THE COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN/NATURAL COMMUNITY CONSERVATION PLAN. COMPLIANCE WITH THE FEDERAL ENDANGERED SPECIES ACT AND LAND USE PLANNING CONSIDERATIONS.¹

Stephanie S. Pincetl
Visiting Professor
Institute of the Environment
University of California, Los Angeles
spincetl@ioe.ucla.edu
310.825.2434

Peter Alagona
Doctoral Candidate,
Department of History.
University of California, Los Angeles

A Report to the
California Policy Research Center
September, 2005
THE COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN/NATURAL COMMUNITY CONSERVATION PLAN. COMPLIANCE WITH THE FEDERAL ENDANGERED SPECIES ACT AND LAND USE PLANNING CONSIDERATIONS.

Executive summary

The California state legislature expressed interest in understanding whether habitat conservation planning, as permitted in Section 10 of the ESA, results in an equitable balance between ecological concerns and a host of “social needs,” and whether the state could be of greater assistance in the process of meeting the requirements of the federal Endangered Species Act while ensuring that social needs are met. This report, examining the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (MSHCP/NCCP), attempts to address the concerns of the legislature and to provide constructive suggestions for the role of the state in these questions.

The Coachella Valley MSHCP/NCCP provides an example of a consensus based, bottom-up effort to meet the requirements of the federal Endangered Species Act among local government officials, the building industry, environmentalists, as well as state and federal agencies and officials. It has been a ten year effort that has resulted in one of the most respected and admired science-based plans ever developed that does not jeopardize housing availability, is widely believed to provide important amenities into the future, and provides certainty for the development community. Yet at this writing, it has not been signed off by all the participants, nor submitted for final approved to the Fish and Wildlife Service.

Our report documents how such a situation can occur, and points to the inadequate institutional context in which habitat conservation planning occurs. One of our main findings is that the process of habitat conservation planning for endangered species protection is ill suited, in its current regulatory form, for rapidly urbanizing regions, a problem compounded by weak long-term regional planning mechanisms. Habitat conservation planning emerges from the federal Endangered Species Act; little did the Congress imagine it would be most critically needed in rapidly urbanizing areas. Moreover, because of fragmented land use planning jurisdictions that devolve planning decisions to localities, land uses that require regional considerations and controls are difficult to enact. Finally, our report shows that even in the best of circumstances, where there is general consensus among oft-opposing camps, habitat conservation planning can stall and be put at risk.

Under such circumstances, the state of California can provide real assistance. We offer the following suggestions, developed at greater length in the full report.

1. Create State Conservancies in all regions of the state to assist in identifying and planning for habitat and landscape preservation.

2. The State Department of Fish and Game should develop a “how to” manual for HCPs, MSHCPs and NCCPs to assist localities.
3. The state has an important role to play in establishing better coordination among state agencies, including Department of Fish and Game, CalTrans, the Office of Planning and Research, and Housing and Community Development to integrate land use regulations and habitat conservation plans. This is logical as habitat conservation plans are de facto complex land use plans.

4. The state can take leadership in developing new, more holistic frameworks that enable localities, and especially counties, to revisit the task of long term planning. Revising planning tools such as General Plans and required elements of General Plans are first steps in this direction, limiting General Plan amendments would also be helpful.

5. Create an MOU between the state Department of Fish and Game and the federal Fish and Wildlife Service for HCP/MSHCP/NCCP facilitation.

7. Make better available existing biological information collected by the California Environmental Resources Evaluation System in the Resources Agency studies conducted at the UC Reserves, and other such existing programs.

California is at an important cross-roads. The Endangered Species Act has forced de facto regional land use planning in rapidly urbanizing, species rich regions of the state, and on governmental institutions and structures that were established prior to the pace/rate and impacts of current urbanization. Success in habitat conservation has been checkered and difficult, and remains uncertain over time. At the same time, there is a growing realization that our current land use patterns are increasingly unsustainable; they are energy intensive, contribute to obesity, create air and water pollution, destroy important habitat and environmental services such as ground water recharge, as well as perpetuating automobile dependence. For those without a car, or unable to drive, such patterns are simply disempowering; for others they erode the daily quality of life and are very costly.

Faced with this situation, it is time to once again reconsider another more comprehensive approach to land use planning. Multiple Species Habitat Conservation Planning is a first step, but is insufficient in itself. We hope that this report will assist in this larger, and increasingly urgent effort.
THE COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN/NATURAL COMMUNITY CONSERVATION PLAN. COMPLIANCE WITH THE FEDERAL ENDANGERED SPECIES ACT AND LAND USE PLANNING CONSIDERATIONS.

I. INTRODUCTION

Problem Statement

Almost three hundred plant and animal species are currently protected in California under the federal Endangered Species Act (ESA). As a result compliance with this far-reaching statute affects many land use decisions. For this report we were asked to assess whether habitat conservation planning, as permitted in Section 10 of the ESA, results in an equitable balance between ecological concerns and a host of “social needs.” We were also asked to provide an overview of the process, and to make recommendations for future research on habitat conservation planning in California. After conducting approximately a year of research, we have concluded that habitat conservation is a social need, which in itself provides a wide variety of benefits to local communities. These benefits of habitat conservation, through the federal HCP process, include economic certainty for the development community, funding and planning guarantees for badly needed infrastructure, public open space, and jobs. Many of the stakeholders whom we interviewed in our study area echoed this sentiment, and similar ideas occur widely in the published literature.²

We initially choose the Coachella Valley Multiple Species Habitat Conservation Plan as our case study because it appeared to have all of the hallmarks of a successful Plan, and because we believed that studying the process would yield straightforward positive lessons that could be applied to other regions in the state. Yet, as of this writing, in summer 2005, the plan remains stalled. In March 2005 the Plan’s formal public review process ended, and its prospects for implementation still remain uncertain. If habitat conservation is in fact a social need, which provides a range of benefits to local communities, then why has the planning process in the Coachella Valley taken over ten years to achieve legal status? Part of the explanation for these questions relates to the political, ecological, and institutional complexity of the issues involved. Cultural and historical factors unique to the Coachella Valley—and to the various agencies involved—also contributed to the current predicament. However, many of the problems
encountered in region clearly resulted from structural weaknesses in the planning process itself, and in adding endangered species protection to a planning framework that is poorly suited to take such considerations into account.

This report explores the history of the Coachella Valley habitat conservation planning process, and highlights many of the key problems and opportunities likely to be faced by future process participants in other areas of the state. In the following pages we also provide recommendations for how the planning process should be altered in order to better incorporate habitat conservation into a larger planning framework, which simultaneously addresses multiple social needs. This includes suggestions for the potential role of the state, the federal government, and the localities themselves. Finally, we intend this report to serve as a template for future research on conservation plans throughout California.

Southern California contains high biological diversity, due to is climate, topography, geology, and evolutionary history. However, decades of explosive population growth and haphazard urban growth have jeopardized many species and sparked perennial conflicts over land use on increasingly valuable public and private property. As a result, local officials who have traditionally been responsible for land use planning have had to engage with profound and increasingly complex questions, such as how and where to develop, who pays for preservation, and how to determine which habitats should be preserved to comply with the Endangered Species Act. This situation was probably not envisaged by the framers of the Endangered Species Act, nor was planning for endangered species among the various responsibilities that have historically been the purview of local land use planners. The difficulty of conservation planning has also been compounded by the problem of scalar and jurisdictional mismatches between endangered species habitat and local decision-making structures.

The Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (CVMSHCP/NCCP) originally emerged out of the Habitat Conservation Planning process that was developed for the Coachella Valley Fringe-toed Lizard (FTL) during the 1980s. However, the signatories of the FTL Plan subsequently realized that it was insufficient to protect the larger number of potentially threatened species in the Valley, many of which could interfere with future development projects. The CVMSHCP/NCCP is essentially a map and set of guidelines, which lay out a 75-year
growth and preservation plan for the region. It is intended to set aside sensitive land for conservation on behalf of the listed species while mapping out zones for builders to develop without the fear of litigation (see “No Surprises,” Box 2, page 14). The Plan is also designed to meet the intent of the Natural Community Conservation Planning Act of California, as well as the California Endangered Species Act, and the Federal Endangered Species Act. The planning process has been conducted under the auspices of the Coachella Valley Association of Governments (CVAG), which represents all of nine the cities in the Coachella Valley as well as Riverside County itself.

CVAG contracted with the state chartered Coachella Valley Mountains Conservancy (CVMC), a state chartered agency, to compile the Plan document. The planning process brought together federal and state agencies, city and county governments, environmental groups, business groups and an Indian tribe (participated only informally). There are 1.2 million acres inside the plan area, with about half already in public lands and private conservation areas. Another 540,000 acres are designated as habitat to be conserved; the primary means of conservation will be acquisition from willing sellers.

The Plan is intended to:
1. protect core habitat for 27 species and 26 natural communities;
2. maintain the ecological processes that keep the core habitat viable – the sand sources; and
3. ensure linkage between habitats through the maintenance of corridors.

While the Coachella Valley Mountains Conservancy was contracted to prepare the plan, a Project Advisory Group (PAG) provided the forum for input, holding public hearings to provide opportunities for public input, as well as conducting outreach by mail to invite potentially affected landowners and others to offer input into the planning process. The PAG consisted of representatives from government agencies including the University of California (UC), private sector groups including the Building Industry Association, the Riverside County Farm Bureau, the Sierra Club, The Nature Conservancy (TNC), and the Center for Natural Lands Management. Finally, a Scientific Advisory Committee—consisting primarily of scientists from the University of California and Center for Natural Lands Management—provided the technical expertise on biological issues.
This MSHCP/NCCP process was a bottom-up, inclusive process, which was characterized by a relatively high degree of participation from the development community, state and federal agencies, CVAG, a number of the Coachella Valley cities, as well as most of the environmental community. This was possible in part because of the geography of preexisting development in which very little habitat existed within the cities—mostly on the south side of the I-10 freeway—with important habitat left primarily in the county, whose local supervisors have been strong supporters of the CVMSHCP/NCCP, thus enabling the possibility of creating a viable plan biologically, and not threatening land development potential on a large scale. Lands on the north side of the I-10 were primarily unincorporated, subject to more severe wind conditions, and development was constrained by topography, earthquake faults, and floodplains.

Thus, two important factors helped the MSHCP process: consensus that habitat preservation was good for the Valley and its future (developers saw the advantages of preservation for maintaining high property values), and lesser development potential in many areas that were considered important for habitat value. As a result, in the Coachella Valley the MSHCP/NCCP was generally not generally perceived as affecting the potential for development and growth for the Valley, though it would affect the potential for development of some parcels. Instead, it has been seen as offering the potential to remedy transportation infrastructure problems by creating established habitat protection areas, and to enable development to continue with no surprises. Finally, the plan is seen by many in the development community as another attribute that will help maintain real estate values in this already exclusive area, by increasing the amount of permanent open space. Our report explains the evolution of this plan and the reasons for widespread consensus for the plan. It also examines the reasons for its apparent stalled status and discusses the broader implications for habitat conservation planning in the dynamic land use context of growth in the state. We offer some specific areas on which future researchers might want to focus in order to begin to develop systematic analyses of habitat conservation planning in the state.

**Research Approach**

To better understand the experience of habitat conservation planning in the Coachella Valley, we conducted a series of interviews over a six-month period. We interviewed over a dozen people involved in shaping the Fringe-toed Lizard Habitat Conservation Plan, as well as the MSHCP. Interviewees included elected officials, agency officials,
scientists, non-profit employees, developers, and land use lawyers. We attended several workshops and conferences, including the American Planning Association California Chapter conference (2004) that devoted several tracks of the conference to habitat conservation planning and to Riverside County specifically. In addition, we surveyed over 30 articles in scientific journals on habitat conservation planning from a biological science perspective and a policy perspective, as well as the local newspapers for relevant articles on the MSHCP process in the Coachella Valley over the past decade. Finally, we examined other multiple species habitat conservation planning efforts including Western Riverside County, Orange County, and Clark County, Nevada to provide a context for the Coachella Valley plan.

II. HABITAT CONSERVATION IN THE COACHELLA VALLEY

Study Area
The Coachella Valley is located in central Riverside County, approximately 100 miles east of Los Angeles. Covering an area of about 300 square miles, the Valley floor comprises a low lying northwest to southeast sloping trough, varying in elevation from over 1100 feet near the town of Desert Hot Springs to -228 feet at the Salton Sea. The Valley owes its spectacular scenery largely to the dramatic terrain that surrounds it: the (11,500 ft.) San Bernardino Mountains to the northwest, the Little San Bernardino Mountains to the north, and the (10,800 ft.) San Jacinto and Santa Rosa mountains to the west. The San Gorgonio Pass, which links the Coachella Valley to western Riverside County and the Los Angeles Basin, bisects the Transverse and Peninsular mountain ranges some 20 miles northwest of the Valley’s center.

The Coachella Valley’s oldest city, Palm Springs, began to attract tourists as early as 1910. However, a sizeable influx of visitors and residents did not begin to arrive until the 1920s, when road construction began to render the Valley more accessible to tourists. After World War II, and the completion of the Coachella Canal in 1948 (a branch of the All-American Canal which delivers water from the Colorado River), agriculture expanded rapidly in the southern portion of the Valley. In addition to grapes, peppers, avocados, artichokes, citrus fruits, and cotton, the Valley currently produces 95% of the nation’s date crop.
In recent decades the Valley’s population has grown exponentially, from about 12,000 in 1940 to over 300,000 in the year 2000. Rapid growth continues to this day, and several Coachella Valley municipalities now rank among the fastest growing cities in California. For example, in 2004 the once sleepy desert hamlet of Indio grew by ten percent, or about six thousand people. Cumulatively, the Valley’s nine cities added a total of 19,427 people in 2004 alone, which is approximately equal to the number currently residing in the City of Desert Hot Springs. These figures do not include the Valley’s considerable seasonal populations of farm workers and service industry employees or population growth in the unincorporated areas, all of which place additional strain on local government services and infrastructure. Regionally, Riverside is the fastest growing county in California, with a 2004 growth rate of 4.45% compared to the statewide total of 1.67%.

Figure 1. Coachella Valley
Figure 2. Map of Plan Area

Table 1. Population Growth in the Coachella Valley

<table>
<thead>
<tr>
<th>Year</th>
<th>Plan area Population</th>
<th>Increase from Previous</th>
<th>Cumulative % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>~12,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>86,866</td>
<td>74,866</td>
<td>623.9%</td>
</tr>
<tr>
<td>1980</td>
<td>130,516</td>
<td>43,650</td>
<td>50.2%</td>
</tr>
<tr>
<td>1990</td>
<td>230,855</td>
<td>100,369</td>
<td>76.9%</td>
</tr>
<tr>
<td>2000</td>
<td>312,177</td>
<td>81,292</td>
<td>35.2%</td>
</tr>
<tr>
<td>*2005</td>
<td>~386,000</td>
<td>73,823</td>
<td>19.13%</td>
</tr>
</tbody>
</table>

*Unofficial figure provided by Jim Sullivan, of CVAG.
**Projected population figures for the years 2010 and 2020, compiled during the 2000 census, appear to have drastically underestimated growth in the region, given current rates of increase.**

Figure 3. Plan Area Population Over Time

A complex network of government agencies, non-governmental organizations, Native American tribes, and private owners manage land in and around the Coachella Valley. The rugged desert and mountain terrain surrounding the Valley is largely administered by federal agencies, including the National Park Service, U.S. Forest Service, and Bureau of Land Management. The 20,000 acre Coachella Valley Preserve system was created as part of the Valley’s original Fringe-Toed Lizard Habitat Conservation Plan in 1986. Since the mid-1990s the Center for Natural Lands Management has administered the Preserve system and coordinated on site management efforts with a variety of state and federal agencies. The California Department of Fish and Game, the U.S. Fish and Wildlife Service, the Valley’s nine incorporated cities, the Agua Caliente Band of Cahuilla Indians, and Riverside County have also played key roles in local land management decisions. The state-chartered Coachella Valley Mountains Conservancy was originally established to help protect the mountainous areas surrounding the Valley; it later assumed the role of consultant in the MSHCP research and writing process. Finally, the Coachella Valley Association of Governments (CVAG) has served as the lead agency of the proposed Multiple Species Habitat Conservation Plan.
Concern over habitat loss in the Coachella Valley has resulted from the collision of two of the region’s fundamental geographic features: population growth and biological diversity. Scientists regard Riverside and adjacent San Bernardino Counties as hotspots of biodiversity, due to the sheer number of species that inhabit the region (richness), the fact that many of those species are unique to the area (endemism), and because many endemics occur in limited numbers over small geographic areas (rarity). Many endemic species have extremely narrow habitat requirements, and as a result, these habitat types have generated a significant amount of concern and attention. Palm oases occur where springs emerge from subterranean rifts in the bedrock created by lateral slippage along the San Andreas Fault system. Sand dunes, composed of fine-grained particles originating in the nearby mountains and carried into the Valley by strong winds funneling through the San Gorgonio Pass, also create an important and highly dynamic habitat for a variety of unique plants and animals.

During the 1970s scientists began to document declines in populations of the Coachella Valley Fringe-Toed Lizard, an endemic species that relies entirely on the dunes for its habitat. In addition to the direct loss of habitat through suburban sprawl, development in the northwest corner of the Valley and flood control projects along the Whitewater River had begun to close off some historical sand sources and obstruct east to west particle transport through the Valley. Without a viable sand source, the dunes would eventually stabilize and disappear. By the early 1980s the Fringe-Toed Lizard had become the flagship species for the entire blowsand ecosystem, which by then had been reduced by more than 50%, from an historic total of approximately 267 to just 127 square miles. In the following section, we discuss the history of conservation planning for the Coachella Valley Fringe-Toed Lizard, as well as the genesis and context for the Multiple Species Habitat Conservation Plan.

The Genesis of the Coachella Valley MSHCP
Land conservation in eastern Riverside County dates to the establishment of forest reserves and parks during the early twentieth century; however, historical conservation efforts focused almost exclusively on the mountainous high elevation terrain (as in many places throughout the western United States). Not until the 1970s did it become apparent to some observers that development on the Valley floor might eventually result in the loss of distinctive species and ecosystems. The first individual to take action on behalf of the fringe-toed lizard and its blowsand habitat was Wilbur Mayhew, a Professor...
of Zoology at the University of California, Riverside. During the 1970s Mayhew became increasingly concerned about the loss of sand dune habitat, and its implications for scientific research and education. In 1977 he helped to found the Coachella Valley Fringe-Toed Lizard Advisory Committee, which immediately began to agitate for conservation of the dune system by pushing for federal and state wildlife agencies to list the reptile under their respective endangered species laws.

The lizard issue briefly stirred a local controversy in 1978, when the U.S. Fish and Wildlife Service proposed to list the species as threatened and designate a broad swath of critical habitat. In 1980 the California Fish and Game Commission listed the species as endangered under the state’s Endangered Species Act. That same year the FWS listed the lizard as a threatened species under the federal Endangered Species Act, but the Service never submitted its critical habitat proposal. Over the next several years Wilbur Mayhew, Allan Muth of the University of California’s Boyd Deep Canyon Natural Reserve, and others began to work toward the establishment of a lizard preserve.

In 1983 a number of large development projects once again propelled the issue to the forefront of local political debate. Fearing that his projects might be put on hold, Bill Bone, a powerful developer and the head of the Sunrise Corporation, hired Paul Selzer as his attorney and the two began to assess their options. Selzer immediately reached out to a variety of interested parties, and he soon shifted roles to become the independent mediator of a collaborative group—dubbed the “Lizard Club”—which aimed to strike a compromise between conservation and economic development. In the autumn of 1983 the group began work on what would eventually become the Fringe-Toed Lizard Habitat Conservation Plan. In April of 1986 the Plan received approval, and the participants received a thirty year “incidental take” permit from the Fish and Wildlife Service, which acts as the federal permitting agency. The Plan became the nation’s second HCP, after the much more limited San Bruno Mountain Plan approved in San Francisco in 1983, and was the first to include a multitude of key local signatories.
Box 1.

**Habitat Conservation Plans & the Federal Endangered Species Act**

Important Stipulations and Language of the ESA:

- **Section 6—Cooperation with the States**

  “In carrying out the program authorized by this Act, the Secretary shall cooperate to the maximum extent practicable with the States.”

- **Section 7—Federal Interagency Cooperation**

  “The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act.”

- **Section 9—Prohibited Actions**

  Individuals subject to the jurisdiction of the United States shall not possess, sell, import, transport, take, etc. any listed species. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

- **Section 10—Exceptions (Incidental Take)**

  “(1) The Secretary may permit, under such terms and conditions as he shall prescribe-
  (A) any act otherwise prohibited by section 9 for scientific purposes or to enhance the propagation or survival of the affected species, including, but not limited to, acts necessary for the establishment and maintenance of experimental populations pursuant subsection (j); or
  (B) any taking otherwise prohibited by section 9(a)(1)(B) if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.
  (2)(A) No permit may be issued by the Secretary authorizing any taking referred to in paragraph (1)(B) unless the applicant therefore submits to the Secretary a conservation plan that specifies-
  (i) the impact which will likely result from such taking;
  (ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
  (iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
  (iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.”

Despite the success of the Fringe-Toed Lizard Plan, it soon became apparent that several other species in the Coachella Valley could impede future development projects. In 1994 the Coachella Valley Mountains Conservancy submitted a report to the Coachella Valley
Association of Governments recommending that it embark on a process to create a Multiple Species Habitat Conservation Plan (MSHCP) for the region. Such a plan would include provisions for the long-term protection of a variety of species already listed as threatened or endangered by the federal or state government, candidate species, and a host of other organisms likely to become candidates in the future. The plan would need to satisfy both the federal and state endangered species laws and meet the intent of the state Natural Community Conservation Planning Act (NCCP). Among other things, the final plan would establish a regional biodiversity reserve system, a biological monitoring program, and trust fund capable of paying for land purchases and management. If approved, such a plan would qualify the signatories for an expanded Section 10 incidental take permit, under the federal Endangered Species Act, and would thus authorize continued development in the Valley outside of the designated conservation areas.

From the outset, the overarching goal of the Coachella Valley MSHCP was to balance “environmental protection and economic development objectives in the Plan Area”. Indeed, this is the common goal of all habitat conservation plans. The original federal Endangered Species Act of 1973 did not include provisions for conservation planning, or for circumventing its legal prohibition on the “take” of an endangered species. Congress appended these provision later, in a 1982 amendment to the Act, which added Section 10 and allowed the “incidental take” of listed species after an appropriate plan to mitigate losses resulting from the planned project had been approved. By the spring of 2005 over four hundred HCPs had received approval from the U.S. Fish and Wildlife Service. The popularity of these plans stems from the notion that they can result in productive compromises, which provide ecological, economic, and legal assurance to the participating parties. According to the former Secretary of the Interior, Bruce Babbitt, HCPs “are not an I-win-at-your-expense sort of thing. With HCPs, everybody wins.”

Although Babbitt’s vision should be true in theory—since HCPs are voluntary and require much hard work and compromise, they must offer powerful incentives for parties to participate—the story of the Coachella Valley MSHCP demonstrates that the matter is not so simple. Eleven years after the after the inception of the process, and after tens of thousands of hours of labor, a plan has not yet been submitted to the FWS. Although the CVMSHCP itself appears to finally have reached completion, and has passed through its
public review and comment period, its prospects for approval by the relevant agencies and acceptance by all the listed signatories remains uncertain.\textsuperscript{15}

Box 2.

**No Surprises**

In a 1985 conference report, Congress recognized that “circumstances and information may change over time and that the original [habitat conservation] plan might need to be revised”. Any HCP “approved for a long-term permit will contain a procedure by which the parties will deal with unforeseen circumstances.”\textsuperscript{16} However, the committee also agreed that, after an HCP had received approval, the permittees should not be held responsible for unforeseen future problems, such as the listing of a new species in the plan area. If such an event were to occur, “no further mitigation requirements should be imposed” on permit holders. The Fish and Wildlife Service issued its official “No Surprises” policy in August of 1994.

It is important to recognize that the “no surprises” clause is extremely limited in its scope and functions. It does not apply to new species that were not considered in the original plan, does not prevent action in the case of extreme circumstances such as a natural disaster, and does not apply when complete extinction becomes a possibility.

Nevertheless, “No Surprises” plays an extremely important role in the habitat conservation planning process, because it provides legal assurance that an HCP, once signed, is final. Developers and other interested parties thus have a great incentive to participate in the development of a single MSHCP, rather than to craft new plans on a project--by-project basis. After the Service officially embraced the “No Surprises” policy, the number of HCPs increased exponentially. Today, over four hundred such Plans have received official approval.

Why has preparation of the Plan taken so long and been so contentious, if HCPs indeed offer a win-win situation for all the parties involved? The simple answer to this question is that HCPs do not, by nature, satisfy all stakeholders. In Section III of this report, “The Development of the MSHCP: Process and Participation,” we use information gathered from extensive interviews in order to assess the roles of the various participants in the process and offer some perspectives as to why the CVMSHP has not yet succeeded. In Section IV, “Lessons Learned,” we analyze the interview data and compile a series of take home lessons designed to illuminate both the successes and failures of Coachella Valley Multiple Species Habitat Conservation Planning Process. In the final sections we
provide policy recommendations and address some important additional questions regarding the habitat conservation planning process.

**The Coachella Valley MSHCP: Facts & Figures**

- **What are the CVMSHCP’s goals?**
  - Balance environmental protection with economic development
  - Simplify compliance with federal and state endangered species legislation
  - Satisfy the legal requirements for ESA Section 10 incidental take permits
  - Minimize and mitigate impacts resulting from incidental take
  - Conserve all covered species

- **Who has participated?**

  Table 2. Process Participants, 1995-2005

<table>
<thead>
<tr>
<th>Municipalities</th>
<th>Regional Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathedral City</td>
<td>Riverside County</td>
</tr>
<tr>
<td>Coachella</td>
<td>Coachella Valley Water District</td>
</tr>
<tr>
<td>Desert Hot Springs</td>
<td>Imperial Irrigation District</td>
</tr>
<tr>
<td>Indian Wells</td>
<td>Riverside County Flood Control and Water Conservation District</td>
</tr>
<tr>
<td>Indio</td>
<td>Riverside County Regional Parks and Open Space District</td>
</tr>
<tr>
<td>La Quinta</td>
<td>Riverside County Waste Management Department</td>
</tr>
<tr>
<td>Indio</td>
<td>Coachella Valley Assn. of Governments</td>
</tr>
<tr>
<td>Palm Desert</td>
<td></td>
</tr>
<tr>
<td>Palm Springs</td>
<td></td>
</tr>
<tr>
<td>Rancho Mirage</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State Agencies</th>
<th>Federal Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Department of Fish and Game</td>
<td>U.S Fish &amp; Wildlife Service</td>
</tr>
<tr>
<td>Caltrans</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>California Department of Parks and Recreation</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>*Coachella Valley Mountains Conservancy</td>
<td>National Park Service</td>
</tr>
</tbody>
</table>

*Federal agencies may participate in the planning process, however they are not considered permittees.

- **If approved, how will the Plan be implemented?**
  - The Plan will be implemented over the 75-year permit period.
  - The Plan establishes a Coachella Valley Conservation Commission (CVCC), a joint powers authority composed of the permittees, which will manage revenue and administer the land acquisition, management, and monitoring programs.
  - The land acquisition program will occur over approximately thirty years, with the local permittees acquiring 90,600 acres; state and federal agencies are expected to contribute an additional 71,080 acres. These acreages will augment the approximately 56,000 acres already purchased.
- The CVCC will build an endowment in order to provide permanent funding for conservation programs.

- The CVCC will establish a Joint Review Process for all proposed projects within the planned conservation areas, in order to assure that such activities conform to the goals of the MSHCP.

**Which species are included in the Plan?**

Table 3. Species Covered in the Plan

<table>
<thead>
<tr>
<th>Species</th>
<th>Status Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peninsular bighorn sheep, <em>Ovis canadensis cremnobates</em> (FE/ST)</td>
<td>FE = Federally Endangered</td>
</tr>
<tr>
<td>Palm Springs (round-tailed) ground squirrel, <em>Spermophilus tereticaudus chlorus</em></td>
<td>FT = Federally Threatened</td>
</tr>
<tr>
<td>Palm Springs pocket mouse, <em>Perognathus longimembris bangsi</em></td>
<td>FPE = Proposed for Federal Endangered listing</td>
</tr>
<tr>
<td>Southern yellow bat, <em>Lasiusurus ega</em> or <em>xanthinus</em></td>
<td>FC = Candidate for federal listing, sufficient information exists to support a proposal to list</td>
</tr>
<tr>
<td>Desert tortoise, <em>Xerobates or Gopherus agassizii</em> (FT/ST)</td>
<td>SE = State Endangered</td>
</tr>
<tr>
<td>Arroyo toad, <em>Bufo microscaphus californicus</em> (FE/SC)</td>
<td>ST = State Threatened</td>
</tr>
<tr>
<td>Desert slender salamander, <em>Batrachoseps aridus</em> (FE/SE)</td>
<td>SC = Species of Special Concern (a state list of species that are at risk due to habitat modification or destruction, over-collecting, disease, or other threats)</td>
</tr>
<tr>
<td>Flat-tailed horned lizard, <em>Phrynosoma mcallii</em> (FPE)</td>
<td></td>
</tr>
<tr>
<td>Desert pupfish, <em>Cyprinodon macularius</em> (FE/SE)</td>
<td></td>
</tr>
<tr>
<td>Yuma clapper rail, <em>Rallus longirostris yumanensis</em> (FE/ST)</td>
<td></td>
</tr>
<tr>
<td>California black rail, <em>Laterallus jamaicensis</em> (ST)</td>
<td></td>
</tr>
<tr>
<td>Burrowing owl, <em>Speotyto cunicularia</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Least Bell's vireo, <em>Vireo bellii pusillus</em> (FE/SE)</td>
<td></td>
</tr>
<tr>
<td>Yellow warbler, <em>Dendroica petechia brewsteri</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Yellow-breasted chat, <em>Icteria virens</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Southwestern willow flycatcher, <em>Empidonax traillii extimus</em> (SE/FE)</td>
<td></td>
</tr>
<tr>
<td>Summer tanager, <em>Piranga rubra</em></td>
<td></td>
</tr>
<tr>
<td>Gray vireo, <em>Vireo vicinior</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Le Conte's thrasher, <em>Toxostoma lecontei</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Crissal thrasher, <em>Toxostoma crissale</em> (SC)</td>
<td></td>
</tr>
<tr>
<td>Coachella giant sand treader cricket, <em>Macrobaenetes valgum</em></td>
<td></td>
</tr>
<tr>
<td>Coachella Valley Jerusalem cricket, <em>Stenopelmatust cahuilaensis</em></td>
<td></td>
</tr>
<tr>
<td>Coachella Valley grasshopper, <em>Spaniacris deserticola</em></td>
<td></td>
</tr>
<tr>
<td>Casey's June beetle, <em>Dinacoma caseyi</em></td>
<td></td>
</tr>
<tr>
<td>Pratt's dark aurora blue butterfly, <em>Euphilotes enoptes cryptorufes</em></td>
<td></td>
</tr>
<tr>
<td>Coachella Valley milk-vetch, <em>Astragalus lentiginosus v. coachellae</em> (FPE)</td>
<td></td>
</tr>
<tr>
<td>Triple ribbed milk-vetch, <em>Astragalus tricarinatus</em> (FPE)</td>
<td></td>
</tr>
<tr>
<td>Mecca aster, <em>Xylorhiza cognata</em></td>
<td></td>
</tr>
<tr>
<td>Little San Bernardino Mountains Gilia, <em>Gilia maculata</em> (FC)</td>
<td></td>
</tr>
<tr>
<td>Orocopia sage, <em>Salvia greatae</em></td>
<td></td>
</tr>
</tbody>
</table>
**Who owns land in the Plan Area?**

Table 4. Land Ownership in the Plan Area

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Acres</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau of Land Management</td>
<td>283,016</td>
<td>24.91</td>
</tr>
<tr>
<td>Bureau of Reclamation</td>
<td>622</td>
<td>0.05</td>
</tr>
<tr>
<td>Cal. Dept. of Fish and Game/WCB</td>
<td>23,030</td>
<td>2.03</td>
</tr>
<tr>
<td>Cal. Dept. of Parks and Recreation</td>
<td>13,010</td>
<td>1.14</td>
</tr>
<tr>
<td>Center For Natural Lands Management</td>
<td>708</td>
<td>0.06</td>
</tr>
<tr>
<td>Cities</td>
<td>4,610</td>
<td>0.405</td>
</tr>
<tr>
<td>Coachella Valley Mountains Conservancy</td>
<td>1,697</td>
<td>0.15</td>
</tr>
<tr>
<td>Coachella Valley Water District</td>
<td>2,767</td>
<td>0.24</td>
</tr>
<tr>
<td>County</td>
<td>2,189</td>
<td>0.19</td>
</tr>
<tr>
<td>Desert Water Agency</td>
<td>752</td>
<td>0.07</td>
</tr>
<tr>
<td>Friends of the Desert Mountains</td>
<td>1,064</td>
<td>0.09</td>
</tr>
<tr>
<td>Metropolitan Water District</td>
<td>58</td>
<td>0.005</td>
</tr>
<tr>
<td>Military</td>
<td>125</td>
<td>0.01</td>
</tr>
<tr>
<td>National Park Service</td>
<td>167,685</td>
<td>14.76</td>
</tr>
<tr>
<td>Private</td>
<td>517,931</td>
<td>45.58</td>
</tr>
<tr>
<td>State Lands Commission</td>
<td>7,004</td>
<td>0.62</td>
</tr>
<tr>
<td>The Living Desert</td>
<td>641</td>
<td>0.06</td>
</tr>
<tr>
<td>The Nature Conservancy (TNC)</td>
<td>1,576</td>
<td>0.14</td>
</tr>
<tr>
<td>The Wildlands Conservancy (WC)</td>
<td>5,124</td>
<td>0.45</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers</td>
<td>650</td>
<td>0.06</td>
</tr>
<tr>
<td>U.S. Fish and Wildlife Service</td>
<td>3,360</td>
<td>0.30</td>
</tr>
<tr>
<td>U.S. Forest Service</td>
<td>92,307</td>
<td>8.12</td>
</tr>
<tr>
<td>University of California NRS</td>
<td>6,335</td>
<td>0.56</td>
</tr>
<tr>
<td>TOTAL AREA COVERED BY PLAN</td>
<td>1,136,261</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The Bureau of Land Management is the single largest landowner in the Plan area, followed by the National Park Service and U.S. Forest Service. Approximately 45% of the Plan area is in private ownership.
• How is land currently being used in the Plan area?

Figure 5. Current Land Use in the Plan Area

- Agriculture: 7%
- Public & Private Non-Conservation Lands: 28%
- Rural, Rural Residential: 1%
- Open Space: Public & Private Conservation Lands: 54%
- Urban: 6%
- Lake (includes Salton Sea): 4%
- Other: < 1%

• How much will the Plan cost?

$16,602,700 Non-Acquisition Program Administrative Costs
50,602,300 Monitoring Program
52,596,100 Management Program
7,247,100 Adaptive Management
142,475,600 Land Acquisition Costs
1,487,300 Land Improvement Costs
7,313,800 Acquisition Program Administrative Costs
278,324,900 Total Expenditures
179,725,600 Endowment Fund Balance in Year 75
1,214,200 Fund Balance in Operating Fund in Year 75
$459,264,700 Total Expenditures (75 Year Permit Period)

The largest single expenditure in the plan goes toward land acquisition for the MSHCP reserve system. However, these numbers are based on estimates of land values in a rapidly changing and volatile real estate market. These numbers are currently being revised as the result of a recent market study, and will be increased considerably in the coming months. Reserve monitoring and management also result in significant expenditures. Monitoring and management programs are currently being developed by
researchers headed by Professor Michael Allen, at the Center for Conservation Biology at the University of California, Riverside.

- **Where will the Plan receive its funding?**

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$126,945,500</td>
<td>Development Impact Fees</td>
</tr>
<tr>
<td>45,329,000</td>
<td>Habitat Conservation Trust Fund</td>
</tr>
<tr>
<td>63,656,300</td>
<td>Eagle Mountain Land Fill Open Space Trust Fund</td>
</tr>
<tr>
<td>27,377,200</td>
<td>Regional Infrastructure Mitigation</td>
</tr>
<tr>
<td>28,286,100</td>
<td>Transportation Sales Tax (Measure A)</td>
</tr>
<tr>
<td>3,106,800</td>
<td>Transfer from Fringe-Toed HCP Fund</td>
</tr>
<tr>
<td>164,563,800</td>
<td>Interest on Investments</td>
</tr>
<tr>
<td>$459,264,700</td>
<td>Total Revenues (75 Year Permit Period)</td>
</tr>
</tbody>
</table>

Funding estimates for the MSHCP have been made in a climate of uncertainty. For example, the Eagle Mountain Landfill, which is projected to generate over sixty million dollars for the MSHCP, has not yet received approval. The landfill may have significant, unforeseen environmental consequences, and is currently opposed by the National Park Service, due to its proximity to Joshua Tree National Park. A failure of any one source to generate the expected funds could have significant effects on the implementation of the Plan as it is predicated on compensating land owners at full market value for those parcels that need to be acquired. Further, land prices continue to escalate, which will require increases in development impact fees. It is also worth noting that, while planners have found it comparatively easy to find funding for land acquisition, securing long term funds for reserve monitoring and management has proven to be a much more difficult process. This is characteristic of habitat conservation however.

- **What stage is the Plan at now?**

  The public comment period ended on March 7 2005, and CVAG is now preparing the final Plan.

**The Role of Science**

The Coachella Valley MSHCP represents an attempt to apply the best available science to regional conservation planning, as required under the federal Endangered Species Act. The scientific features of the Plan resulted from the recommendations of the Scientific Advisory Committee (SAC). The SAC’s primary goals included: (1) adequately representing native species and ecosystems within the reserve system, (2) protecting or recovering native species covered in the Plan, (3) providing for the maintenance of ecological processes, such as sand transport, vital to biological diversity, and (4) allowing for flexible, adaptive management of the reserve system, given the inherent uncertainties of biological science. In order to meet these goals, the SAC initiated a thirteen-step
process of identifying important species and ecosystems, collecting and analyzing data, and designing the reserve system. Finally, an outside panel of three well known conservation biologists—Reed Noss of the University of Central Florida, Michael Soule of U.C. Santa Cruz and the Wildlands Project, and C. Richard Tracy of the University of Nevada, Reno—reviewed the plan and made various recommendations.

Overall, most observers see the Coachella Valley MSHCP as a model of sound science. However, in recent years progress toward the completion of the Plan has been delayed for two related reasons. First, the officials from the Carlsbad office of the United States Fish and Wildlife Service have repeatedly questioned the Plan’s science and have sought to make changes to it based on their internal assessments of the needs of the listed species. Based on our interviews, it appears that a wide variety of participants in the process view the FWS as the obstruction because rotating staff find objections. We were not able to speak directly with FWS officials about this issue, because they did not respond to our repeated requests for meetings. Second, conservation of the endangered peninsular bighorn sheep, which inhabits arid slopes surrounding the valley floor, has also generated significant controversy. Debate centers around the use of recreational trails, and has pitted a variety of local citizen’s groups against sheep advocates, who argue that certain areas should be closed to recreational use during the lambing season. No consensus has emerged regarding the scientific evidence supporting various management alternatives. Nevertheless, a compromise Public Access Plan—which will remove any limits on the number of trail use permits—has been developed, and will be included in the final Plan.

The debate over trail use and bighorn sheep conservation highlights one of the most important functions of science in a public planning process. In addition to providing a basis for management decisions, sound science can also play a crucial role in facilitating compromise and consensus among various stakeholder groups. If participants perceive the science upon which a plan relies to be flawed, they may have an extremely difficult time reaching a compromise. A number of local people apparently felt that the bighorn sheep science behind limiting trail use was, at best, highly flawed.

III. DEVELOPMENT OF THE MSHCP: PROCESSES AND PARTICIPATION
Over a period of nearly 2 decades, starting with the Fringe-toed lizard reserve consensual process in 1982, a small group of committed elected officials, developers, environmentalists, public agencies, and researchers at the University of California, worked together to develop the MSHCP, and to ensure there would be adequate coverage of endangered species. The following section describes the interests and the motivations of each of these groups, how they perceived the process, the importance of the issue, and the obstacles to finalizing the MSHCP. We base our discussion on personal interviews. Finally, we compare this participation to Western Riverside County and other regions working on habitat preservation.

The Actors

Elected Officials

A handful of local elected officials were deeply involved and committed to making habitat conservation work in the Coachella Valley. The continuing effort to pursue the MSHCP is in part the fruit of the long tenure in office of these officials, and the continued involvement in public affairs of those who are now retired. The Coachella Valley, up until now at least, has been characterized by strong civic commitment and involvement, which partly accounts for the bottom-up approach to habitat conservation planning in that emerged in the region.

At the municipal level, one individual in particular stood out—Buford Crites, Mayor of Palm Desert and a City Council representative for over 20 years, and longtime chair of the CVAG Energy and Environment Committee. Palm Desert contains one of the original Fringe-toed lizard reserves, and is a wealthy, sophisticated, and well-run city. For Crites, the MSHCP offered a way to maintain the scenic beauty of the Valley in perpetuity. In our conversation with Mr. Crites he made it clear that his vision went beyond repairing the pot holes of his city to encompass the larger region, and that he felt that only such preservation could ensure the prosperity and success of his own city, as well as satisfy what seemed to be his sense of moral responsibility for intelligent stewardship of land resources. Given the lack of regional comprehensive planning tools,

---

1 Buford Crites, Mayor of the City of Palm Desert and Chair of the CVAG Energy and Environment Committee was named the 2005 recipient of the award of Distinguished Leadership by an Elected Official by the California Chapter of the American Planning Association.
Crites believed that the MSHCP could serve as a mechanism to push long-term land use planning in the region by directing growth (Crites, 2005).

Two other elected officials, who served on the County Board of Supervisors from the Coachella Valley, Roy Wilson and Patricia “Corky” Larson, were also strong supporters of the MSHCP. Wilson stated that he realized that the sand sources responsible for the valley’s dune habitats arose in the unincorporated county lands, and that if regional ecological processes were not preserved, the valley could end up resembling the San Fernando Valley, clearly a fate he wanted to avoid (Wilson, 2005). As a result, he saw his responsibility on the County Board as ensuring that lands necessary for the success of the MSHCP be zoned in a fashion compatible with the preservation of habitat and sand flow, and to maintain the landscape beauty of the Valley. While the cost and availability of housing remains an important concern for local planners and officials, Wilson clearly felt the MSHCP would have no impact on low cost or affordable housing because most development was probably destined to occur on former agricultural lands outside of proposed Conservation Areas anyway.

The greater problem for the Valley was making sure that the development had the infrastructure to match its scale, intensity and location. Cities in the Valley vary in their planning capacity, wealth, and experience. This uneven capacity has meant that some developments are inadequately served by infrastructure -- but these problems are independent from the MSHCP process. For example, the city of Indio, the former commercial center of the region which had fallen on hard times, now targeted for growth by the development industry, responded by approving 27,000 new housing units with no corresponding plan for infrastructure development. For Wilson, the MSHCP was a win-win proposition: providing certainty to the development community, permanent habitat conservation, and a better place to live for the region’s inhabitants. The growth of Indio, on non-critical habitat lands, was an indication there was no substantive constraint on growth in the valley.

Moreover, Wilson considered environmental quality, including preserved open space and indigenous ecosystems, social needs in that they provide important aesthetic, recreational and visual amenities for urban inhabitants. Finally, Wilson pointed out that because the effort was led by the regional council of governments, the plan was more or less a consensus plan because COGs must operate by collaboration and cooperation,
having no regulatory authority. However, because of the length of the process, now 10 years in the making, that consensus is starting to weaken with the turnover in participants.

“Corky” Larson had been a farmer in the region, and when she was elected to the Board of Supervisors was skeptical about environmental causes; she did not understand the endangered species act, and the Board in the early 1980s rebuffed environmental overtures. But scientists from the University of California Riverside, including the eminent herpetologist Al Muth and his colleague Bill Mayhew, educated Larson about the value of the environment, explaining that even when New York City went bankrupt, it did not sell off Central Park. She gradually understood the relationship of landscape preservation to the future of the valley, including its future economic prosperity. Initially, the leadership came from the development community, who approached Supervisor Larson to help them figure out a preservation strategy that would allow development to continue while charging development fees to finance preservation. Larson pointed out that, in the Coachella Valley, without the business community’s commitment it was unlikely that the Valley would have engaged in habitat conservation. She drew an analogy to the Orange County Natural Community Conservation Planning process where the Irvine Company was the force behind habitat conservation there. Larson was convinced that in the end the MSHCP would create a better quality of life for the valley residents, create more healthful living conditions, as well as allow for a more prosperous economy.

Tom Mullen, former county supervisor in Western Riverside County, provided a valuable contrast between the Coachella Valley MSHCP process and the MSHCP process in Western Riverside County. He perceived the process in the Coachella Valley as enabled by a very cohesive and close-knit community where member cities truly participated in CVAG. Western Riverside County paid little attention to the Coachella Valley, and in many ways the two areas are very distinct from one another. But when Western Riverside County began to engage in its own habitat conservation planning process, it drew on the expertise and experience of the Coachella Valley, and on lessons learned during its own Steven’s kangaroo rat planning process. Western Riverside conservation planning was led by the County Board of Supervisors who developed a strategy to engage the cooperation of the cities in the county. It was predicated on developing an
infrastructure assessment district that would satisfy the bonding agencies that were insuring the housing and businesses that had already entitled.

The big problem in the western part of the county was inadequate transportation infrastructure relative to growth. Thus the Supervisors were in a bargaining position to bring needed transportation resources in exchange for habitat conservation planning and set asides by the cities. Larson—who had recently retired from the Board of Supervisors—worked with Mullen to lead this planning effort, and helped to craft an assessment district agreement, which eventually became the blueprint for the rest of the plan. The Western Riverside MSHCP was tied to Measure A, a sales tax for transportation infrastructure funding. This arrangement essentially required cities to participate in habitat protection in order to receive funding for transportation and infrastructure (Mullen 2005). Thus the Western Riverside county plan was developed by the county board of supervisors in a centralized manner, tying land set asides to transportation funds, in a sense providing county cities a deal they could not refuse. In contrast, while infrastructure improvements are also an important component of the CVMSHCP, in the Coachella Valley the process has been driven by the member cities of CVAG, the local Supervisor, the development community and by environmentalists. Paradoxically, the Western Riverside plan has been approved by the County, cities in the county, the state Department of Fish and Game and the federal Fish and Wildlife Service while the Coachella Valley MSHCP, started much earlier, is still languishing. We will explain this paradox further, for it is a key to successfully creating and implementing habitat conservation plans.

The Private Sector

*The Building Industry of California, Desert Chapter*

*Ed Kibbey,* Executive Director of the Building Industry Association Desert Chapter, felt the plan was excellent, based on very good science that protected plants, animals, and people. Characteristic of Valley culture, Kibbey is also on the Board of the environmental nonprofit Friends of the Desert Mountains. Unlike many other parts of the state, in the Coachella Valley there is much less polarization around environmental protection. Mr. Kibbey, as well as the other interviewees, discussed why the Coachella Valley MSHCP process seems to have stalled, and the role of the state Department of Fish and Game and the federal Fish and Wildlife Service (F&WS). Like all our interviewees, Kibbey felt that the F & WS was not responsive, unpredictable and inconsistent. Agreements would be
reached, staff would change, and the whole process would have to start afresh. Unexpectedly, the building industry was impressed with the scientific team’s work and felt it was unbiased and reasonable while it was the FWS that found fault with different parts of the plan over time. Certainly the no-surprises clause was a big factor in BIA support for the plan, and without the plan the building industry would be faced by a case-by-case review by the Fish and Wildlife Service. Overall, Kibbey felt the process went very well because people talked, had faith in the plan, and in the science. This reflects the culture of the Coachella Valley where participants have, by and large, been long-time residents and committed to working together. He explained that the Fringe-toed lizard plan had set a collaborative precedent, proving that a successful process could be undertaken that preserved habitat and permitted developers to develop. The MSHCP process and plan was built out of that successful habitat preservation effort.

The Development Community

Paul Selzer is a land use lawyer and was instrumental in developing the Fringe-toed lizard reserve for Palm Desert as the attorney for developer Bill Bone, Sunrise Companies. Bone understood the implications of the ESA very early on and desired a solution that would address endangered species protection on a broad scale. The Nature Conservancy—already involved in creating a preserve in Thousand Palms Canyon—met with the Fish and Wildlife Service and suggested a habitat conservation plan that was accepted by the development community. According to Selzer, while politicians were kept apprised of the events, they were not involved in the development of the strategy. Rather, they were presented with a package they could support. Selzer believed this contributed to the success of the plan. He contrasted this approach with the Western Riverside Steven’s kangaroo rat habitat conservation plan—developed by politicians—that was the subject of great acrimony. Selzer advocates a strategy where developers and environmentalists work together to forge solutions, rather than having solutions developed by elected officials. At the same time, Selzer was concerned that the MSHCP process had been conducted among a small group of stakeholders that did not adequately involve the general public, though he did not have a solution for the problem. Additionally, for Selzer, the role of the state of California, and of government, ought to be to insure there are enough funds for habitat conservation programs. The state could incentivize localities through matching funds, and create a kind of voluntary Williamson Act for those who provide lands for conservation. Finally, Selzer believes that the Plan treats property owners within the conservation areas “incredibly unfairly,” and thinks
that this fact alone will probably result in a legal challenge to the proposed Plan. According to Selzer, this plan does not have an appropriate fee structure to compensate property owners for their losses, and as a result “has major legal and political problems ahead of it.”

The Non-Profit Sector

Cameron Barrows, manager of the Fringe-toed lizard reserve system since its inception, also became involved with the MSHCP process during the early 1990s. Barrows explained the process that led to the Coachella Valley MSHCP. Early on a consensus emerged that the initial Fringe-toed lizard reserves would be probably be inadequate for species preservation in the Valley, mostly because the blowsand habitat would be adversely affected if developed. At the same time, there were quite a few new projects coming into the Coachella Valley, whose developers believed they were exempt from habitat conservation due to the belief that Fringe toed lizard reserves served as umbrella reserves. However, the federal Fish and Wildlife Service did not consider the reserves sufficient to protect species other than the Fringe-toed lizard. This reflected personnel turn over in the agency with new people who did not recognize the previous “gentleman’s agreement” that the Fringe-toed lizard reserves would be sufficient under the Endangered Species Act. At the same time, this was probably an accurate assessment. Barrows pointed out several institutional problem areas related to the involvement of the Fish and Wildlife Service in local habitat conservation plans.

- Service policy of staff rotation means that agreements with the Service about habitat protection may not endure beyond the stay of the particular staff member;
- This leads to a lack of institutional memory (Barrows has become the *de facto* institutional memory for Coachella Valley habitat protection as he has been in the valley working on habitat monitoring and protection for over 20 years);
- Staff turn over also means that place knowledge is not well developed by institutions like the F &WS;
- F&WS knowledge – is not local knowledge, it is an understanding based on documents, process models, and regulations rather than knowledge derived from working for long periods in the same place. None of the FWS planning process participants lived in the Coachella Valley.
Barrows, as a reserve manager, raised the importance of monitoring conserved habitat to be able to assess whether the preservation strategies are successful. Currently, very little rigorous monitoring takes place anywhere in California (see Halloran and Press, 2005), thus it is virtually impossible to ascertain whether habitat preservation strategies are successful. This is problematic because habitat conservation efforts continue without good information about which approaches have met with success. Barrows expressed the opinion that monitoring activities in preserved habitats ought to be done by a neutral third party, such as a non-profit organization or the University of California, in order to insure objectivity. If the agency in charge of protection is also responsible for monitoring, there can be a conflict of interest. He also pointed out the importance of devising the appropriate management structure for MSHCPs, and managing funds so that they can yield the highest revenue stream. Barrows felt that the Coachella Valley MSHCP is the best habitat conservation plan that has been developed in the United States, based on the best science available, and has begun to be implemented based on the good faith understanding existing in the Valley despite not having been officially approved.

**State Agencies**

*Bill Havert* the Director of state chartered Coachella Valley Mountains Conservancy (under the state Resources Agency) was primarily responsible for compiling and writing the actual MSHCP document for the Coachella Valley. The conservancy was created in 1990 by the state legislature in response to the local desire for a conservancy to protect the mountainous lands around the Coachella Valley. For Havert, there is a need for the state to provide a better support system for the localities creating MSHCP/NCCPs. This could take the form of a manual or guidebook outlining a model process. Currently, each place wanting to do an NCCP must start anew, making the process expensive and inefficient. Moreover, the state Department of Fish and Game is understaffed for the NCCP program, causing delays at the local level.

In the Coachella Valley, the state created conservancy served a crucial role as an intermediary agency. It coordinated all the relevant actors and information for the MSHCP/NCCP process, provided important technical advice and played an instrumental role in land acquisitions. At the same time, as a state agency, its actions were transparent, it was accountable to the public, and could provide its services at a lower cost than a private consultant. Finally, the Conservancy board itself, composed of agency
representatives and regional stakeholders (BLM, Forest Service, National Park Service, State Parks, Wildlife Conservation Board, Indian Tribes, Resources Agency, California Department of Finance, Coachella Valley cities, Riverside County Board of Supervisors, and the private sector), created a forum for collaboration on the plan during its creation. Thus, the existence of the state conservancy was an asset for CVAG in the preparation of the MSHCP and for land acquisition.

*Ron Rempel,* formerly of the California Department of State Fish and Game, assisted in the creation of NCCP/MSHCPs and served as an intermediary between the state of California, the federal Fish and Wildlife Service and the development community. Rempel explained the culture and history of F&G in contrast to the F&WS. F&G receives part of its funding from hunting and fishing licenses, thus its management of those resources is based on long term knowledge of place and fauna and fauna. Its staff is stable and experienced. In contrast Fish and Wildlife Service staff tends to be younger, less well experienced, and mobile, thus depriving staff of the opportunity to develop full knowledge of local ecosystems and their management needs over time. Moreover, F&G tends to understand ecosystems as systems in order to ensure wildlife for hunting and fishing while F&WS has a more species by species focus. This leads to a different framework for evaluating MSHCPs and NCCP sufficiency. Rempel also discussed the success of the Western Riverside habitat conservation plan compared to the now stalled Coachella Valley Plan. He emphasized the importance of having a strong commitment to habitat conservation from leaders in Washington DC. Because Secretary of the Interior Bruce Babbitt, under President Clinton, explicitly supported the Western Riverside MSCHP and the California state NCCP process, there was an institutional environment that encouraged the F&WS to find solutions in a more collaborative manner. Babbitt’s interest in Western Riverside County was due to strong relationships between local elected officials and the Clinton administration, a relationship Tom Mullen also referred to. Currently, with weaker support for habitat conservation from Washington DC, regional offices have had less leadership and support to engage in collaborative problem solving, and go beyond their narrow purview. As Rempel explained, the Service has historically been a wildlife protection agency, working in rural areas, rapidly urbanizing habitats with many species require a different approach that the Service has not yet fully embraced.
Rempel pointed to the need for greater participation by all state regulatory agencies in habitat conservation, such as the Regional Water Quality Control Boards, CalTrans and the Business and Transportation Agency. He also suggested that there needed to be more adequate and well-trained staff at Fish and Game, and the state should also provide early acquisition money to encourage locals to engage in the process. The state legislature also needed to ensure there would be acquisition money later on to assist the completion of habitat conservation. He recommended the development of standardized landscape level criteria for monitoring the success of these efforts, led by the Department of Fish and Game.

*Michael Allen* (Director), and his University of California Riverside Center for Conservation Biology, conducted the scientific study that established the Coachella Valley MSHCP’s monitoring program. This project built upon the University’s long-standing research interest in the Valley. UC Riverside researchers were the behind the creation of the Fringe-toed lizard reserve, as mentioned above, and the University has owned a research station in the Coachella Valley for many decades where scientists have been able to study the region’s ecosystems. The Center provided all the key federal, state and local agencies with data, as well as the Project Advisory Group. Though there was limited information on individual species distribution, the Center developed a system model for the Valley, built on a characterization of the ecosystem structures, including vegetation maps and key processes such as drought, and fire, and establishing where species could be based on available historical records. They also took into consideration key changes to the land such as habitat fragmentation and nitrogen deposition from automobile exhaust. The systems modeling approach was necessary because there was insufficient money to conduct the kind of research necessary to absolutely ascertain the biology of each potential existing species in the Valley. Instead the systems approach provided a dynamic management matrix. Allen also echoed other’s description of the Fish and Wildlife Service approach that is largely devoid of actual field data because the Service is not in a position to conduct its own research. Hence F&W has been very cautious in its review of the MSHCP. It continues to be constrained by the Endangered Species Act’s focus on individual species and their protection, yet habitat conservation in the Coachella Valley, because of the numbers of species and the types of processes essential to their existence, had to be a region-wide land use approach.
As to whether the plan would be a long-term biological success, Allen was cautious because there were many forces that would act on it that are independent of the reserve itself such as nitrogen deposition, the patterns of development, hydrology, and that the ecosystem processes involved were very complex. At the same time, he could not point any better designed MSHCP in the country. Finally, Allen suggested that the UC system should be considered to collect data, conduct long-term monitoring, and to track trends over time rather than the state Department of Fish and Game. In the final draft of the Plan, however, the Department of Fish and Game is no longer named the Monitoring Administrator. The monitoring entity will be selected through a research proposal process.

**Summary**

The Coachella Valley MSHCP emerged from a consensus among a diverse set of interests in the Valley regarding the importance of preserving the area’s scenic beauty and resources. The longevity in office of a select core group of politicians seemed very important to this plan as they insured there was no mission drift during the process, and maintained its vision and consistency. The existence of a state conservancy to facilitate planning and land acquisition, and the fundamental agreement about the importance of a scientifically robust plan, all contributed to making this MSHCP one of the best designed plans to date. In addition, we found that the actors in the Valley saw this as an opportunity to engage in a process that would ensure the long-term beauty and livability of the area as well as comply with the Endangered Species Act. They saw no inherent trade-off between providing sufficient housing and infrastructure in the Valley and other social needs and habitat conservation, and instead most linked habitat preservation to quality of life and livability, however there would be an impact on individual property owners who thought they would be able to build on properties now included in the MSHCP. These individual lots are to be acquired at full market value, but the delay in the approval of the document has meant that property values have risen beyond the fee schedule that was developed, requiring a revision of that fee schedule in the near future. In the Coachella Valley generally though, there remains plenty of developable land—approximately 1.5 times the current urban footprint—mostly in the southern portion of the Valley and currently in agricultural production. Nevertheless, as of this writing, there is now a sense of unease and of fatigue as the process has ground on for nearly a decade. Despite the consensus that a plan is needed, the plan itself remains stalled. This, it
seems, is due to institutional problems emanating from regulatory agencies, most specifically the federal Fish and Wildlife Service.

This points to the importance in understanding how the historically evolved missions of regulatory institutions can affect results on the ground. The Fish and Wildlife Service, established to protect the nation’s fish and wildlife on a species-by-species basis (largely in rural nature preserves), is now a frontline agency for determining the sufficiency of complex multiple species habitat protection plans in rapidly urbanizing areas. Additionally, Service policy is to rotate staff so that it does not become captured by local interests; this leads to policy inconsistency at the regional office, and skepticism about local decision making, issues that are institutionally difficult to correct.

The ESA has been the law since the mid-1970s and habitat conservation approaches have been on-going since the 1980s. However, the shift toward complex multi-species preservation plans involving many public and private interests at differing scales with little or no concomitant institutional culture change at the FWS, has meant a clash of cultures and of missions in the arena of MSHCPs. Here there are potential roles for the State of California to play in mediating and developing memoranda of understanding with FWS about using the state NCCP as an adequate substitute for F & W Service certifications, for example.

Interviewees also pointed out the subtle but significant effects of changing political leadership on Service’s actions and on staff morale emanating from the top in Washington, D.C. It is clear the Clinton Administration was committed to habitat protection and endangered species planning. Since 2000, with the change in administration in Washington DC, greater uncertainty and ambiguity has infused the policies and decisions of the local Fish and Wildlife Service office.

Development patterns and land ownership patterns in the Coachella Valley also made it possible to create an MSHCP that was scientifically robust but did not substantially affect development prospects and long-term housing availability. Areas less desirable for development had remained unincorporated county lands. They were more subject to hot winds and natural hazards, and were more isolated from existing municipalities. Maintaining current general plan designations on these lands could be done without adversely affecting many land owners, and for a compensation cost that was still
achievable – though clearly some land owners will feel that their compensation was insufficient. Moreover, plenty of developable land remains in the southern portion of the Valley, on what is now agricultural land. This, however, raises other issues such as the apparent trade-off between habitat protection and agriculture. Further research needs to be done to learn how extensively this trade-off may be becoming in such processes in general.

The Coachella Valley ten-year MSHCP process shows the importance of stable political leadership that has built relationships of trust with diverse interests. Term-limits, as they exist in the state legislature, for example, would jeopardize the success such plans given how long many of them take to come to completion. Time, however, is a serious problem. That is has taken 10 years in a place where there is such reliable consensus, points to the need for reform.

### IV. LESSONS LEARNED

1. The HCP process has created a **new vehicle for long term regional planning** in areas containing endangered species habitat. This process is driven by national laws but is usually controlled by local and regional interests.

2. **Each region is different** in terms of history, ecology, leadership, interest groups, power structures, administrative capacity, land management, and social needs. Local knowledge is important in these processes, but problematic institutional cultures, such as that of the Fish and Wildlife Service, can work at counter purposes to local knowledge and decision-making.

3. **Habitat conservation is a social need.** In addition to purely ecological benefits, habitat conservation encompasses a wide variety of social needs, including: (1) economic assurance for local developers and businesses, (2) funding for conservation and transportation programs, (3) recreation and public open space, and (4) high paying jobs in a variety of sectors, from research and education to construction.

4. Habitat conservation plans also provide **incidental social and economic benefits**, such as increased property values for landowners outside the conservation areas and increased tourism revenues.

5. Despite its explosion in popularity throughout the country, habitat conservation planning is still a **relatively new and untested process**. We do not yet know whether, over time, HCPs will withstand a wide variety of constantly evolving social and political pressures, or whether they will actually ensure the persistence of endangered species and their habitats.

6. In the absence of strong **county general plans**, habitat conservation plans may exacerbate preexisting urban problems, such as runaway real estate prices and a lack
of affordable housing or land conversion out of agriculture. Such problems should be addressed as part of any conservation planning process; however, these problems are probably more closely related to the weakness of local government than to any HCP. Current city efforts to plan for affordable housing and other urban necessities are often severely lacking, and MSHCPs should not be used as a scapegoat for these shortcomings.

7. Habitat conservation planning may indirectly encourage the continued loss of agricultural land. When remaining natural areas are precluded from development, and higher urban densities are not encouraged, agricultural land may become more attractive for subdivision, and acceptable for subdivision by environmentalists. However, these agricultural lands may also already be vulnerable to development, due to their flat topography, proximity to urban areas, and county general plans that fail to establish limits to agricultural land loss. In the Coachella Valley many proposed conservation areas were already unsuitable for development due to natural impediments, such as steep topography, and prior regulatory constraints, like flood control.

8. Time is a key issue in the habitat conservation planning process. The primary incentives for stakeholder participation in HCPs are economic and ecological assurance, both of which are time sensitive. In order for a plan to be worthwhile to the parties involved, the planning process must take place within a well-defined timeframe and not be allowed to continue indefinitely. Some parties may have an interest in dragging out the process; however, this only hurts communities in the end and allows for breaks in the continuity of leadership and institutions.

9. It is important to provide strong incentives for timely completion, not just for participation. In Western Riverside County, completion of an MSHCP was required for the release of desperately needed transportation funding; however, in the Coachella Valley no such need was created in order to drive the process forward toward completion. As a result, the Western Riverside Plan marched toward completion while the Coachella Valley Plan lingered.

10. Leadership is essential at all levels, at every point in the process, and from all participating groups. Without strong leadership from committed participants, plans are doomed either to fail or to linger indefinitely at an incomplete stage.

11. The state has an important role to play in the development of habitat conservation plans that satisfy federal and state laws. This role includes the participation of the Department of Fish and Game. In some areas it may also include the creation of a state chartered conservancy, which could serve as a facilitator and consultant for the project.

12. The plan must be able to pay for itself, now and into the future. This will include flexible development mitigation fee schedules, which track land values. Of particular importance is the Plan’s ability to fund long term monitoring and mitigation programs.

13. The habitat conservation planning process constitutes an ad hoc blend of top-down and bottom-up structural organization. In the Coachella Valley, bottom-up organization provided a forum for diverse interests, but the lack of resolute leadership from the top-down resulted in the plan lingering for years
without being put into effect. Both grassroots participation and official leadership are crucial for a plan to reach completion.

14. **Sound science and outside peer review are essential components of the HCP process.**

15. **Habitat conservation plans force local citizens to think about the long-term future of their communities.** Other local and regional planning processes, such as county general plans that can be revised on an ongoing basis, do not require this crucial exercise. This raises the problem of long term planning in places where there are no endangered species to force such processes.

16. **Monitoring preserved habitat is vital for the success of HCPs.** Who should do the monitoring remains an important question as there must be objectivity and sufficient funds. Accountability must be assured as well as objectivity.

16. **Habitat conservation funding is predicated on growth and the fees derived from growth.** Profound questions remain regarding the sustainability of a conservation model that requires rapid urban growth in order to fund conservation.

17. **The University of California Reserve System and associated biological research are underutilized resources for the state.** The University of California has been conducting long term ecological and biological studies on its reserves, located throughout the state. They could provide valuable additional information to the MSHCP process.

V. **Policy Recommendations**

In the following section we outline policy recommendations for the state legislature, which we believe could help strengthen MSHCPs in the state and insure that they result in constructive solutions to local land use debates.

1. **The Role of State Conservancies**

In the Coachella Valley, the Coachella Valley Mountain Conservancy played a crucial role as an intermediary public institution, a provider of technical expertise, a forum for discussion, and a broker for land deals. The creation and existence of State conservancies show localities the goodwill and commitment of the state government regarding land and habitat preservation. This is important because localities often feel as though they are expected to comply with state and federal laws, but receive no assistance in doing so. The Coachella Valley conservancy is small and receives a minimal amount of state funds, but is highly efficient and effective. We suggest the creation of state conservancies throughout the state of California to serve as facilitators for land conservation and planning. Their role would include:

- *coordination* among state, federal and local agencies
- *brokering* land set asides
- *consulting* for writing habitat conservation plans, and acting as
- *advocating* for the place.
2. The role of the State Department of Fish and Game

The State Department of Fish and Game reviews and approves habitat conservation plans and NCCPs. In addition, we recommend that:

A. The Department establish *guidelines* for HCPs, MSHCPs and NCCPs by creating a “how to” manual in order to assist localities. The manuals would include:

- Standards for acceptable science.
- Standards for monitoring.
- Standards for public participation.
- Standards for other agency participation including Regional Water Quality Control Boards.
- Standards for reasonable timelines.
- Possible funding sources and strategies.
  - Mitigation fee structures and examples;
  - Caltrans funding;
  - Land exchanges with public agencies
  - Scenic easements and conservation easements.

B. The Department should provide consistent and timely technical support in writing plans. This would involve assuring there is sufficient staffing in the Department to do so, and that staff is trained.

C. The Department should assist localities in data collection and assimilation. This could be done using the proposed State Conservancy system and the California Environmental Evaluation System in the State Resources Agency in coordination with the UC Reserve Systems. These are all robust state resources that can be utilized by localities *if they know about them*.

3. Develop better coordination among state agencies

The state should foster a formal working relationship between the Department of Fish and Game, the Office of Planning and Research, and Housing and Community Development to coordinate land use regulations and habitat conservation plans. This will involve recognizing that habitat conservation plans are *de facto* land use planning, and developing better planning guidelines for localities to reflect the new reality of habitat protection. Under the federal and state ESAs, the Department of Fish and Game has become a land use planning agency, as land is managed to protect species diversity. This needs to be acknowledged and integrated into the traditional land planning frameworks of the state.

4. Revisit long term planning

Habitat conservation planning has become a primary means by which Californians engage in regional long term planning. It provides a framework for deciding what lands can be built upon without jeopardizing the viability of species. It can provide a tool to take landscape level change into account. Instead of backing into habitat conservation planning when there is a potential endangered species, the state and local agencies and elected officials should
engage in proactive habitat protection. Specifically, planners should seek to link the federal habitat conservation planning process with county general plans and other local planning documents. This would create a climate of certainty for the development community as well as for localities, creating greater opportunities for meeting the state’s housing, food, water, and other needs. MSHCPs generate crucial information, funds, transparency about the future, and thus greater certainty for local communities. To this end, the state legislature should provide seed funding for local state-chartered conservancies in each county of the state that are dedicated to developing long-term land use plans in coordination with the local county and cities, and the relevant state agencies, including OPR, F & G, and Housing and Community Development.

5. Create an MOU with the federal Fish and Wildlife Service for HCP/MSHCP/NCCP facilitation

Encourage the Fish and Wildlife Service to use state Fish and Game and local conservancy data to guide their input and commentary on local HCP/MSHCP and NCCPs in order to overcome inconsistency among wildlife protection agencies and to facilitate a more efficient process. The FWS must fully state and abide by its commitment to participate in productive local partnerships.

6. Assist local capacity building for habitat conservation

This should comprise part of a new working relationship between local state-chartered conservancies and the Department of Fish and Game. Through HCD and OPR, outreach and education programs for local elected officials and planners need to be developed to provide technical information, funding sources, and templates for habitat preservation. Ultimately, as seen in western Riverside, counties have the capacity to take a strong leadership role in regional land use planning.

7. Better Utilize University of California Studies Conducted at the UC Reserves and UC Biologists

University of California scientists have been studying California ecosystems for decades at their biological reserves. This is an underutilized resource for the state and localities engaged in MSHCPs.

VI. UNANSWERED QUESTIONS

1. What alternatives exist today to begin to address the long-term future of the state’s landscapes?

Habitat conservation planning, as we have noted, has begun to serve as a long-term regional planning method. This is evident in Orange County with the NCCPs that have been established, in Western Riverside County, possibly in the Coachella Valley, in San Diego County, and other parts of the state. But not all regions in California are home to high biodiversity, and even if they are, there is not always the local capacity necessary to engage in habitat conservation planning. This means that there may be incremental decision-making that will result in the fragmentation of landscapes, making habitat conservation—or any other type of land preservation—either extremely expensive or
impossible. We suggest that creating state land conservancies throughout California may be one step toward addressing this problematic issue. However, a state conservancy’s powers will always be limited, and cannot substitute of a compulsory HCP.

2. Is the ESA the right policy tool for regional planning?

We have found that the ESA compels local decision makers and process participants to think regionally and long term, as species and ecosystems do not respect local political jurisdictions or human time frames. However, coherent and integrated planning for infrastructure, housing, and other urban needs do not necessarily accompany habitat preservation planning. Because land development potential is jeopardized where there are endangered species, there is a great deal at stake, and science maybe influenced by political and economic considerations. Hence, habitat conservation should be explicitly integrated with other land use planning efforts and objectives.

3. How can we best ensure that conservation areas are adequately monitored?

We are not the first observers to discover that monitoring of habitat conservation areas is often limited due to poor planning and a lack of funding. As a result, we often lose the opportunity to learn from prior mistakes and successes. While we can develop manuals for how to create MSHCP/NCCPs as far as procedural methods, we do not have adequate data regarding a host of substantive scientific questions. Thus, we suggest following the policy recommendations regarding monitoring set out in the Halloran and Press CPRC report, cited in this report.

4. Can the “no surprises” clause be reconciled with scientific uncertainty and the need for adaptive management?

This question ties back to the previous one. The current pace of urbanization and our creation of habitat reserves are unprecedented in human history. In order to create a climate of certainty and predictability for development and urbanization, the no surprises clause was created. Yet without monitoring, we cannot know the long-term effects of this approach, nor can mid-way corrections be made. With the imminent changes portended by global climate change and inadequate scientific understanding of many of the places we are preserving, the legal impacts of ‘no surprises’ remain unknown. However, as previously stated, no surprises is a rather limited policy, intended to promote cooperation, and will not likely have significant effects on specific management actions.

5. Does habitat conservation inevitably impose an opportunity cost with respect to other social needs?

This question cannot be answered in a generalizable manner. What we found was that the Coachella Valley, for example, is a very special place, with unique historical, cultural, economic and geographic conditions. Its identity is tied to its landscape and at the same time there is robust economic activity and growth. In this place, habitat conservation—because of the Valley’s size and geography—has not required significant change in development, infrastructure provision, nor affected economic growth. Indeed, it seems that were the MSHCP to succeed, it will provide a win-win framework for the Valley’s future. However, the local culture supports short-term
“sacrifices” in the way of fees, for long-term benefit. Not all localities have the same culture.

6. Do trade-offs between social needs vary in type and intensity from place to place?

While much attention has been given to the potential trade-off between habitat and development, there may also be trade-offs between habitat and agriculture. In the Coachella Valley we will see agricultural land conversion and habitat preservation. It may well be that agricultural land in the Coachella Valley would be converted without the MSHCP, but this is an area that needs greater investigation in general.

VII. Protocol for Further Research on MSHCPs

Since this case study points to the importance of further study on MSHCPs in the state, we provide the following step-by-step recommendations for future research:

1. Identify the key local actors, ensure that they represent all the significant interests, and interview each of them. Discuss the history of the planning process, their individual role, perceived obstacles and issues, their opinions regarding long-term outcomes.

2. Establish a local history of the planning process, including the timeframe of actor involvement and the evolution of relevant planning documents.

3. Analyze the civic capacity of the local public and private institutions responsible for land use decision-making. For example, how robust is the non-profit sector? Are there civic organizations and/or business associations? Is there sufficient local planning staff or are most plans done by consultants? Is there a local university?

4. Scrutinize the plan itself, including its use of science, policy recommendations, and monetary features. Be attentive to who wrote the plan and who funded it.

5. Interview local stakeholders from across the spectrum: public, private and non profit.

6. Uncover the major sources of agreement and disagreement between the stakeholder groups.

7. Examine the roles of federal, state, and local government agencies.

8. Evaluate the plan’s impacts on and trade-offs between social needs such as agricultural land, housing, and transportation.

9. Determine the plan’s effects on and relationship to other local and regional planning regulations.

10. Compare plan to other plans in the state and region.
VIII. CONCLUSIONS

Multiple Species Habitat Conservation Planning offers a potentially successful model for maintaining biological diversity while ensuring other public needs are met in a way that is not divisive. However, that determination is predicated on there existing a local culture that is willing to engage in the process in a good faith manner, and that there is leadership, state level support in the shape of a local state land conservancy, strong Fish and Game participation and support, and most importantly, funding.

With increased demographic pressure and large numbers of endangered species, MSHCPs/NCCPs have become the primary means of conservation planning under the Endangered Species Act. Areas with high biodiversity are also often highly desirable places to live, in part because of the beauty of their rich and diverse landscapes. Conserving the resources that brought people to place like the Coachella Valley in the first place is, in itself, a public good and a civic duty. Yet, the challenge remains to provide localities with sufficient capacity to plan for the environment and assure long-term certainty for the development community. This requires technical assistance and sufficient funds to ensure a process can get started. Here the state has an important role to play. The Department of Fish and Game should work with other parties who have participated in HCPs process to develop a “how to” manual for creating and revising future MSHCP/NCCPs that meet the ESA (thus predicated on good science), and provide technical assistance to the localities doing so. The Department should also direct localities to other places that have successfully engaged in these processes. But this alone will not be enough because it continues the pattern of habitat planning as a stand alone process, rather than integrating it with localities’ traditional land use planning authority and responsibility, and with housing and community development concerns. Thus, we strongly recommend a new collaboration for land use management that integrates habitat preservation with local land use planning rules and procedures, as well as housing and community development programs and policies.

California is at an important cross-roads. The Endangered Species Act has forced de facto regional land use planning in rapidly urbanizing, species rich regions of the state, and on governmental institutions and structures that were established prior to the pace/rate and impacts of current urbanization. Success in habitat conservation has been checkered and difficult, and remains uncertain over time. At the same time, there is a
growing realization that our current land use patterns are increasingly unsustainable; they are energy intensive, contribute to obesity, create air and water pollution, destroy important habitat and environmental services such as ground water recharge, as well as perpetuating automobile dependence. For those without a car, or unable to drive, such patterns are simply disempowering; for others they erode the daily quality of life and are very costly.

Faced with this situation, it is time to once again reconsider another more comprehensive approach to land use planning. Multiple Species Habitat Conservation Planning is a first step, but is insufficient in itself; it is expected to accomplish too many things in isolation. For long term balance of environmental and social needs, land use planning needs new tools and scope.

---

1 We would like to thank all of the people whom we interviewed for their generous cooperation. All interpretations, of course, remain ours. We would like to especially thank Jim Sullivan of the Coachella Valley Association of Governments for suggesting interviewees, patiently explaining the evolution and details of the plan, and assisting us with maps.

2 For example, see Daniel Press, “Local Open-Space Preservation in California,” in Michael Kraft and Daniel A. Mazmanian, eds., Toward Sustainable Communities, Transition and Transformations in Environmental Policy (Cambridge, MA: MIT Press, 1999), 153-183.


7 Interview with Wilbur Mayhew, 18 January 2005.

8 Beatley, 1992, 9-10.

9 Interview with Paul Selzer, 6 April 2005.


11 Interview with Ron Rempel, 12 May 2005.


15 Interview with Roy Wilson, 12 May 2005.


17 Data contained in the following section comes from the CVMSHCP itself: http://www.cvmshcp.org/.
This issue was brought up independently by several of our interviewees, many of whom expressed considerable frustration toward the FWS Carlsbad office.

Interview with Roy Wilson, 12 May 2005; corroborated in discussions with Jim Sullivan.