

Multiple Species Habitat Conservation Plan Community Advisory Committee

Final Report

Guiding Principles and Recommendations from the Committee for the Amendment of the Clark County MSHCP



October 2010



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Executive Summary



Executive Summary

This document summarizes the process and outcomes of the work of the Desert Conservation Program Community Advisory Committee (CAC) to develop recommendations to the Clark County Board of Commissioners for amending the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and amended incidental take permit pursuant to requirements of the federal Endangered Species Act (ESA). Clark County serves as Plan Administrator on behalf of the Permittees, which include the cities of Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas; and the Nevada Department of Transportation (NDOT).

Amendment of the MSHCP and permit are needed:

- To obtain authorization for additional take (defined in part as "harm, harass, wound or kill" a threatened or endangered species, or its habitat) of threatened and endangered species in Clark County not currently permitted;
- To review the covered species and covered activities;
- To revise the overall mitigation and conservation strategy outlined in the MSHCP; and
- To address other administrative and operational issues.

Given the scope and complexity of the permit amendment process and its potential to affect numerous agencies, interests and stakeholder groups, developing a diverse base of participants is critical. However, bringing all conceivable decision-makers and stakeholders together as one group would be administratively unwieldy and would not accurately reflect the scope of each participant's role in the process. The Permittees agreed to a process that divides the amendment into two areas: strategic direction and technical support. The CAC is a focal point for receiving broad stakeholder input and support for the permit amendment process.

The CAC was created on February 3, 2009 and was tasked by the BCC to provide input into the permit amendment process and make recommendations for consideration by the BCC and Permittee governing boards regarding the future of the MSHCP and the DCP. The CAC was comprised of 21 seats representing a broad collection of community interests including: off-highway vehicle users, environmental and conservation interests, banking and finance, gaming, rural communities, developers and homebuilders, seniors, Nevada Taxpayers Association, education and the public-at-large.

The CAC met for more than 50 hours over 18 months to discuss topics related to habitat conservation planning and consider technical data and options for amending the MSHCP. Based on their deliberations, the CAC approved the following guiding principles and recommendations:

Guiding Principles

Following are the CAC's ten Guiding Principles for the amendment of the Clark County MSHCP:

Acreage Cap (Take)

Guiding Principle **One**: The acres of take need to have a logical, purposeful basis that seeks to balance the following factors:

- Economics
- Equity
- Species and habitat conservation
- Quality of life

Covered Species

Guiding Principle **Two**: The list of covered species should focus on those species most likely to be impacted by take within the MSHCP boundary.

Guiding Principle **Three**: Conserving and protecting species and habitats should be based upon the best scientific knowledge available.

Activities/Mitigation Strategy

Guiding Principle Four: Activities related to the mitigation of take should seek to:

- Have a measurable impact on species and habitat conservation
- Promote efforts that are efficient and have value
- Improve our knowledge of local conditions
- Balance burdens among stakeholders and Permittees
- Allow for/recognize the value of a variety of uses of land and resources

Structure & Implementation

Guiding Principle **Five**: The MSHCP amendment should seek to maximize simplicity and usability and minimize the burden on permit beneficiaries of achieving ESA compliance.

Guiding Principle **Six**: The amendment structure should ensure the efficient use of resources and control costs of the program to maximize the permit's value to the community.

Guiding Principle **Seven**: Implementation of the permit amendment should seek to provide a link between the community and permit stakeholders in order to be responsive to permit beneficiaries and have an open process.

Other

Guiding Principle **Eight**: We recognize that the current MSHCP has limitations and implementation challenges that need to be addressed by a plan and permit amendment.

Guiding Principle **Nine**: Each member of the Citizens Advisory Committee has the right and responsibility to communicate the interests of the organization or demographic they represent in the permit amendment process.

Guiding Principle **Ten**: Due to the complexity of the issues addressed by the MSHCP, the plan and permit should contain mechanisms to adapt to environmental, economic and social changes that arise during the permit life.



The preamble for the recommendations was developed as the CAC recognized some common themes and directives that apply to all of the recommendations and are important to consider when evaluating the recommendations as a whole.

The following statements serve as an introduction to the recommendations that follow, and in the view of the CAC, provide guidance to the BCC and DCP staff for the desired process and outcomes of implementation of all recommendations.

Recommendation Preamble

Whereas, the Community Advisory Committee (CAC) was convened by the Clark County Board of Commissioners to provide community and stakeholder perspective on the development of an amendment to the Clark County Multiple Species Habitat Conservation Program (MSHCP); and

Whereas, the management and staff of the Desert Conservation Program (DCP) in its capacity as Plan Administrator for the Clark County Multiple Species Habitat Conservation Plan (MSHCP) is tasked with preparing and submitting the amendment to the US Fish and Wildlife Service for its review and approval; and

Whereas, these recommendations are provided by the CAC to provide perspective and input to the DCP in its development of the MSHCP amendment and represent the preferred intent of this Committee for the various facets of the amendment; and

Whereas, it is the desire of this Committee is to keep the costs and fees of administration and conservation efforts for the MSHCP at their current levels, as prescribed by Nevada Revised Statute; and

Whereas, it is the desire of the CAC to avoid undue complexity and maximize the efficiency of the Program's efforts;

Now, therefore, we the members of the CAC submit the following recommendations for the development and implementation of the amended Clark County MSHCP:



Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Acreage Cap (Take):

- The permit amendment would allow for the development of up to 215,000 additional acres
- Acres of take are based on existing disposal boundaries established by the BLM and the Las Vegas Valley ultimate development boundary
- The permit term for the amended MSHCP would be for up to 50 years

Committee Recommendation

Following consideration and discussion, the Committee finds the process used to develop the proposed take acreage recommendation to be logical, purposeful and consistent with the Committee's guiding principle on take. (below) The Committee concludes this based on:

- The recognition that the process considered historical and current conditions as well as plans and projected trends in Clark County; and
- Allows for a stable, long-term orderly development process in Clark County while considering species and habitats most likely to be affected by take.

The Committee acknowledges that concerns over disposal boundaries and the process to set disposal boundaries in Clark County exist and will consider additional recommendations to address these concerns as it develops recommendations on mitigation and implementation strategies for an amended MSHCP.

Noteworthy Information from the Committee

- This was perhaps the most difficult and most deliberated recommendation, as it is the standard for which all other recommendations would be developed
- The Committee recognized that coordinating minimization and mitigation of take on a regional basis was preferable to project-by-project permitting



- Generally, members representing environmental/conservation interests favored requesting less acres, while development-oriented interests favored requesting more
- The Recommendation considers a permit cap of 215,000 acres as a "savings account" to be used only as needed and only if take can be properly mitigated
- This recommendation should not be interpreted as an endorsement by the CAC or its individual members to develop an additional 215,000 acres
- The Committee noted that County and City planners and elected officials must consider a huge suite of factors before designing growth and development plans for the future.



Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Covered Species:

- Intent is to revise species list to focus on species directly impacted by disturbance
- Staff provided five different options for possible approaches to covered species and criteria for each alternative (tortoise only, listed species only, listed and unlisted species, listed, unlisted and plant species, same 78 species)
- Amendment would include unlisted species only if:
 - » Habitat overlaps with listed species
 - » The unlisted species is likely to be listed in the future
- Amendment would include plants only if the Permittees can combine state and federal compliance in a single plan

Committee Recommendation

After reviewing and discussing the covered species evaluation process and options, the Committee finds the following criteria (used by the Permittees) to determine which species should be covered by the amended MSHCP to be acceptable:

- Species occur within Clark County
- Includes federal or state listed/candidate species
- All covered species will be subject to direct take
- Species analysis based on the best available scientific information
- Includes only those unlisted species that will overlap with listed species (umbrella species)
- Includes only those unlisted species that are likely to be listed in the future

We conclude this based on the fact that the process used to develop these items was logical, scientifically sound and consistent with the Committee's guiding principles on covered species.



Noteworthy Information from the Committee

- The Committee expressed strong support for reducing the covered species list to focus effort and funding where they can have the greatest impact on species conservation
- The Committee recognized the value of covering unlisted species and rare plant species, but only if including these additional species did not increase the complexity or cost of the program
- The Committee recognized that conservation actions for species removed from the list would be adequately protected through other agreements and processes



Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Minimization:

- Additional minimization is likely to be required by the USWFS in any amendment to the existing permit
- Amendment would identify impact zones where minimization is appropriate; boundaries should be updated periodically to reflect development patterns
- Minimization measures would not impact cost, time or complexity of the development process
- Minimization measures will have a meaningful impact on species conservation

Committee Recommendation

After reviewing and discussing the requirements for minimization, the Committee finds the following minimization strategy (developed by the Permittees) to be acceptable:

- We agree that minimization is a prudent step that significantly strengthens the likelihood of the permit being issued by the US Fish & Wildlife Service.
- The species selected for minimization measures are those most likely to benefit from such efforts and those in need of greatest consideration.
- The concept of impact zones (modified to two) is in keeping with the requirement to minimize and mitigate to the "maximum extent practicable", and appropriately differentiates the quality of habitat lost with the mitigation requirement.
- The minimization measures proposed for Zone B should be implemented without negatively impacting development timelines or increasing the complexity or cost of the process.
- Covered plant and animal species found during clearance surveys should be considered prime candidates for carefully planned and appropriate relocation to designated areas so as to augment native populations and count toward the recovery of the species.



We conclude the above based on the fact that the measures outlined in these strategies are logical, purposeful and consistent with the Committee's guiding principles on activities/mitigation strategy, and rely upon the program characteristics outlined in the CAC's recommendation(s) for implementation.

Noteworthy Information from the Committee

- In general, the Committee supported additional minimization measures (such as tortoise clearances within designated zones) but only if the measures provided measurable benefits to covered species
- Some Committee members representing development interests expressed concern that additional minimization measures were not necessary or required and would increase the overall cost of the program
- While the Committee generally supported the concept of impact zones, they did not recommend a specific zone boundary



Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Mitigation:

- Mitigation would include the development of a Reserve System to be managed by the Permittees for conservation of covered species and habitat
- Reserve system would include an upland reserve consisting of BLM multiple-use lands and riparian strategy based on acquisition from willing sellers of riparian habitat along the Muddy and Virgin rivers
- Reserve system would seek to protect historical and/or existing uses on BLM land provided they are consistent with conservation of covered species
- Some conservation actions currently administered will continue (wild tortoise pick-up, management of land, property and/or water rights, etc.)

Committee Recommendation

After reviewing and discussing the requirements for mitigation, and recognizing that:

- the mitigation strategy outlined in the 2000 MSHCP is largely an expenditure-based strategy which has not proven to be as effective or efficient as originally envisioned; and
- while a limited number of conservation actions have proven effective, many actions have been difficult to verify or track and do not provide sufficient transparency or accountability; and
- with the understanding that fees for minimization and/or mitigation measures should not be increased above their existing levels; and
- there are many challenges and complex steps associated with the development and implementation of this recommendation,

the Committee finds the following mitigation strategy (developed by the Permittees) to be acceptable:

• We support the development of a Reserve System, consisting of lands currently managed by the BLM, to be managed by the Permittees for the purposes of long-term conservation of species and mitigation of



impacts in the developing areas of Clark County, thereby providing greater control over conservation efforts and maximizing the efficiency of the MSHCP.

- We recommend that the reserve areas are developed with the following considerations:
 - That the reserves be developed to protect a variety of uses of these lands, including (where possible) historical or existing recreation uses, that are in addition to and/or consistent with habitat conservation, and that any reduction in historical or existing uses are done only when deemed critical to the conservation of a species by a significant scientific marker.
 - That the Permittees should develop at least one additional alternative that includes Areas of Critical Environmental Concern (ACECs) and is not dependent on the northeast area of Clark County, north of Interstate 15.
 - That scientific and financial oversight will be required to successfully develop and implement a reserve system.
 - That these recommended actions will supercede or modify existing programs, with a few limited exceptions such as protection of plant species specific to a conservation or mitigation need that cannot be addressed through the Reserve System, and that certain mitigation and conservation efforts currently administered by the County will need to continue, including:
 - > Pickup of wild tortoises from construction sites
 - > Management and maintainence of the Boulder City Conservation Easement and Muddy River properties
 - > Management and maintainence of currently acquired grazing allotments and water rights
 - > Public information efforts including the Mojave Max program
 - > Desert tortoise fencing
 - > Tracking and reporting of habitat loss under the permit

We conclude the above based on the fact that the measures outlined in these strategies are logical, purposeful and consistent with the Committee's guiding principles on activities/mitigation strategy, and rely upon the program characteristics outlined in the CAC's recommendation(s) for implementation.



Noteworthy Information from the Committee

- The Committee did not feel that ownership of federal land was necessary and supported a cooperative management agreement or similar mechanism provided that the Permittees have the authority and autonomy necessary to carry out the conservation actions
- The Committee did not support continuing the existing, expenditure-based mitigation strategy
- The reserve system must give Permittees authority to carry out the day-to-day management responsibilities of the Reserve System
- Rural stakeholders expressed support for the upland strategy provided it did not include the proposed Meadow Valley Wash unit north of I-15
- Environmental/conservation representatives expressed support for the proposal provided that it adequately funded and mitigated for take and did not involve fee-simple transfer of BLM land to the Permittees



Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Implementation:

- Governance of MSHCP would seek to balance representation for all Permittees
- Fee collection will be centralized to the extent it increases efficiency and does not impact cost or complexity for customers
- Minimization measures should be implemented as simply as possible and provide benefits to covered species
- The amendment would include scientific and financial oversight of Reserve Management
- The amendment would include continued use of independent science advisor and peer review processes and would implement annual financial audits and opportunities for the public to provide input into the operation and management of the Reserve System
- The amendment would implement a conflict of interest policy and other measures consistent with responsible conservation management

Committee Recommendation

Recognizing that implementation of the amended MSHCP, as described in the previous recommendations, will require a carefully defined management and oversight structure, the CAC is pleased to provide recommendations in each of the following seven key areas:

- Governance
 - The governing structure of the MSHCP should balance the need for equal representation among the Permittees with the necessity of a strong governing body with sufficient authority to oversee the implementation of the MSHCP.
 - This structure may currently exist within other regional boards, however, care must be taken to ensure there is ample representation for all concerned entities, including involved federal land managers, while avoiding scattered or unbalanced political leadership that can lead to a weak organization.



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- The governance structure should administer a single permit for all Permittees that includes strong severability language to ensure that non-compliance with terms of the MSHCP by one Permittee does not affect the other Permittees.
- Fee collection
 - The collection of fees is a sensitive issue for both the program administrator and those from whom the fees are collected. The simplicity of the current system is important to those who must obtain permits. The Committee also recognizes that there are errors and inefficiencies in the system that must be addressed.
 - Any change from the current system of fee collection should place a strong emphasis on simplicity and efficiency for those who must obtain permits. An automated, centralized system is acceptable if it provides for the same or increased levels of service and ease of access now in place.
- Minimization
 - In accordance with the CAC's recommendation on minimization, the inclusion of this characteristic in the amended MSHCP should seek to protect those species and habitats most likely to be affected by take, ensure simplicity in the development process and promote the conservation of covered species.
- Compliance monitoring and reporting
 - All compliance and monitoring efforts must focus on efficiency and accountability and be subject to the review of advisors outlined in the appropriate section of this recommendation.
- Reserve management
 - The Committee acknowledges that the development of a reserve system presents complex challenges, but believe that a reserve system is the preferred option to meet the goals of species preservation and habitat conservation necessary with the proposed amount of take in the amended MSCHP.
 - The development of a reserve system should be pursued now while we have the elements of time and existing funds available to us.
 - The intent of the reserve system is to manage, not necessarily to own lands in order to provide for the greatest conservation.
 - Management of the reserve system should seek to protect existing



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Recommendation 5: Implementation

uses of public lands in every case, except where deemed necessary by significant scientific markers.

- Advisors
 - The Committee recommends that the program administrator continue with the utilization of an independent science advisor in the evaluation and implementation of programs associated with the MSHCP.
 - The Committee endorses the use of an independent financial advisor to provide guidance and review of the MSHCP financial status, including regular audits to look for efficiencies and monitor the financial soundness of the program.
 - Concurrent with the DCP's periodic project symposia, provide an avenue for public input that includes the opportunity for interested organizations to interact with the governing body to provide evaluation, perspective and possible course correction.
- Accountability
 - The program administrator should develop and implement a conflict of interest policy and other appropriate measures to ensure overall program accountability.

Noteworthy Information from the Committee

- The Committee emphasized that the implementation of the minimization measures and fee collection should continue to be simple and user friendly
- Some Committee members were concerned that centralizing the fee collection system will result in more cumbersome and costly fee payment process
- Generally the Committee supported improving the overall efficiency and cost effectiveness of the program
- The Committee expressed strong support for continuing independent science advice and review and advocated regular financial audits
- The Committee also supported implementing mechanisms that allow for public input and oversight in a manner that balances costs of the program
- The Committee agreed that the implementation of the plan should seek to use local expertise, including the educational community.



Process Outline



Background Information

The Clark County Desert Conservation Program (DCP) is the division within the Clark County Department of Air Quality and Environmental Management (DAQEM) responsible for ensuring compliance with the federal Endangered Species Act (ESA) through a Section 10(a)(1)(B) incidental take permit (Permit) and Multiple Species Habitat Conservation Plan (MSHCP). The Permit exempts a Permittee from the prohibited "take" provisions of the ESA (Section 9) and allows private property owners to develop land in Clark County without individual project consultations with the United States Fish & Wildlife Service (USFWS).

Clark County serves as Plan Administrator on behalf of the Permittees, which include the cities of Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas; and the Nevada Department of Transportation (NDOT). The Permit for the Clark County MSHCP was issued in February 2001 and is valid for 30-years from the date of approval by the USFWS. Figure 1 displays a timeline of the major conservation planning milestones in Clark County since 1989.

The MSHCP is a planning document developed by the Permittees that outlines minimization and mitigation measures to be implemented to offset the impacts of development on listed plant and animal species. Examples of minimization and mitigation measures include the installation of barriers to prevent tortoise mortality along major roadways, restoration of degraded habitat, public information and education.

The MSHCP and Permit allow for the disturbance (development) of up to 145,000 acres of nonfederal (private) lands in Clark County and provide coverage for the incidental take of covered species listed in the Permit.

There are 78 federal and state listed species covered by the MSHCP, including the federally listed desert tortoise (*Gopherus agassizii*) and Southwestern willow flycatcher (*Empidonax traillii extimus*), and the Nevada state listed Las Vegas bearpoppy (*Arctomecon californica*).

August 4, 1989 Mojave desert tortoise (Gopherus agassizii) is emergency listed; formally listed as threatened on April 2, 1990	Conservation Plan is approved	September 2000 MSHCP is completed; Implementing Agreement approved November 2000 by permit- tees and state/federal land managment agencies	December 2004 Clark County commissions a Program Management Analysis (PMA) to assess MSHCP implementation June 2006 Clark County convenes
January 1991 Shortt term Habitat Conserva- tion Plan is approved	August 1996 Permittees initiate development of a Multiple Species Habitat Conservation Plan (MSHCP)	February 2001 U.S. Fish & Widlife Service issues incidental take permit for MSHCP	Short-term Advisory Committee in response to findings of PMA December 2006 Short-term Advisory Committee recommends Permittees amend MSHCP and Permit
			June 2007 Board of County Commissioners directs staff to initiate permit amendment
989 1991 1993	1995 1997 1999	2001 2003	2005 2007 2009 2011

Figure 1: Major milestones since 1989

Permit Amendment

The expansion of the Southern Nevada Public Lands Managenent Act (SNPLMA) disposal boundary and rapid growth in Clark County increased concerns among many community stakeholders that the acreage cap of 145,000 acres would be insufficient to meet demands through the 30year term of the permit and could result in a rapid "race-tothe-bottom" by developers trying to get projects built before the cap is reached. The 2005 Clark County Community Growth Task Force (Task Force) recognized that there was more land available in the SNPLMA disposal boundary than is



allowable for development under the MSHCP cap. As a result, the Task Force recommended that the Permittees explore the option of increasing the MSHCP acreage restrictions to meet the amount of land available.

The following year, Clark County convened the Clark County Desert Conservation Program-Advisory Committee (DCP-AC) to advise the DCP on major policy issues related to the implementation

of MSHCP. Through the information received during its meetings, the DCP-AC developed a recommendation to reevaluate the MSHCP and incidental take permit. Based on the recommendations of the Task Force and the DCP-AC, the Board of County Commissioners (BCC) directed the DCP to pursue amendment of the MSHCP and incidental take permit in June 2007.

The purpose of the amendment process is to evaluate alternatives and develop recommendations for revising the MSHCP, incidental take permit and implementing agreement to more effectively balance the needs of growth and conservation in Clark County. More specifically, there are four primary goals for permit amendment:



- 1. Obtain coverage for acres not currently permitted for take. There are 215,000 acres of land available for development in Clark County that are not covered by the existing Permit.
- 2. Re-evaluate covered species list to focus on those species most at risk. Those species most at risk are short-changed as a result of the large number of species currently covered in the MSHCP.
- 3. Revise the conservation strategy to improve mitigation effectiveness. The existing conservation and mitigation strategy is administratively unwieldy, lines of authority are blurred and accountability is difficult to demonstrate.
- 4. Restructure the MSHCP to improve efficiency and reduce bureaucracy. The size and complexity of the current MSHCP makes efficient implementation of minimization and mitigation actions difficult.

Among the primary obligations of the Permittees in amending the MSHCP and permit is to ensure that development continues in a way that is balanced with the needs of sensitive plant and animal species and their habitat. By proactively addressing the needs of conservation and development in our community, an amended permit will help support the long-term economic security of Clark County residents while protecting sensitive plant and animal species. By refocusing efforts on those species most at risk in our region, we can ensure that we are maximizing the mitigation potential of available funds. Similarly, revising the conservation strategy to achieve greater clarity, transparency and accountability will also help ensure that mitigation dollars are being used most effectively. Finally, by reducing the overall administrative complexity of the MSHCP, we can ensure that the maximum funding is going to species conservation and not to bureaucracy.

The Permittees encouraged participation early on to reduce the potential for miscommunication and increase the likelihood that stakeholder concerns are effectively addressed. The goal was and remains to cultivate an open, collaborative environment that affords stakeholders an opportunity to provide input and influence outcomes. Given the scope and complexity of the permit amendment

process and its potential to affect numerous agencies and stakeholder groups, developing a diverse base of participants was critical.



The Process

Bringing all conceivable decision-makers and stakeholders together as one group would be administratively unwieldy and would not accurately reflect the scope of each participant's role in the process. The Permittees agreed instead to organize the amendment process into two areas: strategic direction and technical support.

The process was based on an iterative relationship between the strategic direction and technical support functions. This structure provides both a top-down and bottom-up approach that optimized the use of available staff and resources while providing for the inclusion and input from all interested stakeholders. The integration of strategic direction and technical support ensured that overall policy direction was technically sound and feasible and was integral to the successful development and implementation of the amendment to the MSHCP.

To assist the Permittees with the technical, legal and public facets of the amendment process, a consultant team was assembled to provide specialized and independent analysis. The team includes biological and environmental compliance specialists from PBS&J and ICF International, legal representation from Ebbin, Moser & Skaggs, LLP, and neutral facilitation and public outreach services from Nicholson Facilitation and Associates.

Community Advisory Committee

The Community Advisory Committee (CAC) was created on February 3, 2009 and was tasked by the BCC to provide input into the permit amendment process and make recommendations for consideration by the BCC and Permittee governing boards regarding the future of the MSHCP and the DCP. The CAC was comprised of 21 seats and the BCC appointed Committee participants on the following basis:

CAC Member Name	Organization or Interest
Gary Clinard	Off Highway Vehicle
Jane Feldman	Environmental/Conservation
Patrick Foley	Banking/Finance
Mike Ford	Citizens of Mesquite
Stan Hardy	Rural Community
Matt Heinhold	Gaming Industry
Paul Larsen	Business/Small Business
Bill Maher	Union
Terry Murphy	Developer/Homebuilder
Bryan Nix	Citizens of Boulder City
Joe Pantuso	Developer/Homebuilder
Jim Rathbun	Education
Scot Rutledge	Environmental/Conservation
Ann Schreiber	Senior
Allan Spooner	Business/Small Business
Allison Stephens	Citizens of North Las Vegas
Marcia Turner	Education
Mindy Unger-Wadkins	Citizens of Henderson
Tom Warden	Citizens of Las Vegas
Darren Wilson	Nevada Taxpayers Association

The CAC was administered by the DCP, which in turn coordinated technical and administrative support to the CAC from internal staff and representatives from each of the Permittees as needed.

The CAC used a consensus approach to develop its recommendations, and neutral facilitation services were utilized to ensure the Committee meetings remain focused and productive.

The CAC met for more than 50 hours over 18 months (see Appendix B for CAC Meeting Dates) to discuss topics related to habitat conservation planning and consider technical data and options for amending the MSHCP. Topics discussed by the CAC included a review of the covered species list,



estimates of projected take and mitigation scenarios, and implementation strategies, and included the following:

- Acreage cap
- Adaptive management
- Conservation actions
- Desert tortoise issues
- Direct/indirect/cumulative effects
- Disposal boundaries
- Evaluation of covered species
- Evaluation of covered activities
- Mitigation fees
- Mitigation strategy
- Monitoring/inventory
- Reserve strategy
- Stakeholder participation in implementation

Meeting One Documents Z Z 10.16.2009 VIEW 06.11.200 VIEW 03.12.200 VIEW 03.12.20 VIEW Ð 03.12.200 VIEW 03.12.2009 VIEW 03.12.2009 VIEW 03.12.200 VIEW VIEW Map 2 snpime 03.12.200 VIEW Siossary of Terms and Accorvm 03.12.200 VIEW

Information Dissemination

To support the Committee in its efforts and provide for the exchange of a broad range of materials and information, the CAC was provided with a Web site, which acted as a repository for all information associated with this process including agendas, meeting calendars, meeting summaries, backup information and so forth. This information has been and remains available to the public, and provides important documentation of the CAC's efforts.

To access the site, visit www.h2outreach.com and click on "Desert Conservation Program" in the list of Active Committees on the right hand side. You will be prompted to enter a username and password. The username is "public" and the password is "public09".

Principles of Participation

The CAC meetings were subject to all tenets of the Open Meeting Law and were facilitated by a neutral facilitator. CAC members were encouraged to ask questions and

provide input. Following formal presentations, the facilitator typically guided the group through a series of discussions regarding various issues. The facilitator also guided the CAC through various exercises designed to gather feedback through voting, weighing, ranking, or other methods of consensus building. In such cases, the opinions of all members were collected and valued. The public was invited to share comments and concerns during public comment, typically held at the end of meetings.



Documentation

Each of the CAC meetings was recorded and meeting summaries were produced to capture the discussions and any action items that occurred. These summaries and all other meeting documentation are available for review at www.h2outreach.com.

Permittee Coordination

To keep senior management informed and provide staff with direction as the Permit Amendment proceeded, city managers of Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas; and the Clark County Manager met regularly to discuss policy issues and provide direction to the staff and manager representatives of the Permittees. The Permittee executive managers considered staff work, provided key strategic direction for their respective organizations into meaningful policy and directed the activities and priorities for staff level work and analysis.

Staff-level representatives from each of the Permittee organizations and was responsible for providing information, options and advice to the DCP.

At the operational level, staff level representatives from the Permittees were responsible for the various analyses and information that was required to support the CAC and the overall amendment process.

There were several categories of line functions that required coordination as part of the Permit Amendment process. Examples included public outreach, environmental compliance, scenario development, land disturbance projections, species status reports, mitigation accomplishments, financial forecasting, etc. The Plan Administrator was responsible for ensuring that there was a consistent understanding of process goals among staff from all agencies during the performance of these activities.

Land Management Agencies

In addition to receiving feedback and input from the Permittees, CAC and members of the public, input from the land management agencies and USFWS was essential to informing the Permit Amendment process and amending the MSHCP. To this end, the DCP met regularly with representatives from the USFWS, Bureau of Land Management (BLM), Nevada Department of Wildlife (NDOW) and the Nevada Division of Forestry (NDF) to provide updates on the status of the permit amendment process.

Bringing It All Together

The iterative approach involved the completion of preliminary technical work by the Permittees, the Plan Administrator and the consultant team. Once a sufficient level of analysis was completed, a series of recommendations were developed by Permittees and submitted to the Committee for consideration and input. During its deliberations, the Committee discussed and debated the merits of the Permittee recommendations. Based on this input, as well as input from other stakeholders and

the USFWS, the Permittees revised the numerous alternatives in order to more effectively align the interests and perspective of the Permittees and the Committee, as well as ensuring that the proposals can meet issuance criteria required by the USFWS.



Guiding Principles



Background Information

Over the course of the Committee's first few meetings (which included an educational tour), it became apparent that in order to address the myriad of issues and information associated with an amendment to the MSHCP, a method needed to be developed to identify what core issues were most important to the CAC as a whole and to individual Committee members.

Therefore, beginning in Meeting Two in March of 2009, the facilitation team assisted the group in the development of guiding principles. These statements of common belief served as a framework upon which to build the CAC's recommendations, and are grouped into the same categories as the recommendations: Acreage Cap (Take), Covered Species, Minimization and Mitigation, and Implementation. In addition, there were some basic guiding principles the group felt should be included in the Other category.

Throughout the process of developing recommendations, the group repeatedly returned to their guiding principles as a point of reference and to seek confirmation that their recommendation was in line with those items most important to the Committee.

Guiding Principles

Following are the CAC's ten Guiding Principles for the amendment of the Clark County MSHCP:

Acreage Cap (Take)

Guiding Principle **One**: The acres of take need to have a logical, purposeful basis that seeks to balance the following factors:

- Economics
- Equity
- Species and habitat conservation
- Quality of life

Covered Species

Guiding Principle **Two:** The list of covered species should focus on those species most likely to be impacted by take within the MSHCP boundary.

Guiding Principle **Three:** Conserving and protecting species and habitats should be based upon the best scientific knowledge available.

Activities/Mitigation Strategy

Guiding Principle **Four:** Activities related to the mitigation of take should seek to:

- Have a measurable impact on species and habitat conservation
- Promote efforts that are efficient and have value
- Improve our knowledge of local conditions
- Balance burdens among stakeholders and Permittees
- Allow for/recognize the value of a variety of uses of land and resources

Structure & Implementation

Guiding Principle **Five:** The MSHCP amendment should seek to maximize simplicity and usability and minimize the burden on permit beneficiaries of achieving ESA compliance.

Guiding Principle **Six:** The amendment structure should ensure the efficient use of resources and control costs of the program to maximize the permit's value to the community.

Guiding Principle **Seven:** Implementation of the permit amendment should seek to provide a link between the community and permit stakeholders in order to be responsive to permit beneficiaries and have an open process.

Other

Guiding Principle **Eight:** We recognize that the current MSHCP has limitations and implementation challenges that need to be addressed by a plan and permit amendment.

Guiding Principle **Nine:** Each member of the Citizens Advisory Committee has the right and responsibility to communicate the interests of the organization or demographic they represent in the permit amendment process.

Guiding Principle **Ten:** Due to the complexity of the issues addressed by the MSHCP, the plan and permit should contain mechanisms to adapt to environmental, economic and social changes that arise during the permit life.

As is evident from the preceding principles, the CAC spent considerable time evaluating the status of the current permit and the need for an amendment, and then developed principles that would address the key issues or concerns to be addressed in that permit amendment. Time and again, the principles of effectiveness, accountability and simplicity resounded in the CAC's discussions.



Recommendation Preamble



Background Information

With the CAC's Guiding Principles in place and accepted by consensus of the group, the work of developing recommendations began. The Preamble for the recommendations was actually developed near the end of the process, as the CAC recognized that there are some common themes and directives that apply to all of the recommendations and are important to consider when evaluating the recommendations as a whole.

Recommendation Preamble

Whereas, the Community Advisory Committee (CAC) was convened by the Clark County Board of Commissioners to provide community and stakeholder perspective on the development of an amendment to the Clark County Multiple Species Habitat Conservation Program (MSHCP); and

Whereas, the management and staff of the Desert Conservation Program (DCP) in its capacity as Plan Administrator for the Clark County Multiple Species Habitat Conservation Plan (MSHCP) is tasked with preparing and submitting the amendment to the US Fish and Wildlife Service for its review and approval; and

Whereas, these recommendations are provided by the CAC to provide perspective and input to the DCP in its development of the MSHCP amendment and represent the preferred intent of this Committee for the various facets of the amendment; and

Whereas, it is the desire of this Committee is to keep the costs and fees of administration and conservation efforts for the MSHCP at their current levels, as prescribed by Nevada Revised Statute; and

Whereas, it is the desire of the CAC to avoid undue complexity and maximize the efficiency of the Program's efforts;

Now, therefore, we the members of the CAC submit the following recommendations for the development and implementation of the amended Clark County MSHCP:

The preceding statements serve as an introduction to the remaining recommendations, and in the view of the CAC, provide guidance to the BCC and DCP staff for the desired process and outcomes of implementation of all recommendations.







Background Information & Analysis Considered by the CAC

The Permittees currently hold a permit for incidental take of 78 covered species by the development of up to 145,000 acres in Clark County. Approximately 66,000 acres remain undeveloped (as of August 2010). The Permittees estimate that there are approximately 215,000 acres currently available for development in Clark County that will not be covered under the existing MSHCP and permit once the existing acreage cap of 145,000 is reached.

Table 1 below identifies the number of acres disturbed (taken) in each jurisdiction since the Permit was issued and displays the amount remaining. It is important to note that the Permit acreage cap includes 15,000 acres that were reserved for public purposes (parks, roads, etc.) not subject to the fee collection. The analysis described below assumes take of all 15,000 acres.

Table 1: Disturbed Acres (Take)				
Permittee	Acres			
Boulder City	1,111.91			
Clark County	26,800.76			
Henderson	13,134.43			
Las Vegas	9,353.77			
Mesquite	3,360.23			
Nevada Department of Transportation	112.87			
North Las Vegas	9,632.05			
Total*	63,506.02			
*Does not include 15,000 fee exempt acres				

Number of acres allowed for disturbance under current MSHCP and permit	145,000.00
Less number of acres reported for which fees have been paid under current permit	63,506.02
Less number of fee exempt acres under current permit	15,000.00
Number of disturbable acres remaining under current permit	66,493.98

What is "take"?

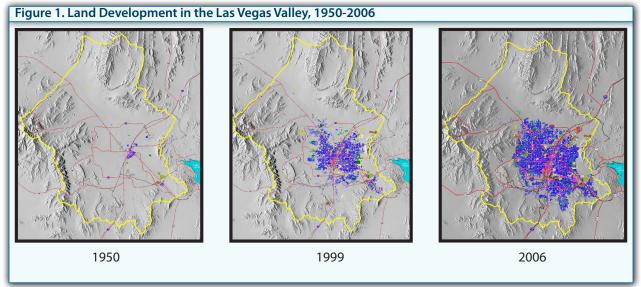
To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a threatened or endangered species, or attempt to engage in any such conduct.

What is "incidental take"?

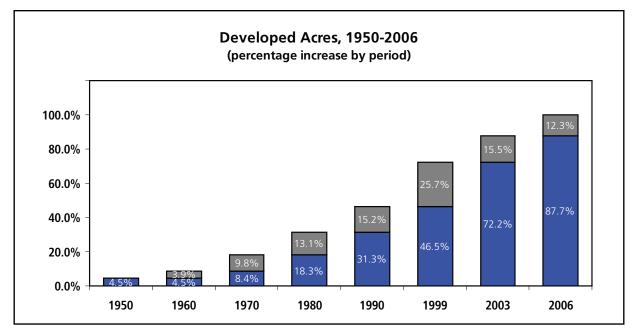
Take of a federally-listed species which occurs incidental to, and is not the purpose of, otherwise legal activities.

Why is additional take needed?

Incidental take under the current permit dramatically outpaced projections through the first eight years of implementation. Two factors contributed to the shortage in acres experienced shortly after approval of the MSHCP. The first was the unprecedented growth the community experienced from 2001 through 2006. The second was Congressional action to expand the Las Vegas Valley disposal boundary in 2002 after the MSHCP was approved in 2001, which added some 35,000 additional acres in the Las Vegas Valley alone. As a result, more than 50 percent of the take authorized for the 30-year permit were exhausted in less than eight years. The time, effort and cost associated with amending a large regional habitat conservation plan is substantial. As a result, the Permittees are encouraged to secure as much take authorization as possible, within the range of reasonably foreseeable future needs.







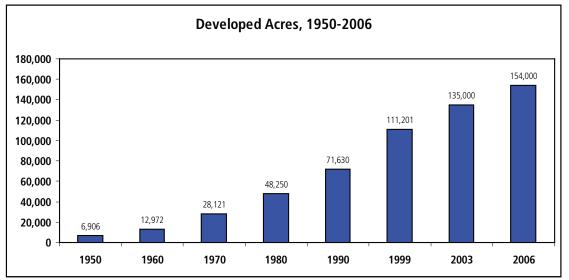


Figure 3. Percentage Increase in Land Development in the Las Vegas Valley, 1950-2006

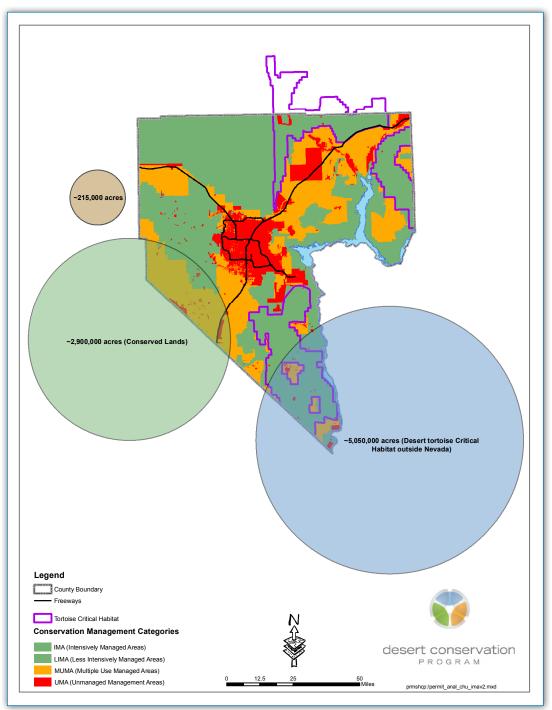
The estimated 215,000 additional acres of take is needed as a reserve the community can draw upon for 50 years. Where and how much development occurs is a function of the public land-use planning process as carried out by the individual Permittees.

From the perspective of the Permittees, the proposed 215,000 acres of take will allow the community to preserve all of its options and allows public land use planning processes and decisions to take shape however the community so chooses over the next 50 years. The Committee largely agreed that the amendment process and the community at large would not be well served to allow the MSHCP amendment process, initiated in 2009, to dictate land use decisions and planning processes for the next 50 years. Absent an amended MSHCP, private landowners would not be prohibited from developing land, but the MSHCP provides regional compliance with the ESA. Absent a regional MSHCP private landowners would need to negotiate and develop an HCP directly with the FWS. This could result in piecemeal and ineffective mitigation.

Jurisdiction	Projected Take
Boulder City	1,620
Mesquite	8,108
LV Valley Ultimate Development Boundary (vacant land)	177,177
Other disposal boundaries	72,845
Unincorporated Clark County outside all disposal boundaries (vacant land)	21,934
Total	281,684
Less remaining under current MSHCP	-67,589
Total Projected Take	214,095

What percentage of existing habitat for sensitive species like the desert tortoise is the proposed additional take?

Based on a recently published model developed by the U.S. Geological Survey, the Permittees estimate that 215,000 acres represents roughly one percent of potential desert tortoise habitat across its range, and roughly four percent of land in Clark County. In Nevada, there are approximately 1.2 million acres of critical habitat for desert tortoise (critical habitat designations are mandated by the Endangered Species Act (ESA) to ensure the conservation of the desert tortoise).



Committee Recommendation

After considerable discussion and following a number of exercises aimed to help the CAC identify challenges and potential solutions to the proposed acres of take, the Committee reached consensus on the following recommendation:

Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Acreage Cap (Take):

- The permit amendment would allow for the development of up to 215,000 additional acres
- Acres of take are based on existing disposal boundaries established by the BLM and the Las Vegas Valley ultimate development boundary
- The permit term for the amended MSHCP would be for up to 50-years

#1: Acreage Cap (Take)

Following consideration and discussion, the Committee finds the process used to develop the proposed take acreage recommendation to be logical, purposeful and consistent with the Committee's guiding principle on take. (below) The Committee concludes this based on:

- The recognition that the process considered historical and current conditions as well as plans and projected trends in Clark County; and
- Allows for a stable, long-term orderly development process in Clark County while considering species and habitats most likely to be affected by take.

The Committee acknowledges that concerns over disposal boundaries and the process to set disposal boundaries in Clark County exist and will consider additional recommendations to address these concerns as it develops recommendations on mitigation and implementation strategies for an amended MSHCP.

Noteworthy Information from the Committee

• This was perhaps the most difficult and most deliberated recommendation, as it is the standard for which all other recommendations would be developed

- The Committee recognized that coordinating minimization and mitigation of take on a regional basis was preferable to project-by-project permitting
- Generally, members representing environmental/conservation interests favored requesting less acres, while development-oriented interests favored requesting more
- The Recommendation considers a permit cap of 215,000 acres as a "savings account" to be used only as needed and only if take can be properly mitigated
- This recommendation should not be interpreted as an endorsement by the CAC or its individual members to develop an additional 215,000 acres
- The Committee noted that County and City planners and elected officials must consider a huge suite of factors before designing growth and development plans for the future.

Acreage Cap



Covered Species

CAC Recommendation #2



Background Information Considered by the CAC

In 2001, the USFWS issued a permit for take of 78 species in Clark County. While not covered for take, the MSHCP also includes 102 additional species classified as "Evaluation Species" and an additional 51 as "Watch List Species". The MSHCP was an ecosystem-based approach to species and habitat conservation that was based on the premise that the more species that are covered, the more protection provided the permit holder in the event that additional species could be listed in the future.

The downside of such a large species list was not recognized until the plan was in full implementation. The ESA requires that unlisted species covered in an Habitat Conservation Plan (HCP) be treated as if they were listed. Moreover, the MSHCP is not very clear about how funding for species should be prioritized. As a result, efforts to address such a large number of species diluted the ability of the MSHCP to focus conservation on those species most at risk and most impacted by development.

In 2006, the DCP-AC recommended that the Permittees amend the MSHCP and re-evaluate the current covered species list to more effectively focus efforts on those species most at risk which are often short-changed as a result of the large number of species covered in the MSHCP.

Covered Species Analysis

Following a standard species review protocol for developing habitat conservation plans, a decision matrix was developed by PBS&J and ICF (the environmental compliance and biological consultations for the amendment process) to provide an initial assessment of which species should be proposed for coverage under the amended MSHCP. This analysis reviewed all of the current Covered species, the Evaluation and Watch List species included in the current MSHCP, as well as an additional 106 species not addressed in the MSHCP. An evaluation of each species was conducted based on the following four criteria and species proposed for coverage under the amendment were required to meet all four criteria.

Range

To satisfy this criteria, the species must be known to occur, or likely to occur, within the plan area. While the 2000 MSHCP plan area included all of Clark County, as well as Nevada Department of Transportation (NDOT) rights-of-way below 5,000 feet elevation in four counties outside of Clark County, the Permittees have determined that covered activities above 4,000 feet elevation are expected to be minimal over the proposed 50-year term of the amended MSHCP, and are not anticipated to be covered under an amended MSHCP. In addition, coverage for NDOT rights-of-way are now anticipated to be covered under a separate process and not included in an amended MSHCP moving forward. Therefore, the species review included only those species that occur below 4,000 feet in Clark County.

Status

As part of the habitat conservation planning process, USFWS recommends that permit applicants include all federally listed wildlife species that may be incidentally taken during the life of the permit. In addition, those species that have been elevated to the status of Candidate for protection under

the ESA and state-listed species that are likely to be incidentally taken during the life of the permit are also recommended for coverage. The FWS also recommends that a permit applicant consider including state-listed species as well as other unlisted species that may become listed within the foreseeable future and that could be incidentally taken during the life of the permit. The evaluation process also considered future conservation efforts for non-listed species occurring within Clark County, including concerns over rapidly declining species numbers or the potential for a significant loss of habitat. Species that are considered likely to become listed within the permit term include species that are:

- Non-listed, but known by experts to be very rare (e.g., newly discovered species) or declining rapidly; or
- Non-listed and not rare, but the covered activities may affect a substantial portion of the species' range or important habitat.

Whether a species is considered likely to be listed within the life of the permit was based on existing information as well as professional judgment, proposed listing packages, and input from regulatory agencies.

Impact

Whether a portion of the species' habitat will be, or will likely be, adversely affected by covered activities. These activities include residential and commercial development, utility and transportation facilities and other capital improvements and operations activities, flood control, parks and recreation. The analysis used to assess potential impacts to species reflects a landscape-scale assessment of the habitats, ecosystems, and species that are likely to be impacted and assumes that take will occur in the same habitat and ecosystems as authorized under the current permit (currently referred to in the MSHCP as "unmanaged areas" or UMAs).

Data

If sufficient data exists on the species' life history, habitat requirements, and occurrence in the inventory area to adequately evaluate impacts on the species and to develop conservation measures to mitigate these impacts in accordance with regulatory standards. Data adequacy was a subjective decision based on professional judgment.

Based on this review, a Preliminary Covered Species List was developed and the results of the covered species analysis were presented to the Committee. (Table 1).

Table 1: Preliminary Proposed Covered Species List				
Common Name	Scientific Name	Current Federal Status	Current State Status	
Birds				
Arizona bell's vireo	Vireo bellii		Protected	
Bendire's thrasher	Toxostoma bendirei		Protected	
LeConte's thrasher	Toxostoma lecontei		Protected	
Phainopepla	Phainopepla nitens		Protected	
Southwestern willow flycatcher	Empidonax traillii extimus	Endangered	Endangered	

Common Name	Scientific Name	Current Federal Status	Current State Status	
Western burrowing owl	Athene cunicularia hypugea		Protected	
Yellow-billed cuckoo	Coccyzus americanus	Candidate	Sensitive	
Yuma clapper rail	Rallus longirostrus yumanensis	Endangered	Endangered	
Mammals				
Desert kangaroo rat	Dipodomys deserti			
Desert pocket mouse	Chaetodipus penicillatus sobrinus			
Spotted bat	Euderma maculatum		Threatened	
Townsend's big-eared bat	Corynorhinus townsendii pallescens		Sensitive	
Reptiles		Λ.	-	
Desert tortoise	Gopherus agassizii	Threatened	Threatened	
Banded Gila monster	Heloderma suspectum cinctum		Protected	
Vascular Plants		A	-	
Forked (Pahrump Valley) buckwheat	Eriogonum bifurcatum			
Las Vegas bearpoppy	Arctomecon californica		Critically Endangered	
Las Vegas Valley buckwheat	Eriogonum corymbosum var. nilesii	Candidate		
Sticky buckwheat	Eriogonum viscidulum		Critically Endangered	
Threecorner milkvetch	Astragalus geyeri var. triquetrus		Critically Endangered	
White-margined beardtongue	Penstemon albomarginatus			
Yellow two-tone beardtongue	Penstemon bicolor ssp. bicolor			

Assumptions

The development of the Preliminary Covered Species List was the first step in what is an iterative process to review and refine the species to be included in the amended MSHCP. As a result, the list is likely to be revised prior to finalizing the amended MSHCP. A number of factors and assumptions have been incorporated into the development of this preliminary list that required consideration of the Permittees, the CAC and the USFWS and are discussed below.

Risk Assessment

The Committee acknowledged that the identification and refinement of the final covered species list will be influenced by numerous factors. Ultimately, the Permittees will need concurrence from the USFWS that the covered species list is appropriate and that impacts to those species will be sufficiently minimized and mitigated. As the biological analysis proceeds and negotiations with the USFWS progress, the Permittees will consider the additional cost associated with covering unlisted species and balance those additional costs, if any, against the anticipated risk of not covering unlisted species in the event that one or more of those unlisted species should be listed. It is also important to consider the number of potential landowners likely to benefit from covering unlisted species with the cost to the program as a whole of covering those species. The Committee discussed the advantages and disadvantages of including unlisted species in the amended MSCHP and concluded that should the costs of covering any of these unlisted species be determined to outweigh the benefits, the Permittees will revisit the covered species list and make additional recommendations for revision.

Umbrella Species

Of the 21 species included in Table 1, only two are federally listed as threatened or endangered (desert tortoise and southwestern willow flycatcher) and eleven are state listed pursuant to Nevada Revised Statutes (N.R.S) 244. As described above, one of the criteria used to develop the proposed covered species list was the likelihood of future listing. Inherent in this criterion is the assumption that a number of rare and sensitive species will likely benefit from the conservation and mitigation actions implemented as part of the overall conservation strategy. Below is a list of the umbrella species included in Table 1 and the species that will likely benefit from conservation carried out on behalf of the umbrella species:

Desert tortoise:

Banded Gila monster	Desert pocket mouse	Western burrowing owl
Desert kangaroo rat		

Southwestern willow flycatcher, Yellow-billed cuckoo, Yuma clapper rail:

LeConte's thrasher	Phainopepla	Arizona Bell's vireo
Townsend's big-eared bat	Spotted bat	

The Permittees recommended covering the unlisted species included in Table 1 above provided that coverage of unlisted species does not measurably increase the financial/regulatory burden for the Permittees to the extent that the costs associated with including these additional species outweigh the benefits derived from obtaining incidental take authorization.

Plants

Under the ESA, take of federally listed plants is not prohibited on non-federal land, or land not otherwise under federal jurisdiction. For purposes of amending the MSHCP, there is no federal regulatory requirement to obtain coverage for a listed plant species. However, if a plant is listed by the State of Nevada pursuant to N.R.S. 244, compliance with state law and regulations is required and may involve application for a permit to take or disturb protected plants and/or their habitats. None of the plant species recommended for inclusion in the amended MSHCP are federal listed as threatened or endangered and only the Las Vegas buckwheat is a candidate for listing.

The Permittees recommendation to the Committee included proposed coverage for covering nine plant species with the following considerations:

- 1. That coverage under the MSHCP provides the Permittees compliance with N.R.S. 244 and is authorized by the Nevada Division of Forestry (NDF); and
- 2. That covering unlisted plant species in a federal incidental take permit does not measurably increase the financial/regulatory burden to the extent that the cost of covering plant species outweigh the benefits derived from obtaining incidental take authorization. In this case, the Permittees will work closely with NDF to obtain the necessary compliance.

Aquatic Species

The current MSHCP was originally envisioned to be Phase I of a two-phase process. Phase I was limited to addressing primarily terrestrial species led by the desert tortoise. Aquatic species associated with riparian and spring habitats were anticipated to be addressed as part of Phase II of the MSHCP. Based on a preliminary analysis, the Permittees did not anticipate that incidental take coverage will be needed for aquatic species given that the proposed covered activities are not anticipated to impact aquatic species or their habitat in Clark County.

In addition, a number of other entities have collaborated to address ESA and other related environmental compliance issues related to aquatic species in Clark County. The City of Mesquite, in cooperation with the Virgin Valley Water District and the Southern Nevada Water Authority (SNWA) have been working to finalize the Virgin River Habitat Conservation and Recovery Plan to obtain incidental take coverage and provide mitigation for impacts to listed aquatic species in the Virgin River. Similarly, the SNWA, Moapa Valley Water District, Coyote Springs Investment, LLC, and the Moapa Band of Paiutes have entered into a Memorandum of Agreement to address impacts to the endangered Moapa dace which is endemic to the Muddy River. Impacts to aquatic species associated with the Colorado River are currently being addressed through the implementation of the Lower Colorado Multiple Species Conservation Plan. As a result of these and related compliance efforts, the Permittees did not recommend coverage for aquatic species.

Based on the conclusion that the Permittees do not anticipate taking aquatic species as part of their land disturbance and development processes, the Committee agreed that proposing coverage for aquatic species was not warranted.

Committee Recommendation

Based on the species analysis and assumptions behind the Permittees preliminary covered species list, the CAC considered five options for developing a covered species list (Table 2). The options were comprised of the following:

- 1. Desert tortoise only (one specie)
- 2. Listed species only (5 species)
- 3. Permittee recommended list without plants (7 species)
- 4. Permittee recommended (21 species)
- 5. Status quo (78 species)

Table 2: Summary Matrix of Covered Species Options					
Criteria and Assumptions	Desert tortoise only	Listed species only	Permittee recommended without plants	Permittee recommended	Status quo
Species occurs within Clark County (Range)	Х	Х	Х	Х	X
Includes federal or state listed/candidate species (Status)	Х	Х	Х	Х	Х
All covered species will be subject to direct take (Impact)	Х	Х	Х	Х	
Species analysis based on the best available scientific information (Sufficient data)	х	Х	Х	Х	x
Includes only those unlisted species that overlap with listed species			Х	Х	
Includes unlisted species that are likely to become listed in the future			Х	Х	Х
Includes plant species				Х	Х
Number of species	1	5	7	21	78

After considerable discussion and following a number of exercises aimed to help the CAC identify challenges and potential solutions to the proposed covered species list, the Committee reached consensus on the following recommendation:

Foundation for this Recommendation

The following is a brief summary of the information presented evaluated by the CAC in preparing its recommendation on Covered Species:

- Intent is to revise species list to focus on species directly impacted by disturbance
- Staff provided five different options for possible approaches to covered species and criteria for each alternative (tortoise only, listed species only, listed and unlisted species, listed, unlisted and plant species, same 78 species)
- Amendment would include unlisted species only if:
 - » Habitat overlaps with listed species
 - » The unlisted species is likely to be listed in the future
- Amendment would include plants only if the Permittees can combine state and federal compliance in a single plan

#2: Covered Species

After reviewing and discussing the covered species evaluation process and options, the Committee finds the following criteria (used by the Permittees) to determine which species should be covered by the amended MSHCP to be acceptable:

- Species occur within Clark County
- Includes federal or state listed/candidate species
- All covered species will be subject to direct take
- Species analysis based on the best available scientific information
- Includes only those unlisted species that will overlap with listed species (umbrella species)
- Includes only those unlisted species that are likely to be listed in the future

We conclude this based on the fact that the process used to develop these items was logical, scientifically sound and consistent with the Committee's guiding principles on covered species.

Noteworthy Information from the Committee

- The Committee expressed strong support for reducing the covered species list to focus effort and funding where they can have the greatest impact on species conservation
- The Committee recognized the value of covering unlisted species and rare plant species, but only if including these additional species did not increase the complexity or cost of the program
- The Committee recognized that conservation actions for species removed from the list would be adequately protected through other agreements and processes



Conservation Strategy: Minimization & Mitigation

CAC Recommendations #3 and #4



Background Information and Analysis Considered by the CAC

A key component of habitat conservation planning is the development of a comprehensive conservation strategy to minimize and mitigate the impacts of take to covered species. The ESA requires that the permit applicant minimize and mitigate to the maximum extent practicable the potential taking of species. Failure to demonstrate that impacts will be minimized and mitigated to the maximum extent practicable would result in the denial of a permit application by the USFWS.

Avoidance and Minimization

Avoidance and minimization measures (AMMs) are steps that can be taken by project proponents to avoid impacts to covered species where practical, or to minimize the impacts. Typical examples include relocating a project to areas that will not impact covered species or restricting activities to particular seasons to avoid impacts to breeding cycles. The existing minimization strategy from the 2000 MSHCP is limited, focusing solely on avoidance of impacts on desert tortoise (one of 78 species covered by the original plan) which rely on project proponents to report the presence of desert tortoises on project sites. Any tortoises found are collected by a pick-up service and transferred to the Desert Tortoise Conservation Center (DTCC).

Since the 2000 MSHCP was approved, the Nevada State Office of the USFWS has negotiated a number of other habitat conservation plans in Southern Nevada (Coyote Springs Investments, LLC and the Southeastern Lincoln County habitat conservation plans). In these plans, the USFWS has reinstituted similar minimization measures that were required for the desert tortoise in the Clark County Short-Term Habitat Conservation Plan approved in 1992. These measures include planning surveys, pre-construction surveys and construction monitoring activities.

The proposed AMMs for desert tortoise have been modified to be more cost effective and provide greater benefits to the wild population. The preliminary options presented to the CAC involved developing impact zones with more targeted on-site minimization and avoidance measures for ground disturbing activities.

Potential avoidance and minimization measures include planning surveys, pre-construction surveys, construction monitoring, translocation and relocation of covered species, and waste and pet management. Below is a brief description of the various avoidance and minimization measures discussed by the CAC.

Planning surveys

Appropriate personnel review and identify potential covered species habitat in a given area. The purpose of the planning survey would be to determine what, if any, covered species and habitat types will likely be impacted by the activity, and what, if any, species specific pre-construction surveys would be required.

Pre-construction surveys

Prior to any ground disturbance related to covered activities, appropriate personnel would conduct a pre-construction survey in the areas identified in the planning surveys as having potential covered species habitat. The surveys would determine the presence or absence of covered species and/or habitat features and evaluate use by covered species in accordance with established survey guidelines (i.e. presence of burrows, nesting, scat, etc.). Pre-construction surveys would be required principally for desert tortoise, burrowing owl and riparian birds in riparian habitat.

Construction monitoring

Construction monitoring entails the monitoring of key biological resources identified during the planning and pre-construction surveys. Construction monitoring could require the presence of biological monitors during implementation of covered activities where resources that are protected under the MSHCP have been identified in or near construction sites. Construction monitoring ensures that the avoidance and minimization measures integrated into the project design and submitted with the application package are properly implemented.

For example, if covered species (tortoise, burrowing owl) are found during the breeding or active seasons (varies by species), the project proponent could be required to avoid all nest/burrow sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance could include establishment of a non-disturbance buffer zone and project site fencing and clearing. Construction could occur during the breeding season if birds have not begun egg-laying and incubation or if the juveniles from the occupied burrows have fledged. During the non-breeding or non-active season, the project proponent would be required to avoid the burrows/nests being used, where possible.

Employee training could also be incorporated into on-site construction monitoring. All employees participating in ground-disturbing activities could be required to attend a brief training (perhaps in conjunction with dust training) and learn what is required to comply with the MSHCP and permit. Training could be provided by the plan administrator or other outside entity and could require certification and/or periodic recertification.

Translocation/relocation/salvage measures

If during the pre-construction surveys or during construction, individual covered species are identified (for example, in burrows or traveling on the construction site), the individuals could be moved by an approved biologist out of harm's way and placed at a reasonable distance from the construction site. This is referred to as relocation. If an alternative location is not suitable, translocation of individuals (primarily desert tortoise) could be implemented in cooperation with the FWS. Individuals determined suitable for translocation would be transferred to the FWS (in the case of desert tortoises, to the Desert Tortoise Conservation Center) which would be responsible for identifying suitable translocation sites for the individual. In the case of covered plants, specific minimization measures, such as seed collection, plant salvage, or top soil collection and redistribution, could also be required.

Urban-wildland interface measures

Land uses adjacent to undisturbed habitat for covered species (such as in the outlying areas of the Las Vegas Valley, unincorporated Clark County and riparian areas) have the potential to indirectly impact covered species and ecosystems upon which they depend. Damaging effects may include vandalism,

dumping of trash, trampling, mountain bike use, and off-road vehicle use; runoff from adjacent streets and landscaped areas containing lawn fertilizer, pesticides, and vehicle waste; introduction of invasive non-native species; lights and noise from nearby development; unregulated movement of domestic animals; and a lack of barriers to covered species entering developed areas.

Design elements that might be considered and incorporated at the urban-wildland interface could include:

- Roads designed with permanent wildlife barriers placed at the edge of development, rather than abutting front-loaded lots to open areas to reduce the incidence of domestic pets entering the preserves and wild animals entering development
- Backyard fences designed to prevent pets from entering open spaces with sensitive habitat or covered species and preclude illegal gates and dumping
- Public roads adjacent to open areas would be fenced to prevent unauthorized public access
- Development footprints would be designed with straight edges at the boundary with open space and/or buffers to minimize the length of the urban-wildland interface
- Drainage systems installed to protect habitat from urban runoff
- Low-glare or no lighting may be installed at the edge of development
- Landscaping prohibiting invasive plants to avoid the escape of undesired plants into adjacent landscapes
- Access restrictions or informational kiosks installed to educate residents about the adjacent lands

Any design features incorporated into projects at the urban-wildland interface would be located within the development (i.e., not on the adjacent lands). These features would be maintained by the property owners through a homeowners association, landscape and lighting district, or similar mechanism. As with other project elements, it would be the responsibility of the local jurisdictions to monitor compliance with assistance from the DCP.

Avoidance and Minimization Measures Screening Criteria

Impact Mitigation Zones

The proposed avoidance and minimization options presented to the CAC rely upon the establishment of two "Impact Mitigation Zones". Within each Zone, certain avoidance and minimization measures would be required (or not required) based on the quality of the habitat for covered species, with riparian habitat and desert tortoise habitat outside of the Las Vegas Valley generally being of higher habitat value for covered species and therefore requiring higher levels of avoidance and minimization.

The Permittees reviewed with the CAC how not all AMMs are appropriate in all areas. Some AMMs can be costly and biologically ineffective. In order to make recommendations to the CAC on what AMMs are appropriate and meaningful, a suite of criteria for identifying covered plants and animals that would most benefit from AMM implementation was developed and used to identify target species. Based on a review and analysis conducted by ICF/Jones & Stokes, eight wildlife and three plant species were identified as meeting the criteria for AMM implementation. Avoidance and minimization measures for the species proposed for coverage were then evaluated using a set of five criteria. Each species was evaluated against each criterion based on the following five criteria:

Relative Impact

Measures the relative impact of covered activities on known occurrences and potential habitat within the plan area. Species with relatively high impacts would have a greater need for avoidance and minimization measures to reduce impacts and thus would be more suitable for avoidance and minimization measures.

Range

Species with restricted ranges (e.g., Yuma clapper rail) are more likely to need avoidance and minimization measures than species with wider ranges (e.g., Bendire's thrasher, banded Gila monster) that will not benefit biologically as much from these measures.

Detectability

Ease of detection of a species is a measure of how difficult or expensive surveys will be to determine presence/absence of species. Species that are easy to detect will have much lower costs for avoidance measures and are thus more suitable for avoidance and minimization measures.

Rescue Success

The chance of success of translocating individuals to another site. Species that respond positively to translocation/salvage efforts tend to be more suitable for avoidance and minimization.

Persistence with Disturbance

The chance of persistence on a fragmented development site if the species was avoided on site. Species that are more adaptable to disturbance are more suitable candidates for avoidance and minimization. Species that are more suitable for avoidance and minimization measures, species that are moderately suitable or unknown, and species that are less suitable or unsuitable for avoidance and minimization measures (Table 1).

Evaluation Criteria						
Species	Impact	Range	Detectability	Rescue	Persistance	Candidate for AMM?
BIRDS			· · · · ·			
Yuma clapper rail (nesting)						Yes
Western yellow-billed cuckoo (nesting)		•	•			Yes
Burrowing owl						Yes
Southwestern willow flycatcher (nesting)		•				Yes
Arizona Bell's vireo (nesting)						Yes
Bendire's thrasher		0	0			No
LeConte's thrasher		0				No
Phainopepla		0				No
MAMMALS	1	I	I		1	
Spotted bat						Yes
Townsend's big-eared bat						Yes
Desert pocket mouse	0	0				No
Desert kangaroo rat	0	0				No
PLANTS						
Las Vegas bearpoppy		0		0	0	No
Threecorner milkvetch	0	0	0			No
Pahrump Valley buckwheat						Yes
Las Vegas buckwheat						Yes
Sticky buckwheat	0		0			No
White-margined beardtongue						Yes
Yellow twotone beardtongue	0					No
REPTILES		1	Į J		1	
Banded Gila monster		0	0		0	No
Desert tortoise		0				Yes
LEGEND	suitable for a	that are more woidance and on measures	I = species th ately suitable	at are moder- or unknown		that are less suit- unsuitable

Table 1. Avoidance and Minimization Measures Screening Criteria-Results

Community Advisory Committee

Proposed Impact Zones and Avoidance and Minimization Measures (AMMs)

Impact Mitigation Zones

The proposed avoidance and minimization options presented to the CAC rely upon the establishment of two "Impact Mitigation Zones".Within each Zone, certain avoidance and minimization measures would be required (or not required) based on the quality of the habitat for covered species, with riparian habitat and desert tortoise habitat outside of the Las Vegas Valley generally being of higher habitat value for covered species and therefore requiring higher levels of avoidance and minimization.

Urban Areas (Zone A)

This designation addresses minimization needs on vacant land within the highly urbanized, fragmented, and developed areas of the Las Vegas Valley, Boulder City, and Mesquite and the urbanizing areas of Glendale, Moapa, Overton, Logandale and Laughlin. Because most of the vacant land in these areas is near or adjacent to developed land, wild desert tortoises are absent or are very unlikely to occur.

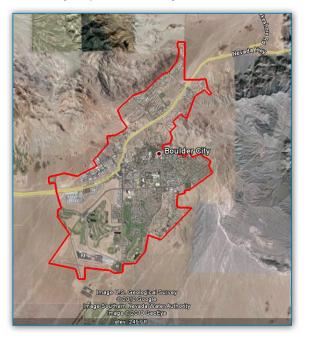
Boundary Definition: Identification of the urban areas of the Las Vegas Valley (i.e., Las Vegas, North Las Vegas, and Henderson) was based on the outer edge of dense urban development with little or no chance of wild desert tortoise occurring; this conclusion was based on a high degree of habitat fragmentation and substantial barriers or hazards to movement (e.g., interstate highways, major roads, block walls, etc.) (Figure 1, yellow line). Development in the southwest corner of the Las Vegas Valley is significantly less dense than development in the rest of the valley. To account for the expected urbanization of this area, an alternative boundary could be drawn around the outer edge of existing development in this part of the valley (Figure 1, red line around Enterprise).



Figure 1: Las Vegas Valley Impact Boundary

The Zone A boundary around Boulder City was based on the outer edge of development; major roads (e.g., Veterans Memorial Drive, Industrial Road); the Boulder City Municipal Airport; and the Boulder Creek Golf Course (Figure 2, red line around Boulder City impact boundary).

Figure 2: Boulder City Impact Boundary



The Zone A boundary for Mesquite was delineated in the south and southwest as the edge of the floodplain of the Virgin River and Riverside Road (Figure 3, red line around Mesquite impact boundary). The northern boundary was the outer edge of existing development and evidence of large-scale grading visible on 2010 aerial photos. The eastern Zone A boundary for Mesquite was the county line.



Figure 3: City of Mesquite Impact Boundary

The Zone A boundary for Overton, Logandale, and Moapa was the floodplain of the Muddy River and Meadow Valley Wash, both of which are not suitable habitat for desert tortoise (figure not shown).

AMM Approach: No specific AMMs are recommended because of the likely absence of the covered species.

Non-Urban Areas (Zone B)

These areas are generally characterized by natural land cover types with varying levels of disturbance and development. Zone B encompasses those portions of the plan area not specifically circumscribed by Zone A or the Reserve System.

Boundary Definition: All areas in Clark County not defined as Zone A or identified as part of the future Reserve System.

AMM Approach: AMMs for this area focus primarily on the avoidance of take of individuals detected by surface observation and limited surveys. The proposed AMMs are designed to be both cost effective and provide greater benefits to the wild population of covered species.

Based on the analysis described, Table 2 displays the recommended AMMs by Zone.

Proposed Avoidance and Minimization Measures	Zone A Urban Areas	Zone B Future Urban Areas
Planning surveys	No	No
Pre-construction surveys		
Burrowing owl	No	Yes
Desert tortoise	No	Yes
Riparian birds	No	If within 250 ft. of full bank width
Other species	No	No
Plants	No	If potential habitat
Construction monitoring	с	
Fencing	No	No
On-site monitor	No	No
Employee training program	Yes	Yes
Translocation/relocation	No	Yes
On-site waste management	No	Yes
Urban-wildland interface measures	No	Boundary edge only

Table 2. Proposed Impact Zones and Avoidance and Minimization Measures

Committee Recommendation

Given the current economic environment and state of the construction/development industry, Committee members generally agreed that the costs and fees associated with implementation of an amended MSHCP should be done within the existing revenue and fee structure. This sentiment is reflected in the Preamble to the recommendations and was particularly salient in discussions involving the proposed minimization measures described above. Some members felt that insufficient data were available to make a recommendation on fees or revenue structures.

Staff concurred with both perspectives expressed by the Committee in this regard, noting that the most fiscally prudent approach to the amendment process is to work within the limits of existing funding streams. However, staff also agreed that insufficient information was available to make definitive recommendations on overall program costs until a more thorough and complete financial analysis of the proposed conservation strategy can be completed. This work cannot be completed until a broad framework for the conservation strategy has been developed.

The Committee acknowledged that should a final analysis conclude that the current fee structure be insufficient to implement the conservation strategy as recommended in this report, that there are a number of options available to policy makers and the community to address the gap beyond increasing mitigation fees which are established through NRS. Options include, but are not limited to: revising the acres of take requested, revising the conservation strategy, evaluating other revenue streams for suitability, such as securing a more stable and predictable funding stream through the SNPLMA program, or some combination of effort. The Committee also recognized that the requirement to "minimize and mitigate to the maximum extent practicable" speaks directly to issues of cost and economic feasibility when constructing a conservation strategy.

Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Minimization:

- Additional minimization is likely to be required by the USWFS in any amendment to the existing permit
- Amendment would identify impact zones where minimization is appropriate; boundaries should be updated periodically to reflect development patterns
- Minimization measures would not impact cost, time or complexity of the development process
- Minimization measures will have a meaningful impact on species conservation

#3: Minimization

After reviewing and discussing the requirements for minimization, the Committee finds the following minimization strategy (developed by the Permittees) to be acceptable:

- We agree that minimization is a prudent step that significantly strengthens the likelihood of the permit being issued by the US Fish & Wildlife Service
- The species selected for minimization measures are those most likely to benefit from such efforts and those in need of greatest consideration
- The concept of impact zones (modified to two) is in keeping with the requirement to minimize and mitigate to the "maximum extent practicable", and appropriately differentiates the quality of habitat lost with the mitigation requirement
- The minimization measures proposed for Zone B should be implemented without negatively impacting development timelines or increasing the complexity or cost of the process
- Covered plant and animal species found during clearance surveys should be considered prime candidates for carefully planned and appropriate relocation to designated areas so as to augment native populations and count toward the recovery of the species

We conclude the above based on the fact that the measures outlined in these strategies are logical, purposeful and consistent with the Committee's guiding principles on activities/mitigation strategy, and rely upon the program characteristics outlined in the CAC's recommendation(s) for implementation.

Noteworthy Information from the Committee

- In general, the Committee supported additional minimization measures (such as tortoise clearances within designated zones) but only if the measures provided measurable benefits to covered species
- Some Committee members representing development interests expressed concern that additional minimization measures were not necessary or required and would increase the overall cost of the program
- While the Committee generally supported the concept of impact zones, they did not recommend a specific zone boundary

Mitigation: Proposed Reserve System

Approximately 4.5 million acres (89 percent) of Clark County is under the direct management of the federal government. Of this, approximately 2.8 million acres (55.6 percent) are managed by the BLM. Because so much of Clark County is under the jurisdiction of the federal government, the 2000 MSHCP relied upon high priority federal land resources for mitigation. A habitat conservation plan in Clark County that relied upon minimization and mitigation exclusively on non-federal land was deemed to be impractical given the dearth of non-federal land available in Clark County. More significantly, this approach has been problematic as a conduit for mitigation. In order to be meaningful, the areas of habitat reserved for conservation need to be large, contiguous and effectively managed. A Reserve System consisting of non-federal land would result in small, fragmented and isolated pockets of habitat that would eventually become devoid of habitat and conservation value. However, the current expenditure-based approach to providing mitigation fees to federal land managers for implementation of conservation has proven difficult to track and verify effectiveness.

The Permittees proposed to establish a more defined and autonomous Reserve System to implement off-site mitigation for take authorized under an amended MSHCP. The revised conservation strategy proposed to the Committee focuses on the creation of a new Reserve System that would consist of land currently under the management of the BLM. Through formal arrangement, day-to-day management responsibilities for these lands would be transferred to the Permittees for the purposes of long-term conservation and mitigation. The conservation strategy underlying this proposal envisions implementation of direct, on-the-ground mitigation actions including habitat enhancement, restoration, monitoring and adaptive management by the Permittees.

Areas managed for multiple-use are lands on which a variety of uses are allowed, including recreation, resource extraction, utility corridors, and other lawful activities that have the potential to result in habitat disturbance and/or destruction. These areas also provide habitat for a variety of sensitive plant and animal species, including the desert tortoise, and provide connectivity and continuity between high value resource areas, such as wildlife refuges and wilderness areas. These lands could provide the foundation of a Reserve System conservation strategy for an amended MSHCP. The goal of the Reserve System will be to conserve approximately 215,000 acres of habitat for the benefit of covered species and the ecosystems upon which they depend.

Given the vastness of these areas and the increasing budgetary constraints being placed on the federal land management agencies, the Permittees are well-positioned to provide much needed assistance, particularly in those areas where the impacts to the landscape result from their proximity to the urbanized areas of Clark County.

Reserve System Development

As described above, the primary mitigation strategy of the 2000 MSHCP was to supplement the research and management budgets of state and federal agencies, primarily BLM. After 10 years of implementation, improvements are needed in the effectiveness of conservation actions, the ability of the Permittees to track their compliance, and in reducing bureaucracy. Even when supplemented by the MSHCP, BLM appropriations have often proven to be insufficient to adequately manage for the

conservation of covered species throughout the plan area. This creates an opportunity for the MSHCP to reduce the burden on BLM and substantially enhance natural ecosystems and covered-species habitat.

Approach

Based on a standardized and widely accepted application of the principles of conservation biology, a biological consulting team was tasked to develop a set of Reserve-design criteria. All land selected for the Reserve System must meet one or more of the following criteria; most lands will meet multiple criteria.

- 1. **Provide high-quality habitat for covered species.** High quality is defined using various parameters and differs by species. High-quality habitats are frequently characterized by a high abundance and diversity of native species, intact natural processes, and few roads or other evidence of human disturbance.
- 2. **Be large enough to support sustainable populations of covered species.** The Reserve System should be as large as possible to mitigate impacts of covered activities, while considering funding and management constraints. A large Reserve System is important to ensure viable populations of covered species and to maximize the protection of biodiversity. Large Reserves tend to support more species for longer periods of time than small Reserves. Large Reserves are also generally easier and more cost-effective to manage on a per-acre basis and allow for better large-scale management treatments and the maintenance of natural disturbance regimes such as flooding.
- 3. Provide connectivity to other high-priority conserved lands for covered species or serve as buffers between high-value conserved lands and areas where impacts are likely to occur. The Reserve System should link existing protected areas and proposed Reserves inside and outside the plan area to maximize habitat connectivity. This will maintain and enhance the ability of organisms to move between Reserves; facilitate exchange of genetic material, species migration, dispersal, and colonization; and increase the integrity of the network of Reserves (i.e., reducing the extent of reserve edge that is in contact with adjacent land uses). Linking Reserves may require acquisition of disturbed habitats that can be restored to facilitate better habitat fragmentation. When adjacent to existing urban areas or planned urban areas, the Reserve System should include buffer lands within its boundaries. The purpose of this buffer land is to reduce indirect effects on covered species and ecosystems from urban development.
- 4. **Provide a diversity of environmental gradients to accommodate shifts in species distributions.** The Reserve System should include a range of contiguous environmental gradients (e.g., topography, elevation, soil types, geologic substrates, slopes, and aspects) to allow for shifting species distributions in response to catastrophic

events (e.g., fire, prolonged drought, severe flooding) or anthropogenic change (e.g., climate change).

- 5. **Provide opportunities for habitat enhancement and restoration for the long-term benefit of covered species.** Degraded communities will need to be preserved to capture unique habitats or populations of covered species, to link Reserve areas together or with other protected sites, or to provide opportunities for habitat restoration.
- 6. **Minimize the length of edge land uses that are detrimental to the Reserve System, such as urban development, highways, and mines.** The Reserve System should share a minimum amount of edge (i.e., should have the greatest possible area-to-perimeter ratio) with non-Reserve land, especially urban development, to minimize the indirect effects of adjacent land uses on the Reserve resources and to minimize management costs. For example, Reserves should tend toward round or square configurations rather than long and narrow ones. In some cases, however, Reserves with low area-to-perimeter ratios may be appropriate to protect linear features with high biological value such as riparian systems.

When combined with other elements of the conservation strategy, including the minimization strategy described above, it is expected that the Reserve System and its long-term management, enhancement, restoration, and monitoring will adequately mitigate for the impacts of the covered activities on the covered species.

The conservation strategies are described in the following pages. For upland habitats will lead to the identification and conservation of large areas that contain important habitat for many upland species. The conservation strategy for the narrow endemic plants will be to include these species whenever possible in the upland Reserve areas but also to identify plant-Reserve areas for narrow endemic plants not otherwise well protected in upland Reserves. The riparian conservation strategy will be implemented by acquiring and/or managing targeted riparian habitat to maintain biological value for riparian birds.

Biological Data Supporting the Proposed Reserve Design

As is typical for most large-scale, conservation-planning efforts, detailed biological data are not available comprehensively throughout the plan area. Limitations of time, funding, and access to conduct surveys require that conservation planners rely on surrogates to estimate the distribution of suitable habitat for most species. GIS-based habitat-distribution models are an important tool to understand the probable distribution of habitat for the covered species. Habitat-distribution models that use the best available scientific data, the best available GIS data (e.g., for vegetation land cover, soils, geology, elevation, slope, aspect, and hydrologic features) and that make accurate assumptions about ecological and habitat associations for each species have the potential to provide reasonable representations of each species' potential distribution across the landscape. [Note that many species-habitat models are currently under revision; therefore, Reserve-unit selection based on these models may change once models are finalized.]

While species-distribution models are an important tool, the locations of known occurrences for each species also provide important evidence of habitat suitability. Therefore, the biological data supporting Reserve design includes both the modeled habitat distribution and the known occurrences to the extent possible.

Upland Reserve Design

The approach for identifying alternative reserve units for the Amendment followed a sequential stepwise process summarized below:

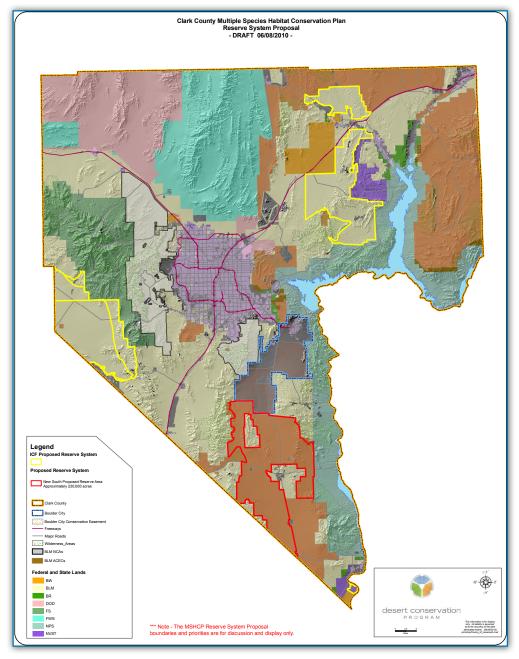
- Overlay each habitat-suitability model on the lands determined to be suitable for inclusion in a Reserve System and consider the distribution of each species individually and of all species viewed together.
- Consider the distribution of the high-priority species first (i.e., desert tortoise), then identify "hot spots" that include habitat for the high-priority species along with most or all of the other upland species.
- Based on the principles of reserve design (e.g., conserve large intact core habitats that are well connected through wildlife movement corridors and landscape linkages to other similar areas), select areas that are more likely to be available first, and as needed supplement these areas with other lands to delineate each reserve unit.
- Avoid areas with existing high Off-highway Vehicle (OHV) use, or high likelihood of future solar-energy development.
- Select upland Reserve units that are at least 100,000 acres in size.
- Exclude private land. Private land was excluded from the first round of Reserve-unit selection. The rationale is that most private land in the plan area is developed or disturbed (or will be during the permit term) and occurs in relatively small patches. Furthermore, conservation on private land is more challenging than on public land due to the high costs of acquisition and the need to identify a willing seller.

Based on the principles of conservation biology and reserve design, the biological team used the best available data to develop a series alternative reserve units for consideration by the Committee. Table 3 displays the preliminary results of the potential Reserve units based on this process.

Reserve Unit	Alternative 1 Valley of Fire	Alternative 2 Stump Springs	Alternative 3 Combination
Valley of Fire	150,696		97,261
Stump Springs		155,060	64,336
Meadow Valley Wash	42,229	42,229	42,229
Colorado River	1,387	1,387	1,387
Total	194,312	198,677	205,214

Table 3. Reserve System Alternatives

Once the draft Reserve units had been selected, GIS analysis was conducted to determine the acres of modeled habitat that are conserved within each Reserve unit. This quantitative analysis provided important information for use in evaluating the relative merits of each Reserve unit to conserve each of the covered species and to contribute to meeting the conservation goals of the Amendment. Additional adjustments were made to include areas that provide habitat for species not addressed by the initial selection of reserve units. For example, many known occurrences of forked (Pahrump Valley) buckwheat occur on private land and in small patches of public land in and around Sandy Valley. Targeted conservation may need to occur in this area to adequately mitigate impacts to this species. Similarly, some of the only known locations of white-margined beardtongue occur in Hidden Valley and Ivanpah Valley east of Interstate 15. Targeted Reserves or cooperative management of these lands may be needed to ensure adequate mitigation for this species.



Reserve design is an iterative and methodical process. Challenges are introduced by the number and complexity of species models, the requirements for a balanced Reserve network based on land availability, the cost of the Reserve System, and the process needed to include input from land managers, stakeholders and members of the public. To ensure that the Reserve design takes all of these factors into account, the Reserve selection and refinement process is necessarily iterative. This is an early and incomplete Reserve design and will continue to be refined and revised to meet the needs of the Permittees and the communities they represent.

Riparian Process-Based Reserve Design

The amended MSHCP proposes to cover 21 species and seven major natural ecosystem types. Four covered species (yellow-billed cuckoo, southwestern willow flycatcher, Arizona Bell's vireo, and Yuma clapper rail) occur primarily in the following major riparian systems: the Virgin, Muddy (including Meadow Valley Wash) and Colorado rivers, as well as the Las Vegas Wash. Given the unique attributes of these riparian systems, a strategy that targets these four riparian areas is needed both to address the conservation needs of these species (collectively, riparian birds) and to adequately mitigate for the impacts of covered activities. Other aspects of the conservation strategy are focused on species that occur in upland areas on land under contiguous ownership by the BLM. In contrast, riparian-bird habitat is concentrated in the river systems referenced above on land that is either not owned by the BLM or is in non-contiguous ownership patterns.

Unlike habitat for upland species such as desert tortoise and burrowing owl, a large proportion of the land in these riparian systems is privately owned. As a result, these areas are subject to greater development pressure. Impacts to the habitat of these four riparian birds may be substantial under the plan if there are no incentives to avoid or minimize impacts to habitat. These riparian systems have been identified as having unusually high and unique biological diversity and worthy of special attention in regional conservation and management plans. The existing 2000 MSHCP also recognizes the importance of riparian habitat by calling for the protection and restoration of riparian woodland, mesquite woodland, and catclaw woodland.

The creation of a Reserve System by acquiring or otherwise protecting land is a key component of many conservation strategies. HCPs utilize a continuum of approaches to land acquisition/reserve design by varying how precisely the boundaries of the Reserve are delineated. At one end of the spectrum, a reserve is defined precisely at the parcel level or with known boundaries. This approach, known as a "hard-line" Reserve System, is proposed for the upland component of the conservation strategy. This approach is possible because of the specific negotiations planned with the BLM and other state and federal agencies as appropriate. At the other end of the spectrum, a reserve can be defined without the use of any maps or hard-line boundaries. Instead, the Reserve System is assembled over time using a clear set of rules. This "process-based" Reserve System is appropriate when the boundaries of the Reserve System are more flexible or uncertain. Many HCPs use a combination of a map-based and process-based approach, sometimes called a hybrid approach.

For the riparian component of the conservation strategy, the Permittees recommended a processbased approach to Reserve design. That is, the Reserve System will be built using assembly rules based on mitigation ratios and criteria for Reserve acquisition. This approach is proposed because of the uncertainty of where willing sellers will be located and the flexibility in the Reserve to occur along linear corridors within these river floodplains.

Committee Recommendation

The Committee discussed how creating a Reserve System to be managed by the Permittees could provide greater transparency and accountability to the program and result in more effective and efficient conservation than the current approach. The committee acknowledged and reaffirmed that because roughly 89% of Clark County is owned and managed by the federal government, the amount and location of the remaining state, local, and private land is insufficient to create a viable Reserve System that would protect and enhance the covered species. The committee generally agreed that public lands owned by state and other federal agencies and private lands should be available for inclusion in the Amendment's proposed Reserve System. Utilizing these lands in conjunction with existing BLM lands could provide significant benefits to covered species. While recognizing the many obstacles to implementing this proposal, the Committee strongly believed that this approach was preferable to the only other feasible option—continue to provide direct funding to the federal land management agencies.

The Committee acknowledged that the long-term management of a Reserve System should include the development of site-specific management plans and may include a comprehensive Reserve System Management Plan. These plans should guide the management activities that are anticipated to be needed, such as habitat restoration, habitat enhancement, invasive species control, and other activities designed to improve the overall condition of the habitat for covered species and minimize/ reduce the impacts related to covered activities. These plans should also be subject to input from the public and interested stakeholders. In addition, management plans must address recreational uses within the Reserve System to provide for a balance of low-impact recreational access and use of public lands with the need to protect and preserve covered species and habitat.

Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Mitigation:

- Mitigation would include the development of a Reserve System to be managed by the Permittees for conservation of covered species and habitat
- Reserve system would include an upland reserve consisting of BLM multiple-use lands and riparian strategy based on acquisition from willing sellers of riparian habitat along the Muddy and Virgin rivers
- Reserve system would seek to protect historical and/or existing uses on BLM land provided they are consistent with conservation of covered species
- Some conservation actions currently administered will continue (wild tortoise pick-up, management of land, property and/or water rights, etc.)

#4: Mitigation

After reviewing and discussing the requirements for mitigation, and recognizing that:

- the mitigation strategy outlined in the 2000 MSHCP is largely an expenditure-based strategy which has not proven to be as effective or efficient as originally envisioned; and
- while a limited number of conservation actions have proven effective, many actions have been difficult to verify or track and do not provide sufficient transparency or accountability; and
- with the understanding that fees for minimization and/or mitigation measures should not be increased above their existing levels; and
- there are many challenges and complex steps associated with the development and implementation of this recommendation,

the Committee finds the following mitigation strategy (developed by the Permittees) to be acceptable:

- We support the development of a Reserve System, consisting of lands currently managed by the BLM, to be transferred to the Permittees for the purposes of long-term conservation of species and mitigation of impacts in the developing areas of Clark County, thereby providing greater control over conservation efforts and maximizing the efficiency of the MSHCP.
- We recommend that the reserve areas are developed with the following considerations:
 - That the reserves be developed to protect a variety of uses of these lands, including (where possible) historical or existing recreation uses, that are in addition to and/or consistent with habitat conservation, and that any reduction in historical or existing uses are done only when deemed critical to the conservation of a species
 - That the Permittees should develop at least one additional alternative that includes Areas of Critical Environmental Concern (ACECs) and is not dependent on the northeast area of Clark County, north of Interstate 15
 - That scientific and financial oversight will be required to successfully develop and implement a reserve system
 - That these recommended actions will supercede or modify existing programs, with a few limited exceptions such as protection of plant species specific to a conservation or mitigation need that cannot be addressed through the Reserve System, and that certain

mitigation and conservation efforts currently administered by the County will need to continue, including:

- > Pickup of wild tortoises from construction sites
- > Management and maintainence of the Boulder City Conservation Easement and Muddy River properties
- > Management and maintainence of currently acquired grazing allotments and water rights
- > Public information efforts including the Mojave Max program
- > Desert tortoise fencing
- > Tracking and reporting of habitat loss under the permit

We conclude the above based on the fact that the measures outlined in these strategies are logical, purposeful and consistent with the Committee's guiding principles on activities/mitigation strategy, and rely upon the program characteristics outlined in the CAC's recommendation(s) for implementation.

Noteworthy Information from the Committee

- The Committee did not feel that ownership of federal land was necessary and supported a cooperative management agreement or similar mechanism provided that the Permittees have the authority and autonomy necessary to carry out the conservation actions
- The Committee did not support continuing the existing, expenditure-based mitigation strategy
- The reserve system must give Permittees authority to carry out the day-to-day management responsibilities of the Reserve System
- Rural stakeholders expressed support for the upland strategy provided it did not include the proposed Meadow Valley Wash unit north of I-15
- Environmental/conservation representatives expressed support for the proposal provided that it adequately funded and mitigated for take and did not involve fee-simple transfer of BLM land to the Permittees

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Implementation

CAC Recommendation #5



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Background Information and Analysis Considered by the CAC

The Committee's final effort related to recommendations applied to implementation. This recommendation is a description of what the Committee believes must be in place in order for the other recommendations to be carried out. The Committee spent two meetings reviewing their previous recommendations, comparing them to the characteristics of other HCPs throughout the Southwest and then working to determine where and how the amendment to the MSHCP should address the following key characteristics of implementation:

- Governance
- Fee collection
- Minimization
- Compliance monitoring and reporting
- Reserve management
- Advisors
- Accountability

Staff presented the Committee with information from six different regional habitat conservation programs in California, Nevada and Utah and compared the similarities and differences between those plans across the key characteristics listed above.

Governance

The current MSHCP designates Clark County as Plan Administrator to oversee implementation and administration of the plan. In general, the Plan Administrator is responsible for making recommendations to the Clark County Board of Commissioners, which has final decision making authority over implementation of the MSHCP. All of the Permittees are named on the Permit and have an equivalent stake in ensuring compliance with the MSHCP and the ESA. However, the Permittees do not have a formal seat within the governance profile of the MSHCP and final decision making authority rests with the Clark County Board of County Commissioners. Compared to the other regional HCPs, Clark County is unique in that it has a single Permittee serving as the governing body on behalf of the other Permittees. Most of the other regional HCPs discussed have separate governing boards consisting of representatives from each of the Permittees governing boards.

To address this disparity, the DCP meets monthly with staff level representatives from the Permittees to discuss issues and receive input on administrative and implementation issues. The Permittee representatives are expected to brief department directors and/or city managers, who then need to brief and receive feedback from their city council members. While this informal consultation process serves to ensure communication and feedback among the Permittees and the DCP, it does not always resolve broad policy conflicts or disputes among the Permittees.

The Committee recognized the importance of broad representation of all the Permittees on a governing board, and supported evaluating using an existing regional board as a possible mechanism to better distribute the burdens of implementation of the MSHCP across all of the Permittees. The Permittees will continue to evaluate options for obtaining greater regional participation and accountability without creating new bureaucracy.

Fee Collection and Minimization

Mitigation fees collected for purposes of implementing the MSHCP are assessed and collected by each of the Permittees, through their respective development/planning departments at the time of issuance of the building or grading permit. The Permittee is required to track the number of acres being developed and transfer the assessed fees to Clark County on a monthly basis. The Permittees are also required to provide a report to Clark County detailing the number of acres developed, the amount of fees collected, and any refunds made during the applicable reporting period.

In 2003, Clark County commissioned an audit of the fee assessment and reporting processes and procedures. The audit documented a number of problems and inconsistencies with these processes among the Permittees, including inconsistent development code, lack of written policies and procedures guiding the assessment and collection of fees, collection of incorrect fees, and errors in acreage accounting and reporting. Efforts to develop consistent written procedures, provide training to each Permittee staff, and reduce and/or eliminate accounting and reporting errors have been implemented. However, errors continue and staff turnover contributes to continued inaccurate implementation of procedures. The challenges associated with coordinating and streamlining the fee collection process among five different municipalities tends to increase the likelihood of error or misapplication of agreed upon procedures.

Based on the experience of the past two decades, the Permittees proposed to centralize the fee collection process directly through the Plan Administrator. Under this scenario, payment of mitigation fees and implementation of minimization measures in Zone B would be the responsibility of the Plan Administrator. While some members of the Committee were concerned that centralization of these functions could create additional burdens for developers by requiring multiple trips to different Permittees and greater delays in the process, the Committee supported efforts to increase the efficiency of the process provided that the improvements maintained the simplicity of the current system for the applicants and did not impact cost or schedules for the development community.

Compliance Monitoring and Reporting

Monitoring is an essential component of the conservation strategy. The monitoring program will assess the plan's effectiveness in achieving the biological goals and objectives and determines overall compliance with plan requirements. Staff reviewed with the Committee the current biennial reporting structure required in the current MSHCP and compared those with other regional programs. The completion of annual progress and compliance reports to USFWS to demonstrate that the HCP is being properly implemented is a universal requirement. Requirements for completion of effectiveness monitoring reporting for regional HCPs (that is, to evaluate how effective the plan has been in achieving goals and objectives) is more variable, ranging from one to five years.

The Permittees proposed to submit an annual compliance report to the USFWS and other stakeholders to demonstrate proper and consistent implementation of the proposed amendment. In addition, the Permittees proposed to continue hosting a periodic project symposium to include information and presentations about the various aspects of implementation.

Effectiveness monitoring will consist of two components: 1) monitoring the effects of mitigation actions (e.g., resource-protection, restoration and enhancement projects) to determine if they are meeting success criteria within the Reserve System and; 2) monitoring the status and trends of covered species within the Reserve System. Both components of effectiveness monitoring

are long-term efforts that require longer intervals in order to detect changes resulting from the implementation of conservation actions. As a result, the Permittees proposed to complete periodic biological monitoring and effectiveness reports at five-year intervals to assess and report on overall effectiveness of the proposed amendment.

Reserve Management

A key element of concern for the Committee regarding the establishment of a reserve system to be managed by the Permitees involved the capacity of local governments to engage in broad landscapescale conservation activities. In discussing the conservation strategies developed for most regional HCPs, the Committee discussed how local Permittees manage the vast majority of reserve systems in other regional plans. In addition, the Committee recognized that the Permittees have been managing a very large conservation easement in the Eldorado Valley for more than 15 years and have acquired a number of properties along the Muddy River for the purposes of restoration and conservation. As a result, the Permittees already have a wide range of experience and capacity to expand activities associated with reserve management to other areas of Clark County.

As part of the reserve management strategy, the Permittees proposed to develop reserve unit management plans for each reserve unit. These management plans would be subject to scientific review from the science advisor as well as input from other stakeholders, including the USFWS, state and federal land managers and the general public and would be approved by the governing board of the HCP.

Independent Advice

A condition of the current MSHCP is the development of a science-based adaptive management process by which to ensure that management and conservation actions are reviewed for their effectiveness in the conservation of the covered species and their habitats and subject to scientific input and review from applicable professionals. To supplement the expertise and independence of the science advisor, the Permittees have instituted a process of independent peer-review of science advisor and other technical work products resulting from the implementation of the MSHCP.

Recognizing the value and effectiveness of this process, the Committee recommended that the Permittees continue the use of independent science advice and peer-review process under the proposed amendment. In addition, the Committee identified a need for additional financial advice and oversight and recommended that the program complete annual audits of its budget and expenditures and encouraged the Permittees to use local contractors and expertise where feasible/ applicable.

Accountability

In late 2004, Clark County commissioned a study of the administrative and decision-making process whereby mitigation funding for the MSHCP to assess effectiveness, efficiency, and accountability of the program. Some major findings of the 2005 report identified conflicts of interest existed among various aspects of the program, particularly in awarding funds. The committee recommended that the Permittees should develop and implement a conflict of interest policy for administration of the amended MSHCP and other appropriate measures to ensure overall program accountability.

Committee Recommendation

Foundation for this Recommendation

The following is a brief summary of the information evaluated by the CAC in preparing its recommendation on Implementation:

- Governance of MSHCP would seek to balance representation for all Permittees
- Fee collection will be centralized to the extent it increases efficiency and does not impact cost or complexity for customers
- Minimization measures should be implemented as simply as possible and provide benefits to covered species
- The amendment would include scientific and financial oversight of Reserve Management
- The amendment would include continued use of independent science advisor and peer review processes and would implement annual financial audits and opportunities for the public to provide input into the operation and management of the Reserve System
- The amendment would implement a conflict of interest policy and other measures consistent with responsible conservation management

#5: Implementation

Recognizing that implementation of the amended MSHCP, as described in the previous recommendations, will require a carefully defined management and oversight structure, the CAC is pleased to provide recommendations in each of the following seven key areas:

- Governance
 - The governing structure of the MSHCP should balance the need for equal representation among the Permittees with the necessity of a strong governing body with sufficient authority to oversee the implementation of the MSHCP.
 - This structure may currently exist within other regional boards, however, care must be taken to ensure there is ample representation for all concerned entities while avoiding scattered or unbalanced political leadership that can lead to a weak organization.

- The governance structure should administer a single permit for all Permittees that includes strong severability language to ensure that non-compliance with terms of the MSHCP by one Permittee does not affect the other Permittees.
- Fee collection
 - The collection of fees is a sensitive issue for both the program administrator and those from whom the fees are collected. The simplicity of the current system is important to those who must obtain permits. The Committee also recognizes that there are errors and inefficiencies inherent in the system that must be addressed.
 - Any change from the current system of fee collection should place a strong emphasis on simplicity and efficiency for those who must obtain permits. An automated, centralized system is acceptable if it provides for the same or increased levels of service and ease of access now in place.
- Minimization
 - In accordance with the CAC's recommendation on minimization, the inclusion of this characteristic in the amended MSHCP should seek to protect those species and habitats most likely to be affected by take, ensure simplicity in the development process and promote the conservation of covered species.
- Compliance monitoring and reporting
 - All compliance and monitoring efforts must focus on efficiency and accountability and be subject to the review of advisors outlined in the appropriate section of this recommendation.
- Reserve management
 - The Committee acknowledges that the development of a reserve system presents complex challenges, but believe that a reserve system is the preferred option to meet the goals of species preservation and habitat conservation necessary with the proposed amount of take in the amended MSCHP.
 - The development of a reserve system should be pursued now while we have the elements of time and existing funds available to us.
 - The intent of the reserve system is to manage, not necessarily to own lands in order to provide for the greatest conservation.
 - Management of the reserve system should seek to protect existing uses of public lands.
- Advisors
 - The Committee recommends that the program administrator continue with the utilization of an independent science advisor in

the evaluation and implementation of programs associated with the MSHCP.

- The Committee endorses the use of an independent financial advisor to provide guidance and review of the MSHCP financial status, including regular audits to look for efficiencies and monitor the financial soundness of the program.
- Concurrent with the DCP's periodic project symposia, provide an avenue for public input that includes the opportunity for interested organizations to interact with the governing body to provide evaluation, perspective and possible course correction.
- Accountability
 - The program administrator should develop and implement a conflict of interest policy and other appropriate measures to ensure overall program accountability

Noteworthy Information from the Committee

- The Committee emphasized that the implementation of the minimization measures and fee collection should continue to be simple and user friendly
- Some Committee members were concerned that centralizing the fee collection system will result in more cumbersome and costly fee payment process
- Generally the Committee supported improving the overall efficiency and cost effectiveness of the program
- The Committee expressed strong support for continuing independent science advice and review and advocated regular financial audits
- The Committee also supported implementing mechanisms that allow for public input and oversight in a manner that balances costs of the program
- The Committee agreed that the implementation of the plan should seek to use local expertise, including the educational community.

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Conclusion and Next Steps



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Conclusion and Next Steps

As indicated in the table below, the CAC completed its formal work in October of 2010 with a final review of the guiding principles, recommendations and resulting report. In November, the CAC recommendations will be presented by the DCP to the Board of County Commissioners for their review and acceptance.

From November until the Spring of 2011, DCP staff will utilize the guidance provided by the CAC to develop and draft the MSHCP amendment. The CAC will have an opportunity at that time to review the draft amendment before it is made public and the work associated with permit submittal and approval begins.

Community Advisory Committee Next Steps

October 2010	Approve Final Recommendations Report
November 2010	Present CAC recommendations Report to Board of County Commissioners
Spring 2011	Receive Presentation on Draft Amended MSHCP

DCP Staff Priorities for 2011/2012

- Prepare Draft MSHCP for public review
- Prepare cost and revenue analysis for the amended MSHCP
- Obtain permit from Nevada Division of Forestry for covered plant species
- Prepare and pursue reserve system development plan to ensure a sound transition and resolution of issues/concerns
- Amend County and City Ordinances (urban wild land design standards & minimization measures where necessary)
- Analyze the development process and determine timing and process for minimization measures to ensure development process remains as streamlined and timely as possible
- Develop outreach strategy and public education program regarding changes to the MSHCP, in particular to the development process and minimization requirements
- Develop construction worker education program
- Build desert tortoise clearance capacity among local environmental firms and increase desert tortoise handling classes and qualified biologists
- Issue Request for Quotes and pre-qualify consultants for species clearance surveys
- Develop compliance reporting templates, develop programmatic metrics and benchmarks, develop tools to track and report on compliance and metrics
- Prepare staffing analysis and optimize use of volunteers and student interns where appropriate

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Appendices

A:	Meeting Synopsis
Β:	CAC Charter
C :	Consensus
D:	Survey Results
Ε:	Survey Instrument
F:	Acknowledgements



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Meeting Synopsis

The following provides a brief synopsis of discussion topics for each meeting of the Desert Conservation Program Community Advisory Committee. A summary was developed for each meeting and is available by contacting the Clark County Desert Conservation Program or visiting the Committee's Web site as outlined on page 17 of this report.

Meeting #1 February 26, 2009

Provided introduction of Committee members, facilitators and key staff. Reviewed the purpose of the Committee, charter and ground rules, including an overview of requirements of Nevada Open Meeting Law. Provided an introduction to the Desert Conservation Program and the Multiple Species Habitat Conservation Plan (MSHCP) and overview of Permit Amendment.

Meeting #2 March 16, 2009

Overview and discussion of the MSHCP including an overview of the Program Management Analysis and follow-up results. Reviewed key goals of permit amendment.

Meeting #3 April 15, 2009

Provided overview of the 2006 Desert Conservation Program Advisory Committee process and recommendations. Provided an overview of the key elements of a habitat conservation plan and process for developing an HCP including the role of federal agencies, particularly the U.S. Fish and Wildlife Service.

Meeting #4 May 16, 2009

Participated in an educational bus tour to the Boulder City Conservation Easement, Lake Mead National recreation Area and Sunrise Mountain Area of Critical Environmental Concern. Discussed issues related to off-highway vehicles, desert tortoise conservation and management, expenditurebased reserve system outlined in the MSHCP and issues related to federal lands under the jurisdiction of the Bureau of Land Management.

Meeting #5 June 11, 2009

Provided an overview of Section 10(a)(1)(B) issuance criteria, "No Surprises" rule, Five-Point Policy, incidental take. Overview and discussion of the USFWS Desert Tortoise Recovery Office and the Draft Desert Tortoise Recovery Plan. Discussed recovery actions and plans in Southern Nevada.

Meeting #6 July 16, 2009

Continued discussion of the Desert Tortoise Recovery Program, 2002 General Accountability Office audit, and desert tortoise range-wide monitoring program. Initiated discussion of guiding principles to guide Committee deliberations. Provided an overview of the NEPA process and the USFWS Notice of Intent to Conduct Scoping. Provided an overview of domestic tortoise issue and proposed Pet Tortoise Task Force.

Meeting #7 August 13, 2009

Continued development of guiding principles for each major area of permit amendment. Provided an update on the status of NEPA scoping and Pet Tortoise Task Force.

Meeting #8 September 17, 2009

Developed draft guiding principles for acreage cap and take. Reviewed background analysis of take estimate prepared by the Permittees and discussed basis for recommendation.

Meeting #9 October 22, 2009

Continued discussions of take and acreage cap and process for analyzing impacts of take. Discussed preliminary recommendation on take.

Meeting #10 November 19, 2009

Finalized draft recommendation on take based on Level 2 consensus. Provided an overview of the covered species analysis and began deliberations to develop recommendations on revising covered species list.

Meeting #11 December 10, 2009

Continued deliberations on covered species, reviewed alternatives for revising covered species list, including Permittee recommended approach. Reviewed draft recommendation on revised covered species list. Finalized draft recommendation on covered species based on Level 2 consensus.

Meeting #12 February 18, 2010

Provided an overview of avoidance, minimization and mitigation and the elements of an HCP. Discussed concepts of maximum extent practicable and commensurability of minimization and mitigation.

Meeting #13 March 18, 2010

Continued discussion of minimization and mitigation and adopted guiding principles. Reviewed proposed minimization measures and process used to review and evaluate possible minimization measures. Discussed development of proposed impact zones for implementation of minimization.

Meeting #14 April 8, 2010

Provided an overview of mitigation and the proposed Reserve System recommended by the Permittees, including options available for mitigation and process used to develop proposed reserve System. Considered and discussed draft recommendation on minimization.

Meeting #15 June 10, 2010

Continued discussion of minimization and mitigation options. Finalized draft recommendation on minimization based on Level 2 consensus.

Meeting #16 July 10, 2010

Discussed alternatives to Reserve System and potential variations to BLM transfer. Began developing draft recommendation on mitigation. Discussed implementation and governance issues associated with the MSHCP and compared current model with other regional HCPs. Finalized draft recommendation on mitigation based on Level 2 consensus.

Meeting #17 August 26, 2010

Continued deliberations on implementation and governance, including fee collection and minimization, reserve management, independent technical advice, and compliance and accountability. Considered draft recommendation on implementation and governance.

Meeting #18 September 16, 2010

Finalized draft recommendation on implementation and governance based on Level 2 consensus. Called for and received Level 3 consensus from the Committee on all recommendations and guiding principles. Discussed and finalized draft recommendations report.

Meeting #19 October 7, 2010

Review of Committee process and accomplishments to date. Approval of final recommendations report. Discussion regarding next steps and future Committee role.

CHARTER

Clark County Desert Conservation Program Community Advisory Committee 01/06/2009

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Mission and Purpose

The Community Advisory Committee (Advisory Committee) is an advisory group appointed by the Clark County Board of County Commissioners (BCC) in its capacity as the Multiple Species Habitat Conservation Plan (MSHCP) Administrator. The Advisory Committee broadly represents the diverse interests and needs of the communities and government agencies in Clark County as they relate to the implementation and/or amendment of the MSHCP and associated incidental take permit under the federal Endangered Species Act.

More specifically, the Advisory Committee will provide recommendations to the BCC and other permittee governing bodies regarding amendment of the MSHCP. Topics may include covered species, mitigation scenarios, funding recommendations and implementation strategies. The goal of the Advisory Committee is to develop consensus advice and recommendations regarding amendment and implementation of the MSHCP. Neutral facilitation services will be used to ensure that meetings remain focused and productive.

The Advisory Committee will be supported by the Clark County Desert Conservation Program staff, staff from the permittees, and other outside consultants and technical experts, as needed.

The Advisory Committee will assist the broader public in becoming more informed and meaningfully involved in species conservation in Clark County through open public meetings, advice on MSHCP amendment and implementation, and the ongoing responsibilities of Advisory Committee members to communicate with their respective constituencies.

<u>Membership</u>

The DCP Program Advisory Committee is comprised of 21 BCC-appointed members who represent a balance of stakeholder interests in the following categories:

- Environmental (2)
- Developer/Homebuilder (2)
- Education (2)
- Nevada Taxpayers Association (1)
- Gaming (1)
- Off-Highway Vehicle (1)
- Banking/Finance (1)
- Business/Small Business (2)
- Rural community (1)
- Senior (2)
- Tribal representative (1)
- Union (1)
- Southern Nevada residents at-large (5)

The municipalities of Boulder City, Henderson, Las Vegas, Mesquite and North Las Vegas will coordinate with the MSHCP Plan Administrator to identify representatives for the five seats allocated for southern Nevada residents. Individuals appointed to these five seats are not expected to represent their city governments on the Advisory Committee. Rather, they will provide a geographic, public-at-large balance of representation for the Advisory Committee.

Roles, Accountability and Mutual Responsibilities

1. Individuals and Agencies

Members will abide by the following norms that will guide the operation of the Advisory Committee:

- Members will acknowledge the group's diversity and value different points of view. They will respect each other's opinions and will operate in consistently constructive ways, even if other members are less constructive. They will avoid personal attacks.
- Members will make every effort to attend meetings, to participate actively, to read and be prepared to discuss information and issues, and to be available for work between formal meetings. They will represent information, especially information contained in draft documents, accurately and appropriately.
- Members will listen carefully to each other and not interrupt. They will keep an open mind and come to meetings with interests, not entrenched positions. They will identify their interests and objectives to everyone. They will also openly explain and discuss the reasons behind their statements, questions and actions.

- Members will be responsible for representing the interests and concerns of the constituencies they represent at the table. They will consult with their constituencies on a regular basis concerning the discussions and recommendations of the Advisory Committee.
- Members are expected to represent the interest associated with their single seat. Members are responsible for keeping each other informed and briefed on the issues pertaining to Advisory Committee activities and of the interests that they represent. Meeting agendas will not include time for recapping past discussions and decisions for the purposes of updating members who have missed past meetings.
- In striving to reach consensus and agreement, members will listen carefully to the views expressed by others, avoid interruptions, and seek ways to reconcile others' views with their own. They will focus on constructive problem solving and providing input into key issues that can become the basis for consensus recommendations.
- Members will adhere to the group's ground rules and respect the procedural guidance of the Plan Administrator and Advisory Committee Facilitator.

2. The Advisory Committee as a Group

The following norms will guide the work of the Advisory Committee:

Compliance with State and County mandates

- Advisory Committee meetings and activities will fully comply with State of Nevada and Clark County laws, statutes, regulations, and policies concerning ethics, conflict of interest, and open meetings.
- All Advisory Committee meetings, including any subcommittee or working group meetings, shall be open to the public.
- Advisory Committee discussions and deliberations shall be open, transparent, and in compliance with the state statutes governing serial communications.

Balanced representation of interests

- Each committee member will have a single seat at the table. Where applicable, members are responsible for ensuring that their constituency is represented by a single voice at each meeting.
- The Advisory Committee is expected to be a well-informed group focused on problem solving and providing constructive input on MSHCP revision and implementation

Use of time

• All members and agency staff will respect time by being on time. Meetings will begin and end on time unless otherwise agreed to by the Committee.

• When making comments, members and other meeting participants will consider the time needed for others to share their perspectives.

External communications

- All members and agency staff will avoid characterizing the views or opinions of other Advisory Committee members outside of any Committee meeting or activity.
- All members and agency staff will accurately describe the level of consensus or agreement that has been achieved for every adopted Advisory Committee recommendation that is conveyed to any agency or outside party.

Committee Records, including Advice and Recommendations

- The Committee will maintain a written record that will accurately summarize the content of any recommendations made by the Committee at Committee meetings. This written summary will be prepared in draft form and all Committee members will be provided an opportunity to suggest revisions to a draft meeting summary if they do not believe it accurately portrays the content of the Committee's deliberations.
- All Advisory Committee advice and recommendations shall be documented in writing in meeting summaries. A final report will be prepared to document the process and recommendations of the Advisory Committee. The Advisory Committee will forward the Final Report to the BCC for its consideration.
- All Advisory Committee and working group meetings will be recorded in accordance with Nevada Open Meeting Law.

Development of Committee Advice and Recommendations

- The initial impetus for the research and consideration of an issue upon which Advisory Committee advice or recommendations may be needed may come from a request of a Permittee, the Plan Administrator, an individual Advisory Committee member, a chartered working group or the Advisory Committee as a whole.
- If draft advice or recommendations are under development and deliberation by a working group, they may not be presented to the Advisory Committee without the agreement of the working group. Once a working group has come to agreement upon the draft advice to be presented to the full Committee, members cannot re-open working group agreements or change their support for the draft advice unless significant new information has come to light after the working group reached agreement. In the event that a working group can not reach agreement on the advice within a reasonable amount of time or the time allotted within its charter, the working group will defer the issue back to the Advisory Committee for action.

Working Groups

• The Advisory Committee may create special working groups to address specific issues directly related to the Committee's mission and purpose. Prior to commencing work, each of these working groups will have a short, written charter that outlines purpose and mission;

scope and authority; deliverables and work products; membership roles and responsibilities; and the specific timeframe associated with the group's work.

Evaluation and reflection

• At the end of the year, or at other times as necessary, the Committee will evaluate the effectiveness of the Advisory Committee and its working groups in accomplishing their missions.

Public comment during meetings

- The public will be given the opportunity for at least one formal comment period during the course of each Advisory Committee or working group meeting.
- Those wishing to provide public comment will be strongly encouraged to direct their comments towards the issues and topics of focus on the agenda of individual meetings.
- All Committee members are strongly discouraged from making statements as individuals during public comment periods.
- Members of the audience not at the table and observers are asked to refrain from making statements except during public comment periods.

Decision Making

1. Consensus

The Advisory Committee will operate by consensus to the extent practicable. All members agree to work to minimize and avoid the use of formal voting whenever possible.

Consensus will represent substantial agreement that the Committee agrees it can move forward. The Committee recognizes that there are several levels of consensus that may be possible. The first is unanimous agreement among all Committee members. The second is a consensus that can be characterized as all Committee members being willing to "live with" a recommendation. The third is one or more Committee members registering dissent but not wishing to block the Committee from providing advice that might otherwise be characterized as a consensus of the Committee but for their dissent. At this level, the Committee can acknowledge disagreement and document the reasons. This will be termed broad support for a particular recommendation, meaning that most of Committee members support a particular recommendation, but there are specific and identifiable areas of disagreement by a few members.

In conveying recommendations, it is incumbent upon the Committee to accurately describe the level of consensus that has been achieved. If consensus cannot be reached, and the Committee still wishes to convey advice on an issue, the views of Committee members may be expressed through majority and minority reports. The Facilitators are responsible for seeking and probing for consensus.

In addition to expressing consent or dissent regarding Committee recommendations, Committee members are free to abstain from a determination of consensus if they have a conflict of interest that would prevent them from offering such advice, if it is not part of the mission or role of their organization or constituents to participate in discussions on the topic of the recommendations, or for whatever other reasons they may

choose. It is the responsibility of each Committee member to affirmatively state their desire to abstain from participating in a determination of consensus if they so choose.

It is understood that a Committee member's absence from a meeting does not imply consent to any recommendation. In addition, a member's absence is not sufficient to compel the re-opening of a discussion or an adopted recommendation for reconsideration.

In no instance shall the Advisory Committee convey consensus recommendations or characterize its advice as being a consensus of the Committee unless there exists a quorum of at least half of the BCC-appointed members in attendance at the meeting at which consensus was determined.

2. Voting

For most Advisory Committee issues and recommendations, only after exhausting attempts to resolve conflicts and agree on a mutually acceptable recommendation will the Committee be asked to vote. A simple majority of the BCC-appointed seats in attendance will allow such recommendations to move forward, provided that a quorum is present at the time. If a vote of a quorum of the BCC-appointed seats in attendance results in a tie, the vote will be recorded as a failure to pass and is insufficient to take action. If a subsequent motion and vote does not result in a simple majority, it will be recorded as a failure to pass and will result in no recommendations being made by the Advisory Committee. The areas of disagreement and the levels of agreement and disagreement will be documented fully and represented faithfully to those outside the Advisory Committee, including their communication and transmission along with recommendations or the lack there of.

3. Facilitation Team

The Plan Administrator has the discretion to engage professional facilitators to support the Advisory Committee. The facilitation team will be charged with the following responsibilities:

- Helping the Advisory Committee accomplish its mission in a neutral, balanced, and fair manner;
- Collaboratively developing meeting agendas and meeting designs;
- Keeping Advisory Committee discussions focused and on track;
- Consulting with the Plan Administrator, and others, as appropriate, regarding process management and the resolution of issues of concern; and
- Developing draft and final meeting summaries.

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During the work of the Committee the model used for decision making was based on levels of consensus. Below are definitions of the three levels of consensus as used during this process.

Level 1: I understand it.

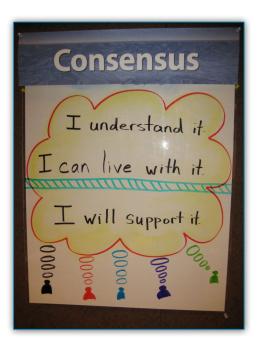
Though I may not be in total agreement with all that's been discussed, I have had an opportunity to express my feelings about the topics, have my questions answered, and am supportive of moving forward with the discussions.

Level 2: I can live with it.

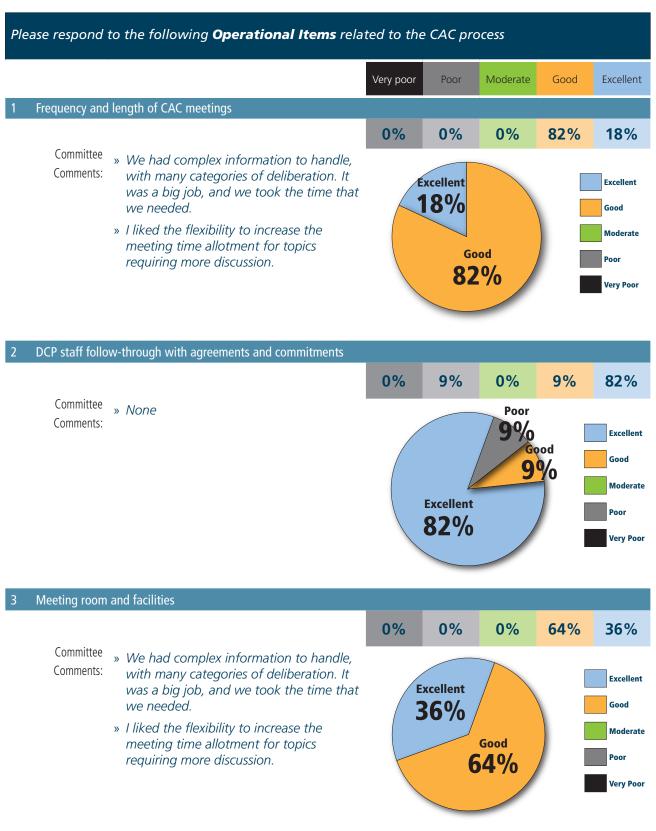
As discussions have continued and recommendations have been developed, I feel the result accurately reflects the group's discussion and though not a perfect solution, adequately addresses or acknowledges my positions in relation to this topic. I am supportive of continuing the overall discussion with the understanding that I will have an opportunity to review this recommendation in context with all other recommendations.

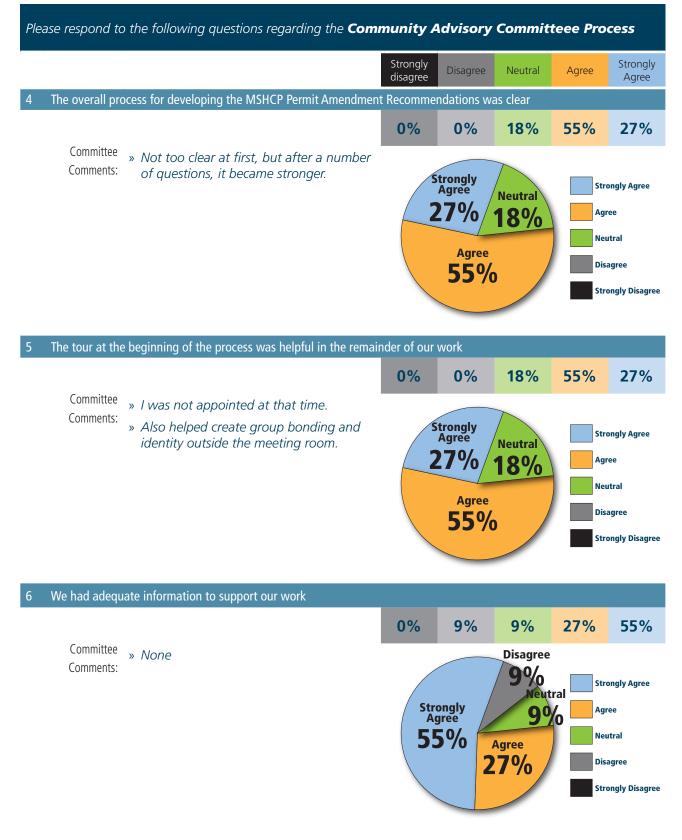
Level 3: I will support it.

This recommendation has been reviewed, deliberated and discussed sufficiently among the group and accurately reflects the will of the committee as a whole related to this topic. I have had a chance to express support, ideas and/or concerns related to this recommendation, which have been noted and are reflected in the recommendation itself or in the accompanying "Noteworthy Items from the Committee" section. In conjunction with the other recommendations, this accurately reflects the will of the Committee as a whole. As such, I will support this recommendation.



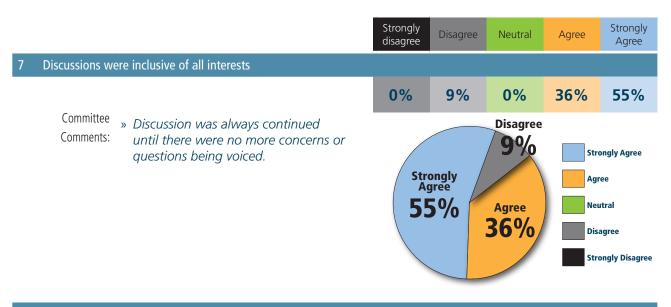
The results of the CAC Process Survey are listed below (Survey instrument can be found starting on page 121). Eleven members of the CAC responded to the survey. This represents a quorum of the process participants.





Survey Results

Community Advisory Committee



8 What worked well with the CAC process?

Responses: » Th

- » The goals for the work were always clear.
- » Communication with many/all of the CAC members between meetings was helpful. I was able to formulate where I wanted to go with each meeting beforehand with more than just the minutes and a few handouts to guide me. Open communication is always beneficial.
- » Open and productive dialogue, staff were very helpful and provided us with everything we requested to make informed decisions throughout the process.
- » Inclusive and knowledgable members with active partipation.
- » Everybody involved was very professional and excellent in presentations.
- » Wall board listing of positions.
- » The facilitators were able to keep the discussion moving.
- » The opportunity to provide differing opinions.
- » All points of view considered, process was deliberative.
- » Team did a good job answering all questions and keeping process going.

9 What did not work well with the CAC process?

Responses:

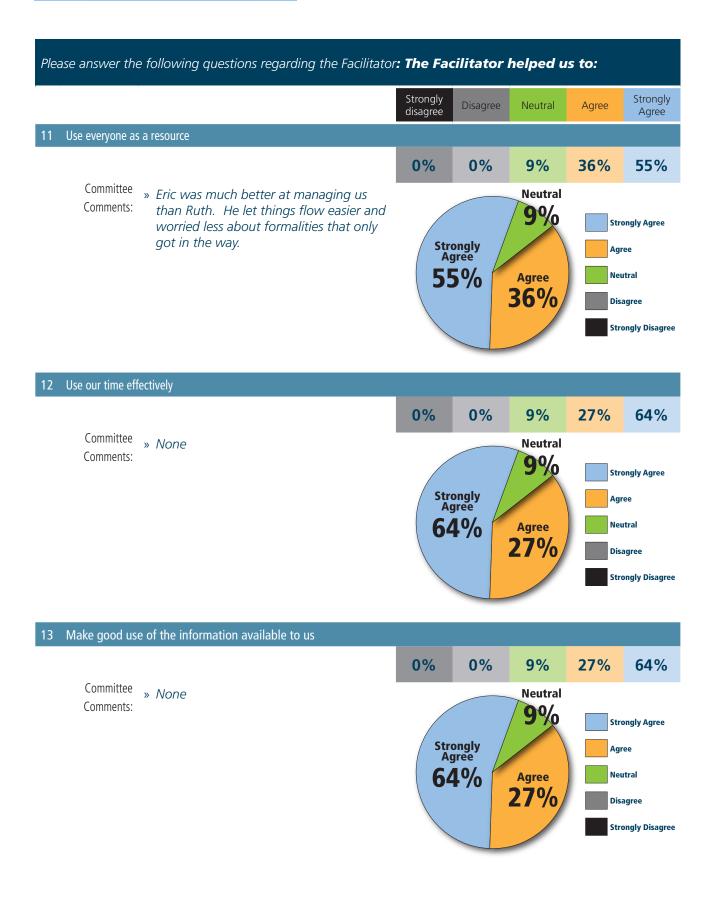
- » I would have liked to see more regular participation of some individuals.
- » Staff would formulate ideas and tell us all they could; problem was that they could not be as open as they possibly wanted so it took us asking a lot of questions to understand the underlying game plan. Then they did some individual lunches which began to really help.
- » Too many development industry interests on the committee. Almost all of the local municipality representatives were developers and I feel it weighted the ultimate outcome in favor of the development industries recommendations. It was disappointing to see some of the committee members miss so many meetings, including myself. It would have been helpful to have had the ability to send in a proxy from our organization or community.
- » Concern about the need to accelerate the process in spite of current economic conditions.
- » None
- » N/A
- » N/A
- » The consensus process was very forced in favor of consensus.
- » Quorum issues.
- » I am not sure we spent adequate time on some issues.

10 What would you do differently in the future?

- Responses: » My most uncomfortable moments were when staff was recommending something and had not flushed out the idea yet with the agency (like the BLM conveyance). I realize they were coming to us first for input, but it made some of the meetings tough to get through since people couldn't go with the flow and wanted answers on the spot. Think about how to strike a balance in the future between getting advice first and introducing an idea to the agency to get early general feedback before presentation to the CAC.
 - » I would create a more balanced committee from the beginning. I would have included individuals with a background in biology and more academics. The development industry representatives are fine people, but they are motivated by a something other than the public's interests.
 - » More active participation from the FWS.
 - » None
 - » Foster more informal dialog among members.
 - » I think there should have been some attendance requirement to retain a seat on the committee. People who never showed up had a negative impact on our ability to secure a quorum for action items.
 - » I would request more information on recommendations of permittees.
 - » Kidnap members to insure quorum.
 - » Allow longer time period to iron out differences amongst panel.

Survey Results

Community Advisory Committee

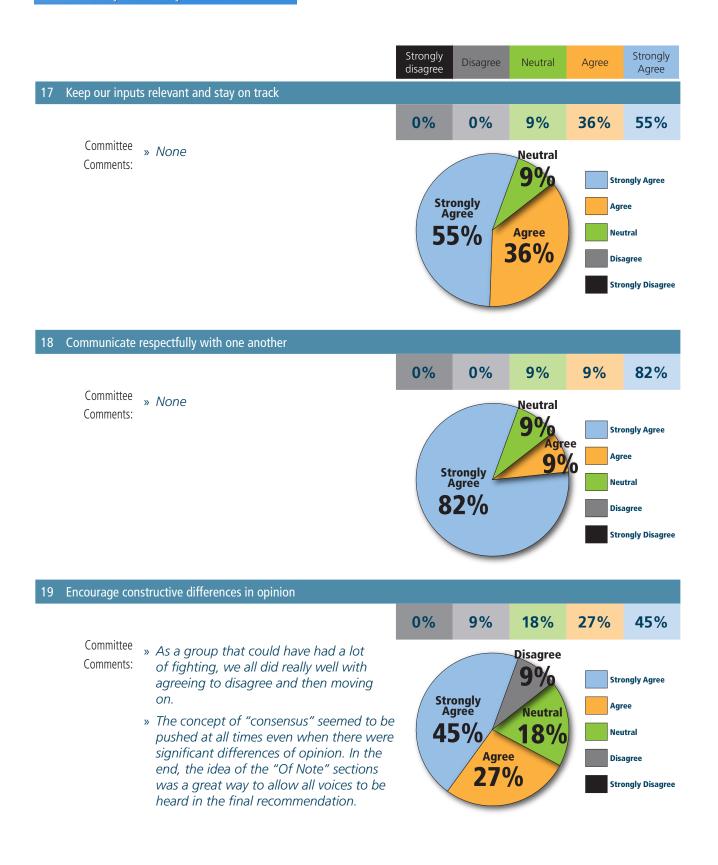


14 Adhere to our charter, ground rules and operating guidelines 0% 9% 0% 27% 64% Committee Disagree » None Comments: 9% Strongly Agree Agree Strongly Agree Agree **64%** Neutral 27% Disagree Strongly Disagree 15 Remain clear about our tasks and responsibilities 0% 0% **9%** 27% 64% Committee Neutral » None Comments: 9% Strongly Agree Strongly Agree Agree 64% Agree **27%** Neutral Disagree Strongly Disagree

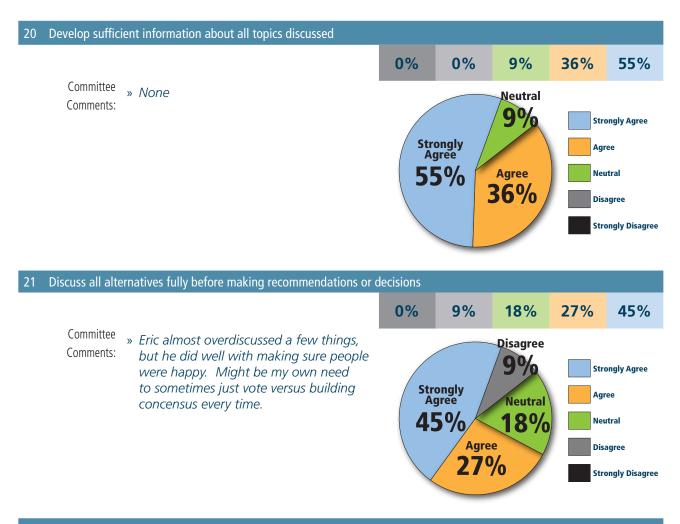
16 Use processes and tools that were helpful in our deliberations and	d decision r	naking			
	0%	0%	18%	27%	55%
Committee » None Comments:		5% 📁	Neutral 18% Agree 27%	Agr Neu Disa	ongly Agree ee ttral agree ongly Disagree

Survey Results

Community Advisory Committee



Community Advisory Committee

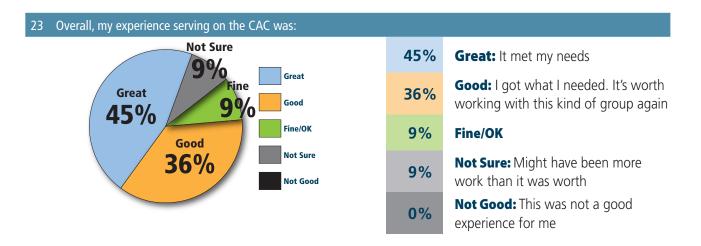


22 I wish the facilitator, staff and/or advisory committee had done...

Responses: » Everything was great

- » More to encourage a relaxed level of interaction among committee members at opportune moments during "break periods".
- » There should have been notes regarding all meetings taking place with individual members or select groups of members. I would like to have been privy to these discussions so that I could be more informed in my own opinions. It seems that these meetings should have been apart of the official record anyway.
- » Had provided time for discussion, especially the last two meetings.
- » I was ok with the outcome and processes used by both!

Community Advisory Committee



24 Other comments or suggestions:

- Comments: » I think that the staff and consultants did a tremendous job and I would happily re-visit this process again.
 - » Overall, the process was well-organized and executed.
 - » The process was basically designed to support the permittee's recommendations with very little room for differing opinions.
 - » Great job folks.
 - » We recognized early on that this was not the place to develop limits on growth growth.

CAC Process Survey October 2010

desert conservation PROGRAM respect, protect and enjoy our desert!

Thank you for taking a few minutes to complete this survey. Your participation in the Community Advisory Committee process has been invaluable, and we'd like your feedback on the process and what we could have done to make it more effective.

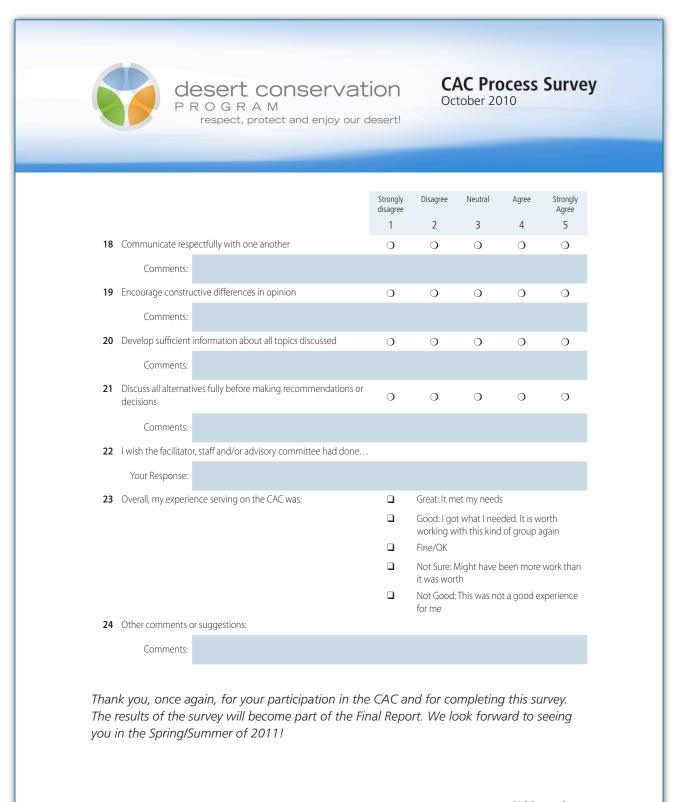
For each of the questions where you're asked to give a response from 1 to 5, please select just one answer. Additional comments to each question are always welcome in the space provided (the text will automatically resize itself so your answer will fit).

Please	e respond to the following Operational Items related to the CAC proc					
		Very poor 1	Poor 2	Moderate 3	Good 4	Excellent 5
1	Frequency and length of CAC meetings	0	0	0	4 O	0
	Comments:					
2	DCP staff follow-through with agreements and commitment	ts O	0	0	0	0
	Comments:			9		9
3		0	0	0	0	0
5		0	0	0	0	0
	Comments:					
Please	e respond to the following questions regarding the Community Advis	sory Committeee Pro Strongly	cess Disagree	Neutral	Agree	Strongly
		disagree	5		5	Agree
4	The everall process for developing the MCUCD Dormit	1	2	3	4	5
4	The overall process for developing the MSHCP Permit Amendment Recommendations was clear	О	О	О	О	О
	Comments:					
5	The tour at the beginning of the process was helpful in the remainder of our work	О	О	О	О	О
	Comments:					
6	We had adequate information to support our work	О	О	0	0	0
	Comments:					
7	Discussions were inclusive of all interests	О	О	0	0	0
	Comments:					
				prepared	: 13 October	ocess Surv 2010 7:30 page 1 o

Survey	Instr	umer	٦t

Community Advisory Committee

	PROGRAM respect, protect and enjoy our		C Oc	AC Pro	DCESS 010	Surve
8	What worked well with the CAC process?					
	Your Response:					
9	What did not work well with the CAC process?					
	Your Response:					
10	What would you do differently in the future?					
	Your Response:					
0/	te da e un					
Pleas	e answer the following questions regarding the Facilitator	Strongly	Disagree	Neutral	Agree	Strongly
	The Facilitator helped us to:	disagree 1	2	3	4	Agree 5
11	Use everyone as a resource	О	О	0	0	0
	Comments:					
12	Use our time effectively	0	О	О	О	О
	Comments:					
13	Make good use of the information available to us	О	О	0	0	О
	Comments:					
14	Adhere to our charter, ground rules and operating guidelines	0	О	0	0	О
	Comments:					
	Remain clear about our tasks and responsibilities	0	О	0	0	0
15	Comments:					
15		0	0	О	0	О
	Use processes and tools that were helpful in our deliberations and decision making					
	Use processes and tools that were helpful in our deliberations and decision making Comments:					
16	and decision making	0	0	О	О	0
16	and decision making Comments:	О	0	0	0	О
16	and decision making Comments: Keep our inputs relevant and stay on track	О	О	0	0	0



CAC Process Survey prepared: 13 October 2010 7:30 AM page 3 of 3 The Clark County Desert Conservation Program wishes to acknowlegde the following individuals and organizations for their efforts and participation in the Community Advisory Committee process and in the development of the amended Multiple Species Habitat Conservation Plan:



Clark County Board of County Commissioners

- » Rory Reid, Chair
- » Susan Brager, Vice Chair
- » Larry Brown
- » Tom Collins
- » Chris Giunchigliani
- » Steve Sisolak
- » Lawrence Weekly
- » Virginia Valentine, County Manager
- » Randy Tarr, Assistant County Manager
- » Jeff Wells, Assistant County Manager
- » Lewis Wallenmeyer, Director, Dept. of Air Quality & Environmental Management
- » Catherine Jorgenson, Deputy District Attorney



Clark County Desert Conservation Program

- » Marci Henson, Manager
- » Jodi Bechtel
- » Lee Bice
- » Elaine Evans
- » Ann Magliere
- » John Tennert
- » Sara Zimnavoda



Permitees

City of Las Vegas » Betsy Fretwell, City Manager

- Tom Derrigo
- » Tom Perrigo
- » Flinn Fagg» Cheng Shih



City of Boulder City

- » Vicki Mayes, City Manager
- » Brok Armantrout

Mesquite City of Mesquite

- » Tim Hacker, City Manager
- » Catherine Lorbeer
- » John Willis



City of Henderson

- » Mark Calhoun, City Manager
- » Bristol Ellington
- » Stephanie Garcia-Vause
- » Tracy Foutz
- » Michael Johnson
- » Michael Tassi



City of North Las Vegas

- » Mary Ann Ustick, City Manager
- » Frank Fiori
- » Johanna Murphy
- » Vickie Adams



Process Consultants

Nicholson Facilitation & Associates, LLC

- » Ruth Nicholson, Lead Facilitator
- » Eric Hawkins, Co-Facilitator and Process Consultant
- » Doug Huston, Logistics Coordinator and Process Documentation



H2 Outreach, LLC

» Eric Hawkins, Final Facilitation, Process Consulting and Report Preparation



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» Sean Skaggs, Legal Counsel



ICF International

» David Zippin, Biological Consultant

Kirchoff and Associates

» Bill & Cindy Kirchoff, Management Consultants

Participating Agencies



US Fish & Wildlife Service

- » Roy Averill-Murray
- » Jeri Krueger



Bureau of Land Management

- » Gayle Marrs-Smith
- » Carrie Ronning



National Park Service

» Ross Haley

Others

- » Bob Oliver, BC Conservation Area Law Enforcement
- » Regional Transportation Commission of Southern NV, Facilities

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Prepared October 2010 by



www.h2outreach.com see inside back cover for additional acknowledgements