A STUDY ON FORGING A NEW FRONT AND BUILDING A NEW VISION FOR TRIBAL ENVIRONMENTAL HEALTH POLICY ON THE COLORADO RIVER INDIAN RESERVATION

by

Diana Fisher De Leon

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As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Diana F. De Leon, entitled, A Study on Forging A New Front and Building A New Vision For Tribal Environmental Health Policy on the Colorado River Indian Reservation, and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Dr. Jennie R. Joe, Chair
Date: April 18, 2005

Dr. Mary Jo Tippecconnic Fox, Committee Member
Date: April 18, 2005

Professor Eileen Luna Firebaugh, Committee Member
Date: April 18, 2005

Dr. Joseph G. Hiller, Committee Member
Date: April 18, 2005

Eric N. Shepard, Committee Member
Date: April 18, 2005

Final approval and acceptance of this dissertation is contingent upon the candidate’s submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

Dissertation Director:  Dr. Jennie R. Joe
Date: April 18, 2005
STATEMENT BY AUTHOR

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SIGNED: Diana Fisher De Leon
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ABSTRACT

Despite considerable efforts to decrease the impact of the Environment on the health of American Indians and Alaska Natives, many health problems attributed to environmental factors continue to pose significant challenges for many tribal communities. The challenges in particular point to the need for environmental protection policies, especially agricultural communities where high and persistent uses of pesticides have bearing on human health conditions. Although there is a need for tribal environmental health policies, research on tribal leaderships’ interpretations and the implications the interpretations have for constructing environmental health policies are minimal. For example, understanding how one tribe defines environmental health is central to how they construct and develop environmental protection laws aimed at protecting the environment and human health.

This qualitative research study took place in a rural agricultural Indian community on the Colorado River Indian Reservation in Parker, Arizona. The qualitative data assessed Tribal Council leader’s interpretations and understanding of how environmental health is defined and understood. The study method employed a semi-structured interview process with selected tribal council members who served a term on tribal council between 1980-2002, especially members who were appointed to specific sub-committees concerned with agricultural activities (i.e. pesticide, agricultural, and farm board). The rationale for conducting qualitative interviews was to determine and ascertain how environmental health has been defined and understood over the past 22 years when these tribal leaders constructing, developing,
and implemented various environmental protection laws. Other forms of data acquisition was through relevant public records from Tribal Council and special committee meeting minutes that centered on developing environmental health policy.

The central aim of this research was to recognize and comprehend the level of understanding, and consideration employed by tribal leaders as they defined environmental health for their agricultural Indian community. By examining and presenting the core values and interpretations of environmental health policy of the Colorado River Indian Tribes, other tribes may learn from this as they formulate and develop appropriate environmental health policies aimed at protecting their environments, human health, cultural beliefs and practices and become more accountable and responsible to their allegiance to their communities.
INTRODUCTION

In the early nineteen seventies there was lots of DDT still being used here on the reservation...and when you talk about agriculture and farming at the time we were above our capacity...people were just using the DDT throughout the whole reservation without any limitations and statutes...and defoliants were being used right over home sites...I remember you could actually hear and see the defoliants that was being used...it was all over the roofs of our homes...you could literally open your door and there it was...so the situation was running out of control. We were seeing a lot of people with asthma problems...and the crop dusters were just spraying anywhere, and didn’t realize how much these chemicals really hurt people...like agent orange...yeah it was used here too...they use to spray that stuff so heavy that you knew when it was cotton time and the crops needed to be turned, because it would smell like garlic and onions...and people were getting sick, things were bad, and it was getting out of control, it was getting into our water beds, in the canals, and being transported throughout the whole reservation. I remember when I used to do yard work throughout the reservation when I found just north of McCabe road lots of chemical drums...there were lots of them all over the place...farmers were just dumping them anywhere, and I found lots buried in the earth. We had no control measures in place, and we had to put a stop to things like this...Tribal council passed the ag [agriculture] code in the late seventies for control measures and regulation of chemical use...we needed to do something to get a handle on things and place more stringent standards on chemical use...we had people actually getting sick, and the water and land was suffering enough from improper use of these chemicals, and so we took control (fg068).

TRIBAL LEADERS AND ENVIRONMENTAL HEALTH POLICY IN THE 21ST CENTURY

Despite considerable efforts to decrease the impact of unhealthy environments on the health of American Indians and Alaska Natives, many health problems attributed to environmental factors continue to pose significant challenges for Tribal communities. The challenges point to the need for environmental protection policies, especially in agricultural communities where high and persistent use of pesticides have an adverse effect on human health conditions.
As indicated in the opening comments by one Tribal leader, persistent use of pesticides within agricultural Indian communities is widespread. Within recent years, many American Indian communities have taken steps necessary to regulate the use of restricted chemicals in their communities. This move was heightened by historical events which included the publication of Rachel Carson’s *Silent Spring*, and the pivotal landmark of the Indian Self-determination Act of 1975 which revolutionized Tribal self-governance. The move for Indian Nations to regulate chemical use has been a challenge, especially as Tribal leaders start to initiate Tribal policies and codes, actions which have been debated at a number of Tribal agricultural communities have been realized from long and exhausting hours of hard work. The controversy challenges whether chemical regulation can adequately serve as a useful mode for minimizing health risks associated with long-term chemical exposures. Although progress has been made by Tribal governments in this area, much work is still needed to address the growing environmental health concerns within Indian Country.

There is no question that Tribal leaders in the 21st century are assuming greater responsibilities for Tribal health programs and environmental health issues. These issues include social, political, cultural, and economic disruptions that have resulted from the treatment of reservations as open dumping grounds for hazardous materials, a situation that has disrupted and contaminated local ground water, and created a plethora of problems associated with chemical use, transportation, storage, and the application of caustic compounds throughout a number of Indian communities. Tribal leaders are planning for their future and taking steps necessary to develop programs that aim at
protecting their environment through a series of Tribal codes. Contrary to the historical
treatment and neglect of Indian lands (Cronon, 1983; Lewis, 1995; Hurt, 1987), there is a
growing concern for developing Tribal Environmental Health policy in Indian Country
where Tribal governments are building a new vision for Indian Nations and reclaiming
the sacredness of Indigenous lands.

Indian people have endured significant changes within their environments from
that originally found in the "Columbian Exchange," as documented by Alfred Crosby
(1972), to the present day description of polluted waters of the Rio Grande near the
Sandia Pueblo. This remarkable damage to the environment is forcing Tribes into
rethinking their future and reclaiming their relationship to the land (Rainie, 2003).

Land and culture are interrelated and require resilient and adaptive vigor. The
dynamics in which environment and culture interact is what Cronnon (1983) describes as
"dialectical," where both person and environment are historical and dialectical. He
asserts that the changing system is dynamic and notes:

Environment may initially shape the range of choices available to a people at a
given moment, but then culture reshapes environment in responding to those
choices. The reshaped environment presents a new set of possibilities for cultural
reproduction, thus setting up a new cycle of mutual determination. Changes in
the way people create and re-create their livelihood must be analyzed in terms of
changes not only in their social relations but in their ecological ones as well (p.
13).

Because environments are biologically dynamic, Tribal leaders need to be
equipped and ready to protect and preserve their land base by implementing
environmental health policies or programs that regulate and monitor activities on the
reservation. While increasing number of Indian Nations have addressed these issues,
resource allocation to implement these recommendations continues to be unavailable for most Indian communities. Moreover, there have been few studies on Tribal leaders’ interpretations of how they define environmental health or the implications these interpretations have on Tribal societies when constructing environmental health policies (US EPA, OPPTS, 2004).

The impacts and interpretations of environmental health from a Tribal leadership perspective within an agricultural Indian community is the primary focus for this research. The following section addresses the thesis question and research rationale.

**RESEARCH GOAL AND OBJECTIVES**

The overall goal of the research project was to interview Tribal Council leaders from the Colorado River Indian Reservation (CRIR) in Parker, Arizona, who held office between 1980-2002. Exclusive criterion were identified for participants for the research project, which not only included Tribal Council leaders, but who also participated in Tribal Council Subcommittees on the pesticide, agriculture, farm, and health board, as well as other key individuals who were approached and volunteered to participate in the interviews.

The rational for interviewing selected Tribal leaders served two purposes; 1) they provided direct insight as to what discussions were like in determining how environmental policy/Tribal code(s) were developed and enforced, and 2) since decisions for addressing environmental health policy are ultimately a Tribal Council action, their input was paramount in data acquisition.
The research focused on gaining a better understanding of how environmental health policy was defined, developed, and implemented, and addressed the following questions:

1. How is environmental health defined and understood within an agricultural Indian community on the Colorado River Indian Reservation?

2. How has this definition influenced environmental health policy for the Colorado River Indian Tribes?

3. And finally, what are the future implications for developing environmental public health policy within an agricultural Indian community?

HEALTH AND INDIAN COUNTRY

Among the myriad of current political issues to which Tribal leaders must respond to are the growing concerns about the health care needs of Indian people, a concern that has continued to grow. The earliest federal health assistance on record for Native Americans dates back to 1832 when Congress appropriated $12,000 for an organized smallpox vaccination program for Tribes that were friendly to the European settlers. Nearly two centuries later, some health and social policies specific to American Indians have evolved so that many Native American communities, under self-determination contracts, have taken over the responsibilities for managing their own health care systems (Roubideaux, 2004).

According to the US Census 2000 report, either in part or whole, more than 4 million Americans claimed ancestral ties to American Indians/Alaska Natives (AIAN)

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1 See in H.R. 190:22-1, pp. 2-8. “Small Pox Among the Indians” March 30, 1832.
(U.S. Census Bureau, 2002; Roubideaux, 2004). Among this group, Indian Health Service reported that nearly 1.6 million accessed these health services at least once over a three year period.

In recent reports released from Indian Health Service, the leading cause of death among AIAN is heart disease, with cancers ranking second. Environmentally caused cancers along with avoidable causes are both attributed to the second leading cause of death among AIAN. Death rates attributed to alcohol, tuberculosis, diabetes, accidents, suicides, pneumonia, and homicides are higher among AIAN than the National average (IHS, 1998-1999).

While it is well understood that factors like diet and genetic dispositions contribute to human diseases; diseases or illnesses due to toxic effects from chemical exposures is not an area that is well understood nor wholly appreciated by health professionals and the general public. This lack of understanding presents a number of challenges for many agricultural Indian communities where chemical use is high and resource allocation is sparse for addressing assertions of chemical exposure as a cause and effect circumstance. The problem is further complicated by the fact that data on environmental chemical hazards and health of Indian communities are not readily available.

Environmental public health measures strive to protect humans from natural disasters, accidents, and intentional threats in the environment. Where such protections are lacking, as they are for some American Indian communities, environmental hazards are often the underlying causes of death and disease. Some examples of determinable
effects of environment hazards include high lung cancer mortality for Navajos who worked in uranium mines in the late 1940s, fallout health consequences for the Shoshones from the testing of Atomic bombs in the Western Nevada, to the storage of toxic waste from the Hanford nuclear weapons facility that has threatened a key food source for Tribes along the Columbia River (Colomeda, 1999; Dixon and Roubideaux, 2001).

Protecting American Indian communities from environmental hazards, especially toxic chemicals, is an emerging, complex issue for Tribal leaders, as it has been for other National leaders. Environmental health policies may have been at the infancy stages in the late to mid-seventies, but in the 21st Century they are becoming a matter of principle, and serve as standards for AIAN Nations concerned with environmental health issues. Such concern may mean that the health of the environment and health of the people will be more than “buzz” words for this century.

ENVIRONMENTAL PUBLIC HEALTH POLICY

What is environmental public health policy? Environmental public health policy has multiple definitions, each tailored to specific groups and organizations at the local, state, and federal levels. The underlying goal of environmental public health is to protect humans from any natural, accidental, and/or intentional threats in the environment. Within an institutional setting, or within a defined discipline, environmental public health can cover a wide range of issues and concerns that range from broad-based thinking regarding human health and diseases to particular environmental exposures.
In 1997 the Environmental Public Health Policy Committee, which advises the Assistant Secretary for Health, Department of Health and Human Services, on specific policy issues pertaining to environmental health hazards, met and considered various definitions of "environmental health" (US DHHS, Environmental Health Policy Committee, November 20, 1998). A total of twenty-eight definitions were collected and contained some similar characteristics that included; 1) all mentioned human health, public health, or humans, or similar words, 2) in addition to human health, some definitions mentioned ecologic health or ecological balances, and 3) a few definitions mentioned specific environmental stressors, such as physical, chemical, and biologic agents. For example, the Institute of Medicine defines environmental health as freedom from illness or injury related to exposure to toxic agents and other environmental conditions that are potentially detrimental to human health.

Other institutional definitions of environmental health included the following:

- Agency for Toxic Substances and Disease Registry defines environmental health as the branch of public health that protects against the effects of environmental hazards that can adversely affect health or the ecological balances essential to human health and environmental quality.

- National Center for Environmental Health of the Centers for Disease Control and Prevention sees environmental public health as the discipline that focuses on the interrelationships between people and their environment, promotes human health and well-being, and fosters a safe and healthful environment.
• National Environmental Health Association (NEHA) refers to environmental health as the protection against environmental factors that may adversely impact human health or the ecological balances essential to long-term human health and environmental quality, whether in the natural or man-made environment.

• National Institute of Environmental Health Sciences goes on to list factors affecting health or certain "environment" or "environmental agents" such as foods and nutrients, physical agents such as heat and ionizing and non-ionizing radiation, social and economic factors that affect health and behavior, lifestyle choices including substance abuse, and synthetic and naturally occurring chemicals.

The complexity of the definitions in and of themselves show that environmental health is a complex subject requiring individuals to think in a global context about environmental public health concerns. But, for many American Indian communities, environmental health is foremost a matter of social, cultural, and economic concerns. Environmental health becomes an issue under Tribal sovereignty when Tribes want to establish environmental health codes and policies that address health and the environment. Tribes are required to not only assert sovereignty to gain environmental control over their reservations, but more importantly to affirm their responsibilities to their communities, both Tribal members and non-members. The next section provides an overview of how Tribal policies are related to federal regulation.
Over the past 20 years the US Environmental Protection Agency (EPA) has been responsible for the administration of federal environmental laws governing Tribal governments and Tribal lands. Fueled by new policies and differing administrations, the EPA oversight began to change direction for Native American communities shortly after the Nixon administration.

REGULATION OF TRIBAL ENVIRONMENTS: A WALK IN THE PAST WITH FEDERAL LAWS AND POLICIES

A new direction for Indian policy, and a historic step forward for Indian people, was initiated in 1970 when President Richard Nixon, in a special message to Congress, proposed this policy of self-determination without termination:

Self-determination among the Indian people can and must be encouraged without the threat of eventual termination. In my view, in fact, that is the only way that self-determination can effectively be fostered. This, then, must be the goal of any new national policy toward the Indian people to strengthen the Indian’s sense of autonomy without threatening this sense of community. We must assure the Indian that he can assume control of his own life without being separated involuntarily from the Tribal group. And we must make it clear that Indians can become independent of Federal control without being cut off from Federal concern and Federal support. My specific recommendations to the Congress are designed to carry out this policy.... (Prucha, 1975, 256-257).

Following President Nixon’s address, a number of other federal policies were initiated, which offered Tribes a new momentum in self-determination. The 1975 Indian Education and Self-Determination Act (25 US Code, subset 450-450n) provided Tribes with a wider platform in exercising control over programs for health, education, housing, law enforcement, and community development. Tribal autonomy was codified in federal law, and exercised by the powers of Tribal leaders, where American Indians began to play a crucial role in environmental regulation of Indian lands (Getches, et al., 1998,
621). Under certain circumstances, Tribes not only have the power to regulate their Tribal members, but non-Indians residing on Indian lands were also subject to Tribal regulation under particular policies that are generally federally supported. Tribal environmental regulation is overseen by the EPA and EPA is responsible for the administration of federal environmental laws which typically allow states to develop their own environmental protection standards similar to federal code.

The movement towards Tribal environmental regulation came under the Reagan administration in 1983. President Reagan’s Indian Policy Statement² (1983) was to be accomplished "by removing the obstacles to [Indian] self-government and by creating a more favorable environment for the development of healthy reservation economies." It also promised federal assistance in "developing the necessary management capability and in attracting private capital" by means of "seed money" earmarked for Tribal use³.

Implementing Reagan’s new Indian Policy, the US EPA adopted a new Indian Policy recognizing the role of Tribal communities in environmental regulation. The purpose of this policy (see APPENDIX A) was to expand on “existing EPA Indian Policy statements in a manner consistent with the overall Federal position in support of Tribal "self-government" and "government-to-governments" relations between federal and Tribal Governments.”⁴

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³ Ibid., I:96-99.
⁴ See in EPA Policy for the Administration of Environmental Programs on Indian Reservation: EPA Indian Policy, Memorandum dated November 8, 1984, William D. Ruckelshaus. “In carrying out our responsibilities on Indian reservations, the fundamental objective of the Environmental Protection Agency is to protect human health and the environment. The keynote of this effort will be to give special
Reagan's policy statement also indicated that the EPA was given the primary authority for regulation of Indian environments—rather than under the control of the state governments. And since these environmental statutes failed to contain enforcement provisions for Tribes, Congress amended these statutes for Tribal self-control. The treat "Tribes as States" statute (TAS) was promulgated to meet minimal federal standards (Getches, 1998, 622-23). This final rule is illustrated in the amended Safe Drinking Water Act of 1974, which authorized the EPA to delegate enforcement responsibility to Tribal governments for regulation of their public drinking water systems and protection from contamination of underground drinking water injections.

The Clean Water Act's (CWA) TAS, as amended by Congress in 1987, permitted Tribal control over water resources for specified purposes as outlined in Getches ((1998) notes on eligibility of Tribes to:

....receive grants for pollution control under section 1256, 2) funds for the reconstruction of treatment works, 3) setting Tribal water quality standards, 4) enforcement of specific standards, 5) the administration of clean lake programs, 6) certifying National Pollution Discharge Elimination System (NPDES), 7) issuing NPDES permits and 8) issuing permits for discharging dredged or fill materials in wetlands, and waterways" (p. 624).

Tribal environmental jurisdiction may exercise authority under the CWA which extends to water on trust land or lands "otherwise within the borders of an Indian reservation" (p. 624). Tribes are allowed by EPA to submit their water quality standards and TAS

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consideration to Tribal interest in making Agency policy, and to ensure the close involvement of Tribal Governments in making decisions and managing environmental programs affecting reservation lands". To meet these objectives, EPA outlined nine specific objectives for Tribes.

5 The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the Nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources; rivers, lakes, reservoirs, springs, and ground water wells.
allowing Tribes to “fill a regulatory void in the implementation of CWA” (Grijalva, 1995).

In 1990 Congress amended the Clean Air Act authorizing Tribes to specify air quality classifications on “lands within the exterior boundaries of reservations”\(^6\) and added TAS allowing Tribes to participate in all aspects of regulation of “air resources within the exterior boundaries of the reservation or other areas within the Tribe’s jurisdiction” (§ 7601(d)(2)(B) 59 Fed. Reg. at 43,955-83, n6). Additionally, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund, provided for cleanup of hazardous materials in the environment. In 1986, the act was amended to allow Tribes TAS status, allowing Tribes to enter into contracts or agreements with federal agencies in carrying out the removal of hazardous substance. Under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)\(^7\), the EPA grants appropriate Indian governing bodies limited authority to regulate the use of restricted pesticides\(^8\). These promulgated regulations permitted EPA to develop certification programs which authorized Tribes to develop their own programs to certify the use, storage, and transportation of pesticide applications. Regulation and enforcement of pesticide within the exterior boundaries of Indian reservations permit Tribal action and authority.

\(^6\) Congress added subsection (C) to the CAA Amendments of 1990, Pub. L. 101-549, 107(b), 104 Stat. 2399, 2464 (codified as amended at 42 U.S.C. 7474(c) (1988) which provides: (c) Indian Reservations Lands within the exterior boundaries of reservations of federally recognized Indian Tribes may be redesignated only by the appropriate Indian governing body. Such Indian governing body shall be subject in all respects to the provisions of subsection (e) of this section.


\(^8\) See FIFRRA regulations in 40 C.F.R. 171.10 (1988).
CHAPTER OUTLINE

Chapter one discusses the concepts of Nation Building and the development of environmental health policies for Tribal institutions. This chapter includes a historical overview of Indian policy and the establishment of environmental frameworks in which Tribes assert sovereignty through environmental control measures, specifically measures initiated by the Colorado River Indian Tribes (CRIT). An overview of environmental protection codes adopted by CRIT is discussed, as well as roles and responsibilities of the Tribe’s Environmental Protection Office (EPO).

Chapter two provides a historical overview of the history of the Colorado River Indian Reservation. A detailed sketch of the early Spanish accounts of the Indigenous Mohave people along the lower Colorado is discussed. There is also an overview of the United States Army installations and the federal government’s irrigation project, which ultimately led to the population explosion of the west. Because history and culture play a critical role in shaping Tribal societies, the author provides the history of CRIT and offers a current look into the CRIT Tribal government and community.

This dissertation is organized in the following manner: Chapter three discusses the research methodology employed and discussion on various steps taken for the data acquisition. This process consists of five parts: (1) introduces the research project to current Tribal council leaders to gain their support and approval prior to submission of the research plan to the University of Arizona Institutional Review Board; (2) next steps generate a list of potential study participants from the Tribal word processing department; (3) letters are mailed to potential participants inviting them individually to participate in a
qualitative interview and outlines steps taken to set up interviews, disperse follow-up letters and phone calls to individuals from whom no responses were made; (4) describes a series of in-depth face-to-face interviews (20 Tribal leaders) from the initial sample pool; and (5) covers the acquisition of public records, sub-committee meeting minutes, administrative records relevant to this research, and other relevant legal documents that occurred during the timeline selected for this particular project.

Chapter Four presents a detailed sketch of the data collected with a special focus on CRIT as one particular Indian community that serves as an example as how this Tribe defined and acted upon establishing environmental health policies for this agricultural community.

Chapter Five provides an interpretive analysis of the data that was presented in Chapter Four. And Chapter Six, the final chapter, touches on the future outlook for Tribal communities engaged in developing environmental health policies. While the research findings concentrate on key concepts and attributes of Tribal leadership that helped make environmental health policy for one Tribe, the consequences of unhealthy environment such as multiple forms of cancers, childhood asthma, etc. remain central as well.

Tribal leaders throughout Indian America are vested with varying degrees of responsibilities when addressing environmental health, and they have the possibility of producing positive change within their own Indian communities. One outcome of this study has also been to present a Tribal environmental public health model that is useful for generating environmental protection policies.
CHAPTER I
NATION BUILDING AND ENVIRONMENTAL HEALTH POLICY:
ECHOS OF THE PAST STRENGTHENING OUR FUTURE

Because this study targets development of environmental health policies by Tribal
governments, the key people selected for this study are former and present members of
the Colorado River Tribal Council. These individuals are quick to note that leading a
Nation is not an easy task for Tribal leaders. The interviews were held with selected
members of the Tribal council, most of whom held position as officers or members of
standing committee members of the council. Officers included positions of Chairman,
Vice-Chairman, Secretary, Treasurer, Councilman, Councilwoman, etc.

Scholars engaged in the study of Nation building suggest that the success of
Tribes who are “more fit” in acquiring success in social, political and economic milieus is
largely determined by the degree of leadership abilities, good management skills, and
operative self-governance (Begay, 1997; Cornell and Kalt, 1992). This section
introduces the concepts of Nation Building and reviews relevant literature which has
provides the foundation and framework for this research project.

In early December of 2001, the Udall Center for Studies in Public Policy and the
Native Nations Institute sponsored a conference that gathered representatives from
approximately forty Indian Nations across the States. The conference provided a
platform for sharing and networking with individuals who are concerned with or working
with Indigenous environmental and natural resource issues. Many of the conference
participants expressed how much they have learned from each other and how important it
was to hear detailed discussions regarding political, economic, and social agendas throughout Indian Country.

During the plenary session, Professor Kalt (2003) discussed effective environmental management is through the lens of a Nation Building Model. He argues that three concepts: 1) political sovereignty, 2) social sovereignty, and 3) physical, psychological, and economic well being as the common denominator among Tribal governments who have been successful in environmental management. More specifically, Tribal institutions succeeding on their own must possess similar profiles that include a) De facto sovereignty, where Tribes are marked by the drive to make their own decisions and create their own institutions, b) sovereignty “backed-up” by capable institutions of self-government, and c) a cultural match between institutions and underlying values and “ways of doing things.”

Cornell and Kalt (1992) conducted a study in the 1980s to determine development strategies and what it takes to be successful as defined by the Tribes. In their findings, they attribute three key components to successful economic development which included (1) external opportunity, where geography and the political economy can affect how financial capital is accessed based on how well the market is tapped and how far the market is from the reservation, and how well political sovereignty is exercised within the decision-making framework of the Tribe; (2) internal assets, when internal resources are well controlled and committed to the development of the Tribe. Central to the Tribes’ assets are the utilization and preservation of natural resources; human capital, institutional governance--laws, codes, and policies--in place; and cultural norms, where
doing things properly (as defined by Tribal practices) is the given norm and culture within the community; and finally (3) development strategy, where decisions made by the Tribe are based on strategic planning in regard to how well economic adventures are planned and approached and choice in economic planning.

The central aim of this research was to learn how Tribal leaders on the Colorado River Indian Reservation interpret environmental health and how this interpretation has been translated into existing Tribal codes and policies. I will provide a short overview of National policy and events that took place which serves as a backdrop to the transformation undertaken by CRIT’s leadership in developing Environmental Protection Policies. The changes that occurred over time have been reflected in regulatory patterns within CRIT’s agricultural economy. The transformations occurred with hard work and strategic planning from strong Tribal leaders who stood watch over the formation of policy that would inevitably affect the health of their environment and Tribal members.

A Changing World and Changing Views

In an effort to overcome widespread social and economic disadvantages and embedded poverty on reservations, Tribal governments have begun to shift the old paradigm of dependent Indian Nations into independent Indian Nations, taking on a number of economic activities as self-governing institutions with a multiple or varying outcomes (Castile, 1992, 1998; Cornell, 2001). The paradigm shift for self-determined Tribes began in the late sixties and early seventies when Indian people began to assert their own agendas and affirm their rights and allegiance to their communities. It was a time marked by emergence of articulate and charismatic Indian leaders across the United
States who sought to overcome conditions left in the wake of National political inattention of the 1950s and 60s.

Despite John Collier's good efforts as the Commissioner of Indian Affair with his 1934 Indian Reorganization Act (IRA), which helped stopped wholesale allotment of Indian land and the call for re-organizing Indian governmental societies, this era was also disastrous for Tribes, especially Tribes who were not anxious to accept a form of Tribal government that disempowered traditional leadership models within their communities. Others utilized the development of new Tribal government structures to pass laws, develop codes and proceeded to take steps to establish strong governing institutions. Many Tribes had organized traditional structures of government in place\(^9\) prior to the passage of the act, but in many cases these existing models were not recognized by the federal government. If Tribal communities did not support the IRA and silently eschewed the whole policy, the federal government assumed that the new Tribal government model was accepted. Traditionalists from the Hopi Tribe did not welcome the federal government's new form of government model and rallied against it by refusing to acknowledge or participate with the newly elected Tribal officials.

Federal policy to establish government-sanctioned Tribal governments was only one of many policies that impacted the governing of Tribes. Other policies served as stepping stones toward policies that attempted to terminate Tribes' treaty relationship with the federal government. Fifteen years after the passage of the IRA, a number of

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\(^9\) Traditional Tribal government prior to the IRA reflected the will of the people, the government reflected "...religious values of responsibility and harmony...power came from the people and flowed upward to the leaders" see in O'Brien (1989) pp. 14-16. Tribal leaders made decisions based on the consensus of the people in order to keep harmony in balance.
Indian Tribes experienced these catastrophic assimilation policies. The termination policy was enacted to terminate certain Tribes who were determined to be economically self-sufficient enough to be ready to be assimilated into mainstream or white society (Deloria and Lytle, 1984; O’Brien, 1989). This post WWII federal strategy provided an aggregation of terms regarding Indian policy and included language that called for emancipation, federal withdrawal, readjustment, and perhaps the most infamous one of all, “termination.” This about-face federal policy put an enormous strain on several Indian Tribes who, after these experiences, reaffirmed their conviction and advocacy for Tribal sovereignty.

During the Truman and Eisenhower administrations, federal legislation was enacted that stipulated a number of things for Tribes. For example, on June 9, 1953, Congressman Harrison introduced House Concurrent Resolution 108, a policy intended to terminate several Tribes. The impact of this action continues to haunt subsequent generations. Termination removed restrictions of federal guardianships and supervisions over certain Indians, and transferred services provided by the federal Bureau of Indian Affairs (BIA) to other federal and state agencies, or sometimes to Tribes themselves. This ended the Tribes’ status as federally recognized Tribes, an action that targeted approximately 109 Indian Tribes who subsequently lost most of their lands to private ownership (Getches et. al., 1998; Canby, 1999; Cohen, 1982).

The social and economic consequences from the termination era were disastrous. The negative consequences, however, created a movement whereby many Tribal leaders geared up and galvanized a political, social, and economic crusade that politicized the
need for Tribal sovereignty and rights to self-governance. Despite the varying differences within Tribal societies, American Indian communities shared a common thread of democracy with great emphasis on responsibility to community. As Tribal institutions began to assert their rights to self-governance, the movement was experienced not just by American Indians, but the American public, many of whom became active participants.

The 1960s brought forth a flood of Indian people demonstrating for civil liberties. In 1961 more than 500 gathered at the Chicago Conference to advocate for Tribal sovereignty. National organizations formed and worked hard to bring about change. Later in 1969, Dennis Banks and George Mitchell formed the American Indian Movement and protested against police brutality against Indian people in city of Minneapolis. That same year saw the beginning of an eighteen-month occupation by Indian students and activists on the abandoned Island of Alcatraz in the San Francisco Bay, bringing national attention to the problems faced in Indian Country. The Kennedy report “Indian Education: A National Tragedy-A National Challenge” (S. Res. 80, 91st Congress, 2nd Session, November 3, 1969) reported that coerced assimilation was not working.

The War on Poverty of the Johnson administration was a welcome change in many Tribal communities. It allowed resources for Tribes to assume greater responsibility in managing their economic and political institutions. Preceding President Nixon’s message to Congress in July 1970 was a culmination of events that facilitated the
enactment of PL 93-638. Nixon’s landmark statement called for federal policy of “self-determination” for Indian Nations.\(^{10}\)

Years later, after the passage of PL-638, Morris Thompson, Commissioner of Indian Affairs, addressed Tribal leaders in Phoenix, Arizona at the National Tribal Chairmen’s Association and noted:

In a nutshell, here is the Federal Government’s policy today: It offers self-determination and self-government to Indian people as rapidly as Indians want it and can assume responsibility for it. In other words, Tribes have the option of assuming control of their own Federal programs whenever they wish to do so. Furthermore, they will not be cut off from Federal support; they need only demonstrate strong and responsible Tribal government and the ability to handle programs on their own.

Politically autonomous Tribes were evolving and surviving: they were neither static nor unwavering. Although advocacy for self government remained strong, Tribes were also under constant attack and were encouraged to remain subject to the plenary power of the United States Congress, as rooted in the development of federal Indian law.\(^{11}\) Others disagreed and stated that organized Tribal institutions do not come at the snap of a finger, they are molded and defined within their histories, stories, songs, prayers, and moreover “place,” which gives them a sense of belonging (Begay, 1997)

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\(^{10}\) President Nixon stressed in his Indian Policy “self-determinNation without termiNation” here the term was given legislative substance and “authorized the Secretary of the Interior and the Secretary of Health, Education, and Welfare to contract with Indian Tribal organization for Tribal operation and the administration of specified federally funded programs administered by these agencies.” See in American Indian Sovereignty and the U.S. Supreme Court: The Masking of Justice by David E. Wilkins, 1997, pp. 187, 239-292. And in The Rights of Indians and Tribes by Stephen L. Pevar pp. 58-60.

\(^{11}\) Congress’ scope of power over Indians is virtually unlimited, having full powers over their membership, property and government as held in United States v. Sandoval (1913), and as expressed in Morton v. Mancari (1974) the court states, “Congress has plenary authority to legislate for the Indian Tribes, in all matters including the form of government.”
Understanding Who We Are and What Exists

As critical as it may be for institutions to define themselves as an organization, it is fundamentally important for individuals—particularly for those of us who are Indians in this case—to understand who we are, where we are from, and how we identify with our diverse cultural landscapes. The cornerstone of most cultural group is a deep sense of interconnectedness with the natural environment. In other words, Tribes see themselves as being as much a part of the landscape as they are dependent upon its natural resources to survive. American Indians, therefore, view the purity of the land as paramount to their continued existence (Basso, 1996; Momaday, 1994).

Equally important and parallel with Tribal concept of sense of place are the ideas and concepts within Nationhood—the ideas and local norms that ascribe to a “cultural match” between individual governing institutions and the prevailing ideals within the local Tribal community. This is generally described as how local Tribal authority should be organized and exercised. As argued by Kalt and Cornell (2000), as community cultural norms begin matching the local governing body, “governance tend[s] to have a high degree of support in the community, commanding allegiance and respect...[And] where cultural match is low, legitimacy is low, and governing institutions are more likely to be toothless, ignored, disrespected, and/or turned into vehicles for personal enrichment.” At the same time, Tribes are also forced to have in place three fundamental task in which formal governing institutions must perform efficiently: 1) to carry out policies and strategically implement these choices; (2) to provide for an effective and safe
political environment, and (3) to mobilize and sustain local community support for continued strategic planning ((Kalt, 1996).

Policies that reflect the local community ideals, whether economics, health, or education, are all part of the structural arrangement between government and community. Institutions with a strong “cultural match” often have embraced the ideas and concepts of recognizing sense of place. Described by Basso (1996), these ideas and concepts for men and women who give significance to their physical landscapes become “wedded to the landscape of mind” and thus are sharply aware of the complexities of their physical world—yielding the description of “cultural match” and giving meaning and relevancy to fundamental cultural norms of the community and governing institutions.

As Tribes begin to define themselves and move forward in the pursuit of Nation Building by maximizing the utility of Nationhood, local laws and policies that are put in place designed to protect the Nation will be reflected in their health, environmental, political, and economic legitimacies that ultimately hold them together. With this in mind, and perhaps more importantly, Tribes and the federal government often find themselves separated by a profound cultural divide, across which both sides must carefully navigate as they attempt to communicate with each other and agree on common goals and policies designed to protect the health and welfare of Indian communities.

Furthermore, once local community norms are understood, the steadfastness of the government and resolve of the people will be in concert for making decisions that protect the Tribes’ health, safety, and welfare. If we were to look at environmental health policies within the context of a Nation Building model, institutional policies must
respond to the demands of sovereign governments within this modern world, must also reflect local beliefs about how authority should be organized and exercised, and must create environments in which Tribal members begin to trust the government and want to invest in the future of their Tribe.

Sovereignty of a Tribe hinges on how well Tribal institutions can effectively and efficiently implement policies and deliver the goods. Sovereignty alone, however, does not necessarily assure that Tribal institutions can be successful in making environmental health policies. The key is answering the questions: “do we [as a Tribal government] have the right stuff for taking action that produces productive outcomes? And do we understand the implications of our actions and how much do these implications that mean to “us” as an Indian community?”

Tribal communities are required to look, listen, and feel the dynamics within their societies to determine what exists within their communities and institutions that will help foster and strengthen effective change for adopting environmental health polices. Building on existing capacities and making use of Tribal authority is a common theme for many self-determined Indian Nations.

**Catalyst for Change: Bringing Environmental Impacts to the Forefront**

A generation of Americans “came to age” in the 1960s and publicly fought for social injustices, civil rights, self-expression, and against the Vietnam War. The escalating public protests created a domino effect that allowed many to express their political opinions. Many “unpopular” individuals or political activists were sought out by
the federal government to “neutralize” or stop them altogether. Actions such as these fueled opinions about social injustices.

One of the key motivations to undertake this study is credited to the movement that resulted from Rachel Carson’s 1962 publication of *Silent Spring*. Carson’s publication literally shocked the nation and the environmental community by presenting the harmful effects of DDT on humans and the call for increased awareness of the dangers of pesticides. Carson’s work helped galvanize an environmental movement that called for changing policies, increasing monitoring of chemicals, and was instrumental in the creation of our Nation’s Environmental Protection Agency (Carson, 1962, 1993). Carson’s research led to the creation of baseline data on the concentration of chemicals in water, soil, and air and to the positing of correlations between environmental toxins and health concerns.

Against a backdrop of Carson’s work\(^\text{12}\), research regarding environmental health throughout American Indian communities has become an emerging issue that has been taken up by various disciplines. The United States federal government established the EPA in 1970 in response to the growing public demands for safe water, clean air, and protected lands. At its inception, EPA was neither equipped nor ready to provide a framework of operations to protect human health and the environment and had to enlist the help of American people and designed a program that would provide a variety of services.

\(^{12}\text{One year before Rachel Carson’s death in 1964, she urged Congress to change policies that addressed the protection of human health and the environment. She inspired the world and forced people to think about how the environment affects human health. Her legacy has inspired us all, including in the federal government in how we look at the natural world.}\)
Over the past three decades, environmental health has received increased attention and has made some advances under new policies and programs implemented to decrease the risks to human health. In view of these improvements, American Indian communities began addressing ways in which environment interacts with health, and took on the challenge to help establish policies that protected their health, welfare and economic sustainability.

Indian Country was not exempt from the environmental dangers faced by mainstream society. Indian Nations throughout the country were experiencing quite similar, and in some cases, more devastating consequences from environmental harms. Fueling the Cold War, miners on the Navajo reservation from 1950-1980 were exposed to uranium raw materials which slowly affected their physical, psychological and cultural well-being (Eichstaedt, 1994). From the southwest to the Great Plains, many other environmental health concerns followed, as seen on the Fort Belknap Indian reservation in central Montana, where cyanide contamination from mine waste poisoned more than 10,000 miles of river beds (US Department of Health and Human Services, 1993; Colomeda, 1999).

The same year the EPA was formed, the Ojibwa people in Northwest Ontario of Grassy Narrows were subject to high concentration of methyl mercury in their riverbeds. The contaminated waters affected their quality of life and made their homeland a precarious place to live. One Indian elder poignantly characterized the environment as, “A diseased place to live” (Shkilnyk, 1985). Environmental degradation within Indian communities continues to affect the health, safety, welfare, and cultural landscapes. In
light of these environmental harms experienced across the Nation, Indian leaders are trying to make policy changes within their communities by adopting laws and policies to bring about change.

**Environmental Protection: Shifting Roles in Indian Country**

Most Indian Nations have had to overcome considerable obstacles to build strong institutions in the pursuit of Tribal self-determination and self-governance. As many Tribal organizations continue to survive and take on new challenges, the premiums to success will be measured not only by the glue that holds the government and community together, but also by their inherent right to self-governance and the ability to withstand the pressures placed on them by federal and state agencies. Local municipalities continue to intrude and threaten Tribal sovereignty by muddying the lines of who has the power to make decisions or policies about regulation, enforcement, and jurisdictional rights. Unfortunately some of these intrusions into Indian Country come at that price because Tribal laws, rules, and regulations may not be adequately in place to protect inherent Tribal rights.

What kind of an environment should be secured for future generations in Indian communities? What will the future hold for Indian Country when Tribes begin regulating and enforcing laws that are aimed at protecting their environments? The answers to these questions are not simple, but rest on how well Tribal institutions are defined, organized, and responsive to local needs. In order to effectuate the ideas of how environmental policies are implemented within and outside of Indian Country, one must understand how each policy is constructed, enforced, and maintained within Tribal societies. Moreover, it
is important that one understands how environmental health is defined in order to make laws that are intended to protect the things of value to Tribal communities.

Laws that are constructed by Tribal leaders require hard work and commitment, not only by elected officials, but throughout the community. The tasks are daunting at times, and resources are minimal, so situations occur that often impact the efficacy of laws constructed to protect and maintain safe environments. For the purpose of this research, a history of the CRIT Environmental Protection Office will be provided in Chapter Three and research findings will be presented in Chapter Four where many of these issues are discussed in greater detail.

_Taking Charge and Securing Tribal Future: Environmental Regulation and the Establishment of an Environmental Protection Office_

The Tribal Council finds and declares as follows; a) The economic welfare of the Colorado River Indian Tribes, their members, and others residing or working within the Reservation is dependent upon agricultural use and development of lands within the Reservation; b) Maximum benefit from such use and development requires extensive application of various pesticides within the Reservation; c) Use of pesticides may be required periodically for maintenance of healthful conditions within the Reservation; and d) Pesticides also may jeopardize the public health, safety and welfare. Therefore, it is the intent of the Tribal Council to provide for the safe production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation by the enactment of this ordinance; by the creation of the Pesticide Control Committee; and by the authorization hereby delegated to the Committee to adopt a pesticide control program and rules and regulations, and to enforce this ordinance, that program and those rules and regulations (Section 3-101, Article 3: Pesticide Control, enacted on February 28, 1978 by Ordinance 31 of the Colorado River Indian Tribes).

The above-referenced quote is from the CRIT Agricultural Code, Article 3: Pesticide Control. The provisions of Article 3 were enacted in 1978 by Tribal Council
for the specific purpose of pesticide control measures. Careful planning was put into the
development of producing an ordinance, which later served the basis for other ordinances
that followed. This section is meant to provide a background and shed light on the
development of environmental health policies and the environmental protection office on
the Colorado River Indian Reservation. The histories presented are meant to offer a
background for Chapter Four, where data is presented regarding how CRIT council
members have understood and interpreted environmental health over the past twenty
years.

Health and the environment are interconnected, and recognizing the nexus
between the two is crucial to achieving sustainable and healthy communities. America
had seen vast changes as a result of the attention on environmental health that marked the
1950s and 1960s. Among these changes have been the pressure on the political arena to
give voice and power to Tribal governments to regulate and develop environmental
health policies for their reservation lands. This change was especially aided by policies
that encouraged Tribal self determination. For example, President Nixon’s address to
Congress in the mid 1970s served as a pivotal time for American Indians when the
President affirmed his policy of self-determination for Tribes. This policy helped
launched Nation building for many Tribes as they instituted reforms and took charge.

The majority of Indian Country lies at the heart of “rural America” and is situated
in remote locations, often rich in multiple natural resources. Managing these resources
requires a certain skill and capital to develop and gain from these assets. Evaluation or
assessment of these resources require Tribal leaders to invest hours of research, data
gathering, networking, attending meetings after meetings, and conducting diligent planning.

For Tribes investing in agricultural products or land utilized for agribusiness, the outcome of their undertaking or investment may never be certain. Such business does not make promises, nor can there be profit without hardships and adversities. For the Indian farmer, work is a constant, and markets are competitive and require careful planning that incorporates best management practices from the bottom-up. Tribal leaders on the CRIT reservation are well versed in this type of business where the environment or land use can be limiting and profit not readily assured.

Situated in the far western corner of La Paz County in the state of Arizona (see Figure 2.0, p. 58), the Colorado River Indian Tribes (CRIT) continue to rank among the top 5 counties engaged in Arizona’s agribusiness (USDA, 2002). Although CRIT only representing less than 5% of harvested acreage in comparison to Yuma, Maricopa, Pinal, and Graham counties, Indian harvested acres in La Paz county belong to CRIT (USDA, 2002). A variety of crops like cotton, alfalfa, wheat, melons, and a surplus of vegetables are grown along the riverbanks and are sold. This agribusiness is the trademark of CRIT and serves as one marker of its National status.

**Environmental Protection Office: Initiating Control Measures**

The Environmental Protection Office for the Colorado River Indian Tribes has been in existence since the 1970s. Agribusiness, as noted before, has experienced various levels of success from year to year. Until 1995, when the Tribe developed the Blue Water Casino, the Tribe’s economy was vested primarily in agriculture. One Tribal
farmer, Mr. Roy Leivas points out: "...just like the river is in us, so is agriculture...it's a marriage between the two...we have been doing this for centuries, and that's probably what our kids will be saying a hundred years from now (personal conversation, December 1, 2004).

On February 28, 1978, when the Tribal Code for Pesticide Control Ordinance 31 was enacted by the Colorado River Indian Tribes, it was an attempt for the code to be part of an overall plan to regulate, monitor and enforce agribusiness practices, especially the use of chemicals toxins affecting the land, air, and water. Against a backdrop of what was deemed to be the height of agribusiness, the Tribal council undertook its responsibilities to manage pesticides by establishing a "pesticide control committee," a committee charged to carry out the provisions as stated in Ordinance 31 of the pesticide code (see Appendix A).

The pesticide committee consists of three members who are appointed by Tribal council for a term of one year, and members could be reappointed to successive terms. The chair of this subcommittee is delegated to an elected member from Tribal council. The committees' main function is to carry out the provisions as set forth in the pesticide control ordinance, e.g., "to protect the health, safety, and welfare of all residents on the reservation against adverse effects of the production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the reservation" (CRIT Pesticide Control 3-103, B).

In 1978, CRIT Tribal council appointed a local Tribal police officer to oversee the enforcement of Ordinance 31 of the pesticide code, in addition to serving as the
community’s peace officer. This dual duty was quite unique, but it provided a needed solution to provide farmers with a set of compliance standards to help ensure safe utilization of chemicals and pesticides.

As agribusiness escalated, it greatly taxed the Tribe’s resource allocation for carrying out adequate pesticide monitoring and enforcing compliance. Nearly two years later, after the appointment of a dual duty police officer, action was taken by Tribal Council to appoint Mr. Conner Byestewa, a Tribal member and former Tribal councilmen to serve as the first full time pesticide officer for the Tribe. Soon after this, the environmental regulatory office (ER0) of the Tribe was established in 1980 with powers to regulate pesticide use. This new office provided oversight of regulation of agricultural chemicals, as well as helping ensure compliance assistance to local farmers on the reservation.

Although it is still in its infancy, CRIT ERO became Arizona’s first Tribal operations to monitor and enforce pesticide use (Personal Conversation, R.D. Esquerra, December 10, 2004). Although monitoring and regulating water and air were not included in Ordinance 31, the current Tribal Law and Order Code and the Tribe’s current arrangement with the State of Arizona’s Cooperative Agreement Regulations helps assure administration of proper methods of pesticide control (Personal Conversation, September 28, 2004, J. Fisher, 2004).

Lack of office space forced the Tribal ERO to move into a new building that was designated for the Fire Department in the early 1980s. Sharing a building with fire personnel helped increased networking and common concerns that eventually led to the
design a hazardous material protocol for the reservation. As Principal Investigator of this research project, and former employee for the CRIT Fire Department, I remember the days in the early 1980s when we shared office space with ERO. ERO had maps of farms positioned on various walls throughout the fire station, with push pins that identified Mr. Byestewa's color-coding system that identified farms by products it grew. Much of this commitment and work by Mr. Byestewa helped put CRIT in the limelight as one Tribe that has been successful in pesticide monitoring and regulation.

As the work and staff of the Tribal ERO began to increase, so too did the staff and work of the Tribal fire department. ERO was relocated to Hatch Center, building 12, which was located in Poston, a former site of Camp I during the War Relocation Program that resettled Japanese detainees in 1942. It would be another two years later before the office of ERO would once again outgrow its space and had to move to its present location next to the Fire Department in Poston, Arizona.

By 1988 or ten years after the Tribal council enacted pesticide control, ERO had been renamed as the Environmental Protection Office (EPO), taking on a surplus of responsibilities to promote the public health of the community and oversee protection of the environment. The EPO has now taken on additional employees and its roles and responsibilities continue to increase as well. Mr. Byestewa, one of the key players in the history of the Tribe's efforts to development environmental protection, played a critical role in helping other Arizona Tribes develop Tribal environmental protection codes. And because of his commitment and accomplishments, Mr. Byestewa had a active role with
the United States Environmental Protection Agency, Region 9, a position that allowed CRIT to provide considerable input in that agency’s commitment to Tribal governments.

Input such as that provided by CRIT was critical and helped in shaping the US EPA National Indian Policy. In a memorandum from CRIT’s Tribal Chairman, Anthony Drennan Sr., which was dated August 29, 1984, stresses CRIT’s support for a place for Tribal self-governance within the overall agenda of the EPA. Chairman Drennan asked to have Tribal governments input be an ongoing part of the EPAs planning and policy development. The same year that EPA announced their Indian Policy, it gave a “special consideration to Tribal interests in making Agency policy, and a promise to ensure close involvement of Tribal governments in decision-making and management of environmental programs affecting reservation lands” (EPA, memorandum dated November 8, 1984). EPA outlined their policy on Tribal involvement as a part of nine objectives which described how EPA planned to protect human health and the reservation lands. This was a critical break for many other Tribes. Environmental protection programs began to take on a visible role on a number of reservation after EPA’s Indian Policy was announced. The EPA’s Indian Policy included the following:

1. to work directly with Tribes on a government-to-government basis,
2. to recognize Tribes as primary parties in setting environmental standards,
3. to encourage and assist Tribes in assuming regulatory and program management on reservation lands,
4. to remove legal and procedural impediments affecting Tribal government
5. to assure that Tribal interest be addressed in keeping with federal trust responsibility

6. to encourage cooperation between Tribal, state, and local governments

7. to work with other federal agencies to enlist their support for Tribes

8. to assure compliance with environmental statutes and regulations on reservations, and

9. to include the “EPA Indian Policy” into planning and management activities, including budget, guidance, legislative initiatives, and ongoing policy and regulation development.

The EPA’s Indian policy provided a number of reassurances for Tribes Nationwide, but it also made it possible for allocation of financial support to initiate new environmental protection programs on Indian reservations, providing needed resources for Tribes to start addressing environmental concerns. Due to CRIT’s environmental protection program involvement at various local, state and federal levels, additional financial support helped strengthen the role of CRIT EPO, and helped established some new programs for the Tribe. When resources became available, CRIT applied for funds under the 1987 Clean Water Act. These added programs currently help monitor and establish baselines for water quality conditions of the reservation’s point and nonpoint water source\(^{13}\) and help regulate water quality.

\(^{13}\) Point source is a fixed or stationary source of water where pollutions are discharged or emitted. A non-point source are areas that do not have a single point of origin, pollutions are generally carried off the land by storm waters. Some common areas of non-point source are agriculture, mining, construction, and solid waste.
Today, CRIT EPO is staffed by eight full-time employees and five part-time employees. Since its establishment in 1978, EPO experienced tremendous growth and its role increased in protecting and regulating the local environment. Located in Poston, Arizona, approximately 12 miles south of Tribal administration offices, EPO is situated ideally at the center of agribusiness. The Tribe's EPO efforts are recognized statewide and for over a quarter of a century, they have served as a model for EPA Region 9. CRIT's EPO is recognized Nationally for its work in pesticide regulatory control and management.

Current ongoing programs within CRIT EPO include responsibilities or oversight for the Pesticide, Worker Protection Standards, Solid Waste, and Solid Waste Management, Clean Water-106 Control and Nonpoint-319 Management Program, Air Quality measures, General Assistance Program, Hazard Waste Management and Disposal, Childhood Lead Poisoning Outreach, Education and Screening, and the Tribes plans to add an environmental health officer who will help address environmental hazards that are health related. Other responsibilities for the EPO have evolved over the last 25 years, each dealing with a new or an old problem. For example, some of the early projects are now permanent programs. The range of responsibilities include mosquito control to prevent West Nile virus to issuing citations for abandoned vehicles, submerged boats and cars, chemical spills, etc.

The majority of EPO employees are cross-trained to function in all areas of the departmental operations. Employees have federal credentials which authorize them to issue citations to those violating federal and Tribal statutes.
And because cotton has become one of CRIT’s major agricultural crops, new ordinances have subsequently been added to address environmental health dangers related to this crop. Table 1.0 outlines current codes and ordinances under CRIT EPO responsibility, including regulatory and enforcement. Although the work of the EPO has expanded to include new areas, the central role for the department continues to focus on pesticide monitoring, compliance, and enforcement.

Table 1.0: CRIT Environmental and Agriculture Codes enforced and regulated by EPO

<table>
<thead>
<tr>
<th>CRIT Tribal Code</th>
<th>Enacted</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture Articles I-IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Article I:</td>
<td>August 12, 1983</td>
<td>Dangerous Plant Pest and Disease</td>
</tr>
<tr>
<td>2. Article II</td>
<td>January 12, 1990</td>
<td>Pink Bollworm</td>
</tr>
<tr>
<td>3. Article III</td>
<td>February 28, 1978</td>
<td>Pesticide Control</td>
</tr>
<tr>
<td>4. Article IV</td>
<td>May 17, 1993</td>
<td>Whitefly Suppression</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>May 23, 1997</td>
<td>Disposal of Solid Waste</td>
</tr>
</tbody>
</table>

CRIT EPO is responsible for regulating approximately 88,000 acres of developed agribusiness. Seasonal harvesting, planting, and field plow-downs[^14] are all subject to regulations according to the current Agriculture code. A map on page 58 illustrates areas of developed agricultural farming on the reservation. Compliance is carefully monitored by EPO staff and data maintained at a central repository located at the EPO building. Each farmer and applicator [of pesticides] must submit required paperwork prior to the application and each pesticide used is subject to state, federal, and Tribal inspections. Inspections can cover chemical storage, use, mixing, application, and disposal. The most frequent application forms utilized by CRIT EPO are those that require monitoring,

[^14]: Plow-downs refer to field rotation. This is simply a term used when agricultural fields have been plowed by farm machinery for weed management, crop rotation, and nutrient requirements by specific crop.
permitting, and compliance issues (see APPENDIX B for standardized forms utilized by
CRIT EPO). The monitoring process is strictly designed to control, monitor, regulate,
and apply fines when necessary to protect the health and safety of the environment and
the community. For example, according to one CRIT EPO pesticide inspector:

we are the eyes and ears for CRIT, if we find a farmer that is not conforming to
the [Agriculture] code, then it is our job to see that this doesn’t happen again...all
farmers and our three distributors on the reservation are by law required to
communicate with us...if we find someone out there, or if we get a complaint we
have to investigate it and if they are not practicing safe standards and in violation
its our job to go after them (fg069, October 1, 2004).

The widespread use of pesticides and the limited number of EPO employees is
offset by the efforts of the Tribe to partner with various Tribal, local, state, and federal
agencies established to address environmental threats. The department maintains close
relations with Indian Health Service, Bureau of Land Management, Bureau of Indian
Affairs, US Fish and Wildlife, and the Arizona Department of Agriculture, etc. Such
partnership has aided capacity-building for the Tribe’s EPO and helps maintain critical
communication with these other agencies concerned with the public health and safety of
the population.

Summary

CRIT, like many other Tribal governmental structures, is organized under a set of
rules required under the Indian Reorganization Act of 1934. This Act required Tribes to
form Tribal government model that contrasted with the traditional form of governance
found in most Tribal communities, a form of government that was decentralized and
based on democratic value of consensus building and promoted a “rule of the people”
(O'Brien, 1989). Nonetheless, both structures of government—IRA and traditional forms—have attempted to create a centralized system of government that fits the cultural norm and give its leaders legitimacies of power (Ferguson and Seciwa, 1988; O’Brien, 1992, and Danziger, 1984).

This chapter has provided some background and a Nation Building framework within which Colorado River Indian Tribes took steps in building an infrastructure for an environmental protection program. Because much of the economic base for the Tribe is agricultural, Tribal leaders saw the importance of establishing a strong environmental health program. Once established, the Tribe’s EPO has continued to grow and obtain jurisdictional power to enforce Tribal codes related to environmental health. The CRIT EPO model demonstrates that, if Tribes are to be successful, Tribal leaders must commit to building strong institutions that can enforce Tribal codes and regulations. Carrying out some of these responsibilities, however, also requires the Tribe to partner and work with other agencies. The CRIT EPO model also illustrates that these types of partnerships do not need to compromise the Tribe’s ability to exercise their sovereign right. CRIT’s agricultural enterprise is the foundation for its economic survival. Tribal leaders therefore take this responsibility seriously. One Tribal leader, for examples, notes:

We have to tend to those things that we care about the most...we set priorities early on, and agriculture was one of them...its not going away, but if we left it up to farmers who didn’t share our same interest in this land...we would have a diseased land from chemicals...our Tribal code was passed to control and regulate, but not to stop our agriculture, but to make it healthy (fg071, October 18, 2004).

While there has been some scholarly attention to the issue of economic development and Tribes, there has been little attention paid the role of Tribal leaders in
development of these programs. Cornell and Kalt's work (1992) with the Harvard Project has centered on economic development and this information has been utilized by Tribes to re-examine and utilize the economic development models as a way to create initiatives that go beyond economic development to address other issues such as education, health, language preservation, etc. The rapid growth and development experienced by some Tribes has certainly added to the quality of life for those affected by the successful outcomes. Some of the successful outcomes are attributed to the effective partnerships Tribes have developed with public and private sectors without giving up self-governance.
CHAPTER II
COLORADO RIVER INDIAN TRIBES: “INDIANS OF SAID RIVER AND ITS TRIBUTARIES”

In the Tribal ethnography, land and water has always been the lifeline of the Tribe and this connection is recounted in stories such as this one:

Since the beginning of time, Mother Earth was covered with water and the heavens above were encased with a creative power, while water encircled the earth like the lifeblood of creation and making it the gift of all creation. Water had been everywhere and in every spatial inch water inundated Mother Earth. Water is part of every life form along the Colorado River; the people have come to know it as their lifeblood of the Tribe, which is embedded in local cultural norms, economics, social customs, and their political landscapes (De Leon, field notes, personal conversation R. Scott, November 20, 2000).

On March 3, 1865, CRIT reservation established by Executive Order by Congress and the sixteenth President of the United States, Abraham Lincoln. The Executive Order stated the land set aside for “Indians of said river and its tributaries” and those people settled there would later be identified as the Colorado River Indian Tribes (comprising four distinctive Tribal groups that include the Mohave, Chemehuevi, Hopi, and Navajo. Settled in fertile agricultural land, the CRIT would become a thriving agricultural society whose agricultural development would also become a model for other agricultural Tribes.

Early Spanish Accounts: Indigenous Mohaves of the Lower Colorado

The Spaniards who explored the southwest found the Mohave Tribe nestled in a remote location along the mighty Colorado River within the 35th parallel of the southwest territories. The meeting of the two was not friendly and, for the most part, Mohave warriors and others evaded Spanish explorers as well as their influence. Indigenous to
this territory of the southwest, the Amacavas\textsuperscript{15} could easily maintain their distance and independence from the Spanish explorers. And since the records kept by Spanish explorers offered sparse accounts about the Tribe, it is difficult to determine precisely when or where the first encounters with Mohave Indians took place. Where data was available, Spanish explorers recorded in 1540 that they had come in contact with Mohave Indians and Yuman people. The Spanish explorers could not always identify the Tribes they met during their journey into the southwest, although it is possible that when Hernando de Alarcón (who was to offer the land support to Coronado\textsuperscript{16}), sailed up the lower Colorado, he met Mohave Indians. Records do indicated that he made contact with many Indians and specifically noting two types of Indians, perhaps referencing their Tribal names—Quicama and Coana (Spicer, 1962). Here Alarcón notes his location at 85 leagues, which would place him on the present Colorado River Indian Reservation (Stewart, 1969).

In 1605, one Spanish explorer was noted to have made contact with Mohave Indians. Don Juan de Ornate, who had set out to find a route to the South Sea, was informed by the Cruzado Indian (Yavapai) that Amacava lived along the Colorado River. Pressing westward, the Ornate party arrived at the mouth of the Colorado where they rested for a day. The next day he sent captain Marquez with “four soldiers up the river to

\begin{flushleft}
\textsuperscript{15} Amacavas, was the term applied to themselves in identifying self and group. Later the term Amacava would be recognized and identified as Mohave, those individuals identified as members living and belonging to the Colorado River Indian Reserve. See in Spicer (1962), Cycles of Conquest pp. 262-263.
\textsuperscript{16} Spanish explorer Francisco Vasquez de Coronado set out in 1540 under the direction of Marcos Niza to explore the sea and land from Compostela, crossing the Sanoran desert and southeastern Arizona and reaching Cibola. Much of his expeditions opened the southwest and was more of the acquaintance of pueblo life among the New Mexico Indians near modern Santa Fe. See in F.W. Hodge and T.H. Lewis, ed., \textit{Spanish Explorers in the Southern United States}, Vol. II 1907 and in A. G. Day, Coronado’s Quest (1940, reprint 1964).
\end{flushleft}
discover this Nation of Amacavas Indians.” To his surprise, the team immediately returned with two Amacavas, which he then sent back out to bring back more of their Tribesmen. The next day while preparing to send more soldiers out in search of the Amacavas, Ornate and his party were met by approximately forty Indians who had come to bring corn, beans, and squashes. The next day while traveling 15 miles downstream, Ornate and his party encountered a large Amacavas village, occupying an area which is now the site of the community of Parker and the Colorado River Agency (Kroeber, 1974). Other Tribes that Ornate and his party encountered among the Amacavas included the Bahaccecha, Alebdomas (Halchidhoma), Kohuana, Halyikwamai, and the Cocopa. These Tribes were occupying the Mohave, Parker, and Chemehuevi Valleys (Hammond, et al 1940, 1953, Kroeber, 1974, Stewart, 1969, and Roth, 1976).

Other than records of Ornate’s encounters with the Amacavas, there were no other records of contact made with the Mohave until a century and half later, when Jesuit Father Eusebio Kino reported interaction with Yuman Tribes and the Halchidhomas between 1698 and 1702. Father Kino made several visits to the Quechan area and even attempted to make peace between two Tribes, the Quechans and Maricopas. Kino, however, does not mention or document any contacts made with Amacavas (Kino, 1948). With many river Tribes scattered throughout the lower Colorado region, one can only speculate that perhaps more contacts were made with the Mohave Indians in that region, as Mohaves seldomly ventured north of the lower Colorado River area.

Nearly three quarters of a century after Kino’s travel and contact with lower Colorado River Tribes, a Franciscan padre, Francisco Garcés also tells of finding Indians
living along the mighty Colorado and Mohave Valley. Father Garcés identifies the Mohaves as Jamajabs and tells about his various travels exchanging and giving gifts among the Cajeuenche, Jalliquamais, Yumas, Jamajabs, Jalchédunes, and the Cucapas (Galvin, 1965 pp. 20-35). California-bound, Garces found himself among the Mohaves in the lower Colorado basin and was guided several times by Mohaves as they helped him cross the Mohave Desert to the Pacific Coast.

Establishment of the Colorado River Indian Tribes

It is important to understand the make-up and characteristics of the Colorado River Indian Tribes and their land that includes the physical landscapes, Tribal membership, local communities, and Tribal governmental framework and its operations.

Recognized as the Father of Arizona and the state's first Congressional delegate, Charles D. Poston was appointed by President Lincoln as the first Superintendent of Indian Affairs for the Arizona territory. One year after his appointment in 1863, this busy and energetic Superintendent was instrumental in the establishment of the Colorado River Indian Reservation. Shortly after his appointment, Poston met with Tribal leaders and Chiefs of Arizona Tribes. His meeting with the Mohaves took place in the town of La Paz, seeking to gain a better understanding of the conditions, culture, and local needs from local Indian leaders. Land base for the Tribe was seen as a major priority and Poston recommended that a reservation be established along the river so the Tribe can plant crops and have access to irrigation water from the Colorado River. Poston writes,

After a careful investigation of conditions among these Indians, it was determined to select a reservation for them on the bank of the Colorado and ask the Government to aid them in opening an irrigation canal, so they may become
industrious and self-supporting... The valley selected for a reservation is called... the ‘Great Valley of the Colorado’... This reservation would include about 75,000 acres of land, all public domain and uncultivated. It is proposed to colonize some 10,000 Indians within its boundaries. The estimated expense of opening an irrigating canal here is $50,000 gold, or $100,000 currency... The rapid influx of population in this region renders it necessary that some provision should be made for the original inhabitants (Okimoto, 2001).

Poston’s recommendation was later supported by the US government and the Presidential action helped establish CRIT’s future as an agricultural Tribe. The original plan began as an irrigation project which later grew into an impressive agricultural business for the Tribe.

On March 3, 1865, the Colorado River Indian Reservation became home to approximately 4000 Mohave and Chemehuevi Tribal members (Brennan, 1996; Roth, 1976; Kroeber, 1974). Shortly after the reservation was established, hostilities broke out between the two Tribes, forcing some Chemehuevis to seek refuge in western California among the Cahuilla and Serano Indians. Others elected to remain nearby, along the west side of the Colorado River Indian Reservation. Nine years later, after the CRIR was established, additional land was added to the reservation to accommodate the Chemehuevis. While a few Chemehuevi families moved onto the reservation with the Mohave, others were reluctant to do so but continued to live nearby in the surrounding communities of Blythe, Needles, and Chemehuevi Valley. In 1907, the federal government set aside additional land for Chemehuevi Indians living in Chemehuevi Valley in Southern California, thus giving the Chemehuevi people a reservation of their own.
Thirty-two years later, when Parker Dam (the world’s deepest dam) was built in 1939, the dam altered the flow of the river thereby changing the landscapes for river Tribes living along the Colorado River. In some communities, Indian homes were flooded or inundated with water. The change in the flow of the river also directly affected agricultural fields and impacted Tribal ceremonial and burial grounds, which became buried under forty-feet of water. The aftermath of the dam forced Chemehuevi Indian families from Southern Californian and the Mohave Desert to relocate to the CRIR, land settled prominently by the Mohaves and Chemehuevis.

Today CRIR straddles the Colorado River, with the largest portion of the land (about 225,995 acres) located in La Paz County on the Arizona side. Approximately 42,696 acres of the CRIR is on the California side, in San Bernardino County. Today, approximately 3,600 Tribal members belong to the Colorado River Indian Tribes, representing the Indigenous Mohave and Chemehuevi Tribes and the new addition of Hopi and Navajo families. The latter were relocated to CRIR 70 years after the reservation was established. Figure 2.0 illustrates the geographic boundaries of the reservation.
The culmination of efforts led by John Collier to reorganize Indians and reverse the policy of Indian land allotments devastated many Indian Nations. The effects of the IRA was not always immediate. Some Tribes like CRIT suffered the consequences much later. For example, the Mohaves had little or no say when the government elected to relocate other Tribes in their midst and/or were not given a say in government's plan to dam the river.

In the mid 1950s, the CRIT's Tribal council accepted the relocation of a number of Hopi and Navajo families under Article 5, a policy that was adopted by the Colorado River Indian Tribes on March 26, 1945. This permission allowed Hopi and Navajo to

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17 Ordinance 5 provided the CRIR to be divided into three sections; the northern reserve was set aside for members of CRIR (Mohave and Chemehuevi), the southern part of the reserve was set aside for colonists of river tributaries; Hualapai, Hopi, Navajo, Apache, Zuni, Papago, "Supai, Yuma, Chemehuevi, and Ft. Mojave, and others as approved by CRIR Tribal council.
settle on the CRIT reservation and begin a new life, many of whom have since become farmers on the Colorado River Indian Reservation. During a personal conversation with one Navajo Tribal member, he remembers the day he stepped off the bus in Poston, Arizona:

I remember coming here to Parker, I was just a young kid then...we arrived in Poston in the late afternoon, it was a long trip...our whole family came here...I could almost smell the river, that was a good smell...it was really dusty and lots of dirt here...there was farming here too...they took us to our house, we didn’t have much of a roof...they were leaving...the Japanese were leaving the reservation and we were coming...what they [Japanese] made home was ours now...we worked the fields, planted and we all worked...it was too much...many friends and relatives went back you know...they eventually left...this is my home and I made it a good home for my kids (fg087, November 17, 2004).

Initially seventeen of these families began a new life along the Colorado River, but by 1952, more than 148 Hopi and Navajo families called CRIT their home. Many families who stayed renounced their Tribal membership rights with their respective Tribes--Hopi and Navajo--to become a members of CRIT. As official members, they can participate in Tribal government and community activities. The blending of four distinct cultural groups has created a unique forum for cultural exchange for those who were not Indigenous to the area.

The dominant Mohave culture has and continues to be experienced by many Hopi, Navajo, and Chemehuevi families while ties with former Tribal groups are also maintained. For example, Hopi and Navajo often return to their former reservations to attend or participate in Tribal ceremonies. Conner Byestewa, (Hopi), former CRIT Tribal councilmen, and former director for the CRIT Environmental Protection office, said he came to CRIR when he was just seven years of age. Mr. Byestewa remembers that
"Ceremonial things are taken care of at Hopi, we left all that behind. Since I was born at Hopi, I’ve got to understand what Hopi is, just like I have to understand Mohaves since I live here. I have no regrets. Now, we’re all ‘Mohaves’" (Trimble, 1993).

The CRIT reservation land straddling the Colorado River in western Arizona runs north and south encompassing 90 miles of shoreline. The most northern point stretches to the highest crest of Monument Peak in California near the Whipple Mountains in San Bernardino County and to the far west on the California side to the beautiful majestic Riverside Mountains. To the East, the land boundary stands up against the clear blue skies that serve as a backdrop for the Black Mountain. Safeguarding the most southern end of the reservation are Moon Mountain and the Big Maria Mountains, all markers revered by the Indigenous Mohave and Chemehuevi people as sacred mountains.

**United States Army Installations and the Irrigation Project**

Prior to the establishment of CRIT, Mohave people were among the largest Yuman speaking group of the lower river Tribes. Southern Paiutes also lived among Yuman-speaking Indians within and around the ancestral territories of the Mohave. This ancestral land of the Mohave included sizable arable lands that later became attractive to immigrants who wanted to settle along the Colorado River and farm.

The United States government, however, had plans for most of the land prior to the establishment of CRIR. The government was interested in developing and opening up the lands in the southwest, as well as securing a gateway to the Pacific Ocean. When the US Army began building military installations in the area, it ignited an emigration explosion and the encroachment increased shortly after the discovery of gold in
Californian (Avillo, 1965). Specific to the CRIT, however, these new military installations resulted in the efforts of the United States government to construct an irrigation system.

Between 1867-1871, $50,000 was appropriated by Congress to build an irrigation system known as the Grant Dent Canal project. The canal project was named after President Grant and Dent was the name of an Indian Agent. The canal was viewed as a way to help make the Tribes self-sufficient, as noted by Agent JA Tone in his letter to the Commissioner of Indian Affairs:

'[there is] very good soil and only requiring irrigation to make it productive. A ditch eight miles long has been partially successful but is not yet completed...This will soon render them [Indians] independent of the government...and this reservation will then afford sufficient land to cultivate for all the river Indians...The irrigation canal will be finished in a few days, work on it having been delayed on account of the early rise in the river, but it will not delay the planting season...(1887, p. 67).

Although Agent Toner sounded optimistic about the potential benefits of the irrigation project, the projects was not successful. Reservoirs proved to be futile against the rising river tides and walls within the irrigation canal collapsed and caved in. Figure 2.1 illustrates the failures experienced by Indian farmers when faced with collapsing canal banks and walls that quickly washed away with the river flood waters. Figure 2.2 illustrates a group of Indian farmers who helped with this first vulnerable canal project.
Figure 2.1 Canal banks washed away and caved in

Source: Parker Area Historical Society

Figure 2.2: Group of Indian farmers working on canal project.

Source: Arizona State Museum, neg. 43937, pix 866

In subsequent years, several other attempts were made by the government to increase water supply for farming by utilizing steam pumps, waterwheels, and windmills. These, too, failed to prove successful and other attempts were abandoned due to technical problems with alkali and inadequate drainage (Roth, 1976; Brennan, 1966).
Irrigation and Agriculture

Although the United States government’s first irrigation project failed, popular pressure continued to mount, calling for a workable irrigation system. In the middle of November in 1940, the federal Office of Indian Affairs started to give into the pressure and Superintendent Poston drew up a confidential report that would alter the number of occupants on the Colorado River Indian Reservation. Under the plan, a new irrigation effort was promoted that would affect the boundaries of the reservation and included plans for the colonization of additional Indians from southwest and place them on the CRIR. The “blueprint” proposed a program for the utilization of the Colorado River Indian Reservation to solicit funds to develop a practical irrigation system and the colonization of other Tribes in area would allow more Indians to become economically self-sufficient. The original report submitted by Charles D. Poston planned to “colonize 10,000 American Indians” to the Colorado River Indian Reservation.

CRIR became home to others than American Indians. CRIR became one of the relocation sites for 25,000 Japanese-Americans who were placed in the internment camp at Poston, Arizona. This development occurred in 1940, approximately three years after the first CRIT Tribal council took office. The federal government placed Japanese-Americans on the reservation in Poston, a site that was thirteen miles south of Parker. Although the CRIR Tribal council was not consulted or asked permission for the relocation of the Japanese-Americans on their land, the internment did eventually offer additional resource and irrigable land for use by the Tribe. Okimote (2001) stated that if the relocation site and the irrigation project were not on the CRIR, it was most likely that
non-Indian would have gained ownership of all new irrigable lands created by the
Japanese-American and other laborers. Okimotoe (2001) notes this new effort to build an
irrigation system and canals:

...a workable irrigation system...[and] finally become a reality...more acres of
the reservation could be subjugated and more land made productive. Subjugation
of the land meant digging irrigation ditches, building canals, leveling the land,
and preparing the land for receiving water and planting crops. With the
availability of Japanese-American detainee labor and the need to channel water
to the Poston Camp, the prospect of constructing a workable irrigation system
became feasible. (p. 7)

More than 700 detainees were assigned to the development of a workable
irrigation project and the plan to place other southwestern Tribes\(^{18}\) on CRIT was
encouraged so these relocatees will also add to the work force and thereby provide
additional potential for the project's success.

By the late 1940s, the CRIT have been through a number of changes, beginning
with the internment of Japanese-Americans and relocation of other southwestern Indians
on their Tribal land. The end result of the irrigation project, however, gave CRIT
additional irrigable land for farming. The irrigation project also resulted in the building
of the Headgate Rock Dam in 1941. This dam was built one mile north of Parker, a lake
that is now called Lake "Moovalyla" (Mohave word for "blue water"). The additional
irrigable land helped the Tribes access to functioning irrigation canals and laterals.

By the late 1950s, the agricultural enterprise looked more promising as more
acreage of land was being cleared. By the time this development was completed, nearly

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\(^{18}\) The colonization program extended a period of just over ten years. American Indians throughout the
southwest arrived in Poston on the Colorado River Indian Reservation beginning in 1945-1957. Indian
colonists consisted of Hopi, Navajo, Walapai, Cocopah, Supai, Quechan, Chemehuevi, and Mohave. By
1957 the forced colonization by the Indian Bureau, began to worry CRIT, and Tribal council halted any
further movement of Indians onto the reservation in 1957.
40,000 acres had been cleared. The farm land increase, however, was not without problems. This composition of the soil, like that found in most southwestern arid lands, can become saturated with caliche\textsuperscript{19} and frequently the rising water tables would also result in waterlogging the land (Brennan, 1966). Although soil conditions were not always the best and progress was slow in finding financial resources to support the farming enterprise, the Tribal council took action to find other ways to gain profit from their land, including leasing the land to non-Indian farmers. Because many businesses saw potential to engage in large scale farming by leasing the land from the Tribe, the competition for getting a lease created problems for the Tribe in the 1960s. These business wanted leases, leases that could be made for more than a year.

The rush to lease CRIR land did not go unnoticed and farmers who wanted to lease the land pressured Congress to allow for 99-year leases. A number of congressional representatives from Arizona, including Congressman Carl Hayden (D), Senator Barry Goldwater (R), and Congressman Morris K. Udall (D) worked with Indian Commissioner Nash to lobby for 99-year land leases. A tripartite windfall happened in the fall of 1962, when (a) 99-year non-agriculture leases were granted, (b) the much sought after 25-year agriculture leases were granted for CRIT in the spring of 1963, (c) and water for 107,000 acres was granted to the Tribe on June 3, 1963. The greatest accomplishment, however, came on April, 30, 1964 when U. S. President Johnson granted CRIT title to the reservation. Land ownership also made it possible for the Tribe to institute a policy on

\textsuperscript{19} Caliche (alkali salts found in arid soils) is a sodium nitrate deposit, crust or layer occurring in arid regions of the southwest. High levels of caliche produce a layer of hard surface making it unfavorable for agricultural conditions.
agricultural leases to agribusinesses and other farmers. The new policy required lessees to request 5-year plans to farm the fertile crop land. Today, farmers are required to submit lease requests every five years through Tribal Council to be allowed to farm on the reservation.

GOVERNMENT AND COMMUNITY PROFILES

In 1937, and in accordance with the Indian Reorganization Act of 1934, the first Tribal Council was formed. The initiative was met with controversy. Some Tribal members opposed the measure and believed that this form of Tribal government structure would be highly influenced and controlled by the Bureau of Indian Affairs. In the end, many Tribes voted for adopting the federally imposed governmental model, including CRIT. Elections were held on CRIR and the first Tribal council for CRIT was formed. The political structure imposed by the IRA of 1937 has since served as the structure for the Tribal government on the Colorado River Indian reservation. Since its inception, CRIT has been led by a number of influential council members and has had a hand in bringing about a number of changes within the community’s social, economic, and political climate.

In accordance with the requirement of the 1934 IRA, CRIT adopted a set of bylaws and constitution. These policies were adopted on March 1, 1975 by a vote of 184 to 54, and was submitted to Commissioner of Indian Affairs for approval. On May 29, 1975, Morris Thompson, Commissioner of Indian Affairs, granted the approval. This action formalized the interworkings of the CRIT’s Tribal government. Powers of the elected council members are outlined under Article VI, Section I-III and Article VII,
Sections I-IV of the Colorado River Indian Tribes Constitution. These sections enumerate, future, and reserved powers of Tribal council and the powers of officers (see APPENDIX C, Powers of Tribal Council).

The governing body of the Colorado River Indian Tribal Council is made up of nine members, including a Chairman and Vice-Chairman, both of whom are elected by secret ballot from enrolled tribal members. Secret ballots are also used to elect the council Secretary and Treasurer by the governing body. Terms for council members are staggered but unless there is a reason for a change, the council members serve for a period of four years. The CRIT Tribal council meets the second Saturday of each month in the council chambers and these meetings are open to all enrolled Tribal members. Frequency of other meetings of the council depend on the business and action required of the Council, i.e., new projects, deadlines, written requests, and the need for special or executive sessions.

The Tribal council is responsible for 56 different departments under its jurisdiction, departments that carry out the day-to-day activities or programs serving the Tribe. A majority of department offices are located on the north end of the reservation at the site of the Tribal headquarters. Other departments, however, are located at various places throughout the reservation, i.e., police, fire, fish and game, farming, housing, education, health and social service, career development, and environmental protection office.

The Tribal council assigns workgroup to boards and, on the average, there are 27 such committees. Some of these are standing committees, usually consisting primarily of
council members. Some of these committees include the Administrative committee, Resource Development, Utilities, and Revolving Credit. Membership on other committees and boards include representation from the community, usually Tribal members. Appointments to these general committees are approved by a Tribal council and each of these committees and boards have an assigned Tribal council member who serve as a liaison. Staggered terms are also set for community members, although if members wish, they can be reappointed to the committee. For example, some committee members have served over 30 years on key committees or boards organized by the Tribal council. According to one employee from the Tribal word processing department:

Some individuals have been on committees and boards since they were established, like 25 years ago, and some have been there for more than 10 years...my experience with observing this first hand is because these individuals have a passion for that particular field, they’re well versed in that area and other people on the committee see them as a strong leaders...most look up to that individual...some don’t express it openly, but they do give them more credit because they know what they are doing (fg090, September 10, 2004).

Those who are encouraged to remain on specific committees often have demonstrated strong leadership skills in addition to their commitment to work or help with specific areas of interest. Committees are responsible for developing their own scope of work and most hold monthly meetings so they can serve as advisory to the Tribal council and/or oversee day-to-day operations of the Tribal program for which they have responsibility, i.e., Indian Health Service, Agricultural operations, business enterprise, housing improvement, recreational facilities, etc.

Some reputable status among particular boards and committees has evolved over the past three decades. According to employees from the Tribal word processing
department, a few boards and committees have seen increased numbers in applicants who
wish to be a part of the select few. Among them include the Health Board, Education,
Business Enterprise, Housing Improvement, and Parks and Recreation. The following
table outlines some of the role and responsibilities of members serving on these
“popular” committees:

Table 2.0: Top five popular boards among CRIT community

<table>
<thead>
<tr>
<th>Name of committee</th>
<th>Description of responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Enterprise</td>
<td>To promote and develop Tribal enterprises that will aid the Tribe in reaching economic self-sufficiency and to promote the economic development for the Tribe. Over see the management of business enterprises held by the Tribe and to provide employment opportunity for Tribal members.</td>
</tr>
<tr>
<td>Education</td>
<td>To study educational issues by reviewing the educational needs and goals of the Tribe and to establish policies for implementation of programs and to monitor the implementation of Tribal laws pertaining to education, and recommend corrective action to Tribal council.</td>
</tr>
<tr>
<td>Health Board</td>
<td>The health board is a permanent committee of the Tribe and is identified in the by-laws. The Board is to assist in the implementation of health and human services policies and goals of the Tribe. The board addresses a series of concerns related to the health safety and welfare of the Tribe. The board works closely with Indian Health Service to address all aspects of direct and indirect service.</td>
</tr>
<tr>
<td>Housing Improvement</td>
<td>Addresses local Tribal member needs that pertain to housing development, rental and owner application process, need-based housing, certificate accreditation, grant assistance, improve housing, safe neighborhoods, and community development.</td>
</tr>
<tr>
<td>Parks and Recreation:</td>
<td>Provides consultation and review of proposed activities related to Tribal recreational facilities, promote utilization of facilities as much as possible, and create opportunity for all Parker area residents have access to recreational facilities.</td>
</tr>
</tbody>
</table>
On any given day of the week, one can walk into the Tribal administration complex building and find a number of committee meetings taking place. The work, reports, or request for action from these committees are aimed for review and action of the Tribal council.

Tribal members also serving on the various committees are Tribal employees. Currently, the Tribe has approximately 800 full and part time employees. CRIT is one of the largest employers in the county and these employees work for different programs operated by the Tribe, e.g. water, sewage, trash, and housing programs. As mentioned earlier, the Tribal government has a number of departments that include the Tribal library and archives, Museum, Education, Natural Resource, Planning and Zoning, Realty, etc.

**Color, Symbolism, Pride, and Ownership**

In 1966, the Tribe adopted its Tribal seal that was designed by a local Tribal member, Mr. John Scott, Sr., (see Figure 2.3, p. 71). The Tribal seal shows vibrant colors depicting key symbols of identity for the Tribe. The seal represents local resources of the reservation and the people. The round seal is framed by a sunburst design, depicting sun rays with each point of the sun ray representing 52 weeks of sunshine. Within the seal are illustrations of the Riverside Mountain (revered and sacred) and the Colorado River flows across the circle. A shaft of wheat and a branch of cotton are crossed at the bottom of the seal to represent the reservation’s key agricultural products. Four feathers placed atop the mountain range represent the four Tribes of the reservation—Mohave, Chemehuevi, Hopi, and Navajo.
The Tribal flag designed by another Tribal member, Margie McCabe, and the flag was adopted by the CRIT’s Tribal Council in 1979, as illustrated in Figure 2.4. The artwork on the flag symbolizes Tribal pride and unity and the Tribe’s identity and connection to the river. The background of the flag is brown which symbolizes the earth
from which food is grown and harvested and essential to building homes. The blue ripple on the bottom of the flag represents Colorado River, which gives life to earth and people of the reservation. The orange rays on the top represent eternity, daily rising and setting of the sun on the land and water on the reservation. As illustrated in the Tribal seal, the flag also had four feathers at the center of the flag that represent the four Tribes that make up the Colorado River Indian Tribes.
CHAPTER III
PROJECT RESEARCH METHODOLOGY

INTRODUCTION

This research project utilizes qualitative data acquisition and analysis that took place in a rural agricultural Indian community on the Colorado River Indian Reservation in Parker, Arizona. The qualitative data collected was to assess Tribal Council leaders’ interpretations and understanding of how environmental health is defined and understood. The aim was to assess the level of understanding and consideration employed by Tribal leaders as they defined environmental health for their agricultural Indian community. By examining and presenting the core values and interpretations of environmental health policy for the Colorado River Indian Tribes (CRIT), other Tribes may benefit from this analysis as they formulate and develop appropriate environmental health policies aimed at protecting their environments, human health, cultural beliefs and practices, and become more accountable and responsible to their valued landscapes, which will ultimately yield better prepared environmental health systems within agricultural Indian communities.

METHODOLOGY

The research study method employed a structured and unstructured interview processes with selected Tribal Council members who served a term on Tribal Council between 1980-2002, especially members who were appointed to specific sub-committees concerned with agricultural activities (i.e. pesticide, agricultural, and farm boards). The rationale for conducting face-to-face qualitative interviews was to determine and ascertain how environmental health has been defined and understood over the past
twenty-two years when these Tribal leaders constructed, developed, and implemented various environmental protection laws for their agricultural Indian community.

The crux of this research was to understand the interpretations of environmental health and how these concepts have been utilized to construct and enforce environmental health policy. The interview method allowed for open-ended questions that stimulated an in-depth conversation and provided a much deeper interest in understanding the experience of Tribal leaders and the meaning they make of that particular experience (Scidman, 1998). Moreover, Bernard (1995) suggests that structured interviews “are generally better suited for policy research” (pp. 287). In addition, Kvale (1996) defines qualitative interviewing as “attempts to understand the world from the subjects’ point of view, to unfold the meaning of people’s experience, to uncover the lived world prior to scientific explanations.” He argues that interviews are basically an exchange of views between two people with common themes and interest used for discussion (1996; pp.2). This method provided insight to how environmental health policy was understood and defined and how these interpretations were translated into existing code and laws aimed at protecting the local Tribal community—by making meaning through their responses.

This study concentrated on an Indian Tribe in the Southwest, and was not designed to make comparisons with other agricultural Indian communities. Since the central part of this research aimed to understand the CRIR understanding of environmental health, these interpretations may diverge from other American Indian and Alaskan Natives geographically, economically, politically, and socially. The sample selected was drawn from individual leaders who served on Tribal Council or specific
committees chiefly for this study between the years 1980-2002. The specified target years was chiefly selected due to enforcement and regulation which began in the early eighties when the Environmental Regulatory Office was established for the CRIT. Because this study focused on Tribal Council leaders and committee members from specific groups (pesticide and agricultural committees, and farm and health boards), the research was restricted to a sample of 27. Two were eliminated who did not meet selection methods for the years 1980-2002, and an additional two were eliminated for unknown place of residence, which did not allow for an interview in a timely manner. Thus the final sample-selection was from a pool of twenty-three Tribal leaders to be included into the study.

The strategy employed was threefold. First it allowed the researcher to significantly reduce costs of travel if conducted on a national level. Second, it permitted a focused approach on Tribal leaders who served a term or terms in office over the past twenty years, and finally, this strategy allowed the concentrations of interpretive analysis to be restricted to one Tribal government, with a plethora of definitions related to environmental health and leadership styles for policy making.

**RESEARCH METHOD EMPLOYED**

Data acquisition and analysis were divided into five parts to provide a more accurate method of gaining insight into research participants’ knowledge base. Part one was designed to introduce the research project to current Tribal Council leaders, and gain support and approval prior to the University of Arizona Institutional Review Board.
In part two, with the generous help from staff members at the Tribal word processing department, a list of potential candidates were generated. For the past thirty years, all Tribal committee meetings have been recorded, transcribed and cataloged by the CRIT word processing department. Once the list was obtained from this department, letters were sent to potential participants inviting each member individually to participate in a qualitative interview.

Part three was designed to set up interviews, disperse follow-up letters, and make phone calls to individuals from whom no response was received. Once the interviews were set up, a calendar was generated to organize each scheduled appointment with research participants.

Part four was composed of a series of in-depth, face-to-face interviews that were conducted by the principal investigator with twenty Tribal leaders from the initial sample pool. Participants were split with regard to tape-recordings of conversations during the interview process. While the majority of participants were not opposed to tape-recorded conversations, some individuals did not want their interviews recorded.

The fifth and final part allowed for the acquisition of public records, sub-committee meeting minutes, administrative records relevant to the research, and legal documents that supported a historical timeline for the time period concerned.

**Part One: Gaining Tribal Approval and Support**

Prior to submitting official forms to the Institutional Review Board at the University of Arizona, I set out to gain my initial approval from the Colorado River Indian Tribes Tribal Council. The process for beginning the first initial steps took great
thought and long hours of discussion with local Tribal community members. The core concepts and aims of the project were discussed in great detail with a handful of current and past Tribal Council leaders, as well as prominent individuals within the Tribal community. I felt it was important for local Tribal members to learn of this research and how it was going to benefit the Tribes in the long run. Moreover, Tribal member support and feedback for this research project would help shape the proposal to Tribal Council.

Prior to the official approval for the research project, I met with Tribal Chairman Daniel Eddy Jr. to discuss in great detail the components related to the research. I remember walking into his office that early Monday morning and found him behind multiple stacks of papers and files laid out on his desk. Immediately I was overwhelmed with feelings of guilt for taking up his time, and realizing that just maybe my presence was keeping him from far more important things that needed to be addressed for the Tribal government. In all, it was a distinguished honor to discuss the proposed research project with Mr. Eddy. Chairman Eddy had pointed out that morning “I remember when you worked for the fire department you always willing and wanted to help people….this research will definitely help us as a Tribe, and will serve as a blue print for making environmental health policy….and it comes at a time when we need this kind of research here to help direct us in formulating and updating our environmental laws and regs…you have my support and I wish you all the best.” Four days later my proposal was sent to the Administrative committee, which is made up of the four Officers on Tribal Council: Chairman, Vice-Chairman, Secretary, and Treasurer. In addition to the Executive Officers in attendance, a few council members were also in attendance to act on
particular issues regarding governmental operations. The research project was discussed in detail, and I received a vote of approval and was notified by certified letter from Tribal Council outlining the action taken regarding the research project. The following day, I received an additional letter of support from the Tribal Secretary, who was filling the capacity as Acting Chairman from CRIT Tribal Council, and forwarded the proper documents—along with the Tribal letter of support—to the University of Arizona Institutional Review Board.

Prior to the process taken at the Tribal community and government level, I distinctly remember sitting in class one day discussing in great detail Biolsi and Zimmerman (1997) *Indians and Anthropologists: Vine Deloria Jr. and the Critique of Anthropology*. We began our discussion with the simple question which is the sub-title of Biolsi and Zimmerman’s Introduction: What’s Changed, What Hasn’t? Our discussions centered not only on anthropologists conducting research in Indian Country, but social scientists as well. I was asked a number of questions by my colleagues, classmates, and professor about how I felt about conducting research in my own Tribal community. Would I feel like an outsider? How would I handle this unique situation as a scholar, local Tribal member, and a researcher? My response was somewhat parallel to the words Deloria (1997) argues in the final chapter of Biolsi and Zimmerman. Deloria asserts that as Indian scholars we should never break the trust within our own Indian communities and we should never put our scholarship first over a community member. Quite frankly, I have always believed that in the impasse between Tribal community member and scholar—that community member has always superceded one of
scholarship. Since Tribes have sovereign power to approve or reject research in their own Tribal communities, my approach for approval was to allow CRIT Tribal Council the opportunity to shape or change the research project in which they felt necessary and how it would benefit the Tribe in the long run. Additionally, I felt my role as a Tribal member for conducting this research was to write about the passions felt in local Tribal leaders’ hearts. With regard to the projects aim, it was necessary for Tribal leaders in the research project to tell their story in their own words. Additionally, and quite similar to Deloria, I agree with Karen Swisher (1997) when she argues for Indians writing about Indian education:

A Plethora of edited books, special issues of journals, articles, and chapters in various multicultural or minority textbooks focus on effective curriculum and pedagogy regarding the education of American Indians and Alaska Natives. Much of what has been written in historically accurate and not harmful or offensive; it is sensitively, and in some cases beautifully, done. What is missing is the passion from within and the authority to ask new and different questions based on histories and experiences as Indigenous people. It is more than different ways of knowing; it is knowing that what we think is grounded in principles of sovereignty and self-determination, and that it has credibility (pp. 193).

Dr. Yvette Roubideaux, College of Public Health, and Dr. Jennie R. Joe, College of Medicine and the Native American Research Center on Health, at the University of Arizona in Tucson, Arizona have been instrumental in securing funds through the National Institutes of Health, and partnering with Indian Health Services and the Inter Tribal Council of Arizona in Phoenix, Arizona. The purpose of the American Indian Research Center on Health (AIRCH) is to ensure that Tribes are stakeholders in the process for conducting research on their reservations and have ownership to the dissemination of data generated from the research. This approach puts Tribes in the
driver’s seat when research is conducted within their respective communities, thus allowing Tribes to be better informed with regard to cultural relevancy of methodologies employed.

**Part Two: Sampling and Distribution of Letters**

The sample selection for this particular research was from a list of Tribal Council members who served a term(s) in office during 1980-2002. As mentioned earlier, the list was generated from the assistance of CRIT word processing department. This department is responsible for data acquisition, storage, and management of official Tribal governmental operations.

Prior to receiving a detailed list from the word processing department, I met with the Director of Word Processing to discuss the research in greater detail. The in-depth discussion offered the Director and staff members of the Word Processing department a deeper appreciation and understanding to the research objectives for data collection. This process ultimately helped to expedite and narrow the focus of data needed. I was instructed to file my official request utilizing a standardized form from the Word Processing department and provide any supporting documents received from the Chairman, authorizing my approval to access meeting minutes and administrative records pertaining to the research project. After my initial request, I received a memorandum from the Records Manager of Word Processing, who initially provided a list of 27 Tribal Council leaders that served on council during 1980-2002.

From that point on, I utilized a non-random sampling protocol that was ideal for this particular research. Bernard (1995), Patton (1998), and Seidman (1998) discuss
purposeful sampling as being ideal when subjects are interviewed for their known expertise and devotion to a particular area and possess special knowledge of policy issues. This was the case in the selection process for CRIT Tribal leaders that fit the criterion of council leaders between 1980 and 2002, and members who held a seat on special sub-committees during the specified years related to farm and health boards, agricultural, and pesticide committees at CRIT.

Once the names and addresses were obtained, a template letter that was approved by Tribal Council on June 17, 2004 and approved by the Institutional Review Board at the University of Arizona, which was sent to each respective council member for recruitment (see APPENDIX D, research study recruitment letter). An additional letter had to be formulated for the CRIT Enrollment office since some individual addresses’ were not readily available. I met with the CRIT Enrollment Director prior to composing a letter to the Enrollment office requesting their assistance. This meeting outlined the purpose of the research and set the stage for enlisting the assistance of the Enrollment department staff. Since the Enrollment office is responsible for cataloging current Tribal memberships and biographical data, it was essential for the research project to gain support and provide a fundamental understanding to how this office would be able to assist the projects objective in notifying potential research participants. A formal written request was initiated from the conversation held with the Enrollment director. Supporting documents received from the Chairman’s office were attached to the request regarding the approval of the research project. Confidentiality was given the utmost attention for protecting the mailing address of past Tribal Council members, and thus the
Enrollment office agreed to forward recruitment packets to potential research respondents.

Recruitment packets with individual names adhered to the outside envelope was submitted for processing. Each recruitment packet included a letter addressed to each respective Tribal Council leader that held office during 1980-2002, an RSVP postcard addressed to the principal investigator of the research project, an abstract of the research, and a copy of the letter of support received from the Chairman’s office. This process allowed less work enlisted by the enrollment office and permitted the handling of confidential information exclusive to CRIT Enrollment personnel.

**Part Three: Process of Interview Appointments, Letters, and Phone Calls**

Within American Indian communities, it is important for researchers to understand how one gains access to local information and moreover, how this information accessed will be distributed and used. Equally important Seidman (1998) emphasizes, in

“before selecting participants for an interview study, the interviewer must both establish access to them and make contact...because interviewing involves a relationship between the interviewer and the participant, how interviewers gain access to potential participants and make contact with them can affect the beginning of the relationship and every subsequent step in the interviewing process” (pp. 37).

This is particularly important within Native American communities, as each have their own and collective distinct cultural beliefs and practices, as well as formalized protocols to conducting research.
De Leon\textsuperscript{20} (2001, 2002 field notes) and members from the University of Arizona American Indian Studies Programs headed a teacher orientation project for the Parker Unified School District in Parker, Arizona. The orientation workshops were designed to introduce the local cultural and social norms, Tribal government, local Tribal resources, Native American student learning styles, and language and literature. Prior to gaining Tribal Council approval of the project aim, a bottom-up approach was adopted in order to gain community approval and ownership. Team members emphasized that the best approach in gaining Tribal Council approval was through community participation in planning and developing materials relevant to local community norms. Deloria (1980) and many others scholars have adamantly stressed Tribes’ rights to determine who may have access to certain individuals within a Tribal community and stress the rights of Tribal autonomy in reviewing research proposals (Deloria, 1980; Moreland, 1989; and Wax, Murray, and Cassell 1980).

Taken into account what researchers should consider when working within American Indian communities allowed me a better understanding of individual professionalism when making contact with CRIT Tribal leaders. Follow-up letters were dispersed, and phone calls were made to set up interviews. As a Tribal member with family ties to the local Tribal community, as well as a former employee for the Colorado

\textsuperscript{20} During the project development of “An Indian Voice in Schooling along the Colorado River Indian Tribes,” I worked with members of the University of Arizona American Indian Studies Programs and became the principal individual to seek approval through the Colorado River Indian Tribes. The approach in seeking approval rested on the principles of a bottom-up rather than a top-down to allow community review and input. The requisite to the grass-roots approach required more community planning and community review of project objectives, and gave rise to community sensitivity issues related to local norms and customs that was impetus to the projects final approval from Tribal council (see in field notes November 10, 2001, February 21, 2002).
River Indian Tribes, it was a great honor and privilege to call Tribal leaders and schedule interviews. While many Tribal leaders received phone calls, others I was able to interact on a person-to-person basis due to current and previous projects I had collaborated on. Quite frankly, I had a deeper connection with a few individuals through previously established friendships and family ties that allowed for coordinated planning of interviews and contacting a handful of individuals that I had a difficult time reaching. The benefits of being a Tribal member and growing up on the reservation were the established ties and deeper connection to the community. Familiarity of local protocols and customs allowed me to contact key Tribal leaders for consultation and advice in orchestrating each step of the project's progression.

Established network ties, however, do not connote research acceptance nor endorse the concepts of the research. Doing research in one's own community does not give the researcher any predetermined privileges or liberties to particular data. Some considerations of doing research within one's own Indian community involve the ethics of doing the research and the validity of data collected. As a resident and Tribal member from the area, I quickly came to the conclusion that as scholar and researcher, I would be judged in more empirical ways and to a greater extent of detail than researchers from the outside. The idea was sparked by historical practice in how research was conducted in Indian Country. Would I be making a greater contribution to my local Tribal community, or would this research be at the gain of Institution's of Higher Learning who would take credit for how the research was conducted? My approach and philosophy was strictly to see that CRIT gained in all aspects of this research and to make sure that Tribal leaders
perceived the same benefit as I. This was primarily due to the connectedness I have with the people on CRIR, and the invested interest for growth and development of the Tribe as a whole. The emic (insider perspective) and etic (outsider perspective) phenomena created in this research gave rise to a unique structural and functional elements of the research project. The following section outlines the interview process for the research project.

**Part Four: Interviews**

Initially, my intent was to use a set of questions designed for structured interviews with each research participant. After lengthy discussions with several Tribal leaders regarding the research design and methodology and the research conducted prior to interviews\(^{21}\), I came to the conclusion that both semi-structured and structured interviews would allow the best possible method to data gathering. Both Dexter (1970) and Zuckerman (2003) advocate for using unstructured questions that are phrased with language that is easily understood and recognized by the interviewee\(^{22}\).

Thus, the method of interviewing employed used both structured and semi-structured interviews. A set of questions were designed and used as a template and guide for prompting individual Tribal leaders to respond to specific questions with their own

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\(^{21}\) Zuckerman (2003, p. 377) and Dexter (1970, p. 14) stress that advance research prior to interviewing the elite is a key factor when preparing for scheduled interviews. This helps to minimize time spent on interviews and legitimizes a focused interview with appropriate questions. Obviously, especially with American Indian leaders, courtesy, respect, and sensibility to their particular customs and environments can allow researchers to be better prepared for time spent with the elite leaders.

\(^{22}\) Zuckerman (2003, p. 379) draws from her experience of interviewing and stresses that “elite” respondents need to feel their individuality: “Members of this top elite and presumably others are accustomed to being treated as individuals who have a mind of their own follow their own bent. They soon detect whether questions are standardized or tailored to their interest and histories. They resent being encased in the straitjacket or standardized questions.” Also see in Odendahl and Shaw (2002, p. 311) regarding the conditions not to stick to the rigid script of questions.
interpretations (see APPENDIX E of Interview template). Dexter (1970) in *Elite and Specialized Interviewing* pioneered the method in interviewing the "elite," what he calls "person's of important positions." His theory was useful for interviewing Tribal leaders from the Colorado River Indian Tribes. The method for each interview focused on Tribal leaders' interpretations and allowed each participant to introduce his or her notions of what they regard as relevant to the questioned asked, as opposed to the standardized format where researchers have often defined the question of the particular subject matter and where interpretations are placed only in limiting bounds set by the researcher. This method and understanding for interviewing the "elite" was not so much for the status of the interview, but the for the purpose of the interview employed.

A total of twenty individuals participated in the research study and the template guide was utilized for each scheduled interview. Among the twenty Tribal leaders and committee members, seven women and thirteen males were from Tribal Council, Tribal committee members, and those who volunteered to participate in the study. The breakdown of research participants is summarized in Table 3.0.
Table 3.0: Breakdown of Research Participants

<table>
<thead>
<tr>
<th>Participant No.</th>
<th>Gender</th>
<th>Tenure 1980-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>fg-068</td>
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<tr>
<td>fg-069</td>
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</tr>
<tr>
<td>fg-070</td>
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<td>*</td>
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<tr>
<td>fg-087</td>
<td>male</td>
<td>22</td>
</tr>
</tbody>
</table>

Note: *research participants included committee members from the pesticide and agricultural committees, and farm and health boards. These members did not serve on Tribal Council for the period 1980-2002.

Tribal leaders who participated and consented to an interview totaled 112 years of combined leadership for CRIT Tribal Council between 1980-2002. This group represented 65% of research participants, while the remaining 35% were made up of essential individuals who represented employees from the Tribal environmental protection office; a long time resident, Tribal member, and farmer; a retired Federal employee from US Agriculture; former Chief of Police; and Tribal Health Board Chair.
Since the focus of this research is to determine how environmental health is defined and understood among CRIT Tribal Council leaders, the format of the questions was designed to allow open-ended responses which permitted the interviewees to share their experiences with Tribal environmental code design, implementation, and interpretation. Each interview location and time was at the discretion of the interviewee. Because time was the greatest handicap in scheduling interviews, three interviews were conducted by telephone. This method saved the researcher financial cost from traveling out of state, and was a preference preferred by research participant.

While 65% represented Tribal Council leaders, the remaining 35% were invited to participate because of their involvement with Tribal environmental health concerns, ordinance development, pesticide regulation, enforcement, and policy development. The face-to-face interviews had to be divided into three groups for various reasons. Because resources are minimal within the majority of American Indian communities, it is not unusual to find one individual who wears several hats for varying professions. In the case with Tribal leaders and employees for CRIT, many are strained with minimal resources and hold several roles of responsibility. Some hold memberships in as much as four or five Tribal committees, manage a Tribal department, serve as a committee liaison to local county, state, and federal governments, hold memberships on National organizations, and have families.

Among those who participated in the interview process, two males had greater than twenty years of tenure on Tribal Council, while four had a minimum of ten years experience during the years 1980-2002. Some leadership attributes identified among the
tenured council members, such as making hard choices, having a vision, and setting high standards embedded within the organizational culture can be attributed to Tribal leaders who hold tenure greater than 10 years\textsuperscript{23}.

Although the majority of individuals whom I made contact with verbalized their willingness to participate and contribute the research project, interviews had to be divided into three groups. Group one consisted of individuals who were willing participate and had time readily available. Group two included individuals were also willing to contribute to the research study, but had to reschedule at least three times. Finally, group three consisted of those who were still willing to take part in a face-to-face interview, but had an extremely busy schedule. Group three individual’s had to constantly be rescheduled as their job world was fast-paced and always pressed for time. Before each interview, consent forms (see APPENDIX F, consent form) were reviewed and each participant was allowed time to discuss the purpose of the interview and subject matter. Participants had the option to refuse or accept a tape-recorded interview, refrain from answering any questions which they felt uncomfortable with, and had the option to stop the interview at any time if needed. Upon obtaining written consent to participate, each respondent was assigned a numerical code to promote anonymity of their identity. The following section outlines data analysis and data acquisition of the research project. Data collected with each interview had to be meticulously cataloged and managed for safeguarding invaluable information.

\textsuperscript{23} Personal conversation with a former Tribal council leader who adamantly wanted to remain anonymous stressed “very few [council leaders]...continue to be re-elected because they have made hard choices for us...they have raised the bar and have a vision for us people, many don’t like them, but we have to depend on them and trust in them to get us where we need to be...we put them there for a reason, because we continue to trust their judgments and they take care of us” personal conversation, September 28, 2004.
Part Five: Data Acquisition, Data Management, and Data Analysis

All data gathered for the research was organized systematically by the researcher. A central filing system was utilized to track participant information sheets, consent forms were filed separately to protect the identity of participants, recorded tapes were labeled by participant number, field notes were labeled by date, and all primary data sources (e.g. government narratives and correspondence, memos, letters, reports, administrative records, legal documents, and meeting minutes) were carefully labeled and filed for easy access for the researcher. All secondary resources of information collected were organized, labeled, and shelved for easy access.

The initial application of data analysis and observations was designed to identify general patterns and themes among Tribal leaders related to their interpretations and definitions of environmental health. The use of these patterns and themes allowed a more desirable method in making sense of complex issues. Miles and Huberman (1984, 216) assert that “...the human mind finds patterns so quickly and easily that it needs no how-to advice. Patterns just happen…”, and where these “Patterns allow us to make sense of a complex world...” these concepts then begin to associate meaning to the Tribal leader’s world of understanding.

The patterns and themes that emerged focused primarily on 1) Tribal committee\textsuperscript{24} roles and responsibilities, 2) format of policy development and implementation, 3) barriers and concerns related to environmental health policies, 4) methods employed to overcome barriers to environmental health policies, 5) how environment directly affects

\textsuperscript{24} Committees central to the research project were identified as pesticide, agriculture, farm board and health boards for CRIT.
health, 6) what is needed to address comprehensive environmental health policies for an agricultural Indian community, and 7) how environmental health is defined and understood.

To enhance the reliability and internal validity for qualitative data gathered, a sufficient amount of time was spent with research participants to clarify any discrepancies in their responses. Member checking was accomplished through clarifying, restating, summarizing, and paraphrasing participant responses during and after the interviews. The exploration of participant responses was meticulously and carefully investigated to maximize validity in qualitative data acquisition, and multiple sources of data were utilized to triangulate the data (Miles & Huberman, 1984; Lincoln & Guba, 1985).

Once qualitative data was collected through tape-recorded interviews, (if consented to a tape-recording) recorded tapes were then sent out for transcription with explicit and written instructions to protect each respondent’s identity (Kvale, 1996). Among the list of instructions for the transcriber included: a certificate of confidentiality which had to be signed by the transcriber to protect the research subjects and subject matter contained on each tape, a verification of tape number matching the inner sleeve document, a verification of outer sleeve label had to be double checked with the enclosed tape number, and initials of transcriber had to be documented (see APPENDIX G, transcriber forms).

Data review of records such as intergovernmental reports, public records, legal briefings and notes, and administrative correspondence were collected through various
departments within the CRIT Tribal government. Among these records included for review were meeting minutes from special sub-groups (pesticide, agriculture, and farm boards). The data was utilized to obtain recorded discussions that took place regarding environmental health policy during 1980-2002. This data included: CRIT Constitution and By-Laws, recorded meeting minutes, legal documents, congressional hearings, quarterly and annual reports, Bureau of Indian Affairs governmental documents, and administrative records on file at the Tribal library, word processing department, environmental protection office, and the Attorney General’s office.

Other data collected included Tribal newsletters and newspapers, local newspapers and articles relevant to the research, as well as miscellaneous documents that supported the research objectives. All correspondence provided a deeper insight of environmental health policy, its formation, planning stages, and a better appreciation and understanding of Tribal leader’s interpretations and views regarding environmental health.

Data analysis of face-to-face interviews was examined using the software workbench Atlas.ti© specifically designed for qualitative analysis. The software allowed a systematic approach to unstructured data for managing, extracting, comparing, and reassembling the meaningful pieces found in the qualitative data collected. Two principle modes were utilized in Atlas.ti©; 1) Textual mode, which included activities that segmented the data files imported from transcribed interviews, and 2) Conceptual mode where model-building activities allowed the development of codes to be linked to categories associated with quotes verbalized by research participants.
Initially eleven categories (themes and patterns) emerged from the data, which were condensed to five concentrated categories mentioned earlier. These categories were associated with how Tribal Council leaders and Committee members defined or understood environmental health. In contrast to the traditional linear approach for understanding qualitative data, Atlas.ti© provided a non-linear method for understanding Tribal leaders’ interpretations within the identified conceptual structures found in the data, and enhanced the retrieval of quotations. To avoid any margin of error, as with other qualitative research projects where multiple coders and data entry personnel are utilized, all tasks associated with data coding and interpretive analysis were strictly performed by the principal investigator in support of consistency, reliability and validity of data.
CHAPTER IV
PRESENTATION OF RESULTS AND DATA PROFILES

This study attempts to document and analyze how Tribal leaders understand and interpret environmental health from the Colorado River Indian Reservation and to recognize from a leadership perspective how these definitions have been translated into existing environmental policies within the Colorado River Indian Tribe’s agricultural Indian community. This chapter presents interview data, with the intent of offering profiles of individuals interviewed and their responses from in-depth face-to-face and telephone interviews. The second part of this chapter aims to recognize how Tribal leaders’ interpretations of environmental health have been incorporated into existing environmental protection codes.

Tribal leaders and local individuals were interviewed using a face-to-face, semi-structured approach. Due to time constraints of leaders and geography, a few exceptions had to be made, and four interviews took place via telephone. Initially an unstructured approach was obtained through telephone calls placed to the informants, which by this method helped in building rapport prior to the scheduled formal interview (Bernard, 1995: 213). The use of an “emic” (insider perspective) point of view from various Tribal leaders offered an in-depth understanding and deeper appreciation from a leadership perspective, which in turn provided a much greater insight to the research question. Due to the nature of this particular research, qualitative methodologies allowed the researcher to look at the individual holistically, and understand the Tribal leaders within their own interpretive framework (Taylor and Bogdan, 1984). Thus, this study focuses on Tribal
leaders as exemplars of environmental health policy within their elite world of understanding.

Description and demographic characteristics of research participants varied due to the diversified population among Tribal and committee members. Committee members were those individuals who served on various sub-groups from the pesticide and agriculture committees and the farm and health boards. A total of 20 individuals participated in the research study. Table 4.1 presents the percentage breakdown of research participants (N=20). The majority of research participants were Tribal leaders who presently or previously held a seat on Tribal council during 1980-2002.

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal Leader*</td>
<td>65%</td>
<td>62%</td>
<td>48%</td>
</tr>
<tr>
<td>Committee Member</td>
<td>35%</td>
<td>71%</td>
<td>29%</td>
</tr>
</tbody>
</table>

*Note: *Tribal leaders were comprised of 13 of 20 research participants, 8 council leaders were men. N=20

Among research participants, Tribal council leaders amounted to more than 112 years of active practice as a Tribal council member or an executive officer (Executive Officer included Tribal Secretary, Treasurer, Vice-Chairman, and Chairman). Two participants had more than 20 years of concurrent active experience. Both of these individuals were male and have been active in tracking and participating in agri-business for the Tribe, as well as the development and implementation of the current agricultural code. Nearly half (46%) of the council leaders who participated in the study had greater than 10 consecutive years of experience as either a member on Tribal council or an executive officer.
Limitations of the Study

It must be recognized that some limitations apply to this particular study. In order to seek inquiry regarding how Tribal council leaders from the Colorado River Indian Reservation understood and defined environmental health, it was important to interview members who currently or previously served on Tribal council between 1980-2002. In addition, members who served on special committees were invited to participate. Because the research centered on Tribal council and special committee members, limitation to the selection of research participants focused on these particular groups. Thus, the sampling range was specific to Tribal council leaders and special sub-committee members.

Although Native Americans across the United States are diversified, the Colorado River Indian Reservation is comprised on four distinct groups who share some social, political, cultural, and economic similarities. While some general similarities may exist, the CRIT people have their own unique values and beliefs that are distinct to each cultural group: Mohave, Chemehuevi, Hopi, and Navajo. And so, this research was not meant to generalize the overall principles of Native Americans, or to Mohave, Chemehuevi, Hopi, and Navajo people. Instead, the intent was to understand the Tribal council members’ interpretations of environmental health and policy development.

Research Setting and Content

As a member of the Colorado River Indian Reservation and a health care professional, I set out to understand from my Tribal Council leaders a deeper and a much broader appreciation in how environmental health has been understood or defined within
an agricultural Indian community. The understanding which I aimed to accomplish was
through in-depth interviews obtained from selected Tribal leaders. The setting\textsuperscript{25} provided
a rich backdrop for participants to engage in discussions regarding their roles,
interpretations, knowledge, and opinions as they related to environmental health and
environmental protection policies. The settings varied based on participant preference;
since this group was categorized as "the elite," many Tribal Council leaders are up
against time, have multiple roles and responsibilities to fulfill, and find it hard and
difficult to reserve time for an in-depth interview.

Locations in which interviews took place by participant choice included, but were
not limited to, personal and executive offices, homes, Tribal library, restaurant, Tribal
casino, Bureau of Indian Affairs, Indian Health Service, and Tribal Administrative
complex. All interviews were carried out over a 10-week period beginning in late
October and ending in early December 2004.

The model adopted to understand CRIT Tribal Council and committee members
was formulated in two steps. The first was to carry out and accurately record in-depth
interviews with leaders who consented to tape recordings. The recorded tapes were then
transcribed and coded. From the coded materials, general themes were identified and the
texts were extracted and compiled under appropriate headings associated with the
conceptual framework identified in this particular research. Second, a collection of
primary data resources were gathered to identify discussions that centered on

\textsuperscript{25} The settings varied for each participant who consented to an in-depth interview. Since interviewing the
"elite" and Tribal council leaders and committee members were regarded in this particular study as exemplars to environmental health policy for CRIT, the setting was at the discretion of each participant.
environmental health, Tribal code development and implementation within the research time-frame of 1980-2002. This information was then triangulated with interview data collected from Tribal council leaders. The following sections are segmented into categories in which participants discussed at varying degrees of significance in relation to environmental health: 1) place and identity, 2) community and culture, 3) environment and health, 4) agriculture and, 5) leadership and policy.

**Place and Identity**

Research regarding environmental health and its definition by Native American Tribal leaders within agricultural communities is minimal. Often, research has focused on Tribal governmental reports and published articles that reflect Tribal environmental needs and concerns (LaDuke, 1999; Colomeda, 2001; Eichstaedt, 1994; Lewis, 1994, 1995; and Fixico, 1998). In contrast, the way in which one agricultural Indian Tribe defines environmental health and its relation to land, community, and culture is the basis for this particular research.

Over the past three decades, environmental health has received much attention, and advances in new policies and programs have been implemented to decrease the risks to human health. In view of these improvements, American Indian communities have begun addressing way in which the environment interacts with health, and have moved in the direction of establishing policies that are best understood by the people in power. The people of power—as I refer to Tribal council—are described in this research as “exemplars” for understanding environmental health as it exists within an agricultural Indian community.
I began this research with the simple questions: how is environmental health defined or understood within an agricultural Indian community? And how has this translation been implemented into existing environmental protection codes? The aim here was to develop a rich understanding to these interpretations and to apply these interpretations to existing and potential environmental protection codes for the Colorado River Indian Tribes.

The fundamental concept of environmental health as understood by Tribal leaders was as broadly conceived as the perceptions of individual views. In stark contrast to individuality, these perceptions shared similar attributes when describing the distinctiveness of environmental health. Individual characteristics addressed repeatedly by CRIT Tribal council leaders within the context of health and the environment provided a rich meaning to connections to place.

Among Tribal council and community leaders interviewed, the historical past is inherently embedded within self and has a deep connection to the surrounding features of "place"—in the Colorado River, sacred mountains, abandoned buildings, and vacant fields—which together endow the reservation with multiple forms of significance that reaches into their lives and shapes the way they think. In essence, as pointed out by Basso (1996:34), knowledge of place is therefore linked to knowledge of self and guides one into a larger scheme of things, most importantly ones own community. Eloquently versed by Kiowa painter, poet, scholar and Pulitzer Prize recipient, N. Scott Momaday (1994),

From the time the Indian first set foot upon this continent, he centered his life in the natural world. He is deeply invested in the earth, committed to it both in his
consciousness and in his instinct. The sense of place is paramount. Only in
reference to the earth can he persist in his identity. (Momaday, 1994:1)

Place shared a collective voice and meaning to self and community among
Council leaders and committee members. Respondents regarded place as a way of life
and bearing a deep relationship to the land. Expressed by research participants, place
presented a breadth of variations as they co-existed with health and the surrounding
physical environment, each comprising a shared meaning and interconnectedness.
Participant responses were powerful and moving when expressing emotions of place and
identity.

"...as Council Members, one of our biggest priorities is our land and
environment. Our land, air and water must be taken care of, we can’t let it
deteriorate, because it won’t be of any use...and if we don’t take charge, there
goes our farmland, our agriculture, community, and our Tribe. Our livelihood is
dependent on our land and it depends on us for the caretaking, so we do what we
have to do to protect it from being contaminated...keeping it [our land] healthy,
especially our river, that’s what defines us as people of CRIT, it’s our
responsibility as Tribal council to take all measures necessary to keep our land
safe and free from contaminates...because it has impacts on our
economics...[and] it eventually effects everyone, not just the local Indian people.”

“Our water, I always was told when I was younger, that’s our bloodline. But
other people also tap into our bloodline. And it comes from up above, like Las
Vegas and Hoover dam [where] it’s not regulated as much. That’s when it flows
down, [and] impacts us. And in turn, it begins to mess with who we are as
people, our culture, our beliefs, and then our health...so you need to take care of
it...that’s our responsibility, that’s what I have been told when I was just a child,
my father would say that’s the cycle of things...and it [our land] must be cared
for, and we need to take care of the land so it in turn, it takes care of us.”

"...The moving force behind Tribal council, is the people...they are the driving
force. Your elders, your true elders are gonna teach you about the important
things of the Tribe, and what gives us life as people here...and they teach us the
ways, tell us when our stories should be told in the four directions, and at certain
times of the year...and people always ask me what’s going at CRIT, and what are
you guys doing and stuff like that. And they ask me what’s important to us, and I
always tell them what my elders have always shared with me that water is the life
flow of the Tribe, that’s what makes us who we are, and no matter where you go, this land and the water will haunt you, it always finds a way to communicate who we are and what we are made of.”

Sense of place and identity had a deep connection to the Colorado River and land—the majority of respondents referred to land as the reservation when discussing their sense of place and how they identify themselves as people from the Colorado River Indian Reservation. The close connection to land and self was central to participant responses when discussing place, as it appeared to lie at the heart of “belonging” for many respondents. Much of the responses with regard to place and identity were a validation of knowledge and trust that was described as a form of poetry from their own reference in relation to self, which defined the physical landscape—and in most cases the river. Shared among many respondents, “river” gave meaning to individual, and moreover to Tribe—referring to Tribal people among the Mohave, Chemehuevi, Hopi, and Navajo. Described by one community member, place enriches self, and self enriches place:

“I must say first we have come to know this place and identify with it for many reasons. People have lived here for centuries…the Mohave, the Chemehuevi were the original people here…the cultures were different and unique, but now we share similar customs from each other…Especially that big body of water over there…Everyone calls it the Colorado River…The Mohave people named it “Moovalya” meaning blue green water. That’s its original name, the river defines who we are…all of us people, the Mohave, the Chemehuevi, the Hopi, and the Navajo…the river connects us to each other to make us one Tribe even though we are four groups. So to respond to your previous questions, I just wanted to talk about who we are, so you know who we are and how we feel about our reservation…you’re from here, you know that…This place enriches us, and we enrich it.”

Whether land enriches the self or the self is enriched by the land, sense of place and identity was rooted within the surrounding landscapes that gave awareness to self.
Land and environment were used to describe one's sense of belonging. Tribal leaders were adamant about the idea of protecting and preserving the present for the future. In the following section, Tribal leaders and local committee members shared their views about culture and community. Both were used interchangeably to describe members or membership of the Tribe, and in turn these interpretations were made up of the diverse culture of the Tribe. Altogether, respondents never deviated from the discussions that centered on the environment and health. This concept will be discussed in greater detail in the section following the community and culture.

**Community and Culture**

Tribal leaders and committee members collectively have understood the significance of historical accounts and its relation to the existing culture of the Tribe. The Colorado River Indian Tribes have been fortunate in avoiding the invasion of Spanish explorers and their influence. However, not exempt from government agendas, as with assimilation, termination, and new Indian policies provided by differing administrations, Indian cultures have changed and have been transformed with these changing milieux. Across the United States, many Indian Nations have maintained their language and cultures, while others have not. Native American communities have found themselves meshed between mainstream America and balancing life on the reservation.

Most importantly, Tribal leaders and committee members from CRIT have adapted to changing ways with contemporary America and its external influence on the Tribe economically, culturally, socially, and politically. Since the first established Tribal council in 1934, CRIT has transformed into what many call “one of a kind” Tribe. As
one Tribal leader points out, “they call us the Maverick Tribe, but I call us ‘free-spirited’ because we are never too short of risk-taking to compete with the outside world, if we don’t make hard decisions for the Tribe, we wouldn’t have got to where we are at today...and I say that in good way.” CRIT has made numerous decisions that have been influenced by modern and advancing new technologies in health care, education, economics, farming, and so on. All these conditions have served to some degree in the decision making of the Tribe, and these influences have played into local community and culture norms of the Tribe. Expressed and noted by a few Tribal leaders:

“When I talk about community I mean all of us from CRIT...The Mohave, Chemehuevi, Navajo, and our Hopi people. That is what makes us a community, and a community a Tribe, like us. Look at the ways before...All the army, railroads...All the new people it brought here...Culture is also the language...It’s the bird songs, our salt songs that are still being echoed in those mountain ranges...And still here. But culture has also changed...just like the rest of the world...we changed in some ways like them. Just because we don’t practice a certain ceremony, doesn’t mean we are without culture. Our culture as a Tribe has evolved into what our community is today. Take for instance our families, our irrigations system, the mesquite trees, the willow, and our foods...That’s what culture is to us...We make that part of us to survive, so we can keep what we have and be sustained by it...Yes we have gaming too, but it does not mean that we are without our culture, we are and have always been an adapting Tribe since we have been here, and we mastered that to grow and get strong.”

“...our community is made of four distinct groups, and within these groups they have their own individual beliefs and value systems...Some groups have maintained their language and others are at the verge of losing it altogether...Some go away to Navajo or Hopi for specific ceremonies...and some locally, families continue to practice the old way, and some have not...[and] on the other hand...We have come together at CRIT for particular reasons, the relocation...Japanese internment camps, the river brings many immigrants...so when you get a group of people with many different beliefs, you end up with new and adapted cultures, and this makes up our community. For the Tribe, many will look at us from the outside and say we are a contemporary Tribe, and we have made that part of our culture...Our community has been exposed to that type of practice, and we have made it that way and have accepted it.”
According to respondents, community has transformed with regard to contemporary influences. In general, conditions of incorporation began to modify local cultural norms which defined the community of CRIT. The changing governmental policies have played a critical role in the development of the present reservation community. When the irrigation system began in the 1860s, and more so after the turn of the century, life along the Colorado began to expand after this practical irrigation system was workable. Many immigrants settled along the river, but more so, the expansion of the reservation in the 1940s was met with governmental force to bring the Hopi and Navajo families onto the reservation for economic gain of land and water on the CRIR.

The changing milieu over the past 150 years has provided CRIT with a well-integrated community. Discussed in Chapter Three, the historical integration of Tribes and federal government agendas has presented a number of changes for the reservation community, which has led to the variations of cultural mixes. These actions by the government have influenced the economic development of the Tribe, but have also created the unique and current governmental framework of the Tribe within this multi-ethnic society. According Tribal leaders these unique situations have shaped the ways in which culture defines community.

"I remember the good old days...We would hang out at the main canal swimming in the summer. My friends that I hung around with were Navajo, Chemehuevi, Papago, Hopi, and Quechan. They'd come out and swim with me and my brothers and stuff. It was like a big melting pot, only we were in a big soup bowl in the canal here...down the valley. We were all like one Tribe, even though we belonged to different groups. People would laugh and say that they were Mohave too. They would even speak our language, even the Hopi and Navajo here...You here them say the phrases they picked up from us. Life here was fun growing up with many different Indians...We changed with the times, we farmed, built a casino, and things like that. But, change has always been part of us, whether good
or bad, it happens. We [CRIT] have always tried to stay in the running with other Tribes out there, and pretty much everyone else. Laws change, and therefore your community grows with the changes...its nothing new to us, we are use to changes, and we adapt and make the best of it...We really try to make it work for us, so the community here benefits from those changes.”

“I remember in the 1970s, I think that’s when it was...A young scholar and gentlemen came through the reservation wanting to study the Chemehuevi. I remember telling him that if you plan to study the Chemehuevi culture, you will have to study the Mohave, and our Navajo and Hopi people...Because that’s who we are as CRIT, and studying just one, leaves out part of the Tribe, and part of the community. We were made to adapt and conform to changes in this world. Our histories can tell you the stories how we fought against each other, and how we fought side by side for one another. One thing for sure...We are all related to each other...My father was a strong leader, and fought to preserve our rights here on the rez...He fought to secure our water, and to secure our land...and he fought for all the people here, all our members and this community so that we can have and still have our land and resources.”

The historical emergence of people and government policies led to the creation of CRIR. The grouping of diverse people—Mohave, Chemehuevi, Hopi, and Navajo—has guided members of the reservation to define what makes community and how culture has been understood. Noted in Trimble (1993), Mohave member and council leaders describe and summarize these conditions:

“A lot of Tribes in the past have disappeared. The four Tribes here were tough: we have to adjust even more than most. Though over half of the Mohave families still speak their language in their homes, eventually all four Tribes may eventually lose their languages. But we gain something, too: we adapt easier. The outside world is at our doorstep: HUD housing, satellite dishes, paved roads, newspapers, delivered to our doors.” (p. 402)

Although Tribal council leader Patch may not know what the future holds for CRIT, he believes that “an Indian can never stop being an Indian.” Moreover, former Hopi councilwoman Mona Fernandez states, “the Colorado River Indian Reservation is
home, a place filled with a simple richness. This place, it’s my heart and soul. I feel like I have a real close relationship with this land here” (p. 402).

Environment and Health

From the beginning of time, Native Americans have had an intimate relationship with the land. The physical environment has been integrated into the lives of Native people to define self, and has bound and shaped their world. Their songs, animals, sacred sites, and the spiritual universe have connected Indian people to organic and inorganic humanity. The environment has maintained a reciprocal relationship with Native Americans, and land-use will always have a direct impact on health and human populations.

Tribal council leaders and committee members continually expressed their concerns with health in relation to the environment. The direct relationship between health and the environment has always been a top priority of concern for as long as anyone could remember. Changes within farming styles, irrigation, light industry, and the development of roads have played into the daily lives of Tribal members. The following responses illustrate the connection of health and how important it is for the local Tribal government and community to maintain a healthy environment within their agricultural society:

“There is still a lot of work to be done in Indian country, particularly our agriculture Indian community. I mean we’re so remote that regulation and enforcement becomes obscured, as far as minimizing and preventing human health exposures...One of the things for Tribal council was realizing our responsibility to the land. This happened many years ago when our leaders before you and I fought for this land. The land was and still is very fertile, and it was given to us...I first became involved with environmental activities when I worked
for the school system. My experience with wastewater management and looking at environmental impacts of biohazards and things like that helped me. It becomes a real danger when the environment is manipulated and exposed to herbicides, pesticides, and rodenticides... It affects people in many ways... Their motor functions, central nervous system, slurred speech, and breathing problems just don't work the same when they're constantly exposed. So in order to attend to these things, we needed to tend to the environment, and get a handle on what our members were getting exposed to. Farming has been here forever, and it is everything to us... It's like our daily bread, so in order to make it right for our community, we [Tribal council] need to keep the environment healthy.”

“In the past we [Tribal council] looked at chemicals used on the crops, were they safe, and the spraying with defoliants. Before CRIT farms really got started, I believe that was in 1973 when it really took off, nothing prior to that was being done about the chemical use and control. There were lots of complaints about it getting out of control, and the affects it would have on people nearby, and the canals, the fields, the homes, the schools, and churches. It was becoming a cause and affect thing, especially with individuals and the environment. As far as the affects of chemicals on the reservation and how they were being used back then... Our Tribal members and the environment was our biggest concern.”

Complaints from local Tribal members and community members poured in regarding their exposure risks to unregulated pesticide use. Environmental health risks was a subject so widespread, local community members often found themselves in deep conversation about pesticide exposures. Noted by one elderly Indian male of the Tribe:

“We would frequently sit at IHS waiting room, gosh, we had so much time on our hands there... I remember back then, we use to talk about the smell of onions in the area, and that defoliant hitting our house and on top of our animals. I know it wasn’t good for us. Geesh, the smell was horrible, I lived in an old BIA house that use to sit up here at the pumping plant area, and we moved it down below for me and my daughter. We had a swamper, and that smell would be bad, it came in through the cooler. You couldn’t go outside, and it was bad inside too... All of us use to sit and exchange these kinds of stories up here at IHS... we would sit outside of Norris Market too, old man Norris use to give us free soda, and we would sit out there with my friends and family and catch up... we use to talk about this same stuff there too. Us Indians had it bad... but it got better for us... I think it was after the self-determination act, that’s when we got our codes.”

Conditions of health related to environmental exposures were among respondents’
greatest concerns. According to research participants, historically, and presently, the CRIR has been subject to a broad range of environmental health concerns as a result of industrialization, commercial development, illegal dumping, ground water contamination, and hazardous waste where all conditions pose human health risks. When asked about environmental conditions impacting the health of the people and community, committee members and Tribal leaders responded accordingly:

"Since I have been employed with EPO, I have heard more complaints and concerns from the community about the environment and health conditions. Before I came on board here, my family remembers that in the early 1950s or so, or even before that, BIA used to dump their old transformers at the end of McCabe road...Then community members started to dump all their trash, and farmers found this area to be a common dump site for their chemical drums, and contaminated boxes from pesticides...Before you knew it...Our Tribal members were coming down with all kinds of cancers on that road...And now I work here and go check on fields and farmers, I hear more concerns not only about the McCabe road area, but Weststates has been the big talk of the town. I know they are looking into this, because a good handful of people think it is causing cancers in the area...Our rez has changed so much from when the river first changed its course, and our vegetation changed, or it didn't grow anymore...Tribal members are concerned, even today with an Ag code in place about the constant exposure to pesticide use. They say we have lots of asthma in this area than most, but I have not seen any documents to prove that. We do so much farming here, that it is virtually impossible to stop using pesticides...It will continue to be an ongoing concern as long as we continue to do farming and grow with the changing times. Pesticides and economic development will always question our health status, and we just need to stay on top of the changing ways."

"I've been in this business for several years now, and I pretty much have heard so much with regard to environmental exposures and the risks it has on human life. I remember when I first started here...There was lots of talk about Weststates Carbon and pesticide exposures...This was a big concern, and it still is ongoing. We try to produce the best management practices with distribution, application, and the storage of chemicals. I was at a community meeting a few months ago, and EPA came down. We were there to hear community input about the concerns surrounding Weststates...Community members are concerned about the stacks that come off the building, and they have alleged that this has polluted the air and has caused cancers in one particular area to go up in numbers. This is a huge concern for us, and we are looking into this. It's important that if this is the case,
then we need to make sure that the community and the environment are safe. That’s the biggest concern right now. EPA and our office have been putting together material and information to strategize, and approach this in a timely manner... The community has been here long before I, and I know their concerns are valid... They are concerned with the cancers, asthma, and the water and air quality.”

During the period of data collection among Tribal leaders, I came across an elder male of the Tribe who was sitting in the waiting room at the local Indian Health Service (IHS). Coincidentally, I had just finished a discussion in reference to West Nile exposures and risk reduction with a clinic physician. I sat next to the elderly male, and we began a simple conversation that led to the discussions that centered on health and environmental exposures. His concerns resonate with similarity among the discussions and concerns with Tribal leaders and committee members. His sage advice and personal accounts were a matter of reflective and intense insight to environmental risk exposures on the reservation. He adds:

“I used to travel up and down these roads since I can remember. I knew about every back road there was, it was my job. I worked for the bureau... I went up and down Mohave road lots of times. I use to see the old time plants grow like wildflowers, but no, not no more... they don’t grow there anymore, they got covered up by crops or its just bare now... the pesticides were bad for them... too much was used. They just died off and never came back. I don’t know if they will ever come back... Even though we have a code... those chemicals are bad.”

**Agriculture**

The lower Colorado, which stretches through the Colorado River Indian Reservation, has been the primary source of irrigation for agricultural development for nearly one and a half centuries. Since the first attempt of an irrigation project in the late 1880s to the government-funded project in 1912, CRIT’s agricultural economy has been
the mainstay for its thriving farming industry. Although initially the foundation for
CRIT’s agricultural economy, concerns about chemical use has always brought about
apprehension and worry for many living within the exterior boundaries of the reservation.
Tribal leaders and committee members collectively shared diverse and similar views
about their agricultural economy and the impacts of pesticides on the environment.
When discussing pesticide use and agricultural development, respondents were concerned
with an assortment of various impacts on health, the environment, water, and local plants
and animals. Tribal leaders illustrated these concerns as follows:

“Depending on what the farmer was irrigating or using for his particular crops I
often wondered about the chemical use over the years. A lot of people with
children utilize the canals for recreation to go swimming in because of the hot
weather, and they get exposed...I’m not quite sure but I heard of some cases
where people with asthma or other types of respiratory problems and
people...Were suffering from skin problems most likely from these chemicals. I
really can’t say, but I had heard this was some of the findings from the health
center back then, and I heard different individuals were affected in the Valley. I
know that the water in the canals are utilized for irrigation, and I know that in the
past many different chemicals were applied into the canals for irrigation and at
times smelled real funny. In the early fifties and sixties you would see these
tractors pull up to the ditch bank or canal banks and leave their canisters,
sometimes hundreds of gallons of chemicals in these huge plastic containers and a
lot of us locals wondered about the affects of that substance on us humans...And
on our life and health, and our animals too. It really made you wonder, it made
me wonder about how it would have affected us twenty, thirty years from now,
and would we develop cancers and get sick, and develop some weird disease from
all of this...Because we were using this for our agriculture, and we needed to
develop the land... But at the same time, we practiced land development with
chemicals, it got the pests out of the fields, it kept our crops free from vectors and
the like, and we needed to produce, and we also knew that the use of pesticides
may have some bearing on human health and eventually affect our lives. We
were a growing Tribe...Agriculture was moving along, and we were doing the
best we knew how then. Things began to change for us, we were producing good
crops.”

“Our agricultural has grown since I can remember. I remember when I first began
farming myself...Farming has been in my family for decades. We grew alfalfa,
wheat, and cotton...we pretty much stuck to that. At times the salts in the ground were so bad, the cotton would only grow so far into the season, then it would just stop...But things changed, and we got sophisticated with agriculture. We turned our fields, and plowed them down by the seasons. With agriculture comes the use of pesticides. They are nasty chemicals that no one really wants to use, but in order to keep healthy crops, you need to use them...And it actually impacts the nutritional content for consumers...even if its animals or humans. So pesticides have and can do harm, but it really comes down to how they are used. I know that Tribal members have always been concerned with the dangers in them, and this is not going away, that’s why we were able to put laws in place to make sure that farmers are not freely using these chemicals, or doing applications when they shouldn’t. This all came about because it was once upon a time out of control, and the membership is what really put things into perspective. We got concerns from them like anywhere from found containers of Paraquat, Malathion, and Parathion, to application drift, and it even was bad like the defoliants falling onto houses and the schools, to fish kills in the area from chemicals...When you live here, you live around pesticides, when you live here, you live and learn agriculture, and when you live here, you know what you are living for.”

Agriculture has been around for a considerable amount of time and continues to play a significant role in CRIT’s economy. The role in which agriculture plays in the lives of Tribal and community members was defined by many as a way of life, as one Tribal leader notes, “we all grew up knowing that agriculture was in our blood. It is what sustains us as a Tribe, we began our lives doing it, and we will end our lives in it, for us, it’s not the act of doing, but how well we do it.” Respondents verbalized their concerns with regard to living in an agricultural community and the impact of pesticide use with regard to health and the environment. For many, these concerns focused on pesticide use and how well it is monitored and regulated throughout the reservation. Concerns about the proper use of pesticides, fungicides, ronodenticides, and herbicides were central to many conversations with research respondents. The act of protecting and regulating this important asset for the Tribe was central to Tribal leaders planning and development strategies. As noted by Tribal leaders, agriculture was regarded as their esteemed asset:
"For many people passing through our reservation, the first thing they see is the large open fields of agriculture. Many are in awe about how much agribusiness is going, and believe it or not, it almost always comes up in conversation about the chemicals we put in the ground to keep our business thriving. I have lived here all my life...and have been exposed to pesticides all my life...I have lived right in the middle of cotton and alfalfa fields and my kids have been exposed to it too...Agriculture is like our cream of the crops, we have alfalfa, wheat, and cotton which is our biggest producers...and we want to keep that going. Our CRIT Farms, which is the biggest farm here, has always set the standards for the smaller growers, as well as other growers in the Southwest. People come to us and want to learn from us. They come here seeking answers about the agribusiness and how well we have succeeded in this area. For the future of Arizona, our agribusiness will probably be among the only few farming communities left. The metropolitan area in Phoenix is growing and other Tribes in the area will more than likely resort to their changing economies, but for us at CRIT, this life of agribusiness will be here forever...Pesticides will continue to be monitored and regulated in order to see farming grow and prosper...In the beginning, it was almost out of control, but now we have tried to get it all under control and make it work for us. If we don’t do things now, then our crops will just go away, and we spoil the land, but we have put codes in place to protect everyone...Not just the farmers, but everythiing has been taken into consideration, we do what we can to protect our valuable asset of the Tribe...that’s the people, our water, land and community."

Regulation and monitoring of pesticides within this agricultural economy has been a big concern for CRIT. Tribal leaders have taken action to alleviate the stress produced by chemical applications during farming activities, as one Tribal leader notes:

"Setting priorities with our environmental codes and sticking to them has made things possible. You really have to know what’s important to the government and the people, and follow through, or you end up with nothing, agriculture is a huge responsibility, it covers many areas of responsibility, we have our committees and certain departments that interface with the farm pretty much of a daily basis, its important to take care of what’s important to you as a Tribe."

The historical orientations of the past has been taken into consideration for adopting and implementing mechanisms that have regulated and controlled the used of chemicals into the fertile soils of the CRIR. The following section addresses Tribal leaders’ responses for planning and recognizing the use of chemicals in the soil and its
long term effects in various milieus. The development of policy and strong leadership practices among Tribal leaders and local committee members paved the way for the present local structure of agribusiness and the impacts considered within the parameters of environmental health.

Policy and Leadership

Tribal leaders and committee members discussed in great lengths the historical accounts in which the development of agribusiness took shape on the CRIR. According to research respondents, special attention has been given to the use, transportation, and storage of pesticides and chemicals utilized in agribusiness. With regard to Tribal code and policies, participants stressed the importance in which leadership plays in the facilitation and implementation of these policies impacting Tribal lands and human health. Stated more eloquently by one Tribal council member:

"Back in the day, like in the early 60s and 70s, and even still today, there were different committees that were formed by the Tribal Council (with) regard to the pesticide committee, agriculture, and Farm Board. This all got started way back when our Tribal council needed some structure within the government to regulate and monitor things. We needed accountability, and yes organization too...You see the 60s was a time when everyone was on fire, and we too needed to take control of what was happening on our reservation. We would hear about asthma and other respiratory illness...so we had to prioritize our needs, and environmental protection was at the top...That’s how committees got formed and laws got passed. We had to rank what was important to us. So Tribal leaders...Our Tribal council needed to make it right, and do right for the people and this community. We formed committees to oversee specific functions and they would report to council. When you sit on Tribal council, you have so many responsibilities. One day you’re trying to help some homeless person find shelter, buy groceries for another, and off to DC for some meeting, then get back to the rez to only see 101 messages with local Tribal members having all sorts of needs, on top of that, you have your boards and committees wanting to push through their agendas, so they come to your office and seek support, and you start all over again the next day with only a crazier schedule. So you have to prioritize what’s important for the community, the government and individuals. This is how we
got started in the agriculture committee. We had to make it a priority as Tribal council, and since you are pretty much the law of the land, we were able to push our priority through...So we took steps to get the Ag code passed, but not without a lot of ground work that was done by our lawyers, farmers, and special groups...It was like the inevitable...We had to take control of the situation with pesticides, so we just did it using our resources.”

Participants were asked a series of questions regarding environmental health policies. Much of these policies have been incorporated into ongoing farming practices and aim to protect the local environment. These current policies have seen a number of changes with regard to new restrictions and standards set forth in the current codes, but not without adequate research compiled by key individuals involved with the planning stages. Prior to the establishment of the agricultural codes, parties from outlying agencies assisted CRIT in leading the way to forming stringent policies that would demonstrate as a model for other Tribal agencies throughout Arizona seeking the development of environmental protection codes. It is important to note here that one non-Tribal individual instrumental in adopting environmental protection codes for CRIT was cognizant of the Tribe’s level of sovereignty and what truly mattered for CRIT.

Noted by one committee member:

“In the beginning, before this all got started, environmental laws were based on state statutes. When working with CRIT, I have always tried to get them involved and co-op on stuff...We never wanted to cause friction between the state and the Tribe. I was fully aware of the sovereign status in which Tribes hold, and we really didn’t want to interfere, but we really wanted CRIT to stand out because they had so much going for them. It all came down to their sovereign Nation status, which is something I always understood. I had a feeling that we needed to get the Tribes involved and form our own regulatory codes but in order to do that, to protect themselves, they needed to get a department of their own and put some regulations in place. Otherwise, the way I understood the law, the state had the regulatory oversight...And if the Tribe didn’t have regulations of their own that were equal to, or more stringent than the state, and the state had jurisdiction...So
we wanted to prevent that from happening to protect their sovereign Nation standing.”

Forming networks and allies with regard to the development of environmental protection codes was critical to the incorporation of stringent policies that aided in the regulation and use of restricted chemicals. Many local farmers in the area, as well as the committee member noted above, assisted CRIT in the formation of data acquisition. A better-informed Tribal council lead to a well-developed plan to put more control measures on chemical use within the agribusiness. Local farmers provided invaluable support and insight related to pesticide regulation and their health risks. As noted in letters from files obtained from the CRIT Attorney Generals, local farmers, applicators, and advisors provide information to the CRIT Environmental Agricultural Committee:

“I wish to commend you and the other members of the Environmental Agriculture Committee on your continued concern of proper use and application of Pesticides. The growers, pest control applicators, and pest control advisors farming and working on the reservation are also concerned and appreciate your soliciting their comments and suggestions.” (file no.:112.2a)

“Since the Poston Rotary Club membership comprises a substantial number of growers, agri-business people and others connected with agriculture on the reservation, we particularly have interest in responding to the proposed pesticide regulations.” (file no.: 112.2b)

“I whole-heartedly agree with the need for control and regulations regarding chemical applications on farm land; however I feel that great thought should be put into making any regulations in order that we not find ourselves so controlled by excessive rules that we hinder the purpose of successful farming, and aiding the economy of the Colorado River Indian Reservation...Regulations are a good and needed practice, and are a necessary part of having a clean [e]nvironment…” (file no.: 112.2c).

In addition to collaborative efforts to produce a workable and adequate pesticide code, Tribal leaders became the active players in setting the standards in how their
community would be regulated. Ultimately, educated Tribal council leaders were instrumental in the development of the end product. Noted by one Tribal council member that has maintained his key role in the development and implementation of CRIT’s agricultural codes, “Young Tribal members were getting educated, they were going off the reservation and coming back...we started to realize the situation was creating a big problem for the folks on the reservation, and we got smart and started developing codes to protect us.” Additionally, he further adds to this claim where Tribal council began to take steps to adopt policies to protect the general public. He notes:

“In the early nineteen seventies there was lots of DDT still being used here on the reservation...and when you talk about agriculture and farming at the time we were above our capacity...people were just using the DDT throughout the whole reservation without any limitations and statutes...and defoliant was being used right over home sites... I remember you could actually hear and see the defoliant that was being used...it was all over the roofs of our homes...you could literally open your door and there it was...so the situation was running out of control. We were seeing a lot of people with asthma problems...and the crop dusters were just spraying anywhere, and didn’t realize how much these chemicals really hurt people...like agent orange...yeah it was used here too...they use to spray that stuff so heavy that you knew when it was cotton time and the crops needed to be turned, because it would smell like garlic and onions...and people were getting sick, things were bad, and it was getting out of control, it was getting into our water beds, in the canals, and being transported throughout the whole reservation. I remember when I use to do yard work throughout the reservation when I found just north of McCabe road lots of chemical drums...there were lots of them all over the place...farmers were just dumping them anywhere, and I found lots buried in the earth. We had no control measures in place, and we had to put a stop to things like this...Tribal council passed the ag [agriculture] code in the late seventies for control measures and regulation of chemical use...we needed to so something to get a handle on things and place more stringent standards on chemical use...we had people actually getting sick, and the water and land was suffering enough from improper use of these chemicals, and so we took control.”

The development of policy for CRIT has rested on sound leadership among Tribal council and empowered committee members who began to challenge themselves to
devise a plan that would best work for CRIT’s growing agricultural economy. In the previous sections, we learned what was important to the Tribe with regard to place, identity, community, local culture, and the importance of individual health and health of the community. Moreover, these attributes which define CRIT as a sovereign Nation have been the driving force in policy development by local leaders.

Tribal leaders are the decision makers for the Tribe and serve as the governing body for its membership. The government is structured to oversee the operations and make executive decisions accordingly, and having their own set of rules and regulations to maintain their sovereign status. Each leader takes an oath to uphold the Constitution of the Tribe and to serve the will of the people.26 Like many other Indian Tribes, institutions are organized according to their own values and set of rules. CRIT’s values, like many others, are diverse and different but accommodating for the local Tribal community. CRIT has championed the regulation of restricted chemical use within their agricultural society. The level of leadership has helped the Tribe advance in the growth of the economy—particularly agribusiness, which has played a central role in CRIT’s leadership.

Whether a leader served four years or as many as twenty-four, success has been measured in many ways. Many leaders have been quite active in their roles and have

26 The will of the people as described within the CRIT Constitution preamble, “We, the members of the Colorado River Indian Tribes of the Colorado River Indian Reservation, in order to make the government established by the original constitution and bylaws approved August 13, 1937, a more responsive legal Tribal organization and to secure all privileges and powers offered to us by the Indian Reorganization Act, establish justice, promote the general welfare, safeguard our interest, encourage educational progress, conserve and develop our lands and resources, and to secure the blessings of freedom and liberty for ourselves and our posterity, do ordain and establish this constitution and bylaws for the Colorado River Indian Tribes of the Colorado River Indian Reservation”. 
maintained the ability to see victorious endings to passionate and willful causes. The building of a Nation has been part of the local culture since time immemorial. Among the many responsibilities for local Tribal leaders in leading the local community, is addressing social, economic, political, and cultural needs, as well as finding new measures to strengthen the Nation’s cultural integrity has been a demanding and self-fulfilling job for many.

The expressed views and concerns of many Tribal leaders and committee members have provided a rich insight into how a Nation has dealt with particular issues related to agribusiness. Defining environmental health as a Nation and incorporating these interpretations into current agricultural codes has played into the success of CRIT’s fertile and rich agricultural economy. The following section is meant process the participant’s views and to understand more clearly how these interpretations have fit into existing environmental protection codes.

**Incorporating Values and Beliefs into Agricultural Policy**

Developing a code is not an easy task. It requires leaders to either take a passive or active role in defining the parameters within which a Nation has to work. The road is daunting at times and tedious, and presents a number of institutional challenges in which Tribal leaders must define the problem, balance and compare results, and agree on an end product. One Tribal council member adds, “For our Tribal codes, we pretty much had to document everything, we had to understand all the problem areas, we had to know what we were trying to control and why.”
Tribal code development requires cohesive thinking to look at long term effects in which environmental hazards impact health and how they affect flora and fauna. This thinking requires action by Tribal leaders, which in most cases transcends beyond reservation boundaries.

Interpreting how environmental health is understood within the context of CRIT Tribal council leaders and committee members suggests a number of things. These interpretations have been folded into existing environmental protection laws, which have been defined as a discipline that focuses on the interrelationships between people and their environment. Equally, this fosters and promotes the well-being and safe keeping of a healthful environment.

The objective for securing a healthful environment within this agricultural society was to minimize harm to people, place, and local ecosystems. By doing so, CRIT had to first understand the significance of who they were as a people, define and understand what the current problem was, and begin to make sense of the information collected. As a sovereign Nation, CRIT was able to define their discipline and set boundaries utilized in the action process. This process yielded an end product, which is outlined in the current Agriculture code.

The current Agricultural code is composed of four separate chapters identified in table 4.2. Each chapter is a reflection of regulations that are intended to decrease physical stress on the environment, reduce and minimize hazardous impacts or serious threats to the health of the people, environment, and wildlife.
Table 4.1: Colorado River Indian Tribes Agriculture Code Chapters 1-4

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Enacted</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1: Dangerous Plant Pests and Diseases</td>
<td>August 12, 1983 by Ordinance No. 83-6</td>
<td>To minimize and prevent the spread of crop diseases, noxious weeds, crop pests and public nuisance of all plants, soil or other things found infested or infected with a crop pest or disease, or which are the host or carrier or means of disseminating or propagating a crop pest or disease.</td>
</tr>
<tr>
<td>Chapter 2: Pink Bollworm</td>
<td>January 12, 1990 by Ordinance No. 90-1</td>
<td>Treatment and control of the pink bollworm is herein regulated to reduce pink bollworm populations to a level that can be managed by pheromones alone, to reduce the amount of pesticides applied to lands on the Reservation, and to reduce the long-term costs of pest control on the Reservation.</td>
</tr>
<tr>
<td>Chapter 3: Pesticide</td>
<td>February 28, 1978 by Ordinance No. 31, and amended on March 13, 1984 by Ordinance No. 31A; codified to Article 3 on January 11, 1992 of Ordinance No. 92-2.</td>
<td>Use of pesticides may be required periodically for maintenance of healthful conditions within the Reservation; and Pesticides also may jeopardize the public health, safety and welfare. Therefore, it is the intent of the Tribal Council to provide for the safe production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation by the enactment of this ordinance;</td>
</tr>
<tr>
<td>Chapter 4: Whitefly Suppression</td>
<td>May 17, 1993</td>
<td>Treatment and control of the Whitefly in herein regulated to reduce the whitefly population to a level that is does not present a direct threat to the livelihood of the agricultural economy of the Reservation, to reduce the amount of pesticides applied to lands on the Reservation, and to reduce the long-term costs of pest control on the Reservation.</td>
</tr>
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</table>

The making of the current agricultural code, as amended and codified in two separate latter dates from its original, all began in the early seventies. As noted earlier by several respondents, the agribusiness for CRIT was taking off and producing crops that boosted the agricultural economy. Albeit, while profit gain and gross production were experienced by the private and public farmer, pesticide use was steering out of control.
Measures were taken to begin the planning stages in developing a comprehensive pesticide code that would have long-lasting effects for a healthful environment.

The preparation for adopting the current pesticide code galvanized a fury of inquiry for local farmers, Tribal members, and Tribal leaders. Ultimately, this momentum led to the creation of the current code, but not without the force of charismatic Tribal leaders paving the way for understanding how Indians were treating their own land, or how their land should be treated.

Table 4.3 illustrates participant responses in which Tribal leaders and committee members shared their Indigenous knowledge, values, and beliefs about environmental health and policy development. Below are some responses taken from their interviews regarding environmental health policy. The table is in reference to Chapter 3 of the agriculture code, which is the basis for this research. Responses are depicted to demonstrate a shared frame of reference with the pesticide code with regard to the categorical groups: place and identity, community and culture, environment and health, agriculture, and leadership and policy.
Table 4.2 Agriculture Code

<table>
<thead>
<tr>
<th>Named Categories and Tribal Code Reference</th>
<th>Participant Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place and Identity</strong></td>
<td></td>
</tr>
<tr>
<td>Chap. 1, Section 3-102.d</td>
<td>“we thought at the time how and what we were using was safe...We had to change things to preserve the reservation, and you must be specific to what and where you want to regulate...because it would have impact on the future”</td>
</tr>
<tr>
<td>The Colorado River Indian Reservation as established, existing and geographically defined under the laws of the United States, encompassing all territory within its exterior boundaries as now or hereafter prescribed or ascertained, including fee patented lands, allotted lands, townsites, roads, waters, and lands and rights of way owned, used or claimed by any person.</td>
<td></td>
</tr>
</tbody>
</table>

| **Community and Culture**                |                      |
| Chap. 1, 3-103                           | “CRIT has always been concerned about health of their people and the environment. The river is used to clean ourselves, and mesquite is used for cremating our dead...if we can farm with pesticides, then we have to know what we are doing to make sure all plant life, human life, and our animals are taken care of” |
| The committee shall adopt and implement a pesticide control program, and rules and regulations pursuant thereto; and it shall enforce this ordinance, that program and those rules and regulations to protect the health, safety and welfare, of all residents of the Reservation against adverse effects of the production, processing, transportation, handling, storage, application, and other use, and disposal of pesticides within the Reservation. |                      |

| **Environment and Health**               | “our code today has room for growth, but we do have mechanisms to protect the safeguarding of how pesticides are used and handled...We have to protect our land and health, and our leaders before us knew what had to be done” |
| Chap. 1, Section 3-101.d                 |                      |
| Pesticides also may jeopardize the public health, safety, and welfare. Therefore, it is the intent of the Tribal Council to provide for the safe production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation by the enactment of this ordinance; |                      |

| **Agriculture**                          | “our ag[ricultural] economy was the first to make us rich, but it too was among the first to define us as a Tribe...the four Tribes here, each one of us knows this is a part of us, we are a farming Tribe, and we live and breathe it all year round” |
| Chap. 1, Section 3-101.a                 |                      |
| The economic welfare of the Colorado River Indian Tribes, their members, and others residing or working within the Reservation is dependent upon agricultural use and development of lands within the Reservation; |                      |

| **Leadership and Policy**                | “we can be pretty biased when it comes to particular committees, especially the ones that have a huge impact on our government and people, so the committees must represent good leaders, they are the ones that report to us, and we put our faith in them when they come to us with a recommendation” |
| Chap. 1, 3-103.c                         |                      |
| The authority of the Committee shall include but it shall not be limited necessarily to the following procedures and undertakings, as many be necessary, reasonable or appropriate for the protection of public health, safety and welfare, and to prevent harm to desirable plants and animals, and the environment: |                      |

SUMMARY

The past thirty years on the Colorado River Indian Reservation has been an exciting experience for many. Gains in economic development have allowed more students to meet educational goals, housing development has increased, and human and social services have provided more service to the Tribal membership than ever before.

Advances in policy development have provided additional structure and strength to Tribal sovereignty. The voices heard within this chapter have confirmed the allegiance to community, government, and local culture. But life on the CRIR is not so perfect; the lives of individuals have been touched in varying degrees of neglect, not by pure purpose or ignorance, but by governmental policies that supported guardianship and paternalism.

The new era of self-determination allowed a voice that was best understood by Indians in power, the people of power—as I refer to Tribal council—the “exemplars” for understanding environmental health as it exists within their agricultural society. This understanding led to policy development that was defined by Indians who knew their environment best and how they wanted their land to be treated.
CHAPTER V
DATA FINDINGS

Introduction

American Indian communities face many challenges when addressing environmental health issues. Lack of adequate resources, population growth, economics, science, politics, and legal challenges all compound the complexities in managing a comprehensive environmental program that monitors and regulates activities within agricultural communities. Given the limited resources and immense challenges faced with CRIT’s agricultural economy, Tribal leaders committed to the growth and development of the Tribe underwent a huge undertaking of responsibility in order to protect the health, safety and welfare of the people and their environment.

This chapter presents a reference to the data collected. The orientation of the data is presented to identify a set of patterns to consider when developing Tribal environmental health policy agendas. Tribal leaders at CRIT took steps in developing environmental health policy at a time when Indian Nations throughout this country began asserting their rights to self-governance. The era of self-determination required CRIT leaders to make hard choices for their growing agricultural economy. To fully understand how these choices fit into existing agricultural policies, it is important to first understand that a number of priorities had to be set, which were necessary and critical to policy development. With subsequent planning, Tribal leaders began to formulate policy and set the standards for environmental protection throughout Indian Country.

The following is based on a set of patterns identified when developing environmental public health policy within an agricultural Indian community and is
organized to demonstrate the thought and ideas of leaders, but more importantly to
represent local culture, beliefs, and values. Since perceptions of Tribal leaders were
voiced and represented in Chapter Four, this chapter aims to demonstrate how these
explanations are utilized to guard what is inherently right and essential for preserving and
protecting an Indian Nation.

The Making of Tribal Environmental Health Policy

The making of Tribal environmental health policy has been experienced by many
Indian Nations throughout this country who have made great strides in formulating
environmental policy and have succeeded in their own game. Laws have been formed
and we have been able to preserve and protect our valuable homelands in this country.
Clean waters, cleaner airways, and intricate surface landscapes have all been protected
from environmental assaults, and a renaissance of new growth in vegetation and the
seriously endangered animals have been experienced.

The information presented in Chapter Four was meant to delineate the following
research question: How is environmental health defined within an agricultural Indian
community? However, the responses from Tribal leaders provided an array of
interpretations that did not endorse one particular definition. Their responses were meant
to provide the research with a fundamental understanding of how one Tribe defines
environmental health. The next research question was to determine how these
interpretations have helped shape environmental health policy for CRIT. The following
constructs discussed are provided to demonstrate the shared framing of knowledge from
CRIT Tribal leaders and how environmental health policy was considered. The final
question will be discussed in the conclusion: what are the future implications for shaping, creating, and developing environmental health policy for CRIT and/or other or agricultural Indian communities?

Today Tribal leaders are able to construct policy, govern their Nation, and live by their rules, and so too, the preservation of land and culture is able to sustain the people and community they govern. This research has exposed seven concepts used by Tribal leaders when building environmental health policy. These concepts are identified in table 5.1.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Significant Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize Policy Agendas</td>
<td>Armed with a plan for action. Problem area must be defined and well understood. Leaders must maintain an active role.</td>
</tr>
<tr>
<td>Maintain Sovereignty</td>
<td>Values and beliefs of Tribe must be explicitly understood and practiced.</td>
</tr>
<tr>
<td>Resource Commitment</td>
<td>Focused resource commitment. Internal assets must be access and controlled very well.</td>
</tr>
<tr>
<td>Level of Adaptability</td>
<td>Internal capacities and strength of community must be well adaptable to integration of environmental health policy.</td>
</tr>
<tr>
<td>Evaluation of Progress</td>
<td>Mechanisms to monitor and regulate. Must be flexibility for modernization.</td>
</tr>
<tr>
<td>Environmental Public Health Tracking and Monitoring</td>
<td>Investment in the future of environmental public health concerns by addressing the cause and effect. Taking action on reliable and consistent information.</td>
</tr>
<tr>
<td>Effective Leadership</td>
<td>Possessing the knowledge, skills, and abilities to carryout responsibilities.</td>
</tr>
</tbody>
</table>

**Prioritizing Policy Agendas**

Tribal organizations are required to set priorities and allocate resources within the constraints of limited funding. Decision makers among CRIT leaders may have not been
well equipped to make explicit rationing decisions, but decisions for creating
environmental health policy relied on the historical and or political resource allocation
processes. Self-determination was not only a catalyst for change, but local events have
also helped in fostering a set of standards that dispatched a momentum for change.

Priority setting for CRIT was built on Tribal self governance. This research
uncovered the realm of priority setting for CRIT which has gained a momentum in
practice over the last three decades for program management and analysis.

Setting priorities is not an easy task; it requires leaders to think beyond resource
allocation: Who are the stakeholders involved, short and long-term impacts,
accountability measures, and being able to achieve the expected or desirable outcomes?
Without understanding the problem at hand, Tribal leaders must be well informed about
environmental impacts, its connection to health disparities, or biological triggers that
disrupt local flora and fauna. A well-informed Tribal council can make the best decisions
when creating environmental health policy within their agricultural communities.

The regulation of pesticides for Tribal communities must be well defined so that
decisions are guided for setting the standards. These standards may include, but are not
limited to, aerial and ground applications, chemigation (a process where
pesticides/chemicals are added to irrigation), restricted areas, proper washing and
disposal, worker protection standards, and so on. Tribal members and local area farmers
are the initial stakeholders with regard to agriculture and chemical exposures and must be
considered as masters of local matters. Their input is critical to achieving an effective
outcome. Once the situation has been defined, decisions can then be made in how to
strategize the most effective and successful agricultural management plan. Ultimately, the agricultural management planning process will yield the mission and vision for which Tribal governments aim in order to sustain their local agricultural economy. Understanding local resource availability and the dynamics of local cultural norms, values and beliefs will help strengthen and clarify the expected outcomes of all stakeholders involved. Moreover, Tribal leaders must understand that this is accomplished by playing an active role in the whole process of environmental health policy.

Maintain Sovereignty

Prior to this research, I would have agreed with pretty much every Native American and Alaska Native community that sovereignty does matter. It is a word with many meanings, and through this research I have learned to understand at a deeper level, as one Tribal leader asserted, “it’s important to be an Indian society of responsibility, rather than just be a Tribal society that has rights…you need to know why sovereignty matters…when you learn that, then that is what makes you a more responsible community.” Among Tribal leaders and committee members at CRIT, many respondents stated that it is important to maintain sovereignty, but it is equally important to understand why sovereignty matters to Tribal self-governance.

Making the best use of local resources and acting on what matters most to the Tribe is an assertion of self-rule and allegiance to local Tribal community. Maintaining cultural identity that is represented in the daily activities within the Tribal community and interactions among people outside the reservation is all part of preserving and
maintaining the strength of Tribal sovereignty. Native American communities are comprised of distinct people having their own sets of rules and beliefs. Their operations of self-governance are primarily based on a set of shared values. Overall, what makes a Tribal community is the People and the willingness of a community to commit to the decisions of a central purpose.

**Resource Commitment**

Making choices is not an easy task. Resource allocation comes with knowing what resources are available and carefully selecting which ones will be committed to supporting the choices made. Within many Indian communities, resources are minimal. Therefore, the making of environmental health policy must also acknowledge what resource availability may be accessed externally. How well these resources are managed, controlled, and accessed will play into the survival of the program.

The selection of internal resources must be carefully orchestrated to determine how well they will meet the needs of meeting the set agendas for developing environmental health policy. Commitment to resource allocations and maintaining the longevity of program management must be weighed in long term consequences and how well they fit the local community needs. A focused resource commitment to internal and external assets must be controlled well.

**Level of Adaptability**

Tribal societies in general have historically been forced to experience adaptability, some more so than others. Whether adaptations of policy development,
health conditions, or economic conditions, Indian adaptations within diverse milieus are charged with modifying and enabling a particular group of individuals to continue to survive within a given environment.

As humans, we adapt to our environment by way of multiple mechanisms. As Indian people we adapt more cohesively with coexisting cultural patterns that allow us to band together as a group. This banding lends itself to the coordination of efforts in surviving and sustaining ourselves as Tribal societies. Within our distinct Indian communities—each having our own set of internal capacities—the willingness to survive is measured against the innate strengths of the people and government. These internal, community capacities must reflect the recognition that decisions made internally will at some point impact beyond the boundaries of the reservation. One Tribal leader adds, “We like to think of our relationship with the US EPA as cohesive, and when we pass a water or air code, we need their support, because our standards will affect others from the outside. Pollutions are fluid and have no boundaries, so we have to think that way with our regulations.”

Tribal societies must consider the degree of fragmentation. One Tribal leader asserts, “Tribal codes must be whole. If they are divided up into many pieces, then it’s going to be hard to determine how regulation is defined…Like our EPO, they are the ones who deal with environmental codes, not the PD, not the farm…one department is authorized to define and authorize those specific decisions.”

Thus, the integration of environmental health policy is dependent on the strengths and capable adaptability patterns within a particular group. Tribal internal capacities
must be enhanced and developed to strengthen external relations in order to uphold environmental regulatory laws for Tribal agricultural societies. Today Tribal leaders are able to construct policy, govern their Nation, and live by their rules, and so too, the preservation of land and culture is able to sustain the people and community they govern.

**Evaluation of Progress**

Many have thought that evaluating progress may be simply put: document progress and demonstrate results. Not a chance. In fact, in order to build a champion environmental health program for agricultural Indian communities, leaders must know what steps are necessary to produce a case of sustainable environments. Programs must be built on the sound judgment of Tribal leaders and local committee members who are committed to the safeguarding of the reservation. These leaders must understand what mechanisms are necessary for regulating and monitoring chemicals.

Technology is ever-changing and the modernizations of farming practices have seen great strides in machinery operations from laser farming, produce coolers, and computerized irrigation systems. Tribal environmental codes must be planned with flexibility in mind. The flexibility of Tribal environmental codes that allows room for revisions when necessary will meet the demands of a changing discipline.

Some areas for consideration when enforcing Tribal environmental protection codes are to adopt some form of data collection instrument so that progress is measured, monitored, and reported to respective stakeholders. Noted by one employee from CRIT EPO,

"We may not have the best practice or high tech equipment, but we continue to collect soil and water samples on a quarterly basis... This information is reported
to Tribal Council and EPA...We collaborate with Fish and Game, and do our best with our given resources to stay on top of things...Other Indian Tribes...well at least in EPA Region 9, some have very sophisticated programs...They have more resources and money, and lots of them only have minimal resources...Collecting samples and evaluating the progress of chemical exposures to the environment or pollutions can easily be documented and managed with just the basic computer programs most people have today.”

Implementing and utilizing an evaluation tool for tracking and monitoring chemical use, misuse, distribution, and exposures risks (to environmental and human health) assists Tribes in tracking and identifying shortfalls. Evaluating the progress and effectiveness of programs that have implemented some form of environmental health policy assists in the facilitation of monitoring progress, identifying cause and effect, documenting trends in particular geographic areas, and provides information to stakeholders in how well we are doing and far we have come—and what may need to change.

**Environmental Public Health Tracking and Monitoring**

This research revealed the significance to environmental public health tracking (EPHT) within agricultural Indian societies. The main concern for EPHT is to provide some type of ongoing data collection, analysis, and interpretation of data about environmental hazards, and human health effects potentially related to exposure to environmental hazards. The integration of such programs will assist Tribes in addressing areas of concern and taking steps to remedy and alleviate potential environmental hazards.

The majority of American Indian communities are situated geographically in remote locations throughout the United States. Due to these isolated and distant
locations, reservations are a much more opportunistic environment for environmental hazards. Since resources are minimal, it’s difficult for the majority of Indian Nations to devise and carry out comprehensive programs that address EPHT systems for monitoring. According to research respondents, the majority of information collected for tracking and monitoring is at the responsibility of one department. To shorten the gaps, one Tribal council members adds,

“Resources capacity will continue to be a huge problem for addressing health exposures as a result of the environment, especially with pesticide use...It happens here on a smaller scale...Incidents are reported to Tribal Council and our Human Resource Committee, and the Health Board...most of it is dependent on what kind of incident we are dealing with. It could be a chemical fire like this past summer, and the fall-out to that exposure. People went to the emergency room, there was quite a number reported to Indian Health, and the follow-up procedures were not totally in place. Our vision is to package this up in a way that a whole team in consistent with what is reported and where and how this information is used...So if we could see how this exposure affect human life. We are not totally there yet, and I don’t think we ever will be, but it’s the small steps we take to get there that will help in addressing environmental exposures. I truly believe our first line of defense is awareness and education to the public.”

Investment in the future of environmental public health concerns is paramount to the survival of the Tribe and community. Education and awareness, as mentioned by one Tribal leader above, is key and critical to a community’s “first line of defense.”

According to one environmental inspector from CRIT EPO,

“We provide education and awareness about pesticides, illegal dumping, childhood lead poisoning, and water ecology on a small scale...Our resources are minimal, but the general concepts have been conveyed in many mediums...We try to use all that we can to get the word out, we present to the public, schools, at parades, local fairs, and even with our local farmers...I would like to see one area of our office dedicated to just environmental health education.”

Within the policy framework for CRIT EPO, environmental public health tracking may indeed provide some valuable information for addressing environmental hazards as a
result of pesticide use, illegal dumping, and contaminated air and water ways. Figure 5.0 illustrates the process for managing an environmental public health tracking and monitoring program and Table 5.1 describes Figure 5.0 in greater detail.

Based on participant responses, the following figure is based on their contributions when they discussed the concerns surrounding environmental public health tracking. Although some variables do exist within CRIT’s environmental protection programs, some areas may require some action to be more consistent with information sharing and reliability. All too often information is not consistent, which leaves rooms for improper data reporting and recording.
Figure 5.0 Environmental Public Health Tracking and Monitoring For Agricultural American Indian Communities
Table 5.1 EPHT for Agricultural American Indian Communities

<table>
<thead>
<tr>
<th>Planned Action</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection</td>
<td>Routine sampling; gathering soil and water sampling.</td>
</tr>
<tr>
<td>Documentation</td>
<td>Data input into centralized system.</td>
</tr>
<tr>
<td>Reporting</td>
<td>Reporting data to stakeholders involved with EPHT for Indian community. Increased collaboration and building partnerships with key Tribal departments, local county and state agencies affected by Tribal agricultural economy.</td>
</tr>
<tr>
<td>Enhanced EPH</td>
<td>Achieved results. Goal is to have less reported exposures to human health, contaminated water, soil, and air.</td>
</tr>
<tr>
<td>Ongoing Education and Awareness</td>
<td>Community wide education and awareness campaigns to local agricultural Tribal community about pesticide use, worker protection standards for farmers, distributors and applicators.</td>
</tr>
<tr>
<td>Ongoing Evaluation</td>
<td>Goal is to build EPHT capacity through stakeholders; continued sharing of information, meetings, ongoing dialogues, change accordingly to improve effectiveness of program.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Tribal Council, special committees, farm board, pesticide and agricultural committees, farmers, Tribal health board, Indian Health Service, and state and county officials affected with Tribal agricultural economy. Roles/Responsibilities are well defined.</td>
</tr>
</tbody>
</table>

**Effective Leadership**

As with any organization either in the private or public sector, strong leadership is a must when carrying out environmental health policy. The preservation and protection of natural resources has been a never-ending battle for many Indian Nations, especially when the challenges are broad-ranged and require a sizeable amount of financial support to carry out their objectives.
The roles and responsibilities of a Native leader extend far beyond what some may describe as the “general roles” of a public figure. Some of these responsibilities require leaders to think and act within the constraints of a government that possesses minimal or practically no resources to deliver the goods. Among the endless list of roles and responsibilities, Tribal leaders are expected to understand the dynamics of policy making, organizational planning, establish internal and external controls, possess good communication skills, and so forth. These are among the many roles and responsibilities in which Tribal leaders at CRIT have come to know when developing environmental health policy.

The challenges faced by CRIT leaders over the past twenty-five years have maintained an active political life and have affirmed their allegiances through a series of social programs and services, political agendas, economic and housing development, and Tribal laws. These laws have come in the form of policies and ordinances which were all passed to safeguard the health, safety, and welfare of the Tribal membership and community.

Development and progress did not come without its downside. Many shortcomings came at the price of capital loss, either in the form of resource capacity, currency, people, and political powers. The growth and development of Tribes have organized themselves into modern manifestation of local values. The leading role that the Tribal council has played in shaping local group identity among the Mohave, Chemehuevi, Hopi, and Navajo people will live long after most. Change and adaptation has been frequent and widespread for CRIT and has allowed some structural and cultural
changes to take place which have ultimately contributed to some degree of transformation
of the entire Tribe. As one leader adds,

“We have been the masters of adaptation, we have seen so many Tribes come and
go here, we seen the railroads, the armies, the Japanese, and it didn’t matter
because we welcomed them all, but this helped us to learn the new ways and get
stronger at what we were doing...So we could tend to things in a newer
light...When things have been taken away from you and whatever is left, you
have to take care of it, and turn it into something that means something to the
people and government...Mending what’s yours and tending to your house
[Tribe] is what matters the most...We try to make a better and stronger life for
our members, so there is always room for growth.”

As with many Indian Nations, good leadership has generally rested on how much
sovereignty matters. With CRIT, the farming practice and environmental regulation is
solely controlled and overseen by the Tribal government. This places responsibility on
the Tribe to build what they want to build, and produce what they want to produce within
the agricultural economy. Since the regulatory powers of pesticide use rests in the hands
of CRIT, local control with the office of environmental protection has empowered
employees to enforce the Tribal code that is backed by the institution. Eloquently put by
one Tribal councilwoman,

“Sometimes you have a whole consensus in agreement on a particular item on the
floor, but we also have disagreements as well, and that’s okay. It forces us to
research more and rethink what we are doing. Tribal Codes are not just passed by
a snap of a finger, and they are not updated in that same manner. There’s much
work to be done to see a good outcome...Strategizing and making a decision on
solid evidence, and knowing how it will impact the Tribe is what we want when
passing environmental laws...We have people on council who have been here for
a long time, and their leadership has not gone unnoticed...Their skill and ability is
always called upon to get us where we need to be...Their thought process and
knowledge has worked for us as a Tribe.”
Conclusions

This chapter presented patterns of leadership, process development for Environmental Health policy, and provided a source of reference found in the qualitative interviews with Tribal council leaders and committee members. Their responses demonstrated a need for prioritizing environmental concerns when constructing Environmental Health policy within agricultural Indian communities.

Tables 5.0 and 5.1 provide some concepts for Indian Tribes when constructing Environmental health policy. The concepts provided in this chapter are made available to help understand what must be considered when formulating environmental health policy, particularly agricultural communities where pesticide use is frequent. This model was not designed to produce a model that is absolute, but rather is meant to provide areas for consideration when constructing agricultural regulatory codes.
CHAPTER VI
CONCLUSIONS
TRIBAL ENVIRONMENTAL HEALTH POLICY: IMPLICATIONS FOR THE FUTURE

In our changing world today, the environment plays a significant role in the health of humans and our environments. American Indian communities are faced with enormous challenges when discussing the burden of health disparities attributed to environmental exposures. Lack of resources and adequate funding to develop and manage environmental programs is at times a far stretch from reality. Because environment and health are integral to life and the sustainability of the Native peoples, Tribes are asserting their sovereignty and gaining control through a collection of policies and regulations that come as a result of changes and adaptations experienced within American Indian communities.

Prior to the 1980s, agricultural Indian communities were forced to resign the regulation of natural resources, and many were regulated by state officials. With the advent of new policies, changes in federal administrations, the US Environmental Protection Agency joined forces and consented to Tribes managing and regulating their own environmental programs. EPA’s Indian Policy in 1984 committed to a special emphasis in building Tribal capacity by recognizing the government-to-government relationship and the federal trust relationship with Tribes. This in turn sparked an interest for Tribes to regulate by developing environmental protection policies regarding existing Tribal capacities in a manner that has been favorable for their Tribe. Since this, Tribes have been able to regulate and enforce the proper use of chemicals, manage and control
to some extent illegal dumping, and monitor and regulate strict air and water quality standards that meet Tribal regulatory definitions.

With respect to this particular research, many agricultural Indian Tribes over the past twenty years have maintained their environments through a series of programs, laws and policies, and committed resources to manage their agricultural economies. Tribal leadership and infrastructures have supported their efforts in generating sustainable programs. CRIT’s agricultural economy has experienced a number of shortfalls, as well as growth and improvements, since the late seventies when the pesticide code (also known at the time as Ordinance 31) was adopted into law. These current environmental agriculture codes for CRIT have contributed to better control measures for risk reduction in chemical exposures, and has provided some mechanisms to which farmers and area distributors must submit. These are all part of a bigger plan to continue to regulate and monitor pesticide use while living within an agricultural society.

This research provided a deeper insight to what environmental health means for one Tribe. It identified a series of patterns of shared framing found in the current agricultural codes, and it shed new light on areas for consideration when building environmental protection programs. The vision which CRIT has worked toward over the past twenty years is to continue to build a sustainable agricultural program, and carry on with standards of regulation and enforcement as active allegiance to the People for maintaining a healthful environment.

At the end this research, I learned of a new water code that was up for discussion among Tribal Council leaders. This comprehensive “water quality standards” is not a
new area for CRIT. The Tribe has continued to work with the US EPA in keeping the most famous water bed around safe—the lower Colorado River. With this new code, CRIT would be at a greater advantage is setting the standards for all river Tribes\textsuperscript{27} in Arizona and California, as well as enjoying the benefit of setting stricter guidelines that resonate beyond the exterior boundaries of the reservation. One Tribal councilwoman stated,

"I believe with this new code, we are in a better position to really set the standards, we have an opportunity to even get radical with our reserved water rights, just like the oil industry is doing to all of us right now. It's time we use the water in our advantage... We have one third of the water rights in Arizona, and that puts us in a better position than most, even the state."

Building a Nation is not an easy task, nor is building a vision for environmental health policy. This research discussed the concepts in which the Native Nations Institute in Tucson, Arizona aims to arm Tribes with for building stronger Indian Nations. Nation building has been around well before Columbus first stepped foot in the Americas. Nation Building provides a framework for understanding what it takes to be a good leader for economic development. CRIT's story is a lesson to take back and appreciate the hard work that goes with building a strong agricultural economy and envisioning the impacts that must be considered.

Today Tribal leaders are able to construct policy, govern their Nation, and live by their rules, and so too, the preservation of land and culture is able to sustain the people and the community they govern. This is true in many respects for Tribal and non-Tribal communities when we think about how well we are equipped to address environmental

\textsuperscript{27} River Tribes are those quantified federal reserved rights of the five Indian reservation along the lower Colorado River: Chemehuevi, Cocopah, Colorado River, Fort Mojave and Quechan.
concerns, moreover how well environmental policies are adopted that ensure the public of protected societies from environmental hazards.

Although concern over contamination on reservations in vast and widespread, basic issues such as solid waste disposal, safe drinking water, and hazardous waste sites are also a major problem on Tribal lands. To some degree, fortunately, these problems are being addressed as Tribes continue to develop their own environmental programs. Nicely put by one Tribal leader who, coincidently, was eating stew during our interview. She adds,

"...the proof is in the stew...some people would say the proof is in the pudding, but for us people at CRIT, the proof is in the stew...many of us old timers would like to think of Tribal government as how well you prepare your stew. If the stew is made well, then you are well grounded and pay mind to what is important, so if you considered all the important stuff, the stuff that means something to the people, then the proof is their and in the flavor of your stew. But if you just throw it together and don’t care about how you prepared it for the people, the end result will fail the hungry crowd."

Nation building may be overwhelming at times and the pace of society today has transformed this Nation dramatically. New technologies, and advances in health policy development have all contributed to tradeoffs between individual and community, past and future, and natural and man-made. In all, policy development is a vigorous task and requires the work of strong leaders to see an end product. For Indian Nations, Tribal leaders in the 21st century are assuming greater responsibilities for Tribal health programs and environmental health issues. These issues include social, political, cultural, and economic disruptions that have resulted from the treatment of reservations as open dumping grounds for hazardous materials. Tribes are asserting their sovereignty and
gaining control through the development of policies and regulations that come as a result of changes and adaptations experienced within American Indian communities. Tribal leaders are planning for their future and taking steps necessary to develop programs that aim at protecting their environment through a series of Tribal codes.

Tribal codes aim to address the issues that are important in Indian Country. In today's modern world, Native American lands and resource allocation is not an absolute to Tribal jurisdiction or how well the land is used. Yet Tribal sense of “place” continues to remain the sheer essence of Native American identity and sovereignty. This is what sets Indians apart, where strong Tribal leadership decisions are wagered for the preservation of Tribal lands. Tribes are at a better advantage and will continue to increasingly shape the way in which corporations, state and federal governments, and fundamental environmentalists view the future of the Tribal lands. Nation building is a concept that was well understood and well defined by Tribal leaders long before the US EPA's Indian Policy in 1984. Tribal societies were organized and structured to address environmental concerns with sense of place in mind. Unwritten policies were and continue to be embedded in the daily fabric of Tribal government operations. Nations who concern themselves with what signifies their society and how well they incorporate these values into Tribal leadership with the will of the people, are at a better advantage than those who are still trying to define themselves as a whole.

I'd like to leave my readers with one last figure to consider for rethinking in terms of Nation Building; as this is how I see “A study on forging a new front and building a new vision for Tribal environmental health policy.” The Colorado River Indian Tribe’s
Tribal seal (Chapter 2, Figure 2.3 CRIT Seal) was adopted in 1966, and crafted by a local Navajo Tribal member. Without the artist knowing, or perhaps he may have very well understood the rich meaning to this great land and people, that environmental health policy was brewing in the desert floors long before agricultural codes came into play. Given its initial meaning and what the Tribal seal symbolizes, I would like to also appreciate it through the concepts of Nation building. Many Indian Nations have their own unique seals, each symbolizes what is important to the Tribe, and many demonstrate a level of Nation building concepts in which their Tribe is sustained by. I truly believe the Colorado River Indian Tribes seal not only signifies the people, and what matters most to the Tribe, but it also symbolizes Nation building for agricultural Indian communities.
APPENDIX A: AGRICULTURE CODE ARTICLE 3 PESTICIDE CONTROL

AGRICULTURE CODE

ARTICLE 3

PESTICIDE CONTROL

[NOTE: Except as otherwise noted, the provisions of Article 3 of the Agriculture Code were enacted on February 28, 1978 by Ordinance No. 31 and amended on March 13, 1984 by Ordinance No. 31A. The provisions of Ordinance No. 31 as amended were redesignated and renumbered and were codified to Article 3 of the Agriculture Code on January 11, 1992 by Section 9 of Ordinance No. 92-2.]

CHAPTER I. PURPOSE; DEFINITIONS; PESTICIDE CONTROL COMMITTEE.

Section 3-101. Purpose.

The Tribal Council finds and declares as follows:

A. The economic welfare of the Colorado River Indian Tribes, their members, and others residing or working within the Reservation is dependent upon agricultural use and development of lands within the Reservation;

B. Maximum benefit from such use and development requires extensive application of various pesticides within the Reservation;

C. Use of pesticides may be required periodically for maintenance of healthful conditions within the Reservation; and

D. Pesticides also may jeopardize the public health, safety and welfare. Therefore, it is the intent of the Tribal Council to provide for the safe production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation by the enactment of this ordinance; by the creation of the Pesticide Control Committee; and by the authorization hereby delegated to the Committee to adopt a pesticide control program and rules and regulations, and to enforce this ordinance, that program and those rules and regulations.

Section 3-102. Definition of Terms.

As used in this ordinance, or when used for purposes of application of this ordinance, the terms set forth below shall have the following meanings, respectively:

A. Pesticide. Any substance or mixture of substances intended to be used for (i) preventing, destroying, repelling, or mitigating any pest, or (ii) defoliating or desiccating any plants, or (iii) accelerating or retarding the rate of growth or rate of maturation, or otherwise altering the behavior of plants or the produce thereof, but not to include substances to the extent that they are intended as plant nutrients, trace elements, nutritional chemicals, plant innoculants, and soil amendments. Any substance of mixture of substances defined or designated as or determined to be a pesticide or a plant regulator pursuant to F.E.P.C.A. or Arizona Statutes shall be a pesticide pursuant to this ordinance.

B. Restricted Pesticide. Any pesticide designated as such by the Committee upon a determination that it is or may be so toxic, hazardous or otherwise detrimental to humans, or to their environment, animals or crops, that particular provisions should be made applicable to its production, processing, transportation, handling, storage, application or other use, and disposal in order to adequately protect the public health, safety and welfare. Any pesticide defined or classified for restricted use, or for both
AGRICULTURE CODE

restricted use and general use, pursuant to F.E.P.C.A. or Arizona Statutes shall be a restricted pesticide pursuant to this ordinance.

C. Pests. For all purposes of this ordinance, pests are all things included within the definition of that term in F.E.P.C.A. and Arizona Statutes.

D. Reservation. The Colorado River Indian Reservation as established, existing and geographically defined under the laws of the United States, encompassing all territory within its exterior boundaries as now or hereafter prescribed or ascertained, including fee patented lands, allotted lands, townships, roads, waters, and lands and rights of way owned, used or claimed by any person. For purposes of any restriction, regulation, requirement, control, or prohibition of or upon the production, processing, transportation, handling, storage, application or other use, or disposal of pesticides pursuant to this ordinance and the pesticide control program, references herein, and in the rules and regulations of the Committee, to "within the Reservation" shall be deemed to include the air space both over the surface of the Reservation and in such proximity to it that any pesticide released in such air space, whether or not Intentionally, is deposited or reasonably could be expected to drift or otherwise to be deposited upon land, plants, buildings, animals or water upon the surface of the earth within the exterior boundaries of the Reservation.

E. F.E.P.C.A. The Federal Environmental Pesticide Control Act of 1972, P.L. 92-516, Section 2, 86 Stat. 975 et seq., 7 U.S. Code Section 136 et seq., as amended and as it may be amended from time-to-time hereafter. Reference in this ordinance to F.E.P.C.A. shall be deemed to be reference to F.E.P.C.A. as it shall have been amended as of the time of application of the reference.

F. Arizona Statutes. Articles 5, 6, and 6.1 of Chapter 2, Title 3 of Arizona Revised Statutes, as amended and as they may be amended from time- to-time hereafter. Reference in this ordinance to Arizona Statutes shall be limited to the stated articles but it shall be deemed to be reference to them as they shall have been amended as of the time of application of the reference.

G. Committee. The Pesticide Control Committee created by this ordinance.

H. Person. Any individual, partnership, association, corporation, or any organized group of persons whether incorporated or not, including a person acting in a fiduciary or representative capacity, and further including any governmental agency.

Section 3-103. Pesticide Control Committee.

A. Establishment. There is hereby established a Pesticide Control Committee to consist of three members of the Tribes, to be appointed by the Tribal Council for a term of one year each; provided, that members may be reappointed for successive terms at the discretion of the Tribal Council. Committee members shall serve at the pleasure of the Tribal Council and may be removed by the Tribal Council at any time, with or without cause. One of the Committee members shall be a member of the Tribal Council, who shall act as Chairman of the Committee. The expense of the Committee, including staff, equipment, and training, shall be pursuant to a budget to be approved by the Tribal Council.

[As Amended March 13, 1982, Ord. No. 31A.]

B. Functions. The Committee shall adopt and implement a pesticide control program, and rules and regulations pursuant thereto; and it shall enforce this ordinance,
that program and those rules and regulations to protect the health, safety and welfare of all residents of the Reservation against adverse effects of the production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation. In recognition by Tribal Council that technical and scientific aspects of pesticides, and their production, processing, transportation, handling, storage, application and use, and disposal are subject continuously to new discoveries, modifications and requirements which cannot be adequately provided for specifically by an ordinance, the Committee is authorized and directed to utilize all reasonably available resources and services to regularly monitor such developments, and by its rules and regulations to adopt and impose such restrictions, requirements, controls, and prohibitions upon production, processing, transportation, handling, storage, application and other use, and disposal of pesticides within the Reservation as, considering all reasonably available and material data and information, appear technically and scientifically reasonable for the protection of the public health, safety and welfare.

C. Authority. The authority of the Committee shall include but it shall not be limited necessarily to the following procedures and undertakings, as may be necessary, reasonable or appropriate for the protection of public health, safety and welfare, and to prevent harm to desirable plants and animals, and the environment:

1. To designate restricted pesticides.

2. To restrict, regulate or prohibit the production, processing, transportation, handling, storage, application and use, and disposal of restricted pesticides within the Reservation.

3. To require, restrict, regulate or prohibit the use of designated facilities, equipment, materials and methods for production, processing, transportation, handling, storage, application and other use, or disposal of restricted pesticides within the Reservation.

4. To enter in a lawful manner any public or private premises within the Reservation to observe or inspect (I) any store or any pesticide, (II) any apparatus, aircraft, vehicle, equipment, supplies, materials, storage and handling areas and facilities, disposal sites and devices which are used or intended for use for production, processing, transportation, handling, storage, application and other use, and disposal of restricted pesticides.

5. To define and designate geographical areas, and times and circumstances, where or when within the Reservation the production, processing, transportation, handling, storage, application or other use, and disposal of restricted pesticides shall be restricted, regulated or prohibited.

6. To require, and to issue or approve, certifications, permits and licenses for production, processing, sale, distribution, transportation, storage, application or other use, and disposal of restricted pesticides within the Reservation.

7. To issue, promulgate and enforce rules, regulations, orders and directives to implement this ordinance and the pesticide control program. Such rules, regulations, orders and directives may include adoption or incorporation of laws, rules, regulations, orders, directives or other requirements prescribed
pursuant to authority of the United States of America or of any State with respect to pesticides.

8. To impose or assess civil fines and penalties for violation of this ordinance, and rules, regulations, orders, directives, certificates, licenses and permits issued pursuant hereto, not to exceed One Hundred Fifty Dollars ($150.00) for each violation.

9. To obtain advice and assistance of federal, state, county and municipal government agencies, and private agencies, and persons with technical expertise, in the adoption and implementation of a pesticide control program; to coordinate activities and cooperate with such other governmental agencies having similar or related responsibilities within their respective jurisdictions; and to utilize the tribal courts to enforce the pesticide control program, the provisions of this ordinance, the rules and regulations adopted pursuant to this ordinance, and orders and directives issued pursuant thereto. The Committee may enter into agreements with such other governmental agencies providing for uniformity, coordination and cooperation in regulation and control of restricted pesticides.

10. To designate authorized representatives of the Committee and to delegate to them authority to act on behalf of the Committee in the conduct of inspections, observations, inquiries, and enforcement of inspections, observations, inquiries, and enforcement of this ordinance, the pesticide control program, rules and regulations adopted by the Committee, and orders and directives issued by it; and such representatives may include employees, agents and representatives of federal, state, county and municipal government agencies.

All rules, regulations, orders and directives issued by the Committee within the scope of its authority and responsibility hereunder, and consistent with the stated purpose of Tribal Council and the criteria set forth herein, shall have the force of law as if set forth in full in this ordinance.

CHAPTER 2. APPLICATION OF PESTICIDES.

Section 3-201. Certificates, Permits and Licenses.

A. No person who is or would be required to have any certificate, permit or license issued pursuant to F.E.P.C.A. or Arizona Statutes, or issued pursuant to any administrative rules, regulations, orders or directives issued pursuant thereto, to authorize that person to produce, process, transport, distribute, handle, sell or offer to sell, apply or otherwise use, or dispose of any pesticide or pesticides within the State of Arizona, shall conduct such activity within the Reservation without such certificate, license or permit.

B. In addition to the requirements of A. of this Section 3-201, no person who would be a commercial applicator, private applicator, or structural commercial applicator of pesticides within the definitions and meanings of F.E.P.C.A. and Arizona Statutes shall apply or otherwise use, or supervise the application or other usage, or any restricted pesticide within the Reservation without a license than currently in effect issued by the Committee. No such license
shall be issued by the Committee to any person who does not have each certificate, license, and permit required by F.E.P.C.A. and Arizona Statutes to authorize that person to conduct or supervise such application or other usage within the State of Arizona. Revocation, suspension, or expiration or other termination of any such federal or state authorization (while such authorization continues to be required for conduct of the specified activity pursuant to federal or state law, rule, regulation, order or directive, as applicable) shall constitute automatic cancellation of the license issued by the Committee.

1. Application for such license shall be in such form as is prescribed by the Committee, to include such information and to be accompanied by such supporting data and verification of qualifications as may be required by the Committee.

2. Issuance of such a license shall be dependent upon the applicant demonstrating to or otherwise satisfying the Committee, or its designated representative, that the applicant; (i) is competent with respect to the application, use and handling of restricted pesticides; (ii) is familiar with the nature and characteristics of them, and the dangers inherent in them and which may result from their application, use, and handling; (iii) is knowledgeable about, and able and willing to take appropriate precautions to protect the public health, safety and welfare; (iv) has suitable equipment, in safe and proper operating condition, for such application or other usage, with trained, reliable and responsible operators, as appropriate; (v) has not demonstrated lack of reasonable care and responsibility in prior processing, transportation, handling, storage, application or other usage, or disposal of pesticides within the Reservation or elsewhere. The demonstration or other satisfaction of the foregoing requirements may be by oral or written examination, satisfactory completion of training courses, actual field operation or demonstration, questionnaires, reports from other agencies or persons, reliance upon federal and state certifications and licenses, or any combination of all or any of the foregoing; or such other appropriate means which may be adopted by the Committee.

3. Any such license issued by the Committee may be made subject to any reasonable qualifications, conditions, restrictions and limitations deemed to be appropriate by the Committee.

4. Before issuing such a license, the Committee shall require proof of financial responsibility consisting either of a deposit of money, liability insurance, surety bond or certified check protecting persons, and those claiming under them, who may suffer death, injury, illness, or property damage as a result of the operations of the applicant. The Committee shall not accept any bond or liability insurance except from companies authorized to do business in either of the States of Arizona or California. The amount of the deposit, insurance or bond, unless a greater amount is specified by the Committee, shall be One Hundred Thousand Dollars ($100,000.00) for property damage, personal death, injury or illness, public liability and drift insurance, each separately, and it shall be maintained in not less than that sum at all times during the licensing period. Insurance shall be written in a form acceptable to the Committee and it shall be evidenced by certificates delivered to the Committee. Each policy by appropriate endorsement or other provisions shall provide for written notice to the Committee at least ten (10) days before any cancellation or material change thereof. The license of an applicator who permits the security to fall below the required sum shall be suspended by the Committee and it shall remain suspended until the security meets the minimum financial requirements. The Committee may increase the amount of required deposit, insurance, surety bond or other security at any time upon fifteen (15) days notice to the holder of a license.
5. A license may be issued by the Committee pursuant to B. of this Section 3-201 for any period not to exceed one calendar year, or the remaining portion of the year for which issued. It may be renewed annually upon application to the Committee, and satisfaction of all qualifications and prerequisites therefor.

6. There shall be a fee charged for the issuance and each annual renewal of such a license, and an additional fee charge for the reactivation of any such license which is suspended for any reason. The Committee shall establish an applicable fee schedule which it may revise from time-to-time. All such fees shall be submitted through the Committee and payable to the Colorado River Indian Tribes.

C. The Committee may require such other certificates, licenses and permits as it deems appropriate from time-to-time as a condition to the production, processing, transportation, distribution, sale or offer for sale, handling, storage, application or other use, or disposal of restricted pesticides within the Reservation. Such authorizations may be based upon such criteria, qualification, and conditions as may be prescribed by the Committee in fulfillment of its responsibility set forth in Sections 3-101 and 3-103. It may charge annual fees for issuance and renewals of such authorizations in accordance with a schedule of fees to be established by the Committee, which fees shall be submitted through the Committee and payable to the Colorado River Indian Tribes. The schedule of fees may be revised by the Committee from time-to-time.

D. The Committee from time-to-time may alter, modify, enlarge or increase the requirements, conditions, restrictions and limitations imposed upon any person holding any certificate, license or permit issued by the Committee, as such reasonably appears necessary or desirable to the Committee to protect the public health, safety or welfare.

E. In addition to all other remedies hereunder and at law, the Committee may suspend or cancel any certificate, license or permit issued by it upon a determination by it that the holder thereof has violated or failed to comply with any applicable term, condition or provision of the certificate, license or permit, this ordinance, any rule, regulation, order or directive pursuant hereeto, or F.E.P.C.A. or Arizona Statutes, or rule, regulation, order, directive, certificate, license, or permit issued pursuant thereto; or upon a determination by the Committee that the holder is operating within the Reservation or elsewhere in a faulty, careless or negligent manner, or has made false, inaccurate or incomplete reports or representations concerning pesticide operations or upon application for a certificate, license or permit hereunder, or is operating with improper or unsafe equipment or without adequate, competent and responsible personnel. Such suspension or cancellation shall be upon written notice and opportunity for hearing before the Committee not less than five (5) days after notice; unless the Committee determines that an emergency situation exists, in which event there shall be immediate suspension upon notice, to be followed by such a hearing within five (5) days.
PESTICIDE CONTROL

Section 3-202. Records and Reports.

Each person who applies or otherwise uses restricted pesticides pursuant to certificate, license or permit issued pursuant hereto shall keep a record of each property treated and, upon request by the Committee, shall furnish copies of said records to the Committee. Such records shall be kept for a period of two (2) years and they shall contain the name and address of the owner and exact location of the property treated; the crop treated; the pest or pests involved; the name, type, and strength of pesticide used; the name and address of the person or firm where the pesticide was purchased; the persons applying the pesticide; the date, month, year, and time of day of application; the direction and estimated velocity of the wind at the time of application and a description of the principal equipment used therefor; the person or persons who disposed of the pesticide containers, the type of container, and the manner and location in which the containers were disposed of.

CHAPTER 3. GENERAL PROVISIONS.

Section 3-301. Registration of Pesticides.

No person shall produce, process, distribute, sell, offer for sale, hold for sale, deliver, ship, transport, receive and deliver or offer to deliver, store, apply, or otherwise use any pesticide within the Reservation unless that pesticide is properly and currently registered pursuant to both the F.E.P.C.A. and Arizona Statutes; provided, however, that if an unregistered pesticide is subject to an experimental use permit issued pursuant to the F.E.P.C.A. and Arizona Statutes, the Committee may authorize its experimental use by the permittee within the Reservation in strict compliance with the terms of the permit and such additional restrictions or requirements as may be imposed by the Committee. Any other exemptions from registration of pesticides pursuant to the F.E.P.C.A. or Arizona Statutes shall be inapplicable within the Reservation.

Section 3-302. Usage Generally of Registered Pesticides.

Any person who produces, processes, distributes, sells or offers for sale, transports, handles, stores, applies or otherwise uses, or disposes of within the Reservation any pesticide registered as required by Section 301 of this ordinance shall do so only in strict conformity with the terms and provisions of the F.E.P.C.A. and Arizona Statutes, and all rules, regulations, orders and directives issued pursuant thereto, which are applicable to such registration, including those applicable to its particular, classification of registration pursuant to the F.E.P.C.A.

Section 3-303. Prohibitions Generally.

No person shall produce, process, distribute, sell, offer for sale, hold for sale, deliver, ship, transport, handle, store or apply or otherwise use, or dispose of any pesticide within the Reservation if such activity or the manner of its conduct under the circumstances would be prohibited by F.E.P.C.A. or Arizona Statutes, or rules, regulations, orders or directives issued pursuant thereto, if it occurred outside the Reservation and within the State of Arizona.

Section 3-304. Violations and Penalties.
AGRICULTURE CODE

Any person who violates or fails to comply with any requirement, provision or condition of this ordinance, any rule or regulations, order or directive, certificate, license, or permit, or condition, qualification, restriction, or limitation thereon, issued by the Committee pursuant to its authority granted by this ordinance shall be guilty of an offense, and shall be subject to a fine not to exceed Five Hundred Dollars ($500.00), or imprisonment for a period not to exceed six (6) months, or both.

Section 3-305. Judicial Proceeding.

If at any time it appears to the Committee that any person has violated or failed to comply with the provisions of this ordinance, or any of the rules, regulations, orders and directives of the Committee, or certificate, license or permit issued by the Committee, or that such person then is so violating or failing to comply therewith, then the Committee, or its representative so authorized by it, may institute proceedings in the tribal court for any appropriate remedies, whether criminal or civil in nature, including injunctive relief, seizure and forfeiture, and the posting of bonds or sureties to insure compliance. The foregoing shall not be deemed to limit or restrict the Committee or any other persons from taking other appropriate action, including issuance of cease and desist orders, and giving notification to representatives of federal, state, county or municipal government agencies, if it appears any person has violated or failed to comply as aforesaid; provided, however, the Committee and those acting on its behalf shall not undertake in its name or that of the Colorado River Indian Tribes any action in any court other than tribal court.

Section 3-306. Severability.

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, its invalidity does not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable.
PESTICIDE CONTROL

REGULATIONS OF THE PESTICIDE CONTROL COMMITTEE
ISSUED PURSUANT TO ORDINANCE NO. 31 [NOW AGRICULTURE CODE]

Reg. No. 31-1-78.

1. All pesticides shall be used in strict accordance with the directions and warnings stated on the container label.

2. Each applicator shall keep informed of weather conditions affecting pesticide application, and shall not use or apply pesticides when adverse weather conditions or wind direction and velocity might result in drift damage to persons or to property.

3. All pesticides transported within the Reservation shall be hauled in vehicles having a leak-proof floor and an entirely enclosed cargo space which shall be securely closed when in motion.

4. Any person having notice or knowledge of the theft, loss, disappearance, spillage, or unintentional but mistaken misuse of pesticides shall report such occurrence to the Committee as soon as such fact is known.

5. Applicators shall use only pest control methods and materials which are approved by the Pesticide Control Committee.

6. Pesticides and pesticide containers shall not be left unattended at any time, except where they are being stored in a safe and secure facility, and they shall be disposed of at the completion of the job.

7. No pesticide may be placed, repackaged or redistributed into any container which was, or which resembles, beverage bottles, food containers, or other containers which any person might mistakenly believe or contain the original product.

8. Pesticides shall not be stored in any place above or in close proximity to any human food or clothing, or any animal feed.

9. No empty pesticide containers shall be used for any other purpose on the Reservation, except those, which as part of the sales contract, are returnable to the seller, or those non-combustible containers which have been decontaminated and reconditioned in accordance with directions of the manufacturer of the pesticide.

10. Combustible containers may be disposed of by burning in an incinerator operated at a temperature above 699°F; except herbicide and defoliant containers which, when burned, produce vapors poisonous to humans and may damage local foliage. All containers not disposed of by combustion shall be buried in accordance with Regulation 11.

11. All containers not disposed of by combustion as provided in Regulation 10, when empty, shall be rendered incapable of any further use and shall be buried 18 inches below ground, at a site as designated by the Tribal Council where the underground water supply will not be contaminated, and where there will be no resultant hazards to humans or animals.
AGRICULTURE CODE

12. Areas contaminated by any spillage shall be isolated and conspicuous warning signs posted, and only experienced personnel wearing protective clothing and safety devices may enter the restricted area. Signs shall be removed only when the area has been decontaminated.

13. Areas contaminated by liquid pesticides shall be covered by clay, earth fill, cinders, sand, sawdust, soda ash, or other suitable absorbent material.

14. Absorbents, residues, solids, granular or dust type pesticides and other material resulting from any spillage shall be placed in tight, non-combustible containers while being stored, or transported to the disposal site.

15. Hygiene:

   (a) Persons engaged in using, handling, or applying open, bulk-type pesticides shall wear protective clothing and devices as necessary, or as recommended by the manufacturer's label.

   (b) The following practices are listed for the safety of pesticide workers:

      i. Clean clothes shall be worn daily. If there is unusual pesticide spillage on clothing, a change shall be made immediately.

      ii. Workers shall take a shower bath immediately after completing pesticide operations, or if there is unusual spillage, a shower bath should be taken immediately.

      iii. Emergency bathing facilities shall be maintained in all situations where any spillage may cause contamination of workers.

      iv. All articles of clothing or devices shall be considered as potential sources of contamination, e.g., shoes, belts, hats, respirators, face pieces, gloves, rain suits, aprons.

      v. No food, beverages, tobacco, eating utensils, or smoking equipment shall be stored in the work area.

      vi. No one shall be permitted to eat, drink, smoke, or use tobacco in the work area.

      vii. Protective type gloves shall be worn while handling containers of restricted pesticides.

      viii. Personnel shall be instructed not to put their hands upon their faces, and particularly not near their mouth and eyes, while working with pesticides.

      ix. Personnel shall be instructed to wash their hands before smoking, or use of the toilet; and to wash after loading, unloading, or transferring a shipment of pesticides.

16. The following are restricted pesticides:

   Parathion
PESTICIDE CONTROL

Paraquat
Dalapon
Dinoseb
Diazinon
Malathion
PESTICIDE CONTROL

REGULATIONS OF THE PESTICIDE CONTROL COMMITTEE
ISSUED PURSUANT TO ORDINANCE NO. 31 [NOW AGRICULTURE CODE]

Reg. 31-25-82: STUB COTTON BAN.

A. Findings.

The Pesticide Control Committee of the Colorado River Indian Tribes hereby finds and declares that:

1) Pink bollworm, heliothis complex (tobacco budworm and bollworm), cotton leaf perforator and beet army worm are dangerous insect pests of cotton and infestations of such pests are known to occur within the Colorado River Indian Reservation; and

2) Boll weevil is a dangerous insect pest of cotton and is known to be present within the Colorado River Indian Reservation; and

3) Morning glory, bermuda grass, Johnson grass and various pigweeds are noxious weed pests of cotton and are known to occur within the Colorado River Indian Reservation; and

4) It is necessary to curtail the early buildup and spread of these above mentioned insect and weed pests within the Colorado River Indian Reservation, and to facilitate the control and suppression of these pests, and thereby to obviate the need for earlier and more extensive applications of pesticides in order to control and suppress these pests.

B. Restrictions.

The Pesticide Control Committee hereby orders and declares that the following rules and regulations shall govern cotton growing within the Colorado River Indian Reservation:

1) No stub or volunteer cotton shall be grown or allowed to grow within the Colorado River Indian Reservation. Stub or volunteer cotton is defined as those cotton stalks or of a previous crop which, after over-wintering, begin to show signs of growing by displaying buds which swell or which send out shoots of new plant growth (either white or green).

2) All cotton stalks of a previous crop, and all stub or volunteer cotton found growing on idle lands, fallow land, in other crops, or in any other location, shall be destroyed in the manner provided in 3) below no later than the 31st of January of any year, or at the expiration of any lease or sublease under which a person or persons have farming cotton, whichever shall come first.

3) All such cotton stalks or stub or volunteer cotton must be shredded and surrounding land shall be either:

   a. plowed sufficiently to bury the cotton stalks or stub or volunteer cotton to a depth of six (6) inches below the ground in the event that the next succeeding crop is to be cotton; or
AGRICULTURE CODE

b. disked and cross-disked to a depth of four (4) inches or more in the event that the next succeeding crop is to be a crop other than cotton and is lanted and irrigated prior to the 15th of February of any year.

All such cotton stalks or stub or volunteer cotton must be destroyed to the satisfaction of the Environmental Protection Officer of the Colorado River Indian Tribes.

4) The person or persons who are in current possession of land on which stub or volunteer cotton is growing, or on which cotton stalks have not yet been destroyed, shall be responsible for the destruction of said cotton or cotton stalks; provided, that, where such cotton or cotton stalks are the remains of a crop farmed by or belonging to a person or persons who previously possessed, farmed or made use of such land, said person or persons shall be primarily so responsible, and the current possessor of such land shall be secondarily responsible.

5) In the event that cotton stalks are found unshredded, or stub or volunteer cotton is found growing after the 31st of January of any year, the Environmental Protection Officer of the Colorado River Indian Tribes may cause such cotton stalks, stub or volunteer cotton to be destroyed, and all expenses thereof shall be billed to the person or persons responsible for compliance with these regulations.

6) No cotton shall be planted on the Colorado River Indian Reservation earlier than the 15th of March of each year.

7) Each day that stub or volunteer cotton shall be allowed to grow, or cotton stalks of a previous crop remain undestroyed, after the 31st of January of any year, or after the expiration of any lease or sublease under which a person or persons have farmed cotton, whichever shall come first, and each day that cotton shall be planted and remain planted prior to the 15th of March shall constitute a separate civil violation of these regulations.

8) All expenses involved in complying with these regulations shall be borne by the person or persons responsible for such compliance. Persons primarily responsible for any compliance shall have the obligation to reimburse persons secondarily responsible where such persons have borne any expenses involved in compliance.

9) These regulations supersede entirely Regulation No. 31-1-82, issued by the Pesticide Control Committee on April 8, 1982, and Regulation No. 31-2A-82, issued by the Pesticide Control Committee on October 22, 1982.
PESTICIDE CONTROL

REGULATIONS OF THE PESTICIDE CONTROL COMMITTEE
ISSUED PURSUANT TO ORDINANCE NO. 31 [NOW AGRICULTURE CODE]

Reg. No. 31-3-82: ACTIVITIES WITHIN RESTRICTED AND SCHOOL AREAS

A. RESTRICTED AREAS DEFINED.

The following areas, which are indicated on the attached map, are defined to be "restricted areas":

1) Parker Townsite, Bureau of Indian Affairs Agency, Public Health Service, CRIT Lodge, Parker Community Hospital, Dayton Superior Concrete, northeast to Blue Water Marina.

2) Tribal Administration Complex, Manataba Park, and Presbyterian Church.

3) Indian Assembly of God and Mission Subdivision on Second Avenue.

4) MoChem Housing Subdivision on Little Road.

5) All American Church on 8th Avenue and Burns Road.

6) Harvest Mission, north of Burns Road along Mohave Road.

7) 50-Homes Subdivision in Poston, Hatch Center, and Native American Produce Packing Shed.

8) Mormon Church, Baptist Church and Nazarene Church, located south of Hopi Road along Mohave Road.

9) Catholic Church, one mile south of Peterson Road along Mohave Road.

B. ACTIVITIES WITHIN RESTRICTED AREAS.

1) No person may transport any agricultural materials, such as pesticides, defoliants and fertilizers, by an aircraft (fixed wing or helicopter) over or across a restricted area at any time; provided, that agricultural materials may be transported over or across churches, not otherwise within the bounds of an restricted area, with the prior approval of the Colorado River Indian Tribes Environmental Protection Officer.

2) No person may dispense any agricultural material, such as pesticides, defoliants and fertilizers, by aircraft (fixed wing or helicopter) within one-quarter (1/4) mile of a restricted area unless the following conditions are met:

   a) The Farm Pest Control Advisor and/or the applicator must notify and receive approval in advance from the Colorado River Indian Tribes Environmental Protection Officer.

   b) The dispensing pattern must include a provision for an emergency landing which would not endanger persons or property.

ACTIVITIES WITHIN RESTRICTED AND SCHOOL AREAS
C. SCHOOL AREAS DEFINED.

The following areas, which are indicated on the attached map, are defined to be "school areas":

1) Le Pera School;

2) CRIT Head Start;

3) Valley Day Care Center.

D. ACTIVITIES WITHIN SCHOOL AREAS.

1) No person may transport any agricultural material, such as pesticides, defoliants and fertilizers, by aircraft (fixed wing or helicopter) over a school area at any time.

2) No person may dispense any agricultural material, such as pesticides, defoliants and fertilizers, by aircraft (fixed wing or helicopter) within one-quarter (1/4) mile of a school area unless the following conditions are met:

   a) The school is on summer vacation break and there are no school activities being conducted; or

   b) The school is on weekend break and there are no school activities being conducted (i.e., between 4:30 p.m. Friday evening, and 8:00 a.m. the following Sunday morning); or

   c) The school is closed for the day (i.e., between 4:30 p.m. and 1:30 a.m. the following morning), an emergency pest situation has been declared by the Farm Pest Control Advisor, and the Colorado River Indian Tribes Environmental Protection Officer has been notified twenty-four (24) hours in advance, and advance approval therefrom is granted.

E. CHEMICALS WITHIN SCHOOL AREAS.

The use of DPU, Folex, L-10 and Paraquat is prohibited within one mile of a school area.
PESTICIDE CONTROL

F. ACTIVITIES NEAR SCHOOL BUSES.

No person may dispense any agricultural material, such as pesticides, defoliants and fertilizers, by aircraft (fixed wing or helicopter) within five hundred (500) feet of an operating school bus.
PESTICIDE CONTROL

REGULATIONS OF THE PESTICIDE CONTROL COMMITTEE
ISSUED PURSUANT TO ORDINANCE NO. 31 [NOW AGRICULTURE CODE]

Reg. No. 31-4-62: PERMANENT LANDING SITES FOR AERIAL APPLICATORS.

A. Definition of Aerial Applicator.

For purposes of these regulations "aerial applicator" is defined as any fixed wing aircraft or helicopter utilized for the purpose of applying any substance classified as a pesticide pursuant to Section 102 of Ordinance No. 31.

B. Location of Permanent Landing Sites.

1) No permanent landing site to be used by an aerial applicator or applicators shall be located less than three hundred (300) feet from any river, main canal, drainage canal, storage pond or large body of water.

2) No person shall establish a permanent landing site to be used by an aerial applicator or applicators without prior authorization and approval from the Pesticide Control Committee.

C. Permanent Landing Site Facilities.

All permanent landing sites within the Colorado River Indian Reservation shall contain the following facilities:

1) A stable, posted and secured building for pesticide storage. The layout and contents of any such building shall be filed and updated as necessary with the Colorado River Indian Tribes Environmental Protection Office.

2) An area for temporary storage of empty pesticide containers.

3) A concrete wash area with a fenced and posted evaporative drainage pit or ditch.

D. Storage of Pesticide Containers at Permanent Landing Sites

1) All empty pesticide containers shall be stored within designated storage areas.

2) All empty pesticide containers shall be washed prior to storage. All containers five (5) gallons or less shall be crushed and rendered useless. All containers exceeding the capacity of five (5) gallons shall be triple rinsed, securely capped or sealed.

3) Empty pesticide containers may be stored at a permanent landing site for one (1) year or until March 31st, whichever comes first, prior to disposal. Storage periods in excess of one (1) year must be authorized in writing by the Colorado River Indian Tribes Environmental Protection Officer.

E. Maintenance of Equipment

1) Aerial applicators and other equipment may be washed externally and internally within a wash area at any permanent landing site.
AGRICULTURE CODE

2) Aerial applicator tanks may be flushed only with water, including soap or detergent, or with chemicals, chemical compounds or solutions which have been approved for such use by the Federal Environmental Protection Agency.

F. Violations.

Each day that a permanent landing site used by an aerial applicator or applicators is established or located in violation of Section (B) of these regulations; each day that such a landing site is not equipped in compliance with Section (C) of these regulations; each day that containers are stored in violation of Section (D) of these regulations; and, each instance that aerial applicators, tanks or equipment is washed or flushed not in compliance with Section (E) of these regulations, shall constitute a separate civil violation of these regulations.
PESTICIDE CONTROL

REGULATIONS OF THE PESTICIDE CONTROL COMMITTEE
ISSUED PURSUANT TO ORDINANCE NO. 31 [NOW AGRICULTURE CODE]

Reg. No. 31-5-82: GROUND APPLICATORS.

A. Definitions.

For purposes of these regulations the terms set forth below shall have the following meanings respectively:

1) Ground Applicator. Any person or persons operating a tractor or motorized equipment for any purposes of applying any substance classified as a "pesticide" in Section 102 of Ordinance No. 31.

2) Commercial Ground Applicator. Any ground applicator who operates for hire.

3) Private Ground Applicator. Any ground applicator who operates for hire.

B. Operating Site Facilities.

All ground applicators operating within the Colorado River Indian Reservation shall establish a permanent operating site containing the following facilities:

1) A stable posted and secured building for pesticide storage. They layout and contents of any such building shall be filed and updated as necessary with the Colorado River Indian Tribes Environmental Protection Office.

2) An area for temporary storage of pesticide containers.

C. Storage of Pesticide Containers at Operating Sites.

1) All empty pesticide containers shall be stored within designated storage areas.

2) All empty pesticide containers shall be washed prior to storage. All containers with a capacity of five (5) gallons or less shall be crushed and rendered useless. All containers exceeding the capacity of five (5) gallons shall be either securely capped or sealed or rinsed and crushed.

3) Empty pesticide containers may be stored at an operating site for one (1) year or until March 31st, which ever comes first.

D. Rinse of Equipment used in Ground Application.

The effluent (rinse) resulting from the washing and rinsing of equipment, including tanks, used in ground application of any pesticide shall be dispensed back onto the field where such pesticide was most recently applied.

E. Activities Adjacent to Residences and School Areas.
AGRICULTURE CODE

1) No person shall dispense or apply any substance classified as a pesticide in Ordinance No. 31 within one hundred (100) feet of a residence unless the occupants of such residence are given prior notice that they may wish to:

   a. remove exposed clothing from the area;
   b. cover livestock feed and water;
   c. remove children and toys from the area;
   d. remove pets and/or livestock from the area;
   e. monitor vegetables growing in the area due to possible contamination.

2) No person shall dispense or apply any substance classified as a pesticide in Ordinance No. 31 within one hundred (100) feet of a school area as defined in Regulation No. 31-3-82 unless the following conditions are met:

   a. The school is on a weekend break and there are no school activities conducted (i.e., between 4:30 p.m. Friday evening and 8:00 a.m. the following morning); or
   b. The school is closed for the day (i.e., between 4:30 p.m. and 1:30 a.m. the following morning), an emergency PEST situation has been declared by the Farm Pest Control Advisor, and the Colorado River Indian Tribes Environmental Protection Office has been notified twenty-four (24) hours in advance and advance approval is granted.

3) The use of DEF, POLEX, L-10 and Paraquat are prohibited within one (1) mile of a school area.

F. Violations.

Each day that a ground applicator shall operate without an established permanent operating site meeting the requirements of Section (B) of these regulations; each day that containers shall be stored not in compliance with Section (C) of these regulations; each instance that rinse is dispensed in violation of Section (D), for these regulations; and, each instance that a pesticide is dispensed or used in violation of Section (E) of these regulations, shall constitute a separate civil violation of these regulations.
APPENDIX B: TRIBAL PESTICIDE FORMS

COLORADO RIVER INDIAN TRIBES
ENVIRONMENTAL PROTECTION OFFICE
ROUTE 1, BOX 23-B
PARKER, ARIZONA 85334
(928) 662-4336 • FAX (928) 662-4337
TRIBAL PESTICIDE USE MONITORING INSPECTION
APPLICATION INSPECTION

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<tr>
<th>APPLICATION INSPECTION AIR () GROUND ()</th>
<th>APPLICATION INSPECTION AIR () GROUND ()</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. YES NO N/A REQUIREMENTS/STRIAL ORDINANCE</td>
<td>NO. YES NO N/A REQUIREMENTS/STRIAL ORDINANCE</td>
</tr>
<tr>
<td>1 100 Written instruction 10 1 Drift detected/noticed</td>
<td></td>
</tr>
<tr>
<td>2 110 Compliance with labeling permit 11 2 Working alone (Category)</td>
<td></td>
</tr>
<tr>
<td>3 120 All required equipment/containers provided 12 3 Protective equipment provided and worn</td>
<td></td>
</tr>
<tr>
<td>4 130 Protection of non-target property/personnel 13 4 Medical care posted</td>
<td></td>
</tr>
<tr>
<td>5 140 Follows/Complies with 14 5 Warning signs posted</td>
<td></td>
</tr>
<tr>
<td>6 150 Avoids/Prevents environmental contamination 15 6 Field/Plant Safety</td>
<td></td>
</tr>
<tr>
<td>7 160 Over/Under (Care details in Remarks) 16 7 Compliance with Reentry Interval</td>
<td></td>
</tr>
<tr>
<td>8 170 Copy of label available 17 8 Worker received training</td>
<td></td>
</tr>
<tr>
<td>9 180 Restricted material use under supervision 18 9 Notice of infant submitted</td>
<td></td>
</tr>
</tbody>
</table>

Signature of Tribal Inspector
Acknowledgment of Inspection

Follow-up Required
Yes ___ No ___ Notice of Violation Issued
Yes ___ No ___ The Noncompliance Items Noted Above Are Violations And Must Be Corrected By

WHITE/EPO YELLOW/ITCA PINK/APPLICATOR
<table>
<thead>
<tr>
<th>Citation No.</th>
<th>Case No.</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Defendant (Person Responsible)**

Company Name

**Vehicle / Aircraft**

<table>
<thead>
<tr>
<th>Color</th>
<th>Year</th>
<th>Make</th>
<th>Model</th>
<th>Style</th>
<th>License Plate</th>
<th>State</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Registered Owner & Address

The Defendant Committed the Following:

**Regulation / Ordinance No.**

Section / Subsection:

**Violation:**

Location: (Township, Range, Section, Lot or Cross Street)

**Regulation / Ordinance No.**

Section / Subsection:

**Violation:**

Location: (Township, Range, Section, Lot or Cross Street)

**Regulation / Ordinance No.**

Section / Subsection:

**Violation:**

Location: (Township, Range, Section, Lot or Cross Street)

**Regulation / Ordinance No.**

Section / Subsection:

**Violation:**

Location: (Township, Range, Section, Lot or Cross Street)

**Regulation / Ordinance No.**

Section / Subsection:

**Violation:**

Location: (Township, Range, Section, Lot or Cross Street)

You must appear at:

Colorado River Indian Tribes, Tribal Court
2nd Avenue and Mohave Road
Route 1 Box 23-B Parker, Arizona 85344
Phone No. (928) 668-8267

Court Number
(For Court Use Only)

at the date and time indicated
(No less than 10 working days)

Month Day Year Time

Oath: Without admitting responsibility, I acknowledge receipt of this complaint.

I certify that upon reasonable grounds, I believe the Defendant committed the act described contrary to law and I have served a copy of this complaint upon the Defendant.

X

White / CRIT - EPO
Canary / Courts
Pink / Defendant
<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>AM</th>
<th>NAME OF INDIVIDUAL</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>NAME OF INSPECTOR</th>
<th>TITLE OF INDIVIDUAL</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>SIGNATURE OF INSPECTOR</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>TITLE</th>
<th>CITY</th>
<th>STATE</th>
<th>ZIP</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**REASON FOR INSPECTION**

- ☐ For the purpose of inspecting sites where pesticides are being used to collect data on the use of pesticides and to determine whether pesticides are being used in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and with the Colorado River Indian Tribes Rules and Regulations.
- ☐ For the purpose of inspecting sites where pesticides have been used to determine whether pesticides were used in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and the Colorado River Indian Tribes Rules and Regulations.

**ARE VIOLATIONS SUSPECTED?**  ☐ YES  ☐ NO  *(If yes, list suspected violations.)*

**CONSENT**

- ☐ VOLUNTARY CONSENT NECESSARY TO ENTER FOR INSPECTION AND/OR SAMPLING

The undersigned hereby voluntarily consents to an inspection of:

__________________________________________

of which I am the Owner, Agent or Person-In-Charge, for the purposes of gathering information and/or samples in connection with the administration and enforcement of FIFRA and the Colorado River Indian Tribes Rules and Regulations. I understand that I have the right to refuse consent to this entry.

<table>
<thead>
<tr>
<th>SIGNATURE</th>
<th>TITLE</th>
<th>DATE</th>
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</table>

WHITE/EPO    YELLOW/ITCA    PINK/APPLICATOR
COLORADO RIVER INDIAN TRIBES
Environmental Protection Office
Route 1, Box 23-B, Parker, Arizona 85344
(602) 662-4336

USE INSPECTION

☐ USE ☐ FOLLOW-UP

DATE
TIME ☐ AM ☐ PM
INSPECTOR
☐ OVERT ☐ COVERED
INSPECTION CATEGORY
GEN WOOD WEEDE PINE GT OTHER

APPLICATION INFORMATION
CONSENT FORM SIGNED ☐ FORM NOT OFFERED ☐ YES ☐ NO
COMPANY NAME
BOX. L/C. NO.
APPLICATOR NAME

COMPANY ADDRESS (Street)

COMPANY ADDRESS (City, State, Zip)

CERTIFICATION # CATEGORY SUBCATEGORY

SITE OF APPLICATION INFORMATION
CONSENT FORM SIGNED ☐ FORM NOT OFFERED ☐ YES ☐ NO OBSERVED FROM DISTANCE ☐ YES ☐ NO
OWNER/AGENT/BUDDIE
SPECIFIC AREA TREATED ☐ INSIDE ☐ OUTSIDE

ADDRESS (Street, City, State)

TARGET PEST

PROPERTY TYPE
☐ RESIDENTIAL ☐ COMMERCIAL ☐ PUBLIC ☐ OTHER

WEATHER AT APPLICATION SITE
TEMP: ____________ HUMIDITY: ____________ WIND: ____________

Pesticide Usage Information
☐ APPLICATION ☐ STORAGE ☐ DISPOSAL

BRAND NAME

EPA REGISTRATION NUMBER BATCH NUMBER

RESTRICTED ☐ YES ☐ NO ☐ YES ☐ NO

FORMULATION
☐ EC ☐ WP ☐ DUST ☐ AEROSOL ☐ GRANULAR ☐ HUMIDIZED ☐ BAIT ☐ OTHER

TANK MIX

☐ YES ☐ NO

DESCRIPTION OF APPLICATION EQUIPMENT

METHOD OF APPLICATION

FIELD DILUTION (DESCRIBE MIX RATIO)

Diluted Material Applied Per Unit (Include Amount and Unit)

USE DILUTION (List as %)

Compliance
☐ LABELING INSTRUCTIONS WERE THE FOLLOWING INSTRUCTIONS FOLLOWED?

# YES NO NA

1. TARGET

2. SITE

3. METHOD OF APPLICATION

4. DILUTION USED

5. RATE OF APPLICATION

6. CAUTIONARY LABELING

7. PROTECTIVE EQUIPMENT

8. RESIDENCY INTERVAL

9. CERTIFIED APPLICATOR

10. APPLICATOR UNDER DIRECT SUPERVISION

11. STORAGE/DISPOSAL

12. DISPENSING EQUIPMENT CALIBRATED

13. NONCOMPLIANT ITEMS MUST BE CORRECTED WITHIN ____ DAYS OF INSPECTION. FAILURE TO CORRECT NONCOMPLIANT ITEMS MAY RESULT IN ADDITIONAL ENFORCEMENT ACTION.

APPLICATION(SIGNATURE)

WHITE/EPO YELLOW/ITCA PINK/APPLICATOR
NOTICE OF INSPECTION:
VERIFICATION OF CONTAINERS TRIPLE RINSED & RENDERED USELESS

COLORADO RIVER INDIAN TRIBES
ENVIRONMENTAL PROTECTION OFFICE
ROUTE 1 BOX 23-B
PARKER, ARIZONA 85344

<table>
<thead>
<tr>
<th>TIME:</th>
<th>DATE:</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>NAME OF INDIVIDUAL:</th>
<th>TITLE:</th>
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</table>

<table>
<thead>
<tr>
<th>NAME (Farm, Homeowner, etc.)</th>
<th>ADDRESS (Street, City, State, and ZIP Code)</th>
</tr>
</thead>
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<tr>
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</tbody>
</table>

REASON FOR INSPECTION:

☐ FOR THE PURPOSE OF THE INSPECTION OF EMPTY CONTAINERS THAT HAD CONTAINED PESTICIDE OR AGRICULTURE RELATED PESTICIDE CONTENTS AND ARE NOW PREPARED FOR DISPOSAL AT A CERTIFIED LANDFILL, THE CONDITIONS OF THESE CONTAINERS ARE THAT THEY HAVE BEEN TRIPLE RINSED AND RENDERED USELESS.

☐ THE FOLLOWING PESTICIDE AND/OR ENVIRONMENTAL CONTAINERS WERE INSPECTED BY THE COLORADO RIVER INDIAN TRIBES ENVIRONMENTAL PROTECTION OFFICE IN CONNECTION WITH THE ADMINISTRATION AND ENFORCEMENT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S FEDERAL INSECTICIDE, FUNGIUCIDE, AND RODENTICIDE ACT AND THE COLORADO RIVER INDIAN TRIBES RULES AND REGULATIONS.

<table>
<thead>
<tr>
<th>List of Pesticides</th>
<th>EPA Registration No</th>
<th>Cat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td></td>
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<td>4</td>
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<tr>
<td>5</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
<td></td>
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<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
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</tbody>
</table>

REMARKS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

<table>
<thead>
<tr>
<th>NAME OF INSPECTOR</th>
<th>GENERATOR OF AGRICULTURE PEST CONTROL CONTAINER(S)</th>
<th>TRANSPORT COMPANY DRIVER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revised 7/06/98

ORIGINAL/CRIT - EPO
COPY/OWNER - AGENT
PINK - LANDFILL
## PESTICIDE MIX/LOAD INSPECTION

<table>
<thead>
<tr>
<th>Applicator Co. Name</th>
<th>Operator / Pilot Name</th>
<th>Date / Time</th>
<th>AM / PM</th>
</tr>
</thead>
<tbody>
<tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grower Name</th>
<th>Grower Permit No.</th>
<th>Wind Direction / Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location of Application</th>
<th>Total Acres</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EBC, TWM, RGE and Field Number)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crop</th>
<th>Target Pest</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product / Brand Name</th>
<th>EPA Registration No.</th>
<th>CAT.</th>
<th>Rate &amp; Unit of Measure / Acre</th>
<th>Total Volume / Acre</th>
<th>Total Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### General Pre-Operation & Equipment

<table>
<thead>
<tr>
<th>No.</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Requirements / Tribal Ordinance &amp; Regulations</th>
<th>Mix / Load Inspection</th>
<th>On Site ( )</th>
<th>Off Site ( )</th>
<th>Requirements / Tribal Ordinance &amp; Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>Completed written instructions on hand</td>
<td></td>
<td></td>
<td></td>
<td>Completes with required labeling</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>Complies with required labeling / permit</td>
<td></td>
<td></td>
<td></td>
<td>Employees properly dressed - Protective equipment worn</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>Pilot(s) licensed</td>
<td></td>
<td></td>
<td></td>
<td>Working alone (Category 1)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>Field containers properly stored</td>
<td></td>
<td></td>
<td></td>
<td>Required closed system</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>Containers labeled and marked</td>
<td></td>
<td></td>
<td></td>
<td>Decontamination facility available</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>Containers secured, locked, and warning/sign posted</td>
<td></td>
<td></td>
<td></td>
<td>Medical and emergency phone numbers posted</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>Federal equipment license tag visible</td>
<td></td>
<td></td>
<td></td>
<td>Containers secured and controlled</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>Aircraft navigation lights in safe working condition</td>
<td></td>
<td></td>
<td></td>
<td>Empty containers triple sealed, cabled, and rendered useless</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td>Nonselective spray system in good condition</td>
<td></td>
<td></td>
<td></td>
<td>Restricted material used under supervision</td>
</tr>
</tbody>
</table>

### Remarks

<table>
<thead>
<tr>
<th>Remarks</th>
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</table>

### Signature of Tribal Inspector

<table>
<thead>
<tr>
<th>Signature of Tribal Inspector</th>
</tr>
</thead>
</table>

### Acknowledgment of Inspection

<table>
<thead>
<tr>
<th>Notice of Violation Issued?</th>
<th>Yes / No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Follow-up Required?</th>
<th>Yes / No</th>
</tr>
</thead>
</table>

The non-compliance item(s) noted above are violations and must be corrected by the following date:

<table>
<thead>
<tr>
<th>Date of violation issued:</th>
</tr>
</thead>
</table>
**PESTICIDE INCIDENT REPORT**

<table>
<thead>
<tr>
<th>Incident #</th>
</tr>
</thead>
</table>

1. **Person Reporting**

   | Address | Reporting Date |
---|---|---|

2. **Date Incident Occurred**

   | Time | AM/PM |
---|---|---|

3. **Location (Describe)**

4. **Nature of Incident (Check)**

   - [ ] Odor
   - [ ] Noise
   - [ ] Spill
   - [ ] Emergency/Dump
   - [ ] Fish Kill
   - [ ] Bee Kill
   - [ ] Other
   - [ ] Drift
   - [ ] Overflight
   - [ ] Health Effects
   - [ ] Ingestion
   - [ ] Fowl/Bird Kill
   - [ ] Leaking Containers
   - [ ] Transporting of Chemicals

5. **Incident Affected (Check)**

   - [ ] Property
   - [ ] School Campus
   - [ ] Dwelling
   - [ ] Canals
   - [ ] Ponds
   - [ ] Crops
   - [ ] Animals
   - [ ] Fish
   - [ ] Bees
   - [ ] Fowl/Birds
   - [ ] Persons
   - [ ] Child(ren)
   - [ ] Adult(s)
   - [ ] Vehicle(s)
   - [ ] Others

6. **Type of Application (Check)**

   - [ ] Aerial
   - [ ] Ground
   - [ ] Helicopter
   - [ ] Monoplane
   - [ ] Biplane

   **Color/Description of Aircraft**

   **Name of Operator/Company (if known)**

7. **Health Effects Reported**

8. **Was Physician Consulted?**

   - [ ] Yes
   - [ ] No

   **If yes, is permission granted to contact and obtain medical records?**

   - [ ] Yes
   - [ ] No

   **Date verbal or written permission given**

   | Time | AM/PM |
---|---|---|

   **Name of Physician**

   | Address | Telephone No. |
---|---|---|

9. **Comments of Person Reporting Incident**

10. **Summary of Incident**

11. **Signature of Complainant (Optional)**

12. **Signature of Pesticide Inspector**
**COLORADO RIVER INDIAN TRIBES**  
Environmental Protection Office  
Route 1, Box 23-B, Parker, Arizona 85344  
(928) 662-4336 Fax (928) 662-4337

**STRUCTURAL USE INSPECTION**

<table>
<thead>
<tr>
<th>INSPECTION CATEGORY</th>
<th>GEN</th>
<th>WOOD</th>
<th>WEED</th>
<th>FUME</th>
<th>GRT</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERT</td>
<td></td>
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<tr>
<td>OVERT</td>
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</tbody>
</table>

**APPLICATION INFORMATION**

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>BUS. LIC. NO.</th>
<th>APPLICATION NAME</th>
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<table>
<thead>
<tr>
<th>COMPANY ADDRESS (Street)</th>
<th>ADDRESS (Street, City, Zip)</th>
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<thead>
<tr>
<th>COMPANY ADDRESS (City, State, Zip)</th>
<th>CERTIFICATION</th>
</tr>
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<tbody>
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<table>
<thead>
<tr>
<th>SITE OF APPLICATION INFORMATION</th>
<th>CONSENT FORM SIGNED?</th>
<th>OVERT</th>
<th>OVERT</th>
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<thead>
<tr>
<th>OWNER/AGENT/BUILDER</th>
<th>SPECIFIC AREA TREATED</th>
<th>TARGET PEST</th>
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<tr>
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<thead>
<tr>
<th>PROPERTY TYPE</th>
<th>WEATHER AT APPLICATION TIME</th>
<th>WHD:</th>
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<tbody>
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<thead>
<tr>
<th>PESTICIDE USAGE INFORMATION</th>
<th>APPLICATION</th>
<th>STORAGE</th>
<th>DISPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>BRAND NAME</th>
<th>EPA REGISTRATION NUMBER</th>
<th>BATCH NUMBER</th>
<th>RESTRICTED</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMULATION</th>
<th>DUST</th>
<th>AEROSOL</th>
<th>GRANULAR</th>
<th>FLAMIGANT</th>
<th>BAIT</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**DESCRIPTION OF APPLICATION EQUIPMENT**

**METHOD OF APPLICATION**

**FIELD DILUTION (DESCRIBE MIX PCT):**

**DILUTED MATERIAL APPLIED PER UNIT (INCLUDE AMOUNT AND UNIT):**

**USE DILUTION (LIST AS %):**

<table>
<thead>
<tr>
<th>COMPLIANCE</th>
<th>6. LABELING INSTRUCTIONS - WERE THE FOLLOWING INSTRUCTIONS FOLLOWED?</th>
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**ENFORCEMENT ACTION INITIATED**

**NOTICE OF INSPECTION NUMBER:**

**COMPLAINT INITIATED NUMBER:**

**DATE:**

**OTHER ACTIONS/REMARKS:**

**DAYS OF INSPECTION: ENDING DATE:**

**NONCOMPLIANT ITEMS MUST BE CORRECTED WITHIN**

**LAMINATED COVER SHEET:**

**TOTAL PAGES:**

**APPLICATOR (SIGNATURE):**

**WHITE/EPO**

**YELLOW/ITCA**

**PINK/APPLICATOR**
APPENDIX C: POWERS OF TRIBAL COUNCIL

ARTICLE VI

Powers of the Tribal Council

Section 1. Enumerated Powers.

The tribal council of the Colorado River Indian Tribes may exercise the following powers subject to any limitations imposed by the Constitution or the Statutes of the United States, and further, subject to all express restrictions upon such powers contained in the Constitution and bylaws.

a. To negotiate and/or contract with Federal, State and local governments, on behalf of the tribes to advise and consult with representatives of the Interior Department or other Federal agencies on all activities of the Department or such agencies that may affect the Colorado River Indian Tribes.

b. To employ accountants and also legal counsel for the protection and advancement of the rights of the Colorado River Indian Tribes and its members, the choice of counsel and the fixing of fees to be subject to the approval of the Secretary of the Interior or his authorized representative.

c. To approve or veto any sale, disposition, lease or encumbrance of tribal lands, interests in lands or other tribal assets or any pledge of income, revenues or receipts derived therefrom which may be authorized or executed by the Secretary of the Interior or his authorized representative, and to sell, dispose of, lease, borrow on or encumber such lands or assets and pledge such income, revenues or receipts, as authorized by law; provided, that all sales or tribal trusts lands shall first be authorized by tribal members pursuant to the referendum proceedings provided for herein.

d. To make assignments of tribal lands to members of the Colorado River Indian Tribes and distribute tribal income or revenue among the Tribal members.
CONSTITUTION AND BYLAWS

e. To negotiate and enter into business contracts and ventures, and to manage all economic affairs and enterprises of the Colorado River Indian Tribes.

f. To accept grants or donations of money or property from any persons, State or the Unites States, or from community enterprises.

g. To levy taxes and issue licenses, subject to approval by the Secretary of the Interior, upon nonmembers doing business within the reservation.

h. To administer any funds or property within the control of the tribes, to make expenditures from available funds for tribal purposes, including salaries, remuneration or expenses of tribal officials or employees, such salaries, remuneration or expenses to be paid only for services authorized in a regular and legal manner and actually rendered. All expenditures from tribal funds shall be by resolution duly approved by a majority vote of a quorum to the tribal council and the amounts so expended shall be a matter of public record at all times.

i. To determine all terms and conditions of employment of all persons employed by the tribes.

j. To promulgate ordinances providing for the removal or exclusion from the reservation of any nonmember whose presence may be injurious to the members of the tribes; but this power shall not extend to the removal of government officials, or other persons occupying reservation lands under lawful authority.

k. To promulgate civil and criminal ordinances for the safeguarding of peace, order, safety and welfare on the reservation including the establishment of courts for the adjudication of claims or disputes and for the trial and punishment of those charged with commission of offenses set forth in such ordinances.

l. To establish and maintain an up-to-date code of property and land use regulations to be known as the "Land Code."

m. To regulate domestic relations of Indians on the reservation through appropriate ordinances and to secure the enforcement thereof, and provide for the appointment of guardians for minors, mental incompetents and the adoption of minor children by ordinances or resolutions.

n. To regulate inheritance of the rights to use or occupy tribally owned real property, except allotted lands within the reservation.

o. To make rules and regulations for the conduct of all tribal elections provided for under this Constitution and Bylaws.

p. To adopt resolutions regulating the procedure of the tribal council itself and of other tribal agencies and tribal officials within its jurisdiction.
OF THE COLORADO RIVER INDIAN TRIBES

q. To create subordinate or collateral organizations for economic, welfare, social, cultural, educational or recreational purposes, and to regulate the activities of all cooperative associations of members of the Colorado River Indian Tribes by ordinances.

r. To preserve and encourage the arts, crafts, culture and traditions of the Colorado River Indian Tribes.

s. To purchase or acquire for the Colorado River Indian Tribes through gift, grant, litigation or inheritance or any other legal means land or interests therein. The tribal council shall have the preferential right of purchase over nonmembers on the sale of allotted land within the reservation, provided that the Tribes shall meet the highest bona fide offer.

t. To make appointments for the tribal judicial system pursuant to the provisions of Article XII and ordinances enacted pursuant thereto.

u. To regulate hunting, fishing, camping and recreation on the reservation, and to enforce those regulations by appropriate ordinances.

v. To promulgate ordinances and resolutions to provide for the administration of the health, education and welfare of members of the tribes.

w. To delegate to subordinate or collateral boards, committees of officials, or to cooperative associations open to all members of the Colorado River Indian Tribes, any of the foregoing powers reserving the right to review any action taken by virtue of such delegated powers.

x. To promulgate ordinances and resolutions providing for a loan program for the Tribes for the purpose of promoting economic development of the group or individuals and to finance corporate or tribal enterprises.

Section 2. Future Powers.

The tribal council of the Colorado River Indian Tribes may exercise such further powers as may be in the future delegated to the tribal council by members of the tribes or by the Secretary of the Interior, or any other duly authorized official or agency of the state or federal government.

Section 3. Reserved Powers.

Any rights and powers heretofore vested in the Colorado River Indian Tribes of the Colorado River Indian Reservation, but not expressly referred to in this constitution, shall not be abridged by this article, but may be exercised by the people of the Colorado River Indian Tribes through the adoption of appropriate bylaws and constitutional amendments.
ARTICLE VII

Powers of Officers

Section 1. Chairman.

a. The Chairman shall preside over all meetings of the tribal council.

b. The Chairman shall have the power to call special meetings of the tribal council, subject to the provisions of Article IV, Section 7.

c. The Chairman shall vote only in case of a tie vote of the Tribal Council on any issue.

d. The Chairman shall be responsible for general supervision of all Tribal employees.

e. It shall be the responsibility of the Chairman to implement and carry out all directives of the tribal council.

f. It shall also be the responsibility of the Chairman to conduct and supervise tribal affairs in accordance with the policies and/or directives of the tribal council.

Section 2. Vice-Chairman.

a. The Vice-Chairman shall be permitted to vote on all issues coming before the tribal council.

b. The Vice-Chairman shall act as Chairman in the absence or inability of the Chairman to perform his duties as specified in Section 1 of this article.

c. The Vice-Chairman shall be ex-officio member of all committees appointed by the tribal council and shall keep the tribal council informed of their activities.

Section 3. Duties of the Secretary.

a. The Secretary shall act as Chairman in case of absence or incapacity of Chairman and Vice-Chairman.

b. The Secretary shall be responsible for an accurate record of all meetings of the tribal council and other such proceedings as directed by the Chairman.

c. The Secretary shall be responsible to forward a copy of the minutes of all meetings to the Superintendent of the Colorado River Indian Agency and shall perform all other such duties as may be required of the office by the Chairman, Vice-Chairman, and the tribal council.
Section 4. Duties of the Treasurer.

   a. The Treasurer shall act as Chairman in case of absence or incapacity of the Chairman, Vice-Chairman and Secretary.

   b. The Treasurer of the Tribal Council shall be responsible to accept, receive, receipt for, preserve and safeguard all funds in the custody of the tribal council, whether same be tribal funds or special funds for which the tribal council is acting as trustee or custodian. He shall be responsible to deposit all funds in such bank or elsewhere as directed by the tribal council and shall be responsible to make and preserve a faithful record of such funds and shall be responsible to report in writing to the tribal council annually and at such other times as requested by the tribal council.

   c. He shall not pay out or otherwise disburse any funds in his possession or custody of the tribal council except when properly authorized to do so by resolution duly passed by the tribal council.

   d. The books and records of the treasurer shall be audited at least once each year by a competent auditor employed by the tribal council and at such other times as the tribal council or the Commissioner of Indian Affairs may direct.

   e. The Treasurer shall be required to give a bond satisfactory to the tribal council and to the Commissioner of Indian Affairs, except that until he has been bonded, the tribal council may make such provision for the custody and disbursement of funds as shall guarantee their safety and proper disbursement and use.
APPENDIX D: RECRUITMENT LETTER

Dear Sir or Madam,

My name is Diana F. De Leon, a member of the Colorado River Indian Tribes (CRIT) and a descendent of McKinley Fisher Sr. (Chemehuevi). I am a candidate for a Doctoral degree in American Indian Studies, with an emphasis in environmental health policy at the University of Arizona. I am especially interested in how the tribal council at CRIT reviewed and made decisions about protecting the environment and the health of the tribal community.

As a part of my educational program, I have decided to conduct a research project on the Colorado River Indian Reservation so that it will have some benefit for the tribal community. I am planning on interviewing a number of former and present members of the council on their experiences and work on developing tribal policies on environmental health. I am inviting you to participate because you served a term(s) on tribal council during 1980-2002. I am particularly interested in interviewing tribal council members who participated in special sub-committees concerned with environmental health issues, i.e. tribal pesticide, agricultural and farm board committees.

Please understand that your participation is strictly voluntary and you should not feel pressured to participate. If you are interested in contributing to this research project, you will be asked a series of open-ended questions concerning discussions that took place involving environmental health issues and policy development for tribal environmental code. The interview may take up to 60 minutes and, with your permission, the interview will be audio-taped. Your participation will be kept strictly confidential, and no names or addresses will be shared with anyone without your consent or written permission.

If you would like to participate or have any further questions or concerns regarding this research project, please contact me at 669-1271. Should you be interested in participating in this research project, I have enclosed a pre-paid post card for your convenience. Upon receipt of this post card I will contact you to schedule your interview. I look forward to hearing from you.

Respectfully,

Diana F. De Leon
APPENDIX E: TEMPLATE FOR INTERVIEW QUESTIONS

QUESTIONNAIRE

Date: ___________________________  Participant No.: ___________________________

Location: ________________________________________________________________

Consent form signed: _____ YES  _____ NO

1. Can you tell me what year(s) did you serve on the CRIT Tribal Council?
2. Can you explain how tribal code and policy was researched, passed and approved during your time on tribal council?
3. What were some of the tribal committees you were appointed to?
4. Can you discuss some of tribal council’s priorities during your time in office?
5. What was your role when you participated in the pesticide/agriculture/farm board committees for CRIT?
6. What were some of the policy issues that you faced on this committee?
7. What kind of agricultural products were grown on the reservation during your time in office on tribal council?
8. In terms of human health in general, did any of the discussion on environmental policies include concerns for the health of the community?
9. Discuss some of the barriers that the committee faced when discussions led to adopting environmental protection codes?
10. How far do you feel environmental health policies should go toward protecting the community?
11. Based on your experience as a tribal leader how do you see environmental health policy impacting;
    a. Tribal land,
    b. Human health,
    c. Tribal Cultural beliefs and practice?
12. At the present, what is the biggest concern regarding environmental health policy for CRIT?
APPENDIX F: CONSENT FORM

The University of Arizona
American Indian Studies Programs

Research Title: A Study on Forging a New Front and Building a New Vision for Tribal Environmental Health Policy on the Colorado River Indian Reservation.

Researcher: Diana F. De Leon
Ph.D. Student and member of the Colorado River Indian Tribes.

I AM BEING ASKED TO READ THE FOLLOWING INFORMATION SO THAT I CAN UNDERSTAND THE PURPOSE OF THIS STUDY AND WHY I AM BEING ASKED TO PARTICIPATE. IF I DECIDE TO PARTICIPATE I AM GIVING MY CONSENT BY SIGNING THIS CONSENT FORM TO BE INTERVIEWED AND TO HAVE THE INTERVIEW AUDIO TAPE.

I UNDERSTAND THAT FEDERAL REGULATIONS REQUIRE WRITTEN INFORMED CONSENT TO INDICATE THAT I KNOW THE NATURE AND RISKS OF MY PARTICIPATION AND TO FREELY DECIDE IF I WANT TO PARTICIPATE OR NOT PARTICIPATE IN THE STUDY. IF I PARTICIPATE I AM ALSO ALLOWED TO SKIP ANSWERING QUESTIONS THAT ARE TOO PERSONAL AND I CAN WITHDRAWAL FROM THE INTERVIEW AT ANYTIME.

PURPOSE

I am willing to participate voluntarily in this research project. The purpose of this study is to define and understand how past and present tribal council members of the Colorado River Indian Tribes between 1980-2002 have understood and defined environmental health and how this has translated into existing and potential new environmental health policies for the Colorado River Indian Reservation.

SELECTION CRITERIA

I am being invited to participate because I was previously or am presently serving a term on tribal council and have participated in discussions regarding environmental health policy and environmental health issues for the Colorado River Indian Tribes. I understand that approximately (25-30) participants may be asked to participate in these interviews.
PROCEDURE(S)

If I agree to participate, I will be asked to consent to the following: 1) to be interviewed by the researcher named above, and 2) will be asked a number of open-ended questions regarding my experience as a tribal council member in shaping environmental health policies for the Colorado River Indian Tribes. I understand that the interview may take up to 60 minutes and will be audio recorded.

RISKS

I understand this interview poses no risk but if I elect not to answer any question that makes me feel uncomfortable, I can elect not to answer that question, and I know that I can feel free to withdrawal from the interview at any time.

BENEFITS

There are no direct benefits to me for my participation. The information I am asked to share will leave a history of environmental health policy for the Colorado River Tribal Community and that the findings may help other tribes who are interested in developing environmental health policies.

PARTICIPATION COSTS AND COMPENSATION

I will not be compensated monetarily for the 60 minutes of time needed during the interview, but will be provided a coffee mug for my participation.

CONFIDENTIALITY

I understand that neither my name nor names of family will be used in any of the reports or information shared with other groups or agencies. I understand that immediately following the interview I will be recognized as an alpha numeric number and all data, including the audio tapes will be kept in a secured file at The University of Arizona Harvill Building Room 218. After 7 years, this will be the property of the Colorado River Indian Tribes Office of the Attorney General. I fully understand that access to this information will be strictly for the primary investigator, Diana De Leon and her Chair, Dr. Jennie R. Joe.

CONTACTS

If I have any questions regarding this interview, I can obtain further information from the research investigator, Diana De Leon at 928-669-1271. If I have any
question concerning my rights as a research participant, I am free to call the
Human Subjects Committee office at The University of Arizona (520) 626-6721 in
Tucson, Arizona.

AUTHORIZATION

BEFORE GIVING MY CONSENT BY SIGNING THIS FORM, THE
METHODS, INCONVENIENCES, RISKS, AND BENEFITS HAVE BEEN
EXPLAINED TO ME AND MY QUESTIONS HAVE BEEN ANSWERED I
know I may I MAY ASK QUESTIONS AT ANY TIME AND I AM FREE TO
WITHDRAW FROM THE PROJECT AT ANY TIME WITHOUT CAUSING
BAD FEELINGS. MY PARTICIPATION IN THIS PROJECT MAY BE ENDED
BY THE INVESTIGATOR FOR REASONS THAT WOULD BE EXPLAINED.
NEW INFORMATION DEVELOPED DURING THE COURSE OF THIS
STUDY WHICH MAY AFFECT MY WILLINGNESS TO CONTINUE IN THIS
RESEARCH PROJECT WILL BE GIVEN TO ME AS IT BECOMES
AVAILABLE. THIS CONSENT FORM WILL BE FILED IN AN AREA
DESIGNATED BY THE HUMAN SUBJECTS COMMITTEE WITH ACCESS
RESTRICTED TO THE PRINCIPAL INVESTIGATOR; Diana F. De Leon OR
AUTHORIZED REPRESENTATIVE OF THE American Indian Studies
Programs. I DO NOT GIVE UP ANY OF MY LEGAL RIGHTS BY SIGNING
THIS FORM. A COPY OF THIS SIGNED CONSENT FORM WILL BE GIVEN
TO ME.

__________________________________________  _________________________
Participant Signature                        Date

INVESTIGATOR'S AFFIDAVIT

I have carefully explained to the participant the nature of the above project. I
hereby certify that to the best of my knowledge the person who is signing this
consent form understands clearly the nature, demands, benefits, and risks involved
in his/her participation and his/her signature is legally valid. A medical problem or
language or educational barrier has not precluded this understanding.

__________________________________________  _________________________
Signature of Investigator                      Date
APPENDIX G: TRANSCRIBER FORMS

Participant Number: ________________

Date of interview:____________________

Transcriber: ________________________

(please print your name)

Transcriber Initials: ________________

Type and Model of transcription Machine used: ________________

Transcription completed: _____ yes _____ no

Was tape damaged: _____ yes _____ no

Did tape number match inner sleeve number: _____ yes _____ no

If no, did transcriber call researcher: _____ yes _____ no _____ does not apply

CERTIFICATE OF CONFIDENTIALITY STATEMENT

Under section 301(d) of the Public Health Service Act (42 U.S.C. 241(d)) the Secretary of Health and Human Services may authorize persons engaged in biomedical, behavioral, clinical, or other research to protect the privacy of individuals who are the subjects of that research. This authority has been delegated to the University of Arizona and the Colorado River Indian Tribes for the protection of such subject(s) who participated in the research entitled “A Study on Forging and New Front and Creating a New Vision for Tribal Environmental Health Policy on the Colorado River Indian Reservation” under the direction of the principal investigator Ms. Diana F. De Leon and overseen by Madam Chair Dr. Jennie R. Joe of the College of Medicine at the University of Arizona Family and Community Medicine. By signing below I assert and uphold all laws governed under 42 U.S.C. 241(d) for the protection subjects and subject matter in which I have been exposed to.

_________________________________________  __________________________
Transcriber’s signature                        date
TRANScriBER FORMs

CONFIDENTIAL

Participant No. ________________
Interview date: ________________
Audio taped: _____yes _____no
Tribe: _________________________
Female _____ Male _____
Age: _________________________

Hours of Transcription: __________
Transcriber’s initials: __________

Comments: _______________________

*all information contained herein is strictly confidential, and is the property of the Colorado River Indian Tribes and the University of Arizona. Unauthorized use or solicitation is a violation pursuant to Section 301(d) of the Public Health Services Act (42 U.S.C. Section §241(d))
REFERENCES


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---------- 1953 Don Juan de Onate, colonizer of New Mexico, 1595-1628. Coronado Cuarto Centennial Publications, 1540-1940, Vols. 5, 6, Albuquerque, University of New Mexico Press.


Toner, A.T., Letter to Department of War, May 31, 1875. Colorado River Indian Tribes Library and Archives, Mohave Archives, Box 1, file 56.


