responsible for negotiating how training is conducted within the law enforcement agency.

The Business Community

The business community is responsible for negotiating to provide training and equipment to support environmental enforcement efforts. The business community is also responsible for negotiating manners in which intelligence information can be provided to the law enforcement agency. The business community is not responsible for negotiating working conditions or resource allocation.

Considering the Alternatives

After accepting that the nontraditional role of environmental enforcement is a responsibility borne by local law enforcement, the agency is challenged to respond. In order to develop a comprehensive strategy that is appropriate for a specific jurisdiction, alternatives should always be considered prior to action. Accordingly, the following five alternative strategies are suggested for review. It should be noted that the last four of the five following strategies has been used effectively in other areas of law enforcement.

Alternative Strategy I: No change

It is entirely conceivable that an agency could choose not to take action regarding environmental crime. Committing to a course of action is to commit to an expenditure of resources, a commitment that may impact other areas of the department. Management could rest upon the belief that there are other agencies specifically trained and responsible to address individual environmental issues and that patrol and investigative resources should be retained for traditional law enforcement duties. Taking no action in this instance is akin to denial. Large, urban law enforcement agencies possess resources that routinely surpass those of the other regulatory agencies. The availability of personnel to detect or to respond to these events in the early moments gives the local law

enforcement agency a greater chance of mitigation and apprehension. Inaction, or simple referral to on-call or understaffed agencies, does nothing to prevent these events from occurring or from becoming aggravated.

Alternative Strategy II: The Specialized Unit

Large, urban law enforcement agencies often times have the ability to create specialized units to address specific crime problems. While these units are capable of developing vast amounts of expertise and intelligence, they require commitments of sworn personnel, support staff, equipment, office space and training. For low frequency events such as unlawful chemical disposal or the sabotage of a natural resource, it may be difficult to justify the expenditures required to establish a unit for this purpose.

Alternative Strategy III: The Task Force

Another technique frequently used in law enforcement to address specific crime problems, while sharing resources with like-minded agencies, is to commit to participation in a regional task force. Assigning personnel to a task force requires less commitments of resources than does the establishment of a specialized unit, however the expertise is often restricted to an extremely small number of investigators (if not just one) and this expertise is commonly off-site. Membership in a task force does require a financial commitment and the availability of assistance can be dependent upon the task forces ability to respond to competing demands for service.

Alternative Strategy IV: Preparation of Personnel

Providing a basic level of instruction to sworn personnel, and continuing to do so, better prepares the patrol force to detect these offenses as they occur and to make reasoned judgments of their significance and potential impacts soon after occurrence. Providing sworn personnel with understandings of the types and scopes of offenses,

potential environmental impacts, common violators and areas likely to experience criminal activity arms a large number of resources with the ability to identify and thwart these crimes. Establishing contacts at other associated agencies provides staff with points of reference for obtaining information and direction when required.

Alternative Strategy V: A Combined Approach

An alternative to addressing local environmental offenses is to utilize a combination of different tools. Membership in a task force, in combination with the creation of a specialized unit or the training of line personnel, broadens the agency's ability to detect and to prevent these crimes. Similarly, a specialized unit can be augmented by training line staff to handle these offenses during off-hours. Ultimately, the agency must weigh the strengths and weaknesses of each tactic and ascertain if the combination of two programs will be cost effective. Additionally, the agency must consider program oversight and whether or not the use of multiple resources, found in varying chains of command, is manageable.

Upon reflection, the most cost-effective manner of preparing personnel to address these areas is the fourth alternative, the cross-training of sworn personnel. Specialized units and task force participation result in a great deal of knowledge and skill concentrated in a finite number of resources. As with the problems associated with relying solely upon other governmental agencies, these resources are not always available. While cleanup or detailed investigation of an intentional environmental calamity is not projected to become a primary function of the local law enforcement agency, detection and prevention of these offenses could best be handled by the large numbers of officers assigned to patrol responsibilities.

Preparing Sworn Staff to Address the Issue

Training sworn personnel to undertake additional responsibilities is not free of cost or commitment. Embarking on a venture that entails duties not previously associated with frontline law enforcement requires that the need for these efforts is reinforced to staff, that adequate training and equipment be obtained and that on-going relationships with related agencies be established. Taking on a non-traditional responsibility such as environmental investigation also requires that information be disseminated to personnel in quick and efficient manners. Of utmost importance in this process is ensuring that line officers understand their role in the investigation and enforcement of environmental laws, and that they understand the potential natural resource and health ramifications of inaction.

The Environmental Liaison

In order to prepare the line level officer to address crimes of this nature, it is important that the agency first formalize relationships with other concerned agencies so as to obtain the most current information with regard to criminal trends and geographic areas of concern. Solidifying these relationships also provides the agency with contact information that often serves to facilitate the flow of information. In order to accomplish these ends, the agency should identify a point of contact within the department who will serve in this capacity. While not a full-time position, or a task force assignment, this employee will be positioned to act as a conduit between the department and the other agencies. To fully utilize this position, it would behoove the agency to identify an individual with an interest in environmental enforcement.

Acting in this liaison capacity, this employee is able to attend meetings, correspond and converse with other environmental and legal professionals. In turn, this

information is passed on to departmental personnel in order to direct resources. This employee also serves to develop the contacts that are vital to ensuring that the flow of information is expedient and contemporary. In addition, this employee should oversee training programs that are implemented so as to ensure the accuracy of the information presented.

Training of Personnel

In addition to obtaining pertinent details of types of offenses, suspects, geographic areas of concern, safety considerations and environmental impacts, an agency should devise a training program that is contemporary, on-going and that meets the needs of the first responder. Training of this nature should be conducted in a number of formats to reinforce the importance and practicality of the information.

In order to maximize the effectiveness of any training program, its relevance to law enforcement must be demonstrated. By using a systems theory approach to teaching the long range impacts of environmental crime, the agency is better able to impress the need for these responsibilities upon the work force. In addressing the interrelationships that are affected by unlawful dumping or illegal manufacturing processes, line staff is better able to see the value in expending effort in this area. Whereas illegal dumping may be seen as simple littering, larger scale impacts upon wildlife, water systems and community health serve to reiterate an enforcement rationale.

In order to accommodate training of this nature, it should take place in at least three venues. Disseminating information for line personnel should take place at the subordinate-supervisor level, as a portion of roll-call training and as an element of annual intensive training. By varying the length, intensity and types of training, personnel are freed from the disinterest commonly associated with repetitive instruction.

One of the foremost ways for information to be conveyed to the line level is through the direct supervisor. By utilizing the department liaison to supply information to patrol supervisors, the department enables itself to provide pertinent information to those most likely to encounter the violations. Information that is central to the geographic region worked will be of direct relevance to the patrol teams working those specific areas. A department that is committed to ensuring that the supervisors remain apprised of environmental trends and events in their areas of responsibility will better able the patrol structure to prevent, detect and mitigate environmental crimes.

Roll-call training is a vital tool for presenting information to the line level. In a group forum, patrol officers can be advised of events that are occurring throughout the jurisdiction. These presentations can incorporate information gleaned from the department's liaison officer, as well anecdotal and intelligence information garnered from patrol officers themselves. Additionally, this forum provides the opportunity for representatives of other environmental agencies, the community or industry to present their concerns to the line level and to respond to questions and concerns from patrol staff.

Training for these purposes is available from a variety of sources and in a variety of formats. This runs the gamut from EPA-sponsored courses to self-directed learning. Additionally, local industry is positioned to provide information to the department relative to manufacturing trends and safety considerations, as well as criminal intelligence information.

Finally, the annual intensive training program required of officers provides another forum for this information to be conveyed. Intensive training provides the opportunity to investigate these offenses in great detail and to provide case studies, impacts and practical investigative techniques. As with roll-call training, these sessions

provide an opportunity for guest speakers to present additional technical information. These sessions also make this information available to officers working throughout a law enforcement agency.

Information to be presented is available from a number of sources. The department liaison, working with representatives from the District Attorney's Office, other governmental environmental offices, industry and community groups will be well-prepared to compile and disseminate the information. Additionally, detailed environmental criminal investigation training is available through designated schools or through methods of self-directed learning.

As an example of self-directed training, the National Office of Criminal Enforcement, Forensics and Training, through the National Enforcement Training Institute, makes a compact disc available free of charge to interested agencies. This self-taught program, entitled "Envirocrimes: Clear and Present Hazards," provides the first responder with a basic overview of types of environmental offenses likely to be encountered in a patrol capacity. Patrol officers can obtain information on the compact disc for review at their leisure. Similarly, information about Superfund sites is also available in this manner.

Ultimately, the purposes of establishing a departmental liaison officer and of training line level personnel in these matters are consistent with the desire to prevent, detect and mitigate local crimes against the environment. An educated work force will be better able to ensure that violations are detected quickly and that the appropriate resources are obtained in the most expedient fashion. Under these circumstances it is likely that the long term damaging effects of an intentional harmful act can be restricted.

Implementation Roles

In order to facilitate the addition of environmental investigation duties and responsibilities to department staff, support must be garnered from a myriad of sources.

Department Management

Managers must understand the need for aggressively pursuing environmental criminal acts and must be publicly supportive of the program. Assuming responsibilities that have not been typically demanded of front line law enforcement personnel can be problematic. Managers must work to ease tensions that may arise. Managers are responsible for ensuring that the training and the resources necessary to accomplish the new mission are provided at all levels of the organization.

Department Liaison Officer

The liaison is appointed to this position by management and is responsible for initiating the change within the agency. The employee assigned to these duties must understand the importance of the task and the need for establishing, and maintaining, a flow of intelligence information. The liaison must be capable of establishing, and fortifying, relationships with representatives from government, industry and the community. The liaison must be able to act as a conduit to resolve conflicts and to answer questions. The liaison must be able to work with training staff to ensure that environmental enforcement curriculum is pertinent to line staff. The liaison must be able to report on program needs, goals and accomplishments.

Department Training Staff

Training officers must be supportive of the program. These officers are tasked with the responsibility of garnering the most current information about environmental crime and they are charged with presenting the information in a way that inspires line

staff to actively participate in its prevention and investigation. Training officers must establish positive relationships with environmental and business professionals so as to provide the most relevant information available.

Department Line Staff

Line staff must be supportive of the program or it is doomed to fail. Line officers are to be trained to detect, prevent and mitigate these violations and if they are unwilling to do so the program is in jeopardy. Provision of a thorough understanding of violations and their impacts will aid in obtaining buy-in from the labor force.

Civic Leaders

Leaders of the civic government must be supportive of the new program to ensure that funding sources are available, to remove roadblocks that may arise and to champion the program within the community. While a program of this nature is not likely to be met with significant community resistance, civic leaders enjoy relationships with community groups and industry that can be useful in alleviating concerns outside of the law enforcement agency.

Other governmental and environmental agencies

These agencies must be supportive of law enforcement's efforts to assist in this arena. These agencies must be welcoming of the liaison officer and must be willing to assist in training and informing patrol staff.

Implementation

Once support for the program has been obtained, implementation becomes a possibility. A law enforcement agency considering adding these responsibilities requires little, if any, additional equipment to undertake these duties. The agency must, however, commit to the provision of periodic training for its personnel and to the use of departmental training resources to present this information.

The agency must also commit to providing the departmental liaison officer with the time away from regular duties to attend meetings, training sessions and active investigations in order to facilitate the flow of information to the patrol staff. Participation in these ventures is critical to obtaining the training necessary to investigate environmental crime and to establishing the relationships necessary to ensure the success of a program of this nature.

As with any program, the agency should plan to account for its success or failure through reporting procedures. Reporting of events can be coordinated through the liaison position and reported in a manner suitable to the agency. By virtue of the position, the department liaison officer is most likely to be acquainted with staff training and equipment needs, investigative successes and local trends in environmental offenses. These subjects would be pertinent to any program management reports.

Monitoring and Feedback

Adequate reporting is a critical portion of any program. In this instance, the program management reports must fully document the strengths and weakness of the program to ensure that efficient practices are maintained and that deficiencies are corrected. As environmental enforcement is a non-traditional role, the agency may

experience difficulty in justifying the program during bleak budgetary periods if reporting procedures are nonexistent or substandard.

Proper reporting of environmental enforcement also provides the law enforcement agency a unique opportunity for public relations. Because these violations directly affect the health and welfare of the community, advertising successful investigations and prosecutions will serve to strengthen community support for the program and for the agency. Additionally, advertisement of successful ventures will also serve as notice to potential violators that these offenses are actively sought out and that transgressions are not tolerated.

Summary

The purpose of this chapter has been to present law enforcement executives with alternatives for consideration. Alternatives in addressing the issue of local environmental crime carry consequences for the employing agency. In reviewing four alternative resolutions, this chapter served to identify and review many of the participants, courses of action and anticipated ramifications. After discussing the alternatives the fourth option, highlighting the possibilities offered through collateral assignment and training, was presented as a suggested course of action. This option appears to have the least economic impact on an agency, while affording staff maximum exposure to critical information. Despite its advantages, agency executives should note that no new program incorporating new duties is free from cost. Proper planning for transitioning to the new posture is required for successful implementation. It is this transition that will be addressed in the following chapter.

CHAPTER IV
TRANSITION MANAGEMENT

Introduction

The health of a community and the health of its environment are not inseparable. In endeavoring to be free from blight, disease, pollution and urban decay, civic leaders must pay heed to criminal actions that negatively impact the physical environment of the local jurisdiction. Accomplishing these ends in the law enforcement arena requires that officers gain expertise and experience in laws and circumstances that can be viewed as nontraditional in this profession. For this reason, proper planning is imperative.

To successfully implement a program, a law enforcement agency must prepare to transition to the new posture. Adequate preparation will identify and alleviate many of the concerns that could come to pass as the change is adopted. Furthermore, such preparation serves to indicate those parties with whom an agency may have to work more diligently in order to enact the change. The purpose of this chapter is to present a specific analysis as to opportunities and obstacles that may present themselves as an agency moves in this new direction.

Transition management is comprised of a two-prong process. In the first portion, the agency reviews those parties affected by change and assesses individual levels of commitment, or obstruction, likely to be encountered. The agency then determines what level of support would be desirable to attain to successfully implement the program.

In the second portion of this analysis, an agency reviews responsibilities associated with involved parties. This analysis serves as a roadmap to attaining action, support, commitment or resolve conflict between those involved.

Commitment Planning

Stakeholders are likely to hold a variety of postures. The purpose of this commitment planning exercise is to determine present levels of support for the proposed change and to provide direction for enhancing these levels of support. Fostering support for change in advance is paramount in ensuring the ultimate success of the program. In Table 4.1, the stakeholders previously identified are recorded, as are current and desired levels of commitment to the program. Present levels of commitment are identified by an “X” and desired levels are indicated by an “O” notation.

Stakeholder	Impede Change	Allow Change	Facilitate Change	Champion Change
Department Management		X		O
Line Staff	X			O
District Attorney		X		O
City Council		XO		
EPA		X	O	
Environmental Agencies		X	O	
Community		XO		
Local Industry		X	O	

Commitment Planning Table

Table 4.1

In coming to a determination as to the importance of levels of commitment, it is important to understand that stakeholders either play a direct role in the implementation of change or they are impacted by change. The role played in the implementation can be of a positive nature, if the stakeholder is a proponent of change, or it can be of a negative nature if the proposed change is opposed. If the stakeholder plays no direct role in the implementation of the change, the stakeholder is identified as being subject to impact in either a positive or negative fashion.

For the purposes of transition management, stakeholders who are paramount to implementation are defined as being:

1. Change Strategists: Those persons who envision, design and champion the change
2. Change Implementers: Those parties assigned to enact the change
3. Change Recipients: Those affected by change

The following is an analysis of those who play key roles in the success of environmental enforcement efforts in a large urban law enforcement agency:

Department Management: Change Strategist

Department management is charged with recognizing those factors that contribute to, or detract from, the health of the community. Management is responsible for identifying environmental crime as being of a local concern, fashioning a response and providing the personnel and resources to address the issue. Management support of the program is critical for success.

District Attorney's Office: Change Strategist

The District Attorney's Office is responsible for providing legal counsel and prosecutorial support to criminal investigations. This office is charged with the responsibility of ensuring that those found culpable are held accountable for their actions. Failure to support this program or inadequacy of support or effort will undermine any attempts at implementation. District Attorney support and guidance are critical for success.

Department Line Staff: Change Implementers

Line staff are responsible for acting to prevent, detect and mitigate environmental crimes. It will be the line staff who act as department liaison officers, trainers,

investigators and as first responders. Support of line personnel is essential in that, absent support and commitment, training efforts and intelligence gathering are needless expenditures.

Environmental Regulatory and Investigative Offices: Change Implementers

Other governmental agencies assigned to the preservation of the environment are considered to be change implementers. These agencies play a supportive role in that they hold the expertise that is vital to training personnel in the prevention, detection and mitigation of these offenses. Training resources and intelligence support are critical if staff is to be enabled to undertake these responsibilities and this program is to succeed.

Community/Business Community: Change Recipients

The community, including the business community, is impacted by changes in local law enforcement. Reprioritization, or realignment of duties and responsibilities, shifts resources from one aspect of law enforcement to another. Management must understand that reallocation of training resources and patrol assignments has the capability of detracting from other areas of enforcement. As the community seeks manners in which to direct its limited resources, its support of this program is ultimately beneficial, though not absolutely critical, to its success.

The Transition

In moving toward the desired end of implementing an environmental enforcement program, agency management should give careful consideration to including members from each of the key stakeholder categories on the initial steering committee. Having representatives from management, line staff, the District Attorney's Office, environmental regulatory agencies and the community will provide guidance and direction for implementation.

Additionally, participation breeds ownership. Taking an inclusive stance toward the formulation of a new project provides opportunities to capitalize on existing relationships and to quiet critics by alleviating concerns. By listening to varying points of view and by coming to consensus, where possible, management is poised for long-term success. The steering committee can extricate itself from operations following implementation.

Identifying Responsibilities

To facilitate implementation of a new program, it is critical to identify the expectations that are held of the key participants. By identifying responsibilities of each group, management is able to hold stakeholders accountable for their needed contributions and to move the project forward.

One manner in which these duties can be identified is through the use of a responsibility chart. Duties for each of the implementation tasks may include overall responsibility for the task, the provision of support or resources, the approval for the task to occur, or simply a need to be informed of the task and its purpose. Table 4.2 illustrates the expectations held of key stakeholders in the implementation of this program.

Responsibility Chart					
Implementation Tasks	Stakeholders				
	Dept. Mgmt.	Line Staff	DA's Office	Env. Agencies	Community
Introductory Meeting	R	S	S	S	S
Establish Goals for Program	R	S	A	S	I
Identify Training Sources	R	I	I	S	I
Identify Funding Sources	R	I	I	I	I
Identify Reporting Procedures	R	I	I	I	I
Identify Liaison Officer	R	S	I	I	I
Establish Training Curriculum	R	S	S	S	I
Implement Program	R	S	S	S	S
Evaluate Program	R	I	I	I	I
R = Responsibility A = Approval			S = Support I = Inform		

Responsibility Table

Table 4.2

A graphical reminder of role responsibility in change implementation, the above table makes it clear that management has overall responsibility for the implementation and success of a new environmental enforcement program. Clearly, these duties can be delegated to a liaison officer for coordination. The liaison officer would be the most appropriate position to address project coordination, equipment and staffing planning and program review. Additionally, this officer would be responsible for completing program management reports. It is important to note that while authority to make operational decisions on the enforcement program can be delegated, responsibility for its implementation and success cannot.

Summary

Understanding the roles and responsibilities of key stakeholders allows law enforcement management to facilitate lasting change. By establishing and clarifying expectations, management is able to ensure accountability, track progress and make alterations as needed.

The transition management plan outlined in this chapter provides guidance and direction for managers seeking to implement an environmental enforcement program. The transition management plan is predicated upon groundwork established during the strategic planning process and seeks to ease program implementation. Ultimately, the success of the venture will depend upon the determination, resourcefulness, commitment and planning demonstrated by the various stakeholders.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Harm that is done to the local environment impacts a community in many ways. The appearance, health and economic viability of the local jurisdiction depend upon the sanctity of air, land and water. Unfortunately, there are some who would seek, for personal or economic reasons, to commit acts that negatively impact environmental health. Agencies that typically address these violations often lack the resources to detect and to prevent them, routinely responding after the violation has occurred.

The enforcement of environmental laws is not one that is traditional to law enforcement personnel. The prevention, detection and mitigation of environmental crimes are tasks that are not routinely portrayed as a local law enforcement function. Unlike the prevention and detection of violent crime, this very important function is not glamorized or publicized. Nonetheless, law enforcement agencies cannot become complacent in this arena. The health of the community rests upon the health of its environment.

Depletion of funding for traditional environmental agencies may force many of these duties upon local residents and local government. Law enforcement agencies that fail to plan to assume, or to at least participate in, these duties will be placed into a reactive mode. Reaction to an environmental offense that can be of significant magnitude, with little training or equipment, is not a position in which responsible management should be placed. Law enforcement management should anticipate that this role transition will occur, at least in part, and should plan accordingly.

By and large, the community is deeply concerned about the health of the environment. Aggressive environmental enforcement is popular with politicians, community-based organizations and residents alike. Obtaining support for an environmental enforcement program will not be problematic. Failure to foresee these issues, and to plan accordingly, may only serve to damage a law enforcement agency's relationship with its constituency.

In answer to the question as to how a large urban law enforcement agency will address local crimes against the environment by 2008, law enforcement management has a myriad of options. With proper planning, relationships with traditional environmental agencies can be established and intelligence can be gained. With sufficient staffing, law enforcement management can opt to staff a specialized environmental enforcement unit or to participate in a regional environmental task force. Because the patrol staff is most likely to encounter environmental violations, management can arrange to provide training in prevention, mitigation and enforcement. At a minimum, resource directories can be provided which provide contact information for other governmental environmental agencies. Line staff should be educated as to the types, and costs, of environmental offenses that are occurring in their jurisdiction. Many of these efforts can be coordinated through a liaison officer. Finally, law enforcement management can draw on community and business support to provide eyes, ears, training and resources in addressing a crime with such wide-ranging impacts.

This project has outlined the need for local law enforcement officers to become aware of, and involved in, these investigations. This project has presented alternative forms of active participation and has offered a suggested plan for implementation. Additionally, this project has highlighted the identities and roles of various stakeholders

who will require consideration as responses are adopted. In this final chapter, this project will make specific recommendations for accepting this challenge and for taking positive action.

Recommendations

It is imperative that agencies not wait for the detrimental effects of environmental offenses to become local realities. Implementing an environmental enforcement program requires that an organization understand that actual impacts may not be seen or understood for years and that the benefits of preventing certain violations may never become quantifiable. Nonetheless, inaction is not an acceptable alternative in addressing environmental concerns. Law enforcement management must accept that officers have a role in preventing criminal acts against the environment and that an action plan to prevent, detect and mitigate these offenses must be adopted.

Acknowledging that the prevention, detection and mitigation of environmental crime are roles borne by local law enforcement are positive first steps for management. Advertising the need for undertaking these efforts to staff, city management and to the community will begin a discussion as to what will constitute an appropriate response to these issues for an individual jurisdiction.

Law enforcement management should seek out an employee with a particular interest in this field and introduce that person to members of local environmental regulatory agencies. Management should actively foster the relationships that will make this program successful. Drawing upon community input, management should determine the scope of an environmental enforcement program that is appropriate and should assign this interested employee to facilitate planning and implementation. Taking these

preliminary measures can greatly assist in developing a program at minimal cost to the organization. Ultimately, the creation of an aggressive environmental enforcement program will result in the preservation of a community that is healthy, vibrant and free from blight.

It is recommended that managers interested in undertaking this responsibility actively seek out information as to the types of industries that can be found in the community. Identifying hazards associated with specific businesses, and learning of environmental requirements, can educate managers as to potential violations that may be encountered by staff. Managers should seek out information as to past violations, their ramifications and their resolutions. Managers should seek to become well-versed in the types of environmental agencies, and community-based environmental organizations, that operate within their jurisdictions. Understanding the scope of the problem and the availability of assistance and resources will provide a firm foundation upon which to build a successful program.

APPENDIX A

LIST OF NOMINAL GROUP PARTICIPANTS

Mr. Don Anders	- Police Captain, San Jose Police Department
Mr. Chris Moore	- Attorney at Law
Mr. Bud Porter	- Prosecutor, Santa Clara County District Attorneys Office
Mr. Paul Thomas	- Environmental Engineer, Santa Clara Valley Water District
Ms. Elizabeth Zimmerman	- Environmental Engineer, IBM

APPENDIX B

LIST OF TRENDS

1. Regulations of mobile waste collection services (i.e. grease haulers, port-a-potty)
2. Participation in multi-agency Environmental Task Force to discuss regional issues
3. Public outreach to community (i.e. school program, event booth)
4. Designated systems for the public to report environmental crimes
5. Homeless encampments found near watercourse - impact on water quality
6. Impact of economy on environmental compliance
7. Information sharing among environmental prosecutors
8. Perception by Cities of enforcement action
9. Intentional disposals
10. Environmental cases filed in rural counties
11. Environmentally based laws – Criminalizing
12. Volume of regulated waste material
13. Security measures at industrial facilities
14. Quantity of environmental safety equipment for personnel
15. Communication between business and government agencies
16. Outreach to small businesses by government agencies
17. Use of toxics in manufacturing
18. Cost of compliance
19. Municipalization of utilities
20. Enforcement of regulatory crimes
21. Civil unrest over regulation of water rights
22. Number of portable methamphetamine labs
23. Number of methamphetamine labs
24. Acts of environmental terrorism/vandalism against utility infrastructure
25. Social activism/unrest over environmental issues - Impact on law enforcement
26. Consequences for public agencies and their representatives for negligent planning
27. Local acknowledgement of regional impacts
28. Conflict between local - state - federal agencies regarding enforcement of laws
29. Individual awareness of environmental issues

APPENDIX C

LIST OF EVENTS

1. Release of untreated sewage to public watercourse.
2. 10 high pressure gas cylinders abandoned in public right-of-way.
3. Observed 1 acre pond of aquatic/wildlife stressed or dead due to environmental conditions
4. United farm worker picket city hall for 30 days wanting more environmental protection
5. Terrorist group steals 10,000 pounds ammonia nitrate from company
6. Terrorist event involving biohazard material shuts down water system in S.J. for 1 month
7. Release of toxic gas injures 5,000 people
8. POST mandates environmental crime training in police academies
9. Law passed mandating restaurant grease handling and documentation
10. Environmental crimes unit shuts down, personnel transferred elsewhere
11. 90% cut in federal funding for block grants
12. Public schools mandate curriculum for public schools regarding environment
13. Terrorist event shuts down the western electrical grid for 14 days
14. Water rationing implemented in major cities
15. Legislation passed halting any development which does not identify water source
16. Traffic accident with tanker truck - haz mat – shuts down major freeway for 24 hours
17. Hazardous material hauler dumps load of grease into storm drain
18. San Jose PD closed for 2 months due to toxic release into ventilation system
19. 10,000 Steelhead die due to water diverted for agricultural use

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