4.0 ENVIRONMENTAL CONSEQUENCES

This chapter addresses the direct, indirect and cumulative impacts on elements of the human environment from actions proposed in the CDCA Plan Amendment and the Trails Management Plan, separately. This chapter is organized by environmental element, followed by a description and comparison of impacts from the relevant plan element alternatives.

4.1 Coachella Valley California Desert Conservation Area Plan Amendment

Land use plans, such as the CDCA Plan Amendment, developed in accordance with Title 43 Code of Federal Regulations, provide landscape level decisions for managing the BLM-administered public lands. As a result, the impact analysis for land use plans level actions tend to be cumulative by nature.

4.1.1 Land Use Designations

This section describes impacts to the following special area designations: areas of critical environmental concern (ACEC), Wild and Scenic Rivers, wilderness areas, farmlands, livestock grazing, and wild horse and burro management areas.

4.1.1.1 **Areas of Critical Environmental Concern**

Preferred Alternative (A). No new ACECs would be designated under this alternative. BLM-managed lands within the CVMSHCP conservation area would be designated as a Wildlife Habitat Management Area (23,631 acres). The Wildlife Habitat Management Area designation itself would have no direct impact on the resources or allowable uses within that area. The allowable uses within the Wildlife Habitat Management Area and resultant impact on resources contained therein, will depend on the management guidance established for the Wildlife Habitat Management Area.

This CDCA Plan Amendment presents alternative strategies which would guide management of the Wildlife Habitat Management Area and may result in changes in land use, such as motorized vehicle access, utilities, sand and gravel mining, etc. The remainder of this chapter analyzes how the various alternative strategies impact use of the public lands and the resources contained therein.

Additional management prescriptions may be adopted though the final CVMSHCP planning effort. Cumulatively, implementation of the management prescriptions within CVMSHCP conservation areas would result in less intensive use of the public lands in order to facilitate multi-species habitat conservation and management.

Alternative B. Within the CVMSHCP conservation area, 7,292 acres would be designated as Areas of Critical Environmental Concern in addition to the existing 51,190 acres of ACECs, and the remaining 16,338 acres would be designated as WHMA. Similar to Alternative A, the ACEC and WHMA designations themselves would have no direct impact on the resources or allowable uses within that area. The allowable uses within the ACECs and WHMAs and resultant impact on resources contained therein, will depend on the management guidance established for the Wildlife Habitat Management Area.

ACECs can only be designated if there are relevant and important resources in need of special management protection in accordance with law, regulation and policy. While the importance of the potential ACECs could be demonstrated (see Chapter 3 of this document), the relevance of these potential ACECs could not be established at this time because several of the threatened and endangered species distribution maps were based on modeling and were not verified through field surveys.

Alternative C. Under this alternative, 23,631 acres of BLM land would be designated as an Area of Critical Environmental Concern. While the importance of this potential ACEC could be demonstrated, the relevance could not be established at this time because several of the threatened and endangered species distribution maps were based on modeling and were not verified through field surveys.

Alternative D. No new Areas of Critical Environmental Concern nor Wildlife Habitat Management Areas would be designated at this time. Existing area designations would remain unchanged. Sensitive resources would still be taken into consideration in accordance with law, regulation and policy, when evaluating the compatibility of land use proposals on the BLM-managed lands. However, this evaluation would occur on a project-by-project basis without benefit of a landscape perspective for multi-species management.

4.1.1.2 **Wild and Scenic Rivers**

Wild and Scenic River Eligibility Determinations. Wild and Scenic River eligibility determinations made through this plan amendment apply only to river segments on BLM-managed public lands. River segments determined eligible are located in Whitewater Canyon, Mission Creek (main channel, North Fork, South Fork, and West Fork), and Palm Canyon (Alternatives A, B and C). Of these segments, 6.5 miles of Whitewater Canyon, 5.2 miles of the Mission Creek main channel, 0.4 miles of Mission Creek North Fork, 1.1 miles of Mission Creek South Fork, and 2.9 miles of Mission Creek West Fork, totaling 16.1 miles in length, occur within the San Gorgonio Wilderness Additions; outside this wilderness area, 1.6 miles of Whitewater Canyon and 1.4 miles of the Mission Creek main channel occur in a CVMSHCP conservation area. The 1.2-mile eligible river segment in Palm Canyon is located within the Santa Rosa and San Jacinto Mountains National Monument.

Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORV’s) which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Protective management measures described in Appendix B meet these requirements. Hence, eligibility of the identified BLM-managed river segments under the Preferred Alternative would not be compromised prior to determinations of suitability or non-suitability as Wild and Scenic Rivers.

As determinations regarding eligibility of BLM-managed river segments for designation as Wild and Scenic Rivers would not be made at this time under Alternative D, impacts to possible eligible segments consequent to existing management are unknown; protective management measures pending determinations of suitability or non-suitability would not be identified. However, it is anticipated that existing management of designated wilderness would not compromise future determinations of eligibility for river segments therein. The free-flowing character and resource values of river segments in the Santa Rosa and San Jacinto Mountains National Monument would likely be adequately protected under provisions of the establishing legislation.

Visual Resource Management. Managing BLM lands along 16.1 miles of eligible river segments in Whitewater Canyon and Mission Creek (main channel and its three forks) within the San Gorgonio Wilderness Additions in accordance with Visual Resource Management (VRM) Class 1 objectives (all Alternatives) would maintain scenic values and is consistent with BLM policy that such management of visual resources be applied to Wild and Scenic Rivers upon designation. Outside the San Gorgonio Wilderness Additions, 1.6 miles of Whitewater Canyon and 1.4 miles of Mission Creek (main channel) would be managed in accordance with VRM Class 2 objectives. Such management would be inconsistent with BLM policy should these segments of Whitewater Canyon and Mission Creek be designated as Wild and Scenic Rivers. In

the meantime, however, protective management measures identified in Appendix B would maintain scenic values in these river corridors during preparation of a suitability study.

Designation of the Santa Rosa and San Jacinto Mountains National Monument as VRM Class 2 (Alternatives A, B and C) would be inconsistent with BLM policy should the BLM-managed segment of Palm Canyon (1.2 miles in length) be designated as a Wild and Scenic River. However, protective management measures identified in Appendix B would maintain scenic values within Palm Canyon during the suitability study phase.

The effects of managing BLM lands consistent with interim VRM objectives established on a case-by-case basis when project proposals are submitted (Alternative D), except for lands within the Santa Rosa and San Gorgonio Wilderness Additions which are managed in accordance with VRM Class 1 objectives by policy, would be the same as for the Preferred Alternative; protective management measures must be undertaken for all river segments determined eligible for designation as Wild and Scenic Rivers. Scenic values of eligible river segments would not likely be adversely affected under this Alternative.

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards and the air quality management strategy (Alternatives A, B and C) would help maintain and could enhance the outstandingly remarkable wildlife values of BLM-managed river segments located in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) where appropriate levels of soil infiltration and permeability are retained, habitats for native species are protected, proper riparian/wetland and stream function is facilitated, and air water quality is maintained. Where conditions of these resources are improved, outstandingly remarkable values could be enhanced.

Relative to the river segments identified under the Preferred Alternative as eligible for Wild and Scenic River designation, management of all activities in accordance with National Fallback Standards adopted as regional land health standards (Alternative D) would help maintain outstandingly remarkable wildlife values of BLM-managed river segments located in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon where appropriate soil infiltration and permeability rates are retained, habitats for native species are protected, and riparian/wetland and stream function in facilitated. Where conditions of these resources are improved, outstandingly remarkable values could be enhanced.

Multiple Use Classification. The Santa Rosa and San Gorgonio Wilderness Additions are designated as Multiple-Use Class “C” (Controlled Use) in accordance with the CDCA Plan (1980, as amended). Non-wilderness lands within the Santa Rosa and San Jacinto Mountains National Monument, and within CVMSHCP conservation areas would be classified as Multiple-Use Class “L” (Limited Use). Management of river segments on BLM lands in Whitewater Canyon, along Mission Creek (main channel and its three forks), and in Palm Canyon (totaling 20.3 miles in length) according to Multiple-Use

Class “C” and “L” guidelines and in accordance with the Wilderness Act of 1964, the California Desert Protection Act of 1994, and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, where applicable, would not adversely affect the eligibility of these segments as Wild and Scenic Rivers (all Alternatives).

Habitat Conservation Objectives. Management of all activities consistent with habitat conservation objectives identified in Table 2-4 (Alternatives B and C) would help maintain the outstandingly remarkable wildlife values of BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) where habitat conditions for sensitive species are minimally disturbed. Where habitat conditions for sensitive species are improved, outstandingly remarkable values could be enhanced.

Management direction provided by the Wilderness Act of 1964 and the California Desert Protection Act of 1994 regarding allowable uses within the Santa Rosa and San Gorgonio Wilderness Additions, and guidance provided by the Santa Rosa and San Jacinto National Monument Act of 2000 regarding allowable uses in Palm Canyon afford protection for existing habitats of sensitive species therein (all Alternatives); outstandingly remarkable wildlife values of BLM-managed river segments within these areas would not be compromised. Further, protective management measures undertaken for all river segments determined eligible for designation as Wild and Scenic Rivers as required by the Wild and Scenic Rivers Act would protect existing habitats for species that constitute outstandingly remarkable values (Apdx B).

Fire Management. Fire suppression in habitat types where fire has not historically played a large role in the development and maintenance of these communities would help sustain the natural wilderness character of Whitewater Canyon and Mission Creek (main channel and its three forks) within the San Gorgonio Wilderness Additions, thereby protecting the outstandingly remarkable wildlife values that establish, in part, the eligibility of 16.1 miles of river segments at these locations as Wild and Scenic Rivers (Alternatives B and C). Prescribed fires in wilderness are consistent with BLM policy where the natural condition of a fire-dependent ecosystem would be reintroduced or maintained; where past strict fire control measures have interfered with natural, ecological processes; where a primary value of a given wilderness would be perpetuated; or where a threatened or endangered species would be perpetuated. The fire management categories established under these alternatives would be consistent with BLM policy.

Fire suppression and/or prescribed fires on BLM-managed lands outside designated wilderness in Whitewater Canyon, along Mission Creek, and in Palm Canyon would likewise protect the outstandingly remarkable wildlife values of river segments at these locations (totaling 4.2 miles in length), though the extent to which these values would benefit from fire management actions undertaken in accordance with the fire management categories is unknown.

Managing fires in accordance with the CDCA Plan and the District-wide Fire Management Plan (Alternatives A and D) would help sustain the outstandingly remarkable wildlife values for BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon by maintaining natural conditions. In accordance with BLM policy relative to river segments in the San Gorgonio Wilderness Additions, all fire management plans must consider wilderness management objectives, historic fire occurrence, natural role of fire, proposed degree of suppression, and acceptable suppression techniques. These considerations lend themselves to protection of ORVs.

Special Area Designations. No impacts to eligible Wild and Scenic River segments within the San Gorgonio Wilderness Additions and Santa Rosa and San Jacinto Mountains National Monument would occur as no new special area designations (ACECs or WHMAs) are proposed for these areas (all Alternatives). The eligible segment of Whitewater Canyon outside wilderness occurs within the existing Whitewater Canyon ACEC; no changes in special area designation would occur under any Alternative. Under Alternative A, the eligible segment of Mission Creek outside wilderness would be designated as a WHMA; under Alternatives B and C, it would be designated as an ACEC. As a WHMA or ACEC, this segment of Mission Creek may receive special management attention for the protection of important wildlife resources, thereby protecting its outstandingly remarkable wildlife values.

Land Tenure: Exchange and Sale Criteria. The exchange and sale criteria under Alternatives B and C, prescribing that BLM lands would generally be retained in public ownership, supports continued protective management of eligible Wild and Scenic River segments totaling 20.3 miles in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon. However, stewardship transfer of lands in Palm Canyon with the Agua Caliente Band of Cahuilla Indians as supported by Alternatives B and C, and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 could result in the disposal of BLM-managed river segments in Palm Canyon (see “Wild Horse and Burro Program” below under this section addressing Wild and Scenic Rivers). If this occurs, responsibility for coordinating a Wild and Scenic River suitability study of Palm Canyon would transfer to the U.S. Forest Service if, as determined through its land use planning process, segments of Palm Canyon on USFS lands are determined eligible. Consideration of public land disposals on a case-by-case basis in accordance with the CDCA Plan (Alternatives A and D) would not affect eligible river segments as they must be protected pending determinations of suitability or non-suitability; disposal of these lands would not likely occur.

Land Tenure: Acquisition Criteria. Acquisition criteria under Alternatives B and C—prescribing that lands to be acquired would augment public ownership in sensitive areas, or improve biotic or abiotic habitat components of lands under conservation management—could result in additional segments of Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon being considered for eligibility as Wild and Scenic Rivers. Consideration of public land acquisitions on a case-by-case basis in accordance with the CDCA Plan (Alternatives A and D) could

similarly result in additional segments being considered for eligibility, though perhaps on a different schedule.

Management of Acquired Lands. Upon acquisition of lands in wilderness containing river segments that may be eligible for designation as Wild and Scenic Rivers, management of these lands in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 would provide sufficient protection of free-flowing characteristics and outstandingly remarkable values until determinations of suitability or non-suitability are made (all Alternatives). Regarding acquired lands within the Santa Rosa and San Jacinto Mountains National Monument, the values in Palm Canyon would be protected through management actions undertaken in accordance with the legislation establishing the National Monument (all Alternatives). Lands acquired outside wilderness and the National Monument where eligible river segments occur must be managed to protect the values herein referenced until such time that suitability determinations can be made (all Alternatives).

Communication Sites and Utilities. No impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would occur as no specific action identified under any Alternative relative to communication sites and utilities conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to private existing rights, any new communication facility or utility, or rights-of-way thereto attached, are prohibited in wilderness. Relative to the eligible BLM-managed river segment in Palm Canyon (1.2 miles in length), the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 requires that the National Monument management plan address the need for and, as necessary, establish plans for the installation, construction, and maintenance of public utility rights-of-way outside designated wilderness. In any event, eligible river segments must be managed to protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made (all Alternatives).

Sand and Gravel Mining. No impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would occur as no action identified under any Alternative relative to sand and gravel mining conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to valid existing rights, no person shall obtain any right or interest in or to any mineral deposits that may be discovered through prospecting or other information-gathering activity in designated wilderness. Relative to the eligible BLM-managed river segment in Palm Canyon (1.2 miles in length), the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 withdraws federal lands from operation of the mineral materials laws, subject to valid existing rights. Such withdrawal would help protect the free-flowing characteristics and outstandingly remarkable values of these river segments until such time suitability determinations can be made. In any event, eligible river segments must be managed to

protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made (all Alternatives).

Livestock Grazing. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, livestock grazing is provided for in wilderness where such use was established before wilderness designation. Grazing in the San Gorgonio Wilderness Additions (Whitewater grazing allotment) meets this provision. Whether grazing is continued or discontinued, impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would not be anticipated (all Alternatives). Continuance of grazing activities must conform, at a minimum, to National Fallback Standards and Guidelines which would help maintain free-flowing characteristics and outstandingly remarkable values of these river segments until such time suitability determinations can be made.

Wild Horse and Burro Program. The Palm Canyon land exchange with the Agua Caliente Band of Cahuilla Indians as proposed under Alternative B and as provided for in the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 would effectively transfer responsibility for coordinating a Wild and Scenic River suitability study of Palm Canyon to the U.S. Forest Service if, as determined through its land use planning process, segments of Palm Canyon on USFS lands are determined eligible. Until the exchange of lands occurs, management of wild horses on public lands in Palm Canyon must protect the free-flowing characteristics and outstandingly remarkable values of the BLM-managed river segment (1.2 miles in length) until such time that suitability determinations can be made (all Alternatives).

Motorized-Vehicle Area Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the CDFG, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, wilderness areas are designated as “closed” to motorized-vehicle access, thereby protecting free-flowing characteristics and outstandingly remarkable values of eligible river segments in Whitewater Canyon and Mission Creek (totaling 16.1 miles in length) from incursions by casual motorized-vehicle use (all Alternatives). Authorized motorized-vehicle access within wilderness along a portion of Mission Creek (main channel) and Mission Creek West Fork by a private landowner is not frequent and would not adversely affect outstandingly remarkable wildlife values. Motorized-vehicle access along the eligible portions of Whitewater Canyon and Mission Creek outside wilderness (totaling 3.0 miles) is restricted to routes designated “open” (Alternatives A, B and C) or existing routes (Alternative D); river values would not likely be adversely affected by such restricted use. Relative to BLM-managed lands in Palm Canyon, closing the Dry Wash route to casual motorized-vehicle access (all Alternatives) would protect river values on 1.2 miles of the channel from potential incursions by motorized vehicles.

Motorized-Vehicle Route Designations. Route designations proposed under all Alternatives would result in the same impacts to eligible BLM-managed river segments in Whitewater Canyon and Mission Creek as discussed above under "Motorized-Vehicle Area Designations." Closing the Dry Wash route to casual motorized-vehicle use (all Alternatives) would protect river values on BLM-managed lands in Palm Canyon that could be threatened by uncontrolled motorized-vehicle intrusions.

Special Recreation Management Area. The proposed Meccacopia Special Recreation Management Area (Alternatives A, B and C) is not located near any river segment on BLM-managed lands that has been determined as eligible for designation as a Wild and Scenic River.

Stopping, Parking and Vehicle Camping. Given that motorized-vehicle access is prohibited in wilderness except under certain circumstances (i.e., where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations), opportunities for the general public to stop, park, or camp with vehicles are not available. Hence, BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would not be affected (all Alternatives). Continuing the existing closure of route CV029 would preclude opportunities for vehicle camping along the eligible segment of Mission Creek outside wilderness (1.4 miles in length), thereby protecting river values from potential impacts resulting from these activities (all Alternatives). Closing the Dry Wash route to casual motorized-vehicle use under all Alternatives also eliminates opportunities to stop, park, or vehicle camp near BLM-managed lands in Palm Canyon, thereby helping to protect river values along 1.2 miles of the Canyon.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would help to conserve outstanding remarkable wildlife values in Palm Canyon related to conservation of the federally-listed Peninsular Ranges bighorn sheep.

Hiking, Biking and Equestrian Trails. Limiting non-motorized uses of the public lands to protect sensitive resources (Alternatives A, B and C) could help maintain outstandingly remarkable values of BLM-managed river segments determined eligible for designation as Wild and Scenic Rivers (river segments in Whitewater Canyon, Mission Creek, and Palm Canyon totaling 20.3 miles in length). The degree to which such values would be better protected cannot be ascertained until specific limitations on use are identified through an activity-level plan (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan). Under all Alternatives, eligible river segments must be managed to protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made.

4.1.1.3 **Wilderness**

Wild & Scenic River Eligibility Determinations. Eligibility determinations for possible inclusion of certain river segments in the National Wild and Scenic Rivers System (Alternatives A, B and C) apply only to segments on BLM-managed public lands in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon totaling 20.3 miles. Of these segments, portions in Whitewater Canyon and Mission Creek (totaling 16.1 miles) occur within the San Gorgonio Wilderness Additions. Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORVs) which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Existing management of the San Gorgonio Wilderness Additions in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 affords sufficient protection to meet these requirements. As no specific management prescriptions are proposed to additionally protect the free-flowing characteristics and ORVs of the eligible river segments in wilderness, changes to the existing wilderness values are not anticipated. Deferral of eligibility determinations for river segments on BLM-managed lands in Whitewater Canyon and Mission Creek (Alternative D) would not affect wilderness values of the San Gorgonio Wilderness Additions. Management of this area in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 affords adequate protection of wilderness values without implementing additional measures to ensure that the free-flowing characteristics and ORVs of these river segments are maintained pending a determination of suitability or non-suitability as Wild and Scenic Rivers.

Visual Resource Management. In accordance with BLM policy, wilderness areas are managed consistent with Visual Resource Management (VRM) Class 1 objectives. In VRM Class 1 areas, very limited management activities are allowed. Management of the Santa Rosa and San Gorgonio Wilderness Additions in accordance with these VRM objectives, as well as the Wilderness Act of 1964 and the California Desert Protection Act of 1994, would retain the apparent naturalness of these areas, i.e., existing visual quality would be protected on 91,327 acres (all Alternatives).

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards as specified (Alternatives A, B and C) or National Fallback Standards adopted as regional land health standards (Alternative D) would help maintain wilderness character on 160,551 acres of public lands in the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness where appropriate levels of soil infiltration and permeability are retained, habitats for native species are protected, proper riparian/wetland and stream function is facilitated, and air and water quality are maintained. Where conditions of these resources are improved, wilderness character would be enhanced.

Multiple Use Classification. The Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness are designated as Multiple-Use Class "C" (Controlled Use) in accordance with the CDCA Plan (1980, as amended). As no change in such designation is herein proposed, no impacts to wilderness values would occur under any Alternative relative to multiple-use classifications.

Habitat Conservation Objectives. Management of all activities consistent with habitat conservation objectives identified in Table 2-4 (Alternatives B and C) would help maintain wilderness character on 160,551 acres of public lands in the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness by ensuring sensitive species and their habitats are minimally disturbed. Where habitat conditions for sensitive species are improved, wilderness character would be enhanced.

Management guidance provided by the Wilderness Act of 1964 and the California Desert Protection Act of 1994 regarding allowable uses within these wilderness areas protects habitats of sensitive species therein (all Alternatives). Hence, wilderness values related to these species and their habitats would be maintained.

Fire Management. Fire suppression in habitat types where fire has not historically played a large role in the development and maintenance of these communities (Alternatives B and C) would help sustain the natural wilderness character of the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness (160,551 acres of public lands in total). Prescribed fires in wilderness are consistent with BLM policy where the natural condition of a fire-dependent ecosystem would be reintroduced or maintained; where past strict fire control measures have interfered with natural, ecological processes; where a primary value of a given wilderness would be perpetuated; or where a threatened or endangered species would be perpetuated. The fire management categories established under these alternatives would be consistent with BLM policy. The extent to which wilderness values would benefit from fire management actions undertaken in accordance with the fire management categories is unknown.

Managing fires in accordance with the CDCA Plan and the District-wide Fire Management Plan (Alternatives A and D) would help sustain the natural wilderness character of the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness by protecting natural conditions. In accordance with BLM policy, all fire management plans must consider wilderness management objectives, historic fire occurrence, natural role of fire, proposed degree of suppression, and acceptable suppression techniques.

Special Area Designations. No impacts to wilderness values would occur as no new special area designations (ACECs and WHMAs) are proposed for wilderness (all Alternatives).

Land Tenure: Exchange and Sale Criteria. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed exchange and sale criteria (Alternatives B and C) do not conflict with existing BLM strategies (Alternatives A and D) or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (the latter pertaining only to the Santa Rosa Wilderness Additions) regarding exchanges and sales of lands within designated wilderness.

Land Tenure: Acquisition Criteria. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed acquisition criteria (Alternatives B and C) do not conflict with existing BLM strategies (Alternatives A and D) or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (the latter pertaining only to the Santa Rosa Wilderness Additions) regarding acquisition of non-federal lands within designated wilderness.

Management of Acquired Lands. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed management criteria (Alternatives A, B and C) do not conflict with existing management of acquired lands in wilderness as set forth in the Wilderness Act of 1964, the California Desert Protection Act of 1994, or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (all Alternatives).

Communication Sites and Utilities. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as no specific action identified under any Alternative relative to communication sites and utilities conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to private existing rights, any new communication facility or utility, or rights-of-way thereto attached, are prohibited in wilderness.

Sand and Gravel Mining. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as no specific action identified under any Alternative relative to sand and gravel mining conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to valid existing rights, no person shall obtain any right or interest in or to any mineral deposits that may be discovered through prospecting or other information-gathering activity in designated wilderness.

Livestock Grazing. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, livestock grazing is provided for in wilderness where such use was established before wilderness designation. Grazing in the San Gorgonio Wilderness Additions (Whitewater grazing allotment) meets this provision. Whether grazing is continued or suspended, or the allotment is retired, impacts to wilderness resource values on 36,632 acres of public lands would not be anticipated (all Alternatives). Grazing activities must conform, at a minimum, to National Fallback Standards and Guidelines which would help maintain wilderness values associated with soils, riparian and wetland areas, stream function, and native species.

Wild Horse and Burro Program. Neither of the Herd Management Areas addressed in the plan occurs within designated wilderness. Hence, wilderness values would not be affected by any of the Alternatives.

Motorized-Vehicle Area Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, wilderness areas are designated as “closed” to motorized-vehicle access (all Alternatives).

Motorized-Vehicle Route Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, all routes within wilderness are designated as “closed” to casual motorized-vehicle access as a matter of course (all Alternatives).

Special Recreation Management Area. Designation of the Meccacopia Special Recreation Management Area (SRMA) in and of itself (Alternatives A, B and C) would not affect resource values on 69,224 acres of public lands within the adjacent Mecca Hills and Orocopia Mountains Wildernesses. Subsequent development of a Recreation Area Management Plan (RAMP) that addresses motorized and mechanized equipment intrusions into these wilderness areas, however, would benefit wilderness values to the degree that such intrusions are minimized upon its implementation. The degree to which vehicle intrusions would be minimized is unknown at this time.

Facets of wilderness management other than the control of motorized-vehicle access that affect wilderness values would also be addressed in the RAMP, e.g., opportunities for commercial recreation uses, opportunities for primitive types of recreation activities, and the future of existing structures. Where wilderness values can be better protected or enhanced, benefits to the wilderness resource would be accrued. However, the degree to which wilderness values would be better protected or enhanced consequent to implementation of the RAMP is unknown at this time.

No designation of a Special Recreation Management Area in the Mecca Hills/Orocopia Mountains region (Alternative D) could result in adverse impacts to wilderness values in the Mecca Hills and Orocopia Mountains Wildernesses to the degree that special or more intensive management of motorized-vehicles to minimize intrusions does not occur. With the installation of vehicle barriers and dissemination of educational

materials, vehicle intrusions into these wilderness areas have been reduced since passage of the California Desert Protection Act of 1994, though intrusions continue to occur. Future occurrences of such intrusions under existing management is unknown.

Stopping, Parking and Vehicle Camping. Given that motorized-vehicle access is prohibited in wilderness except under certain circumstances (i.e., where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations), opportunities for the general public to stop, park, or camp with vehicles are not available. Hence, proposals under any Alternative are not pertinent to designated wilderness.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would help to protect and recover populations of the federally listed Peninsular Ranges bighorn sheep, which would also help to protect and enhance wilderness values on 54,695 acres of public lands in the Santa Rosa Wilderness Additions.

Hiking, Biking and Equestrian Trails. Limiting non-motorized uses of the public lands in wilderness to protect sensitive resources (Alternatives A, B and C) could benefit resource values, as well as help maintain wilderness character on 160,551 acres where such character is based, wholly or in part, on those resources (applicable to the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness). The degree to which wilderness values would be better protected cannot be ascertained until resources to be protected and specific limitations on use are identified through an activity-level plan (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan which affects the Santa Rosa Wilderness Additions, and Meccacopia Recreation Area Management Plan which affects the Mecca Hills and Orocopia Mountains Wildernesses).

Under Alternative D, protection of resource values in wilderness from non-motorized activities would be afforded on a case-by-case basis upon identification of specific impacts and development of protective measures, including issuance of closure orders where necessary.

4.1.1.4 **Farmlands**

There are no BLM-managed lands under lease for agricultural production. Implementation of the air quality management strategy on the BLM-managed lands will help to share the responsibility for reducing air quality impacts throughout the Coachella Valley.

4.1.1.5 **Livestock Grazing**

Preferred Alternative A. Making all of the Whitewater grazing allotment temporarily unavailable for livestock use would temporarily minimize cattle trespass onto intermingled private land without fencing. Allocation of the forage to wildlife, would support efforts to recover sensitive species and riparian proper functioning condition. When grazing is re-established on 38,936 acres of public land, it would be based on a combined management strategy defined by the allotment management plan, grazing regulations, rangeland health standards, habitat conservation objectives, and biological opinions issued by the US Fish and Wildlife Service. The permitee would be subject to physical access agreements with private landowners and whether or not allotment inholders will attempt to fence cattle off of their lands. Installation of a few minor range improvements, beyond the fences referenced above, would be necessary to maintain rangeland health and to meet resource objectives based on rangeland health assessments.

Alternative B. Retiring a portion of the Whitewater grazing allotment would eliminate a maximum of 248 annual unit months from the BLM-managed lands. Making about 9,700 acres of the Whitewater grazing allotment unavailable for livestock use would make additional forage available for wildlife, minimize cattle trespass onto intermingled private land, and support efforts to recover riparian condition. No impacts to other existing BLM land use designations, potential Wild and Scenic Rivers, wilderness areas, or wild horse and burro management areas are anticipated.

Alternative C. Deleting the Whitewater allotment would make 38,936 acres unavailable for livestock grazing and eliminate a maximum of 990 annual unit months from the BLM-managed lands within the Coachella Valley. Otherwise, impacts would be similar to Alternative A.

No Acton Alternative (D). Cattle grazing use on 38,936 acres of public land could continue subject to physical access agreements with private landowners and whether or not allotment inholders will attempt to fence cattle off of their lands. However, grazing use of public lands would not be returned to the allotment until rangeland health standards are being met. When grazing is re-established, it would be based on a combined management strategy defined by the allotment management plan, grazing regulations, rangeland health standards, and biological opinions issued by the US Fish and Wildlife Service. Installation of a few minor range improvements, beyond the fences referenced above, would be necessary to maintain rangeland health and meet resource objectives based on rangeland health assessments.

The San Gorgonio Wilderness Additions (designated in the California Desert Protection Act), encompass nearly all of the Whitewater Canyon allotment. Restrictions regarding the use of motorized vehicles, mechanized equipment, and development of new range improvements limit options for the permitee in managing grazing operations to resolve rangeland health problems.

To meet land health objectives, temporary reductions or shifts in grazing activities for specific areas and periods would be employed to restore soil and vegetative conditions These potential actions could require the lessee to regularly herd cattle, or construct range improvements to control livestock movement. No impacts to cattle grazing activities are expected when conducting prescribed treatment of tamarisk infestation in Whitewater Canyon in order to meet land health standards. Exclusion of livestock from treated areas are not expected to impact grazing activities due to the lack of suitable grazing land in the rocky bottom of Whitewater Canyon. Conversion to another class of livestock for better distribution is not an option in this area due to potential interactions with bighorn sheep. The lessee would be responsible for control and management of livestock while restoration continues.

During times when the allotment is not available for grazing use, the lessee would have to remove livestock until conditions are restored or range improvements are constructed. The improved vigor of perennial vegetation from maintenance of the standards would improve cattle forage over time and increase cattle weaning weights. Livestock in better body condition would reduce death loss through stress-related diseases.

4.1.1.6 **Wild Horse and Burro Herd Management Areas**

Retaining (Alternatives A and D) the Palm Canyon and Morongo Herd Management Areas (HMA), and establishing the Palm Canyon HMA as a grazing allotment for horses (Alternative A) would not result in impacts to existing area designations, livestock grazing, potential Wild and Scenic Rivers, or wilderness areas. However, land use conflicts within multi-species habitat conservation areas may arise. (See discussion under “Biological Resources”.) The herd management areas would be assessed and additional mitigation measures may be required to assure conformance with the land health standards.

Transferring public lands to the Agua Caliente Band of Cahuilla Indians (Preferred Alternative - B) and deleting the Palm Canyon and Morongo HMAs (Alternatives B & C)) would eliminate all HMAs within the Coachella Valley. This impact is minimal due to the lack of wild horses and burros left in the Coachella Valley. No impacts to other existing BLM land use designations, potential Wild and Scenic Rivers, wilderness areas, or livestock grazing are anticipated. Exchanging lands with the Tribe would help improve land management efficiency and minimize land use conflicts on the BLM-managed lands.

4.1.2 Transportation, Traffic and Circulation

Wild and Scenic River Eligibility Determinations. Determinations of eligibility for designation of river segments on public lands as Wild and Scenic Rivers would have no effect on transportation, traffic and circulation. An eligibility determination requires that the free-flowing nature of the river segment and the Outstandingly Remarkable Values supporting river segments' eligibility are not compromised. The classification of the river reflects the level of development, future development and access to the river at the time of designation.

If the rivers, or portions thereof, were later studied and found to be suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, future development of new roads, railroads or pipelines, or the expansion of existing transportation facilities across BLM lands must demonstrate compliance with the provisions of the Wild and Scenic Rivers Act. Furthermore, no federal agency or department would be permitted to assist by loan, grant, license, or otherwise in the construction of any highway or other transportation project that would have a direct and adverse effect on the values for which such a designation was established. In this regard, the development of new transportation facilities along these rivers would be restricted.

Visual Resource Management. The designation of VRM classifications, in and of itself, would have no impact on roads or other transportation facilities on BLM-managed public lands as the classifications would be based on analyses of existing land uses and landscape quality. However, should a new or expanded transportation project be proposed in the future, the degree of contrast between the existing landscape and the proposed project (Contrast Rating) would be compared with the VRM classification to determine whether the anticipated level of contrast is acceptable. If the allowable contrast level is exceeded, the project would need to be redesigned or abandoned, or mitigation measures would need to be implemented to reduce critical impacts to acceptable levels. This process has the potential to limit the extent and increase the costs of future transportation system development on BLM-managed public lands in the planning area.

To minimize potential adverse effects of the VRM classification system on regional transportation systems, the Preferred Alternative would designate all BLM-managed public lands associated with existing and future development of transportation facilities as VRM Class 4, whether inside or outside the CVMSHCP conservation areas. VRM Class 4 is one of the least restrictive classifications, which allows any contrast to attract attention and be a dominant feature of the landscape in terms of scale, but requires it to repeat the form, line, color, and texture of the characteristic landscape. Mitigation measures and project redesign may be required to assure that future transportation facility development meets this standard. Such action may result in increased costs to transportation project developers.

Land Health Standards and Air Quality. The proposed land health standards are directed at promoting healthy landscapes. To achieve these standards, transportation projects would likely need to implement site-specific mitigation measures, such as improvements to soil, drainage, and vegetation, implementation of Best Management Practices to minimize impacts to air and water quality, and special construction, design, or operational techniques. Such measures can be expected to result in increased costs to transportation projects. However, land health standards may not be used to permanently prohibit allowable uses established by law, regulation, or land use plans.

Multiple Use Classification. No impacts to existing or future transportation projects would be expected to occur. Transportation projects would still be allowed in multiple use classes “L,” “M,” and “I,” but would continue to be prohibited in multiple use class “C,” which applies only to wilderness areas.

Habitat Conservation Objectives. Implementation of the proposed habitat conservation objectives may require project-specific mitigation measures to be implemented where new or expanded transportation system construction occurs within conservation areas. This will likely increase costs to such projects; costs would depend upon the location of the project relative to sensitive species, habitat conservation areas, and ecological processes, such as sand transport corridors.

If the proposed habitat conservation objectives were not adopted, or for land outside conservation areas, transportation projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be determined on a project-by-project basis. Additionally, recent transportation projects in the planning area but not involving BLM lands have required mitigation measures related to landscape level habitat management, which might also be imposed for such projects on BLM lands in the CDCA planning area.

Fire Management Categories. No impacts to transportation systems would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

With regard to transportation systems and services, the proposed fire management categories would clarify BLM’s fire management and response strategy for various habitat types on BLM-managed lands in the planning area.

Special Area Designations. Designation of areas as ACECs or wildlife habitat management areas would not directly impact existing transportation systems or services on BLM-managed public lands in the CDCA planning area. The designation of such areas would not result in automatic closures of such facilities or their operation. Any potential closures would be proposed through a separate action, based on protection of sensitive cultural or natural resources. Efforts would be made to accomplish such protection without unnecessarily or unreasonably restricting public lands from uses that are compatible with that protection.

Land Tenure Exchange and Sale Criteria. Implementation of the proposed land tenure exchange and sale criteria would not impact transportation facilities or services. The BLM would still have the option to retain transportation infrastructure in public ownership. BLM may consider exchanges or sales of land, including land with roads and other transportation facilities, if all the criteria described in Chapter 2.1.4.6 are met.

Land Tenure Acquisition Criteria. Implementation of the land tenure acquisition criteria would not impact transportation facilities or services. Any proposed acquisitions would have to meet the criteria set forth in Chapter 2.1.4.7.

Management of Acquired Lands. The proposed action would not impact existing transportation facilities on BLM-managed public lands in the planning area. However, should the BLM acquire new lands that already contain roads, rail lines or other transportation facilities, the proposed action would require that they be managed in accordance with management practices on surrounding lands. Where surrounding lands are managed for the protection of sensitive cultural or natural resources (such as in an ACEC), this could result in the need for additional mitigation measures and costs associated with new or expanded transportation facilities. If no guidance for managing acquired lands were provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action would minimize land use conflicts (such as noise, traffic, construction and operational activity) between sensitive natural resource areas and transportation infrastructure, traffic and associated impacts. However, it would also limit opportunities for new transportation system development on BLM-managed public lands in the CDCA planning area.

Sand and Gravel Mining. The alternatives would not impact transportation systems.

Livestock Grazing. Discontinuing grazing uses in of all or a portion of the Whitewater Canyon grazing allotment would not affect transportation infrastructure or services.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Tribe of Cahuilla Indians, and the proposed deletion of the Palm Canyon and Morongo HMAs would not impact transportation systems or facilities.

Motorized Vehicle Area Designations. The proposed action would not impact non-recreational transportation systems, facilities or services.

Motorized Vehicle Route Designations. Given that the designation of motor vehicle routes would be based on analyses of existing land uses, no impacts to existing non-recreational transportation systems, facilities or services would occur. Where access to future transportation system facilities is necessary, it would be provided in accordance with the criteria described in Chapter 2.1.4.14.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would not impact non-recreational transportation systems, facilities or services.

Stopping, Parking and Vehicle Camping. The proposed action would not impact non-recreational transportation systems, facilities or services.

Peninsular Ranges Bighorn Sheep Recovery Strategy. No impacts to transportation systems, facilities or services.

Hiking, Biking and Equestrian Trails. No impacts to non-recreational transportation systems, facilities or services would result from the proposed action.

4.1.3 Soils, Geology, Mineral and Energy Resources

Wild and Scenic River Eligibility Determinations. Subject to valid existing rights, BLM is required to protect the free-flowing characteristics of river segments determined eligible for designation as Wild and Scenic Rivers; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORV's) which contribute to the river segment's eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Determinations of eligibility for 20.3 miles of Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon would not adversely affect soils, geology, mineral and energy resources. Development of mineral and energy resources where permitted in accordance with statute and regulation, subject to valid existing rights, would not be additionally constrained upon implementation of protective management measures pending determinations of suitability or non-suitability (see Appendix B).

Visual Resource Management. No impacts to soils, geology, mineral and energy resources would occur. VRM classifications assigned through this CDCA Plan amendment are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and Santa Rosa and San Jacinto Mountains National Monument). Specific impacts to soils, geology, mineral and energy resources cannot be determined until project proposals are submitted to the BLM and a Contrast Rating that measures the degree of contrast between a proposed activity and the existing landscape is prepared. If the proposed project exceeds the allowable contrast, then a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts.

Land Health Standards and Air Quality. Implementing land health standards would help to identify management needs within mining and energy production areas in order to promote healthy landscapes, including improvement of soil conditions. Additional mitigation measures may be required to meet these land health standards within mining and energy production areas. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Rangeland health conditions have been assessed for the Whitewater Canyon allotment. No impacts to cattle grazing activities are expected when conducting prescribed treatment of tamarisk infestation in Whitewater Canyon. Exclusion of livestock from treated areas are also not expected to impact grazing activities due to the lack of suitable grazing land in the rocky bottom of Whitewater Canyon.

Multiple Use Classification. No impacts to soils, geology, mineral and energy resources would occur. The most restrictive multiple use class 'C' only applies to wilderness areas. Mining and energy development is allowed in multiple use classes 'L', 'M' and 'I'.

Habitat Conservation Objectives. Additional mitigation measures may be required to meet the habitat conservation objectives within conservation areas for mining and energy production activities. This would likely result in increased production costs. The amount of increased production costs will depend on the location of the mining and energy production areas relative to sensitive species, multi-species habitat conservation areas, and ecological process areas such as sand transport corridors. For example, sand and gravel mining projects within sand transport corridors would be designed so as to not block sand transport. Mining and energy production would be disallowed in areas with rare species or habitat types. If the habitat conservation objectives were not adopted or for areas outside conservation areas, mining and energy projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be assessed a case-by-case basis. Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Fire Management Categories. No impacts to soils, geology, mineral and energy resources would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Special Area Designations . No impacts. Designating areas as wildlife habitat management area or ACECs does not result in automatic closures to mining and energy production activities. Any closures must be proposed through a separate action, based on protection of sensitive resources and not on special area designations (See sections 4.3.11 and 4.3.12).

Land Tenure Exchange and Sale Criteria. No impacts from any alternatives to soils, geology, mineral and energy resources would occur. BLM would still have the option to retain mining and energy production sites in public ownership.

Land Tenure Acquisition Criteria. No impacts from any alternatives to soils, geology, mineral and energy resources would occur.

Management of Acquired Lands. The proposed action would facilitate consistency with surrounding land uses existing at the time. If no guidance for managing acquired lands was provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action is not expected to significantly impact existing communication sites, wind energy projects or utilities, including electric and natural gas lines and their rights-of-way. It is also not expected to impact soils or create issues of soil erosion. The issuance and implementation of new rights-of-way for windpark, communication sites or utilities shall be conditioned and regulated to assure that development and operation is conducted in such a manner as to preclude or adequately mitigate the potential for wind or water erosion. These include but are not limited to:

1. All on-site access and service roads, including those within operational areas, shall be regularly watered and, as necessary, soil stabilizers shall be applied to assure surface consolidation and minimization of free dust on road surfaces.

2. As necessary, water trucks shall be used to wet down on-site roads or to apply soil stabilizers during periods of activity on-site. No plumes of dust shall be permitted to cross project site boundaries.

3. In areas of on-going activity the operator shall continue to apply water sprays to knockdown and preclude emissions of dust from these areas.

4. All grading and similar site disturbance activity shall cease operations when winds exceed 30 miles per hour.

5. During construction, materials proposed for off-site hauling shall be wet-down prior to leaving the site. Hauled materials shall also be either tarped or a minimum of six inches of freeboard shall be maintained in sand-hauling vehicles.

6. All gasoline and diesel-fueled equipment shall be properly tuned and maintained to limit associated emissions to the greatest extent possible.

Future requests for communication, windpark or utility rights-of-way will be evaluated on a project-specific basis and the potential for soils erosion will be assessed and mitigated. Regulation is not expected to increase production costs inasmuch as these regulations are already integral to similar activities, whether conducted on BLM or private lands.

Sand and Gravel Mining. The proposed action is not expected to impact soils or create issues of soil erosion. The issuance and implementation of mineral extraction rights-of-way are conditioned and regulated to assure that resource extraction and processing is conducted in such a manner as to preclude or adequately mitigate the potential for wind or water erosion. These include but are not limited to:

1. All on-site hauling roads, including those within mining and processing areas, shall be regularly watered and, as necessary, soil stabilizers shall be applied to assure surface consolidation and minimization of free dust on road surfaces.
2. Water trucks shall continue to operate at and in conjunction with all excavation activities on-site, including those associated with initial excavation and subsequent transfers and handling of materials. No plumes of dust shall be permitted to cross project site boundaries.
3. Crushers, conveyors and other process areas shall continue to apply water sprays to knockdown and preclude emissions of dust from these material process areas and equipment.

4. Excess sand placed in stockpiles shall be watered upon initial deposition to enhance cementation, and shall otherwise remain undisturbed to assure a stable, erosion resistant surface. In areas where sand is removed from stockpiles, these areas shall be re-watered to again establish surface cementation and stabilization.
5. All materials excavation and transfer activities between mining and process areas shall cease operations when winds exceed 30 miles per hour.
6. Sand proposed for off-site hauling shall be wet-down prior to leaving the site. Sand materials shall also be either tarped or a minimum of six inches of freeboard shall be maintained in sand-hauling vehicles.
7. In areas where mining activities have been completed, the reclamation plan shall be implemented, including the final contouring of side slopes and the deposition of stockpiled surficial seedbed materials. These areas shall remain undisturbed thereafter, thereby further stabilizing previously disturbed areas..
8. All gasoline and diesel-fueled equipment shall be properly tuned and maintained to limit associated emissions to the greatest extent possible.

Future requests for mineral extraction will be evaluated on a project-specific basis and the potential for soils erosion will be assessed and mitigated. Regulation is not expected to increase production costs as these regulations are already integral to mineral extract activities, whether conducted on BLM or private lands.

Livestock Grazing. Deleting all or a portion of the Whitewater grazing allotment would minimize soil erosion on steep slopes where cattle graze. If the entire allotment were retained, minimizing soil erosion would still be required to meet the rangeland health assessment standards. Techniques, such as seasonal rest periods would be employed. No impacts to geology, mineral and energy resources would occur.

Wild Horse and Burro Program. Maintaining horses within Palm Canyon would continue the accelerated soil erosion occurring on the steeper slopes. No impacts geology, mineral and energy resources would occur.

Motorized Vehicle Area Designations. The proposed Plan amendment is not expected to adversely affect existing or future motorized vehicle area designations. As with other activities with the potential to induce soil erosion and associated impacts, such activities as off-highway vehicle use shall be properly regulated and monitored to reduce potential impacts to acceptable levels. Considerations to be made include assessment of the erosion potential of site soils, on-site and tributary drainage patterns and potential flows, relationships to strong wind areas, and activity areas as they relate to project boundaries. A variety of management strategies may also be imposed, including the shutdown of activity areas during period of high winds, installation of “rattle bars” or cattle guards to remove dirt from vehicles leaving an activity area, and on-site use restrictions.

Generally, utilities and communication sites are not considered sensitive receptors for noise or other impacts typically associated with motorized vehicle use areas. To the extent such facilities may constitute an attractive nuisance, it may be necessary to assure that users of motorized vehicle areas do not encroach upon windfarm or surface mining areas. Regulation and management that may be implemented could include the installation of fencing and posting of signage to keep motorized vehicle users within designated use areas. To the extent compatible with permitted uses on BLM lands, the BLM shall assure compliance with applicable guidelines and regulations of the US Environmental protection Agency and the South Coast Air Quality Management District (SCAQMD).

Motorized Vehicle Route Designations. The proposed amendment to the CDCA Plan specifically addresses the control and prudent limitation of routes of travel by motorized vehicles. The routes are typically located within natural drainages or sand washes and are used on a very low frequency or level of intensity. Proposed changes to the Plan are not expected to significant affect local soils, mineral resources or their permitted extraction, or energy resources. The following measures proposed by the SCAQMD can assure that wind erosion is minimized.

New unpaved routes shall be prohibited after unless environmental review demonstrates that their use will not violate standards of the PM10 State Implementation Plan (SIP). Use of public unpaved routes of travel with between 20 and 150 average daily traffic (ADT) levels shall be regulated by taking measures (signage or speed control devices) to reduce vehicular speeds to 15 miles per hour). New public routes of travel that have ADT levels of 150 or more shall be regulated by applying and maintaining chemical or other effective dust suppressants.

Special Recreation Management Area. No impacts to soils, geology, mineral and energy resources would occur.

Stopping Parking and Vehicle Camping. Limiting parking within conservation areas would minimize surface disturbance and soil erosion in those areas. No impacts to geology, mineral and energy resources would occur.

Peninsular Ranges Bighorn Sheep Recovery Strategy. No impacts to soils, geology, mineral and energy resources.

Hiking, Biking and Equestrian Trails. Limitations on trail use within Peninsular Ranges bighorn sheep habitat would overall have minimal impact on soils, geology, mineral and energy resources due to the low rainfall. While some soil erosion is associated with trail use and new trail development, the amount of soil erosion is dependent on the new trail design, the level of trail maintenance, weather conditions and other factors. As site specific trail projects are considered, mitigation measures to minimize soil erosion would be addressed.

4.1.4 Recreation

Wild & Scenic River Eligibility Determinations. Determinations of eligibility for BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) as Wild and Scenic Rivers (Alternatives A, B and C) would result in no substantive impacts to recreation. Once a river segment has been determined eligible and given a tentative classification as "wild," "scenic," and/or "recreational," BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORVs) which contribute to the river segment's eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made.

Protective management of eligible river segments on BLM lands in Whitewater Canyon, Mission Creek, and Palm Canyon (see Appendix B) would not constrain opportunities for recreation to any greater degree than under current management, except that vehicle camping within 1/4-mile of the eligible segment of Mission Creek outside wilderness would be prohibited. However, incidences of camping at this location are believed to be low, hence impacts from the closure would be minor. Opportunities for such activities as hiking, backpacking, horseback riding, nature study, and photography would not be diminished.

Visual Resource Management. VRM classifications assigned through this CDCA Plan amendment (alternatives A, B and C) are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and Santa Rosa and San Jacinto Mountains National Monument). Specific impacts to recreation cannot be determined until project proposals are submitted to the BLM and a Contrast Rating that measures the degree of contrast between a proposed activity and the existing landscape is prepared.

If the proposed project exceeds the allowable contrast, then a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. Projects that are recreational based would be subject to the applicable VRM objectives, including projects proposed by the BLM. The effects of managing BLM lands consistent with interim VRM objectives established on a case-by-case basis when project proposals are submitted (Alternative D), except for lands within the Santa Rosa and San Gorgonio Wilderness Additions which are VRM Class 1 in accordance with BLM policy, would be the same.

Land Health Standards and Air Quality. Actions relating specifically to the management of recreation in accordance with regional land health standards developed in consultation with the California Desert District Advisory Council are not specified (Alternatives A, B and C). Where recreational activities adversely affect soils, native species, riparian/wetland and stream function, water quality, and air quality to the degree that such standards are not met or cannot be met, mitigation measures would be developed to reduce the impacts to acceptable levels. However, no recreational

activities or recreation sites have been specifically identified as noncompliant with these standards, hence no changes in the management of such activities are proposed. Therefore, adoption of the regional land health standards proposed under these alternatives results in no adverse impacts to recreation. Where resource conditions are improved consequent to undertaking actions to comply with regional land health standards, the quality of recreational experiences may be enhanced, particularly those forms of recreation that rely on landscape quality (e.g., sightseeing, nature study, and photography). However, no sites have been identified at this time where resource conditions do not comply with regional land health standards. Hence, benefits to recreation cannot be ascertained on a site-specific basis.

Adopting the rangeland National Fallback Standards as regional land health standards (Alternative D) results in no adverse impacts to recreation for the same reasons as described under the Preferred Alternative, though the effects of recreational activities would be measured in relation to soils infiltration and permeability, riparian/wetland function, stream function, and health of native species. Benefits to recreation may be accrued where resource conditions are improved to comply with National Fallback Standards—i.e., opportunities for sightseeing, nature study, and photography, among others, would be enhanced—though such benefits cannot be ascertained until sites are identified where actions would be undertaken to improve resource conditions.

Multiple Use Classification. Changes in existing Multiple-Use Classes are based on new special area designations and proposed uses of public lands. Recreational activities would not generally be affected by changes to, or retention of, existing Multiple-Use Classes (all Alternatives). Instead, adverse or beneficial impacts to recreation would occur as a result of proposals being implemented that specifically affect a particular type of recreation (e.g., development of an off-highway vehicle recreation area that affects opportunities for motorized free-play activities; development of new trails that affects hiking, mountain biking, and horseback riding opportunities; etc.). Relative to certain proposals being approved, Multiple-Use Classes may be revised, e.g., where off-highway vehicle recreation areas are established, the Multiple-Use Class would be changed to “I.”

Habitat Conservation Objectives. Changes in recreational uses would be required in some instances to meet habitat conservation objectives (Alternatives B and C). Specifically, designation of areas and motorized-vehicle routes constitute land use decisions that would be made, in part, to meet these objectives, the effects of which are herein addressed (see “Motorized-Vehicle Area Designations” and “Motorized-Vehicle Routes Designations” below). Specific actions that apply to access for non-motorized activities are being addressed through the Coachella Valley Multiple Species Habitat Conservation Plan. A proposed array of trails plan alternatives for the Santa Rosa and San Jacinto Mountains, including a proposed preferred alternative, is presented in Section 2.2, the effects of which are addressed in Section 4.2. Decisions addressing trail use on lands managed by all jurisdictions, including the BLM, will be made though the Multiple Species Plan, not this CDCA Plan Amendment. Existing statutes such as the Endangered Species Act and Clean Air Act, and guidance provided in the CDCA

Plan would necessitate in some instances that recreational uses of the public lands be further limited to conserve resource values (Alternatives A and D). Where such limitations are necessary, actions are herein proposed. The discussion above relative to the Preferred Alternative is applicable for these Alternatives.

Fire Management. Generally, no impacts to recreation would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property (all Alternatives). However, to the degree that vegetative conditions would be maintained or enhanced through fire suppression and prescribed burning in support of various flora and fauna that comprise important elements of the overall recreation experience (e.g., the presence of bighorn sheep for wildlife viewing and photography), opportunities for recreation would be maintained or enhanced.

Special Area Designations. No direct impacts to recreation would occur from new special area designations or the lack thereof (all Alternatives). Designating areas as Wildlife Habitat Management Areas or ACECs does not automatically limit recreational opportunities. Any such limitations must be proposed through a separate action, based on protection of sensitive resources and not on special area designations.

Land Tenure: Exchange and Sale Criteria. No impacts to recreational use would occur consequent to adopting the specified criteria (Alternatives B and C) or considering exchanges on a case-by-case basis (Alternatives A and D) as BLM would still have the option to retain recreational use areas in public ownership.

Land Tenure: Acquisition Criteria. Where lands are acquired to divert intensive uses away from sensitive areas in accordance with the criteria (Alternatives B and C), opportunities for recreation could be enhanced (e.g., acquisition of lands to facilitate development of an off-highway vehicle recreation area to divert motorized free-play activities away from habitat for endangered species). Specific impacts to recreation of lands acquired based on the identified criteria, however, cannot be determined until parcel location and management parameters are identified. Opportunities for recreation on lands considered for acquisition on a case-by-case basis would be addressed as appropriate (Alternatives A and D). Lands could be acquired for the purpose of enhancing recreational opportunities.

Management of Acquired Lands. Where access to acquired lands would be restricted to achieve objectives established for conservation areas (Alternatives A, B and C), opportunities for recreation may be concomitantly limited. Where certain types of recreation would be allowed in the conservation area, it is anticipated that the same recreational uses would be allowed on the acquired lands therein. These alternatives would facilitate consistency with surrounding land uses existing at the time. If no guidance for managing acquired lands was provided at this time (Alternative D), a separate plan amendment process may be required to define appropriate recreational uses on the newly acquired lands (e.g., use of acquired lands as an off-highway vehicle recreation area would require a plan amendment).

Communication Sites and Utilities. Actions addressing communications sites and utilities generally would have no affect on recreational opportunities except where new facilities are developed (all Alternatives). Windparks and communication sites are not available for recreational use. New facilities could further restrict opportunities for recreation by closing additional lands to recreational access. Roads to access utilities are generally available for casual motorized-vehicle use.

Sand and Gravel Mining. Actions addressing sand and gravel mining generally would have no affect on recreational opportunities as sites accommodating such mining are not available for recreational use (all Alternatives).

Livestock Grazing. Whether grazing is suspended or retired in all or part of the Whitewater Allotment (Alternatives A, B or C), the aesthetic component of primitive recreation on BLM-managed lands in the San Gorgonio Wilderness Additions could improve to the degree that livestock, manure, or other evidence of livestock presence (e.g., hoof-prints) are not encountered, especially while traveling on the Pacific Crest National Scenic Trail. Such encounters can negatively affect some individuals' perceptions of naturalness in wilderness, even though grazing is a compatible use under the Wilderness Act of 1964 and the California Desert Protection Act of 1994. The extent of such encounters is unknown. Continuance of grazing under the requirement that, at a minimum, it must conform to National Fallback Standards (Alternative D), would maintain resource conditions. Hence the natural conditions of wilderness upon which non-motorized activities rely (e.g., nature study, photography, hiking, horseback riding, etc.) would be maintained.

Wild Horse and Burro Program. Retention of wild horses on BLM-managed lands (Alternatives A and D) could adversely affect recreationists in the Palm Canyon area. The Agua Caliente Band of Cahuilla Indians have imposed a ban on equestrian use within the Indian Canyons Heritage Park because the "wild" stallion was behaving aggressively toward equestrian trail users, resulting in one thrown rider. Similar encounters could occur on BLM-managed lands. On the other hand, individuals have remarked that observations of wild horses in Palm Canyon enhance their recreational experience. Retiring the Palm Canyon and Morongo Canyon Herd Management Areas (Alternatives B and C), transferring specified land parcels with the Agua Caliente Tribe (Alternative B), and removing existing animals from BLM-managed lands (Alternative C) would affect recreational opportunities to the degree that the potential for adverse encounters is eliminated (positive effect) or individuals can no longer view wild horses in Palm Canyon (negative effect).

Motorized-Vehicle Area Designations. Under all Alternatives, areas available to off-highway vehicle use in the Coachella Valley over all ownerships would decline as population increases and lands to support this increase are converted from open space to developed sites. Under all Alternatives, maintaining existing closures on 142,517 acres of wildlife preserves and wilderness areas would not cause any change in recreational use.

Alternative A. Limiting motorized-vehicle use to a designated route system on 185,639 acres (excluding the NECO overlap area) would have no affect on current recreational uses. Designating Indio Hills, Drop 31, Windy Point, and Iron Door (totaling 3,800 acres) as "open" to off-highway vehicle use would maintain recreational opportunities for vehicular "free-play" activities where such use has been informally established over time. OHV recreation opportunities would be distributed throughout the Coachella Valley.

At Windy Point, it would be difficult to administer a 680-acre off-highway vehicle recreation area in a manner compatible with the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, which limits vehicles to designated routes; as recognized in the California Desert Conservation Area Plan (1980, as amended), individual routes of travel cannot be readily delineated in sand dunes. However, a Windy Point OHV open area would be compatible with adjacent private land uses related to OHV rental and increase the area available to rental customers. Use levels which existed prior to the temporary closure would likely return, with 100 to 150 people using the area on busy weekends. Use would continue to be primarily day use with rare instances of camping. Over time, use on busy weekends may increase as other off-highway vehicle free-play opportunities become less available and population in the Coachella Valley increases.

The proposed 1,040-acre OHV area (two parcels) in the Indio Hills would be adjacent to parcels which are part of the Coachella Valley Fringed-toed Lizard Preserve System. The area currently receives limited off-highway vehicle use; topography largely confines the use to wash bottoms, ridges and a bowl area, all physically separated from preserve lands. Much of the existing use occurs on adjacent private land parcels and the public land parcel north of the Edom Hill landfill. Designation would continue the use, and little or no change in the land use pattern on public lands would be expected. Designation may attract more use to the adjacent private lands. Use levels of 10 to 20 people per week would be expected to increase over to time to an estimated 40 to 50 people per week.

The 640-acre Iron Door parcel was formerly withdrawn to the U.S. Army in 1962 for military training purposes. That withdrawal was revoked in 1981. Currently, the site is heavily used by off-highway vehicles; adjacent private land parcels receive similar use. The land use pattern would continue, providing weekly opportunities for "free-play" vehicle recreation to up to 150 people.

Designation of 1,440 acres at Drop 31 along the Coachella Canal as an off-highway vehicle recreation area would continue an existing use (this area is located within the NECO overlap area). Because the area is adjacent to the Mecca Hills and Orocopia Mountains Wildernesses, there is some risk of vehicle intrusion into wilderness, but compliance along the wilderness boundary has generally been good. Current types and levels of recreation use in the area east of the Coachella Canal have generally been compatible with use of the canal for water transport and as a water source for wildlife. The land pattern in the area is intermingled with private lands which receive similar

recreation use. Existing land uses and the general land use pattern would continue. Use levels of 250 to 500 users on busy holiday weekends would continue.

For all of the aforementioned OHV open areas, land use conflicts within multi-species habitat conservation areas and conflicts with air quality management are addressed in the discussions under "Biological Resources" and "Air Quality."

Alternative B. Limiting motorized-vehicle use to a designated route system on 187,999 acres (excluding the NECO overlap area) would adversely affect existing opportunities for vehicular "free-play" recreation. Such activities on 2,360 acres of public lands in the Windy Point, Indio Hills, and Iron Door areas would be discontinued, and vehicle access would be limited to designated routes crossing the public land. Up to 100 to 150 people who might have used the Windy Point area on busy weekends, and 10 to 20 at Indio Hills plus up to 150 at Iron Door on a weekly basis during the cooler months would be displaced. A privately owned off-highway vehicle rental business near Windy Point may accommodate some of the displaced use on adjacent private lands. Whether recreationists displaced from Windy Point would utilize these private "for fee" lands is unknown. Whether private landowners or other jurisdictions would continue or offer to accommodate the displaced use from all three areas is unknown.

Designation of 1,440 acres at Drop 31 as an off-highway vehicle recreation area would continue an existing use, although use patterns would be modified to mitigate for wildlife water access and wilderness. Long term access to and continued use of the area may be dependent on acquisition of private land parcels. Existing land uses and the general land use pattern at Drop 31 would continue (though modified along the wilderness boundary), with recreation use levels of 250 to 500 people on holiday weekends. Over time, use levels may increase as other opportunities for vehicular "free-play" activities become less available. The extent to which any displaced OHV enthusiasts from Windy Point, Indo Hills, or Iron Door would travel to Drop 31 is unknown, though it is likely that increased use of the site would occur once the public has been informed of the "open area" designation.

Alternative C. Limiting vehicle-based recreation to designated routes on 187,999 acres (excluding the NECO overlap area) would most adversely affect existing opportunities for vehicular "free-play" recreation. Such activities on 3,800 acres of public lands in the Windy Point, Indio Hills, Iron Door, and Drop 31 areas would be discontinued, displacing up to 500 OHV users per week during the cooler months. These users would likely seek other sites to continue their activities, thereby shifting pressures to private, non-federal public, or tribal lands in the immediate vicinity. Long term access to and continued use of private lands in the Coachella Valley would depend on actions by local jurisdictions and landowners.

Alternative D. The existing route network and informally established "free-play" areas on 187,999 acres of public lands (excluding the NECO overlap area) would be available for vehicle-based recreation. The informally established "free-play" areas include a total of 3,800 acres of public lands at Windy Point, Indio Hills, Iron Door, and Drop 31. OHV

recreation opportunities would be distributed throughout the Coachella Valley.

At Windy Point, it would be difficult to administer an informally established, 680-acre vehicle-based recreation area in a manner compatible with the National Monument legislative requirement to limit vehicles to designated routes. However, continuation of vehicular "free-play" activities at this location is compatible with adjacent private land uses related to OHV rental and increases the area available to rental customers. Use levels which existed prior to the temporary closure would likely return, with 100 to 150 people using the area on busy weekends. Use would continue to be primarily day use with rare instances of camping. Over time, use on busy weekends may increase as other off-highway vehicle free-play opportunities become less available and population in the Coachella Valley increases.

The informally established 1,040-acre OHV area (two parcels) in the Indio Hills is be adjacent to parcels which are part of the Coachella Valley Fringed-toed Lizard Preserve System. The area currently receives limited off-highway vehicle use; topography largely confines the use to wash bottoms, ridges and a bowl area, all physically separated from preserve lands. Much of the existing use occurs on adjacent private land parcels and the public land parcel north of the Edom Hill landfill. Little or no change in the land use pattern on public lands would be expected; use levels of 10 to 20 people per week would continue.

The 640-acre Iron Door parcel was formerly withdrawn to the U.S. Army in 1962 for military training purposes. That withdrawal was revoked in 1981. Currently, the site is heavily used by off-highway vehicles; adjacent private land parcels receive similar use. The land use pattern would continue, providing weekly opportunities for "free-play" vehicle recreation to up to 150 people.

Off-highway vehicle "free-play" activities on 1,440 acres of public lands at Drop 31 along the Coachella Canal would continue. Although the area is adjacent to the Mecca Hills and Orocopia Mountains Wildernesses, vehicle intrusions into wilderness have been limited. Current types and levels of recreation use in the area east of the Coachella Canal have generally been compatible with use of the canal for water transport and as a water source for wildlife. The land pattern in the area is intermingled with private lands which receive similar recreation use. Existing land uses and the general land use pattern would continue. Use levels of 250 to 500 users on busy holiday weekends would continue.

Long term access to and continued use of private lands in the valley would depend on actions by local jurisdictions and landowners. Land use conflicts within multi-species habitat conservation areas and conflicts with air quality management are addressed in the discussions under "Biological Resources" and "Air Quality."

Motorized-Vehicle Route Designations. See section 4.1.5, "Motorized-Vehicle Access," for a complete discussion of how the alternative motorized-vehicle route designations would affect opportunities for motorized-vehicle access. This section will

address how route designations would affect casual recreational activities such as hunting and vehicle touring (except for the NECO overlap area). Impacts to motorized commercial recreation on Dunn Road are addressed under "Motorized-Vehicle Access" below.

Under **Alternatives A and D**, the existing route network where closures have not already been implemented would continue to be available for motorized-vehicle use, providing vehicle access for hunting and vehicle touring, and access to destination sites such as trailheads. Of the 137 miles of existing routes on BLM-managed lands, 71 miles (52%) would be available for use; 66 miles (48%) would remain under existing closures.

Under **Alternative B**, an additional 26 miles of routes (19% of the existing route network on BLM lands) would no longer be available for motorized-vehicle use, thereby decreasing the total mileage of open routes to 45 miles (33% of the existing BLM network). The closure of these additional routes would be undertaken primarily to meet habitat conservation objectives and minimize air quality non-attainment in the Coachella Valley. Access to traditional hunting areas and opportunities for vehicle touring would largely be maintained given the extent of existing routes on non-federal lands that would remain available for use; overall vehicle access would be marginally decreased.

Under **Alternative C**, an additional 20 miles of routes (15% of the existing route network on BLM lands) relative to Alternative B would no longer be available for motorized-vehicle use, thereby decreasing the total mileage of open routes to 25 miles (18% of the existing BLM network). The closure of these additional routes would be undertaken to further minimize air quality non-attainment in the Coachella Valley. Opportunities for motorized recreation on public lands would be most constrained under this alternative. Popular touring routes such as the Kickapoo Trail in Little Morongo Canyon would be closed. The primary access route to Long Canyon in Joshua Tree National Park would not be available for use. Connectivity of travel along several powerline routes used by recreationists would be disrupted upon closure of public land segments.

Special Recreation Management Area. Designation of the Meccacopia Special Recreation Management Area (Alternatives A, B and C) would result in no direct impact to recreational use opportunities. Subsequent development of management prescriptions through a Recreation Area Management Plan could help reduce land use conflicts between wilderness and motorized recreational use, thereby benefitting recreation to the degree that opportunities for solitude and primitive types of recreation are enhanced in wilderness, and opportunities for motorized-vehicle activities outside wilderness are maintained. Under Alternative D, no Special Recreation Management Area would be designated at this time. To the degree that conflicts among various recreational uses would occur due to a lack of special management for the area, the quality of recreational experiences would diminish.

Stopping, Parking and Vehicle Camping. In accordance with the California Desert Conservation Area, stopping, parking, and vehicle camping are restricted to areas within

300 feet of a route, except within sensitive areas (such as ACECs where the limit is 100 feet)(Alternative D). Except for changing the point from which these distances are measured—from centerline (Alternatives A and B) versus from a route's edge (CDCA Plan)—the limits are not changed. However, with application of the 100-foot rule to conservation areas, the area available for stopping, parking, and vehicle camping on public lands would be reduced. Under Alternative C, the area available for stopping and parking in conservation areas is further limited by restricting vehicle travel to within 30 feet of a route's centerline along these same routes, and vehicle camping would be prohibited. Regardless of the alternative, adequate space for stopping and parking alongside routes would be available. Prohibition of vehicle camping in conservation areas (Alternative C) would diminish opportunities for this activity.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Any limitations on recreational trail use of the public lands (Alternatives A, B and C) will have an impact on the generally unlimited casual use that residents and visitors to the Coachella Valley have historically enjoyed. The extent of these limitations would be addressed through an activity level plan, in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game (see "Hiking, Biking and Equestrian Trails" below).

Hiking, Biking and Equestrian Trails. Any limitations on trail use (Alternatives A, B and C) will have an impact on the generally unlimited trail use that residents and visitors to the Coachella Valley have historically enjoyed. The extent of these limitations would be addressed through trails management planning in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan, see Section 2.2).

4.1.5 Motorized-Vehicle Access

Adverse impacts to motorized-vehicle access would occur in proportion to the amount of route closure, the location of closed routes, and the current public accessibility and use of routes proposed to be closed (excluding the NECO overlap area).

Under **Alternative A**, current motorized-vehicle access would not change. Seventy-one miles of routes on BLM-managed lands would be designated "open" (52% of the total mileage) and 66 miles would remain closed (48% of the total mileage). All closed routes, which include those in windfarm areas, at communications sites, and in certain special areas (e.g., Dos Palmas and Big Morongo Canyon ACECs), coincide with routes that are currently unavailable for general public use via motorized vehicles. No new routes would be closed to general public access. Lack of legal or physical access across private land parcels would continue to affect the available route network in parts of the planning areas due to the intermingled land ownership patterns.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses. Access to this area would also be affected by lack of legal access across private land parcels. Limitation of vehicle use on public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo, except for administrative uses, would control the number and activities of visitors until bighorn sheep populations recover. Administrative and permitted uses would allow vehicular access with little or no impact to flood control, law enforcement, search and rescue, fire control, and research activities. Closure to casual recreational access by vehicle would continue. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels (fewer than 20 trips per year). Temporary access across public lands to accommodate private landowners in accessing their properties may be authorized.

Permitted commercial jeep tours on the upper reaches of Dunn Road could occur during the fall months with access provided through Pinyon Flats, subject to permission of private landowners, where applicable, and in conformance with terms and conditions of a biological opinion. Based on distribution of permitted use from 1995 to 1999, about 3,000 visitors annually might be accommodated, though due to the increased highway distance that must be traveled before tours could begin, this figure would likely be substantially lower. At least 7,000 visitors annually would continue to be displaced by limiting commercial vehicle tours to the fall months in conjunction with denial of landowner permission to cross private lands on the lower reaches of Dunn Road.

Under **Alternative B**, the route network would be reduced to 45 miles of open routes on BLM-managed lands (33% of the total mileage, excluding the NECO overlap area) in order to meet air quality and habitat conservation objectives. The closed route network (totaling 92 miles, or 67% of the total mileage) includes 26 miles of new closures (19% of the total mileage). No new areas would be unavailable for general public access, but

access within areas that have multiple routes would be reduced; short spur routes would be closed. Many of these short spur routes have been used for illegal dumping and to access shooting areas. The remaining 66 miles of routes were closed to general public use through previous actions.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses. Access to this area would also be affected by lack of legal access across private land parcels. Limitation of vehicle use on public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo, except for administrative uses, would control the number and activities of visitors until bighorn sheep populations recover. Administrative and permitted uses would allow vehicular access with little or no impact to flood control, law enforcement, search and rescue, fire control, and research activities. Closure to casual recreational access by vehicle would continue. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels (fewer than 20 trips per year). Temporary access across public lands to accommodate private landowners in accessing their properties may be authorized.

Permitted commercial jeep tours on the upper reaches of Dunn Road could occur during the fall months with access provided through Pinyon Flats, subject to permission of private landowners, where applicable, and in conformance with terms and conditions of a biological opinion. Based on distribution of permitted use from 1995 to 1999, about 3,000 visitors annually might be accommodated, though due to the increased highway distance that must be traveled before tours could begin, this figure would likely be substantially lower. At least 7,000 visitors annually would be displaced by limiting commercial vehicle tours to the fall months in conjunction with denial of landowner permission to cross private lands on the lower reaches of Dunn Road.

Re-evaluation of the designation of routes in the Dunn Road area at the time of sheep population recovery may allow for some increased public recreation access by vehicle. Permitted use would allow continued access with little or no impact for flood control, law enforcement, search and rescue, and fire control. Research and commercial recreational access would continue, but at reduced levels, dependent on permitting requirements (compliance with the terms of a biological opinion) and acquisition of access across private lands. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels.

Alternative C represents the greatest reduction of access with 25 miles of open routes (18% of the total mileage on BLM lands, excluding the NECO overlap area) and 112 miles of closed routes (82% of the total mileage) in order to meet habitat conservation objectives and further minimize air quality non-attainment in the Coachella Valley. The closed route network includes 46 miles of new closures (34% of the total mileage). No new areas would be unavailable for general public access, but access within areas that

have multiple routes would be reduced; short spur routes would be closed. The remaining 66 miles of routes were closed to general public use through previous actions.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses. Access to this area would also be affected by lack of legal access across private land parcels and lack of road maintenance. Over time, portions of Dunn Road would become impassable to four-wheeled vehicles due to erosion. Continued access for flood control, law enforcement, and fire control would be limited by road condition except in the case of an ongoing fire or emergency (in which case the road surface may be re-established). Research access by four-wheeled vehicles would eventually be discontinued as the road becomes impassable. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would be continued, but a through road is unlikely to persist. Commercial jeep tours would not be permitted. Based on permitted use from 1995 to 1999, about 10,000 visitors would be displaced on an annual basis, though denial of landowner permission to cross private lands on the lower reaches of Dunn Road currently displaces most of this use.

Under **Alternative D**, current motorized-vehicle access would not change. Seventy-one miles of existing routes on BLM-managed lands would continue to be available for use (52% of the total mileage) and 66 miles would remain closed (48% of the total mileage). All closed routes, which include those in windfarm areas, at communications sites, and in certain special areas (e.g., Dos Palmas and Big Morongo Canyon ACECs), coincide with routes that are currently unavailable for general public use via motorized vehicles. No new routes would be closed to general public access. Lack of legal or physical access across private land parcels would continue to affect the available route network in parts of the planning areas due to the intermingled land ownership patterns.

Impacts to uses of Dunn Road would be the same as under Alternative A, except that no limitations as to when commercial jeep tours may occur would be imposed through this plan amendment. Instead, applications for permits to use public land portions of Dunn Road would be addressed on a case-by-case basis. Commercial activities would be subject to permission of private landowners, where applicable, and must conform to terms and conditions of a biological opinion.

4.1.6 Flooding and Hydrology

Wild and Scenic River Recommendations. The proposed eligibility recommendations apply only to BLM-managed public lands which are already under conservation management, such as the Big Morongo Canyon ACEC, Whitewater Canyon ACEC, wilderness areas, and the Santa Rosa and San Jacinto Mountains National Monument. The recommendation of eligible rivers, in and of itself, would have no effect on flooding or hydrology processes in the planning area.

If the proposed rivers or portions thereof were later studied and found suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, Section 7 of the Wild and Scenic Rivers Act expressly prohibits the Federal Energy Regulatory Commission (FERC) from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is designated as a component of the national wild and scenic rivers system. Furthermore, no federal department or agency would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such designation was established.

Visual Resource Management. No impacts to flooding and hydrology processes would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes.

Land Health Standards and Air Quality. The implementation of land health standards would help identify specific management needs, such as improvement of soil conditions and maintenance of appropriate hydrologic conditions, within areas prone to flooding and within riparian/wetland and stream environments. Additional mitigation measures may be required to meet these standards. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Fire Management Categories. No impacts to flooding and hydrology processes would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas. Additional mitigation measures may be required to meet these objectives where flood management activities are proposed within conservation areas in order to minimize impacts to sensitive species and their habitats. Such measures would likely result in increased design and construction costs, depending upon the location of the flood control facilities relative to sensitive species, multi-species habitat conservation areas, and important ecological process areas, such as sand transport corridors.

If habitat conservation objectives are not adopted, or for areas outside conservation areas, flood management projects would still have to mitigate for impacts to listed

species, cultural, and other sensitive resources. Mitigation measures would be assessed on a case-by-case basis. Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. No impacts to flooding and hydrology processes would occur.

Special Area Designations. No direct impacts to flooding and hydrology processes would occur. The designation of wildlife habitat management areas or ACECs may further protect and prevent irreparable alterations to natural hydrologic systems or processes, depending upon area-specific management prescriptions. The designation of such areas would not automatically preclude the development of necessary flood management facilities. Compatible uses within wildlife habitat management areas and ACECs would be determined based on the management prescriptions adopted for a particular special area, and would not be determined by the designation itself.

Land Tenure Exchange and Sale Criteria. No impacts to flooding and hydrology processes would occur as a result of adopting land exchange and sale criteria.

Land Tenure Acquisition Criteria. The adoption of land tenure acquisition criteria would result in no impacts to flooding and hydrology processes.

Management of Acquired Lands. No impacts to flooding and hydrology processes would occur as a result of the proposed action.

Communication Sites and Utilities. The designation of areas for wind parks, utilities, and communication sites would not in and of itself affect flooding and hydrology processes. However, the future construction of such facilities and their access roads could result in increased soil erosion and/or the alteration of existing drainage patterns, rates and/or amounts of runoff, thereby impacting surrounding lands. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive resources and hydrologic processes, consistent with habitat conservation objectives.

If no areas were designated at this time, mitigation measures would be taken into consideration on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. The designation of areas for sand and gravel mining, in and of itself, will not result in impacts to flooding and hydrology processes. However, the future development of such mining facilities may result in the alteration of existing drainage patterns, rates and/or runoff quantities, thereby impacting surrounding lands. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive resources and hydrologic processes, consistent with habitat conservation objectives.

If no areas were designated at this time, mitigation measures would be determined on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Livestock Grazing. Discontinuing grazing use on all or a portion of the Whitewater grazing allotment would minimize soil erosion and associated alterations in drainage patterns and runoff quantities on steep slopes where cattle graze.

If the entire Whitewater grazing allotment were retained, soil erosion would still need to be minimized and appropriate hydrologic processes would still need to be maintained to meet the rangeland health assessment standards. Seasonal rest periods and similar techniques would be employed.

Wild Horse and Burro Program. Due to the limited number of wild horses and burros occupying the Palm Canyon and Morongo Herd Management Areas, deletion of these HMAs would have only a limited impact on minimizing soil erosion and associated alterations in drainage patterns, rates, and/or runoff quantities.

Maintaining the existing horses within Palm Canyon would continue the soil erosion process and associated hydrologic effects occurring on steeper slopes.

Motorized Vehicle Area Designations. The designation of areas as “open” or “limited” to motorized vehicles would increase soil erosion and associated hydrologic effects, such as alterations in drainage patterns and rates, which could result in broader flooding/hydrology implications on surrounding lands.

The designation of areas as “closed” to motorized vehicles would minimize soil erosion and associated hydrologic effects, such as drainage patterns and rates.

Motorized Vehicle Route Designations. The designation of routes as “open” or “limited” to motorized vehicles would increase soil erosion and associated hydrologic effects, such as alterations in drainage patterns and rates, which could result in broader flooding/hydrology implications on surrounding lands.

The designation of areas as “closed” to motorized vehicles would minimize soil erosion and associated hydrologic effects, such as drainage patterns and rates.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would result in no impacts to flooding or hydrology processes.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within sensitive areas, such as ACECs and conservation areas, would reduce soil erosion and associated hydrologic disturbances, such as alterations to drainage patterns and rates.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would have no impact on flooding and hydrology.

Hiking, Biking and Equestrian Trails. Although some soil erosion and alterations in drainage patterns and rates can be attributed to trail use and new trail development, these occurrences are also a product of trail design, quality of trail maintenance, weather conditions, and other factors. Proposed limitations on trails use within Peninsular bighorn sheep habitat would result in only minimal reductions in soil erosion and associated hydrologic effects. Mitigation measures to minimize soils and hydrologic impacts would be addressed as site-specific trail projects are proposed.

4.1.7 Water Resources/ Quality

Wild and Scenic River Recommendations. The proposed eligibility recommendations apply only to BLM-managed public lands, which are already under conservation management, such as the Big Morongo Canyon ACEC, Whitewater Canyon ACEC, wilderness areas, and the Santa Rosa and San Jacinto Mountains National Monument. The recommendation of eligible rivers, in and of itself, would have no adverse effect on local or regional water resources or quality in the planning area. If the proposed rivers or portions thereof were later studied and found suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, Section 7 of the Wild and Scenic Rivers Act expressly prohibits the Federal Energy Regulatory Commission (FERC) from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is designated as a component of the national wild and scenic rivers system. Furthermore, no federal department or agency would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such designation was established. Therefore, the proposed CDCA Plan amendment is not expected to have an adverse impact on water resources or quality.

Visual Resource Management. No impacts to water resources or quality would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes.

Land Health Standards and Air Quality. The implementation of land health standards, which include protection of water resources and quality, would help identify specific management needs, such as improvement of soil conditions and maintenance of appropriate hydrologic conditions, within areas with important surface and ground water resources. Additional mitigation measures may be required to meet these standards. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Fire Management Categories. The proposed CDCA Plan amendments are designed to optimize vegetative cover and suppress fire in a manner and location consistent with underlying habitat needs. No impacts to water resources and quality would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas. The proposed objectives seek to preserve 99% to 100% of the important habitats identified in the Plan and the CV MSHCP, including riparian and wetland habitats. The proposed objectives will protect vegetative cover, preclude or greatly limit habitat and soil disturbance, and preclude most development with the potential to adversely impact regional air quality.

Additional mitigation measures may be required to meet these objectives where water resources and/or quality may be affected within conservation areas in order to protect or minimize impacts to sensitive species and their habitats. Such measures would likely result in increased design and construction costs, depending upon the location of the water management facilities relative to sensitive species, multi-species habitat conservation areas, and important ecological process areas, such as sand transport corridors.

If habitat conservation objectives are not adopted, or for areas outside conservation areas, water management projects would still have to mitigate for impacts to listed species, cultural, and other sensitive resources. Mitigation measures would be assessed on a case-by-case basis. Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. The proposed CDCA Plan amendment reassigns Multiple Use Classifications in a manner consistent with the habitat conservation objectives, land health standards (including water resources) and consistent land uses that may be permitted within each planning area. Lands with MSHCP-designated conservation areas will be designated as "Limited Use", which will require demonstrated compatibility, either through design or mitigation, with the goals and objectives of the CV MSHCP. Proposed uses would also be required to comply with the NEPA review process and mitigate potentially adverse impacts to air quality. Land uses proposed in designated "Moderate Use" areas, which will be outside conservation areas, will also be subject to NEPA review and the mitigation of potentially significant adverse impacts to air quality. Existing land uses, such as OHV and mining areas, would be designated "Intensive Use" areas, consistent with current uses and would be required to comply with applicable regulations associated with water resource/quality protections. No impacts to water resources or quality would occur.

Special Area Designations. No direct impacts to water resources or quality would occur. The designation of wildlife habitat management areas or ACECs may further protect and prevent irreparable alterations to natural hydrologic systems or processes, depending upon area-specific management prescriptions. The designation of such areas would not automatically preclude the development of water management facilities. Compatible uses within wildlife habitat management areas and ACECs would be determined based on the management prescriptions adopted for a particular special area, and would not be determined by the designation itself.

Land Tenure Exchange and Sale Criteria. The proposed CDCA Plan amendment would establish strict criteria for exchanges or sales of BLM lands, including benefits to conservation areas and the preservation of public ownership of land with priority public benefit, consideration in coordination with local jurisdictions. Such criteria would limit future sales and exchanges, which would continue to be subject to NEPA review, including consideration of potential adverse impacts to regional water resources and quality. No impacts to water resources or quality would occur as a result of adopting land exchange and sale criteria.

Land Tenure Acquisition Criteria. The proposed Plan amendment would establish strict criteria for acquisition of lands by the BLM, including acquisition that would benefit Coachella Valley conservation areas either directly by augmenting conservation areas or by diverting more intense land uses to less sensitive areas, result in improvements to biotic and abiotic habitat components, including surface and ground water resources and quality. Such criteria would facilitate BLM's participation in assembly of conservation lands and thereby reduce potential adverse impacts to regional water resources and quality. The adoption of land tenure acquisition criteria would result in no impacts to water resources or quality processes.

Management of Acquired Lands. The proposed CDCA Plan amendment would assure that acquired or formerly withdrawn lands would be managed in conformance with the CDCA Plan, including placement of lands in conservation or making lands with important mineral or energy resources available for development consistent with habitat conservation objectives, land health standards (including water resources and quality) and NEPA performance standards. Proposed acquisitions would be subject to NEPA review, including assessment of proposed classifications and/or use potential impacts on regional water resources and quality. No impacts to water resources or quality would occur as a result of the proposed action.

Communication Sites and Utilities. The designation of areas for wind parks, utilities, and communication sites would not in and of itself affect surface or ground water resources or quality, or associated hydrology processes. However, the future construction of such facilities and their access roads could result in increased soil erosion and/or the alteration of existing drainage patterns, rates and/or amounts of runoff, thereby impacting associated water resources. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive water resources and hydrologic processes, consistent with habitat conservation objectives. If no areas were designated at this time, mitigation measures would be taken into consideration on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. The designation of areas for sand and gravel mining, in and of itself, will not result in impacts to water resources or quality, or related hydrology processes. However, the future development of such mining facilities may result in the alteration of existing drainage patterns, availability and quality of ground water resources, and rates and/or runoff quantities, thereby impacting local water resources. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to water resources and hydrologic processes, consistent with habitat conservation objectives. If no areas were designated at this time, mitigation measures would be determined on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Livestock Grazing. The proposed amendment to the CDCA Plan would have no effect on livestock grazing within the planning area. With regard to livestock grazing, no new impacts to regional water resources or quality are expected to result from the plan.

Wild Horse and Burro Program. The proposed amendment to the CDCA Plan would involve the transfer of BLM lands within the Palm Canyon Habitat Management Area to the Agua Caliente Tribe. BLM would continue to provide management assistance. Due to the limited number of wild horses and burros occupying the Palm Canyon and Morongo Herd Management Areas, deletion of these HMAs would have only a limited impact on minimizing soil erosion and associated alterations in drainage patterns, rates, and/or runoff quantities. Maintaining the existing horses within Palm Canyon would continue the limited but overall insignificant soil erosion process and associated hydrologic effects occurring on steeper slopes. No significant impacts to water resources or quality are expected to result from this component of the CDCA Plan amendment.

Motorized Vehicle Area Designations. The proposed CDCA Plan amendment would result in the permanent closure of certain use areas and provide for the planned development and management of a new OHV area in the eastern portion of the planning area. As with other CDCA Plan elements, potential water resource and quality impacts are expected to be limited by management strategies incorporated into the proposed Plan amendment. The proposed Plan amendment provides for the development of a 1,440 acre site (Drop 31) in the southeastern portion of the planning area and downstream areas tributary to the Salton Sea. Annual rainfall is extremely limited and no impermeable surfaces are expected to be constructed. The proposed amendment would have the two-fold effect of providing an expansive OHV use area more than twice the size of any other area within the CDCA planning area, and would also make provision for future multi-agency planning for additional OHV areas. The amendment would also provide viable alternatives to the current and extensive, unauthorized use of other areas including major drainages, and with sensitive biological resources.

Motorized Vehicle Route Designations. Potential impacts to water resources and quality associated with proposed amendments to this CDCA Plan element are limited by the management strategy incorporated into the proposed Plan amendment. The proposed amendment to the CDCA Plan would reduce the number and miles of available routes of travel for motorized vehicles to 60 miles from the current 133± miles, thereby reducing by more than half the miles available for this activity. The average level of use on these routes of travel has been estimated for high and low-activity periods: 5 average daily trips (ADT) on weekdays and during all days in the summer; and 25 ADT on weekends and during hunting seasons. Based upon current knowledge and understanding of this use and its potential to impact surface and/or ground water resources, it is not believed that the proposed CDCA Plan amendment will result in significant water resource/quality impacts. Nonetheless, the BLM would apply management provisions and regulations to the use of such routes.

Special Recreation Management Area. The proposed amendment to the CDCA Plan would designate the Mecca Hills and Orocopia Mountains Wilderness Areas as special recreation management areas (SRMAs). The proposed management strategy would include minimized motorized and mechanized equipment intrusions, prescriptive

measures to protect wilderness values, and the creation of semi-primitive motorized recreation opportunities on public lands surrounding the two wilderness areas. OHV use would not be a part of these use areas. Given the location of these areas in a region of very low annual precipitation and surface runoff, the proposed amendment would not be expected to have a significant impact on surface or ground water resources or quality. Designation of the Mecca-Orocopia SRMA would result in no significant impacts to water resources or quality, or hydrology processes.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within sensitive areas, such as ACECs and conservation areas, would reduce soil erosion and associated hydrologic disturbances, such as alterations to drainage patterns and rates. Said activities would be prohibited altogether within wilderness areas. The impacts to air quality would be essentially the same as those identified for motorized vehicle access route (see above). Therefore, potential impacts to regional water resources and quality associated with this component of the proposed Plan amendment are expected to be less than significant.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would provide additional water resources for bighorn sheep, thereby improving their survivability during the hot, dry summer months.

Hiking, Biking and Equestrian Trails. Although some soil erosion and alterations in drainage patterns and rates can be attributed to trail use and new trail development, these occurrences are also a product of trail design, quality of trail maintenance, weather conditions, and other factors. Proposed limitations on trails use within Peninsular bighorn sheep habitat would result in only minimal reductions in soil erosion and associated hydrologic effects. Mitigation measures to minimize soils and hydrologic impacts would be addressed as site-specific trail projects are proposed, which are expected to keep potential impacts to water resources and quality below levels of significance.

4.1.8 Biological Resources

Wild and Scenic River Recommendations. The W&SR recommendations have no direct impact on biological resources. Subsequent interim management measures for river segments recommended eligible for wild and scenic river consideration would provide additional protections, such as no new dams, thereby providing positive benefits for listed species and other biological resources. For those river segments found ineligible, no new impacts to biological resources would result: most are already in protective status, such as areas of critical environmental concern and wilderness.

Visual Resource Management. The assignment (Alternatives A, B and C) or no assignments (Alternative D) of VRM classifications would have no impact on biological resources, as such classifications are based on analyses of existing land uses and landscape quality, whether assessed at time of planning or during analyses of site-specific projects.

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards (Alternatives A, B, C and D) would help maintain biological values on BLM-managed lands, especially maintenance of native vegetation and control of noxious weeds and exotics.

Multiple Use Classification. The assignment of multiple use classifications 'I' for intensive uses and 'M' for moderate uses would allow for more development of the public lands, which may result in some loss of native vegetation. Federally listed species would still need to be addressed through Section 7 consultation with the US Fish and Wildlife Service. Assignment of multiple use classification 'L' would result in less loss of native vegetation than class 'M' or 'I' lands. Unclassified lands are similarly impacted as class 'I' lands, unless these lands are within a special area.

Habitat Conservation Objectives. Management of all activities in accordance with habitat conservation objectives (Alternatives B and C) would help maintain biological values on BLM-managed lands within conservation areas, and would provide landscape level conservation of sensitive species. Alternatives A and C would result in no new impacts to biological resources. Sensitive species must still be addressed in accordance with Section 7 of the Endangered Species Act.

Fire Management Categories. The assignment of fire categories (Alternatives B and C) would benefit biological resources by addressing the relationship of specific habitat types to their natural fire regime. Immediate suppression is a critical element of fire management in desert communities because fire historically has never played a large role in the development and maintenance of these communities. Prescribed fire may be utilized as a resource management tool in very select situations, for example to effectively manage exotic vegetation. Use of fire in chaparral and montane habitats would help to reduce senescence of native vegetation in these fire dependent habitats. Absent a landscape perspective for managing fires (Alternatives A and D), vegetative senescence in montane and chaparral communities would likely continue. The site

specific impacts of a prescribed burn would still need to be analyzed in a subsequent environmental review document.

Special Area Designations. No direct impacts to biological resources would occur as a result of designating new ACECs or wildlife habitat management areas (Alternatives A, B and C). The designation would provide the basis for establishing additional management measures, such as habitat conservation objectives, which provide guidelines for maintaining natural biological values on BLM-managed lands within these special areas.

Land Tenure Exchange and Sale Criteria. Establishment of land exchange and sale criteria (Alternatives B and C) would ensure that all exchanges in the Coachella Valley would benefit the conservation areas and biological resources contained therein. Without these criteria (Alternatives A and D), impacts to sensitive species would still need to be considered in accordance with Section 7 of the Endangered Species Act, absent a landscape approach to multi-species management.

Land Tenure Acquisition Criteria. Establishment of land acquisition criteria (Alternatives B and C) would ensure that all acquisitions in the Coachella Valley would benefit the conservation areas and biological resources contained therein. Without these criteria (Alternatives A and D), impacts to sensitive species would still need to be considered in accordance with Section 7 of the Endangered Species Act, absent a landscape approach to multi-species management.

Management of Acquired Lands. Establishing management direction for newly acquired lands (Alternatives A, B and C) reduces the need for additional planning and provides immediate guidance for conserving biological resources contained therein.

Communication Sites and Utilities. Alternatives A, B and C provide additional protections for biological resources within conservation areas, as communication sites and utilities would be subject to the habitat conservation objectives. While Alternative C would conceptually provide the most biological protection by being the most restrictive, wind parks, utility lines and communication sites already exist within confined areas, depending on site suitability and existing corridors.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the BLM-managed lands; however, this evaluation would occur on a project-by-project basis, absent a landscape level multi-species management approach and few opportunities for off-site mitigation.

Sand and Gravel Mining. Alternatives A, B and C provide additional protections for biological resources within conservation areas, as sand and gravel mining would be subject to the habitat conservation objectives. While Alternative C would conceptually provide the most biological protection by being the most restrictive, sand and gravel mining already exists within confined areas, depending on quality of the material found at a particular site.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the BLM-managed lands; however, this evaluation would occur on a project-by-project basis, absent a landscape level multi-species management approach and few opportunities for off-site mitigation.

Livestock Grazing. Under the "no action" alternative (D), cattle grazing in the Whitewater Canyon allotment would continue, subject to terms and conditions outlined in biological opinions issued by the US Fish and Wildlife Service on March 14, 1994 and in 1997 addressing desert tortoise, and any additional terms and conditions identified in subsequent biological opinions addressing the arroyo toad, least Bell's vireo, Southwestern willow flycatcher and triple-ribbed milkvetch. All of these species are Federally listed as endangered, and are found or have habitat within the allotment. Through the use of terms and conditions outlined in biological opinions, the likelihood of "jeopardy" is diminished as a result grazing activities. Nonetheless, adverse impacts to native biological resources may occur as a result of grazing activities, if grazing management is not designed to control or minimize effects like accelerated invasion of exotic grasses, trampling of sensitive and soils, diminished water quality, and diminished proper functioning condition of riparian areas.

In 1999, the BLM conducted Rangeland Health Assessments on the Whitewater Canyon allotment and found areas not meeting the National Fallback Standards for upland soil permeability, riparian health, and stream morphology. Since 1999, cattle have been temporarily removed from the allotment in order to improve rangeland health. Recent drought conditions have not allowed adequate assessment of possible recovery due to rest.

Range improvements are a necessary component of grazing management to control and care for livestock and reduce impacts to vegetation and soils from trampling. As conditions change over time, and if resource conditions as measured through trend monitoring and rangeland health assessments dictate, new range improvements may become necessary. These range improvements would be addressed through site specific environmental and biological assessments.

Alternatives A, B and C would all improve conditions for native biological resources, through rest from livestock grazing use. For example, disturbance that may foster spread of exotic grasses would be diminished, reduced trampling of soils should also affect areas where soil profiles are sensitive, there would be fewer pollution sources potentially affecting water quality, and rest is expected to improve proper functioning

condition of riparian areas. All of these would contribute to improved habitat for sensitive species, especially desert tortoise, arroyo toad, least Bell's vireo, southwestern willow flycatcher and triple-ribbed milkvetch.

Wild Horse and Burro Program. Alternatives B and C would result in the eventually removal of the branded horses in Palm Canyon, thereby reducing grazing pressures on native vegetation, reducing competition for bighorn sheep forage, and reducing soil trampling and erosion.

Retaining the herd management areas (Alternatives A and D) and allowing wild horses and burros to occupy the public lands, would result in continued grazing pressures on native vegetation, continued competition for bighorn sheep forage, and continued soil trampling and erosion. Cumulatively, these impacts would be limited as herd management levels are maintained at 6 horses in Palm Canyon and 16 burros in Morongo.

Motorized Vehicle Area Designations. 1040 acres of public land in the Drop 31 off-highway vehicle open area (Alternative B) would be exposed to accelerated soil erosion and native vegetation loss. Unauthorized motorized vehicle intrusions into the adjacent wilderness area would disturb desert bighorn sheep and possibly discourage use of the Coachella canal to drink water. While use of the canal by bighorn sheep is not encouraged, there are not enough drinking sources in the wilderness areas to support the bighorn sheep population. Implementation of the guzzler installation program proposed through the Northern and Eastern Colorado Desert (NECO) Plan would provide alternative water sources. Milkvetch is a plant that thrives in disturbed areas, such as sandy washes in Drop 31. After germination, the plants would be exposed to crushing by vehicles.

Under Alternatives A and D, 3800 acres of public land would be available for open off-highway vehicle use, and would be exposed to accelerated soil erosion, native vegetation loss, crushing of native plants and animals, and crushing of burrows. Alternative C provides no off-highway vehicle open areas, thereby minimizing disturbance to native species and their habitats, assuming sufficient BLM presence on-the-ground to enforce the area closures.

Motorized Vehicle Route Designations. Various species are particularly sensitive to impacts by motorized vehicles. Flat-tailed horned lizards, desert tortoise, and pocket mice are prone to crushing by vehicles, as well as the burrows of burrowing owl, giant sand treader cricket, Jerusalem cricket and round-tailed ground squirrels. Le Conte's and Crissal thrashers are sensitive to noise disturbance during nesting season, December through June. Uncontrolled off-road motorized-vehicle use results in destruction of native vegetation, including listed plant species, soil compaction, accelerated soil erosion, and destruction of micro-habitats for endemic species like Coachella milkvetch, Little San Bernardino Linanthus, Mecca aster, Coachella Valley grasshopper, and Casey's June beetle. In addition, uncontrolled off-road motorized vehicle use may result in the spread of noxious weed species such as salt cedar

(*Tamarix ramosissima).* The level of vehicle use on a road (frequent, occasional, or rare) appears to influence the level of response by bighorn sheep. Frequent vehicle use of a road (for example, Highway 74) creates a barrier to movement of bighorn such that few cross Highway 74. Habitat fragmentation caused by heavy use of roads may result in net loss of habitat used by bighorn sheep (Papouchis et al. 2000). However, bighorn sheep may adapt to occasional use of rural roads, timing their use to coincide with low use levels (Papouchis et al. 2000, Krausman and Etchberger 1989).

Under Alternatives A and D, 71 miles of existing routes on BLM-managed lands would be available for off-highway vehicle use; existing impacts to biological resources would continue. Under Alternative B, 45 miles of routes would be available for off-highway vehicle use, while reducing impacts from motorized vehicle use, especially in sensitive areas. Under Alternative C, 25 miles of routes would be available for off-highway vehicle use, which would noticeably reduce motorized vehicle access opportunities and minimize disturbance of any kind in a variety of habitats, assuming sufficient BLM presence on the ground to enforce the route closures.

Under Alternative A , management of vehicle access to the Dunn Road would be primarily for administrative purposes such as flood control, law enforcement, search and rescue, and fire control, rather than research and recreational uses. Levels of use are apparently not enough to prevent bighorn sheep from crossing or using habitat adjacent to the road and as such is probably not a source of habitat fragmentation. Peninsular Ranges bighorn sheep have been observed on and adjacent to the Dunn Road during the past two years (BLM files) and historically used Cathedral Canyon for lambing and rearing and for water (K. Brennan personal communication). Cathedral Canyon currently is the northern-most lambing area in the Santa Rosa Mountains. Lambs have been documented in Cathedral Canyon in 1995 and 1997 (USFWS 1999). Bighorn sheep habituate to regular, predictable uses and exhibit less response less to such uses (Geist 1971, Papouchis et al 2000). Multiple land owners on the Dunn Road make single-agency management decisions impossible. BLM can manage and patrol the BLM-managed portions of the Dunn Road for illegal off-highway vehicle (OHV) use, but without access through privately owned parcels, illegal OHV use will occur (BLM files 2002). During 2002, BLM lost access to parts of the Dunn Road due to acquisition of a parcel by a private citizen. Prior to that, BLM patrolled the road regularly for illegal OHV use and compliance was reasonable. However, since BLM has lost access through the private parcel, illegal OHV use has increased. Motorcycles and ATVs have been observed coming in through the Goat Trails area of Palm Springs and plant damage has been noted by BLM staff (BLM files 2002). This activity is unpredictable in location and timing and as such is more likely to impact bighorn sheep than regular patrols. Regular law enforcement patrols of Dunn Road would help minimize and control illegal off road vehicle use.

Alternative B is similar to A except that it would allow for additional permitted uses of the Dunn Road such as recreation and research. Recreational use of publicly owned portions of the Dunn Road would be contingent upon acquiring access across private lands and compliance with the terms of a Biological Opinion from the USFWS.

According to a Biological Opinion prepared for BLM in 1999, recreational use of the Dunn Road would not be likely to jeopardize recovery efforts of Peninsular bighorn sheep if certain conditions were met such as: 1) the amount of time spent on the road was minimized; 2) the number of vehicles allowed per day was held to a strict minimum so that bighorn sheep would have substantial opportunities to cross lower Dunn Road; and, 3) the type of human disturbance was limited to jeeps driving on the road (no stopping or getting out allowed). Access to the Dunn Road for research would enable researchers to collect data on bighorn sheep and other species of plants and animals inhabiting the area. Increased knowledge may increase management options for desert-adapted species such as the desert tortoise, bighorn sheep, and others.

Alternative C would prohibit use of the BLM-managed portions of the Dunn Road and allow the road to be reclaimed naturally over time. This alternative, while on the surface reducing impacts to bighorn sheep, may in fact, cause greater impacts to sheep. Lack of management presence on the Dunn Road following denial of access to BLM across a privately-owned parcel has resulted in increased illegal OHV activity on Dunn Road which potentially impacts bighorn sheep (See discussion under Alternative A).

Special Recreation Management Area. No direct impacts to biological resources would occur as a result of establishing a special recreation management (Alternatives A, B and C). The designation would provide the basis for establishing additional management measures in order to better protect biological values in this area, such as desert bighorn sheep. Eight guzzlers are proposed through the Northern and Eastern Colorado Desert (NECO) Plan to be installed in the Orocopia Mountains which this plan is honoring. The objective is to discourage sheep from using the canal for water and to make better use of the entire range.

Stopping Parking and Vehicle Camping. Limiting parking within conservation areas would minimize potential conflicts with multi-species habitat conservation (Alternatives A-B and C).

Peninsular Ranges Bighorn Sheep Recovery Strategy. The proposed recovery strategy (Alternative B) seeks to reduce overall levels of disturbance to bighorn sheep from all activities as equitably as possible. Alternative A seeks to reduce disturbance to bighorn sheep, focusing on recreational trail use, motorized vehicle access and elimination of feral horses. Alternative C seeks to further reduce (compared to Alternative B) overall disturbance generated from all human interactions with bighorn sheep.

Land use plan decisions common to all alternatives

1. Habitat loss is the leading cause of species endangerment and the leading threat to global biodiversity (Groombridge 1992, Noss and Murphy 1995). Approximately 18, 500 acres of suitable bighorn habitat has been lost to urbanization and agriculture along the urban interface between Palm Springs and La Quinta (USFWS 2000). Habitat acquisition would benefit bighorn sheep by minimizing habitat fragmentation along the valley-mountain interface.
2. Fixed-winged aircraft have little or no impact to sheep above 100-m (Krausman and Hervert 1983). However low-level aircraft flights may have an impact on sheep. Anza-Borrego Desert State Park has reported that low-level military overflights cause flight in bighorn sheep (Mark Jorgenson, personal communication). In addition, stress and behavioral changes have been documented to result from the use of helicopters for annual population surveys and captures. Heart rate, body temperature, energy expenditures, hormone levels and blood pressure have been shown to elevate during helicopter pursuit and subsequent capture of bighorn sheep (MacArthur et al., 1986, Martucci et al., 1992, Kock et al., 1987.) In addition, temporary disruption of normal movement and social patterns occurs. Bighorn may shift habitat use which may bias estimates of habitat use, (Bleich et al. 1994), population size (Bleich et al. 1990), and home-range size (Miller and Smith 1985).
3. Public information and awareness is a critical component in the recovery of threatened and endangered species and efforts to prevent future listings. Effective outreach programs increase the public's knowledge of the niche that a species occupies and the relationship between the human environment and the wildland environment.
4. Competition between feral horses and bighorn sheep have not been extensively studied, but increasing horse populations were reported to coincide with decreasing bighorn sheep populations in the Silver Peak Range in Nevada (McQuivey 1978). Similarly, Anza-Borrego Desert State Park reported that during the 1999 and 2000 waterhole bighorn counts, the continuous presence of 16 and 21 feral horses, respectively, coincided with the absence of bighorn coming to water over both census periods (USFWS 2000). Staff at Anza-Borrego Desert Sate Park have observed that during periods of poor forage conditions, horses congregate around water sources more than usual, causing damage similar to that of feral burros (Seegmiller and Ohmart 1981) by consuming the best available forage and fouling surface waters (USFWS 2000).
5. Bighorn sheep rely on keen vision and open habitats to detect and evade predation (Risenhoover and Bailey 1985, Giest 1971). Vegetation encroachment reduces visibility and may result in a net loss of bighorn habitat (Fairbanks et al. 1987, Etchberger et al. 1989, Gionfriddo and Krausman 1986). The rate of vegetation change in the western United States has been unprecedented during this century (Miller and Wigand 1994). Fire suppresion has played a major role in vegetation change over time (Miller 1999). An effective fire management program will help maintain bighorn sheep habitat in the Peninsular Ranges by minimizing encroachment of vegetation.

6. Heavy road use may fragment bighorn habitat and interfere with movement patterns (Papouchis et al. 2000, Jorgensen 1974, Leslie and Douglas 1980, Miller and Smith 1985). Miller and Smith (1985) documented that 25% of bighorn sheep (45 out of 180 observations) immediately reacted to a parked jeep or truck by either walking or trotting away and returning to their original activity within 10 minutes, or by running away from the area and not returning to their original activity. Jorgensen (1974) documented bighorn sheep avoiding a water source during weekends when vehicle use of the area adjacent to the water sources was high. Rubin et al. (1998) proposed that construction and use of roads may have increased the fragmentation of ewe distributions in the Peninsular Ranges. Four of the boundaries between the 8 ewe groups described coincided with paved roads (Highway 74 in the Santa Rosa Mountains, road S-22 in the San Ysidro Mountains, Highway 78 between the San Ysidro and Vallecito Mountains, and road S-2 between Carrizo Canyon and the Vallecito Mountains. Ewes have been documented crossing Highway 74 during the 1970's by California Department of Fish and Game biologists (Rubin et al.1998) and by Bureau of Land Management staff in 2001 and 2002. Rams have been documented crossing Highway 74 more frequently.
7. Because of the checkerboard landownership pattern in the Santa Rosa and San Jacinto Mountains, participation in an interagency, multiple jurisdiction trails use management plan would provide a relatively seamless, landscape level approach to trails management in bighorn sheep habitat.

<u>Alternative A</u>

1. Bighorn distributions in the Peninsular Ranges have been have been linked to proximity to water sources. Cunningham and Ohmart (1988) found that bighorn sheep were more likely to be found near water in the Jacumba Mountains and Blong (1967) reported bighorn sheep using Magnesia Canyon Springs consistently. During the lambing and rearing season (approximately January through June), ewes increase their intake of water to help meet demands of lactation. Generally, ewes and lambs are found within 2 miles of water. In the Peninsular Ranges, most water sources are ephemeral. Natural tanks, or tinajas, are filled by run-off from winter and spring rains and dry up during the hot summer months. Tamarisk has invaded many natural springs and areas around tinajas in the Peninsular Ranges, reducing water availability for bighorn sheep. Eradication of tamarisk enhances the availability of water and may prevent the necessity of installing artificial water sources. Tamarisk eradication can result in immediate reappearance of surface water (Barrows 1994, T. Egan 2001 personal communication) which can help expand bighorn sheep distribution.

   The installation of artificial water sources would have a number of impacts, both positive and negative, on bighorn sheep. On the positive side, year-round water would be provided for bighorn sheep, facilitating range expansion and increase in local populations. From a negative standpoint, artificial water sources in desert environments may provide breeding areas for disease vectors such as *Culicoides sp.* (Mullens 1989). Additionally, *Elaeophora schnederii* has been detected in

desert bighorn sheep in New Mexico and it has been suggested that water sources in desert environments provide a breeding ground for the horsefly which is the vector for this disease (Hibler and Clark 1970, Boyce et al. 2000). Desert-dwelling species have evolved in extremely arid environments and have adapted to the stochastic nature of water availability in the desert. By providing artificial sources of water for desert dwellers, including bighorn sheep, it may reduce, over time, the ability of these species to survive long-term drought, (Broyles 1995, Broyles and Cutler 1999). Finally, predation may increase as a result of installing an artificial water source (DeStephano, Schmidt, deVos 2000). Long-term monitoring and research indicates that predators such as mountain lions hunt in and around water sources. A permanent water source may attract mountain lions and cause increased predation on bighorn sheep. In addition to mountain lions, coyotes and bobcats are known to prey on lambs and yearling bighorn sheep thus impacting recruitment.

The connection between increased water availability and increased wildlife populations is unclear (Broyles and Cutler 1999). Krausman and Etchberger (1993) did not detect an increase in productivity of mountain sheep in the Little Harquahala Mountains in Arizona when water catchments were added; in fact, survival decreased. Smith and Krausman (1988) suggested that bighorn sheep likely existed for thousands of years without free water, and although densities are low, their number may be within constraints of available resources. Development of artificial water sources require a major commitment of funds and labor; however, the literature fails to establish a cause and effect relationship between additional water sources and increased wildlife populations (deVos and Clarkson 1990). Researchers suggest that installation of new waters be carefully considered. Smith and Krausman (1988) recommend that before adding water to bighorn habitat, the need for water should be well-established. Lee (1993) suggested that bighorn sheep in Mexico are doing well without water development while in the United States populations continue to decline despite a massive water development program over the past 3 decades.

2. Excluding sheep from the urban areas is an important component of recovery. Bighorn sheep in the Santa Rosa Mountains have come down to water at golf courses and homes along the urban-wildland interface for the past 30 years (Blong 1967, DeForge ??). The knowledge of these sources of food and water are passed each year to successive generations of bighorn sheep. Threats in the urban interface include poisonous plants such as Oleander, a popular exotic plant used for landscaping, drowning in swimming pools, encounters with domestic dogs, and automobile collisions. Fences impact bighorn sheep by cutting off access to food and water. Eradication of tamarisk and improvement or construction of additional water sources should occur prior to completion of a fence project so that bighorn sheep are not left high and dry during critical periods of time. Fences should be constructed in coordination with USFWS to ensure minimal impact to sheep.

3. The use of helicopters in big game management and research has been well documented (Thompson and Baker 1981). Bighorn sheep equipped with radio or satellite collars provide critical information on habitat use, distribution, movements, and home range size of individual animals. This information is critical for management and recovery of bighorn sheep in the Peninsular Ranges. However, such use is not without cost to the animals. Pursuit and capture of wild ungulates causes intense, short-term stress to the animals. Heart rate, body temperature, energy expenditure, hormone levels, and blood pressure have all been shown to elevate under stress (MacArthur et al., 1986, Martucci et al., 1992, Kock et al., 1987). In addition, some temporary disruption of normal movement and social patterns would occur. Sheep not captured, but near a capture area, may also experience stress and habitat shifts due to helicopter disturbance. Krausman and Hervert (1983) found that bighorn sheep at Cabeza Prieta National Wildlife responded to aircraft flying below 100-m but that above 100-m no response was detected.

   Bighorn population surveys are conducted via helicopters because the aircraft must be close enough to the animals for the observers to determine sex and age. Aerial surveys of collared sheep from helicopters may induce short-term stress and cause temporary shifts in habitat use (Bleich et al. 1994), potentially biasing estimates of habitat use and distribution (Bleich 1993), population size (Bleich et al., 1990), and home-range size (Miller and Smith 1985). Bleich et al., (1994) cautioned investigators to consider the potential effects of aerial sampling on the condition and perhaps reproductive success of large mammals (Murphey et al., 1993 cited in Bleich et al., 1994). Although capture indisputably does cause stress and habitat displacement to bighorn sheep, most captured and collared sheep appear to have few, if any, long-term effects from the capture. Sheep generally resume normal feeding, movement, activity patterns, and social status within a few days of helicopter surveys or capture.

   Research tells us that ewes are more sensitive to disturbance during the lambing season (Geist 1971, Turner and Hansen 1980, Light and Weaver 1973, Wehausen 1980). The Recovery Plan for Peninsular Ranges Bighorn Sheep (USFWS 2000) recommends that disturbance be minimized to the extent practical during lambing season, including reductions or elimination of trail use and use of non-paved vehicle routes. The use of helicopters for capture or retrieval of dead sheep during the lambing season may cause temporary abandonment of habitat during a critical season.

   Causes of lamb mortality are poorly understood. Capturing, collaring, and monitoring bighorn lambs provides cause-specific mortality data. These data could be used to detect diseases, predation, and urban interface issues, which may limit recruitment and thus impede recovery. Lambs may be more vulnerable to capture and handling related stress than adults due to their age and inexperience. Rates of post-capture lamb mortality could be influenced by capture and handling by increasing susceptibility to disease, predation, injury,

and potential abandonment by ewe. During 4 years of a lamb mortality study conducted by the Bighorn Institute and the California Department of Fish and Wildlife, there have been no mortalities directly associated with capture of lambs. Additionally, there is no evidence that there have been any interruptions in suckling bouts or abandonment by ewes during this study to date (Bighorn Institute unpublished data). This population has experienced high lamb mortality for over a decade, and the causes need to be identified. The risks associated with capture of lambs may be counterbalanced by the quality of information collected.

4. Biologically there would be no impact to bighorn sheep from the distribution of research and monitoring activities. However, there is some concern from local researchers that such information could be misinterpreted and ultimately hamper recovery efforts by resulting in more habitat loss through urban development.
5. Mountain lion predation on bighorn sheep can have a significant impact on small populations (Wehausen 1998) and is cited as one of the primary mechanisms driving the decline of bighorn sheep in the Peninsular Ranges (Deforge *date*, USFWS 2000). Sixty-nine percent of 61 mortalities of radiocollared sheep from 1992 to 1998 between Highway 74 in the Santa Rosa Mountains and the Mexico border are attributed to mountain lions (Hayes et al. 2000). The Recovery Plan for Peninsular Ranges Bighorn Sheep (USFWS 2000) contains provisions for predator control, including a 3-stage trigger to determine the necessity of such a program. Because nearly 28% of habitat in the Peninsular Ranges is managed by the BLM, a multiple agency approach is necessary for the most effective management and control of predators.
6. Augmentation and reintroduction programs are recognized conservation tools and have been used extensively to manage bighorn sheep populations (Bleich et al. 1990, Ramey 1993). However, these tools should be used in support of other conservation measures. Additionally, decisions regarding augmentation and reintroduction need to consider the consequences to genetics, disease, and population structure. Reintroduction and augmentation may be used to (re)establish ewe groups and restore connectivity among neighboring groups. Augmentation may play an important role in conservation of bighorn sheep because habitat use patterns are learned from experienced animals. Bighorn sheep are generally poor colonizers of available habitat because habitat use patterns are learned from experienced animals (Risenhoover 1988). Once ewes discontinue use of a particular area, it may be difficult for inexperienced sheep to established in this area.

Preferred Alternative (B)

1. Same as Alternative A
2. Same as Alternative A
3. Reduction of impacts resulting from all land uses including trail use, motorized vehicle use, permitted uses, utility corridors, communication sites, casual uses, and research will facilitate recovery of bighorn sheep (USFWS 2000, Ramey, personal communication 2002). (Also see Alternative A for further discussion of impacts from research). Allowance of research will add to the base of knowledge and result in improved management actions.
4. Access to information about recovery actions on BLM-managed public lands provides the public with updated information, reduces the incidence of mis-information and rumor, and may garner increased support of recovery actions.
5. As discussed under Alternative A, helicopters cause stress, physiological change, and alteration of habitat use patterns to bighorn sheep. Reducing impacts from helicopters and direct handling of wild sheep while still gathering much needed information may facilitate recovery. When capture and handling cannot be avoided, use of satellite collars may reduce further stress during research projects.
6. Mountain lion predation has been identified as a causal mechanism in the decline of bighorn sheep in the Peninsular Ranges (USFWS 2000, Hayes et al. 2000, DeForge...). A study is currently underway in Anza-Borrego Desert State Park investigating the relationship between bighorn sheep, mule deer, and mountain lions. Initiation of such a study in the northern Santa Rosa Mountains would provide insight into the role mountain lion predation plays in determining the population dynamics of bighorn sheep between Highway 74 and Palm Canyon.
7. Small populations have substantially higher risk of extinction than larger populations (Berger 1990, Berger 1999, Wehausen 1999). Currently, there are 31 sheep in the San Jacinto Mountains sub-population; historical estimates of this group are as high as 200. Of these 31, only 8 ewes are of breeding age. The unbalanced sex ratio may cause increased pressure on ewes during the rut and may be impeding growth of the population. The San Jacinto Mountain herd was augmented in1997 with three captive reared ewes from the Bighorn Institute (Bighorn Institute, unpublished data). Although none of the ewes survived more than 10 months, augmentation helps the population to resist local extirpation. Augmentation, which includes capture, translocation, and time spent in captivity, would cause stress to the sheep. The translocation of wild-reared or 3 captive-reared sheep could cause social disruption to the resident sheep in the San Jacinto Mountains. Newly introduced bighorn in New Mexico did not integrate immediately with the resident population and translocated ewes spent an average of 5 months on the fringes of the resident population before integrating (Huddleston-Lorton et al., 2000, Ahlm 2001). In addition, translocated sheep spent may spend less time in suitable habitat and may have an increased risk of predation due to unfamiliar habitat (Huddleston-Lorton et al., 2000).

Alternative C

1. Same as Alternative A
2. Same as Alternative A
3. Limiting the number of sheep that can be captured on BLM-managed public lands will not necessarily reduce the total number of sheep captured in the Peninsular Ranges. BLM manages approximately 28% of essential habitat throughout the Peninsular Ranges and within the CDCA plan amendment planning area, only about xx%. Similarly, limiting captures to areas outside designated Wilderness Areas would effectively reduce surface disturbance but not necessarily reduce the number of sheep captured. In order to obtain the most accurate population estimates, it is critical to distribute collars throughout the range. Limiting the number of mortality retrievals during the lambing season would reduce the incidence of stress to bighorn sheep during this critical time period.
4. Limiting predator control to mountain lions *known* to kill bighorn sheep would reduce the incidence of random take of mountain lions. Not all mountain lions kill bighorn sheep. In Alberta, Canada, Ross et al. (1997) found that during 1985-1986 and 1993-1996, lions killed nearly 320 ungulates; 29 of those kills were bighorn sheep. Eight percent of these lion-killed sheep were attributable to a single adult female lion. The authors concluded that the presence of one or a few individual specialist predators may strongly and unpredictably influence demography of small ungulate populations (Ross et al. 1997). The removal of this single female resulted in a reduction of over-winter mortality of bighorn sheep in southwestern Alberta.
5. Same as Alternative A.

No Action Alternative (D)

1. Same as Alternative A.
2. Same as Alternative A.
3. Same as Alternative A.
4. Same as Alternative A, number 6.

Hiking, Biking, and Equestrian Trails.

Preferred Alternative (A, B, & C). A multiple agency, multiple jurisdiction trails management plan will increase the effectiveness of managing trails in the Peninsular Ranges because of the checkerboard pattern of landownership. Limitations on trail use during the lambing season and/or hot summer months would benefit bighorn sheep by reducing the overall level of disturbance to sheep (see also alternatives above).

No Action Alternative (D). New trails would be developed under current Federal law and regulation. Impacts to bighorn sheep would be assessed for each specific project proposal.

4.1.9 Cultural Resources and Native American Concerns

The term "cultural resources" will be used to refer inclusively to both historic properties and significant Native American values. The impacts of the following proposals are evaluated with the assumption that significant, but as-yet unidentified, cultural resources may occur on all lands managed by the BLM. Site specific actions such as construction of facilities will be subject to additional environmental review in accordance with the National Environmental Policy Act, which affords protection to significant cultural resources as prescribed by the National Historic Preservation Act, 36 CFR 800, and other applicable regulations and guidelines.

Wild and Scenic River Recommendations. The recommended rivers contain important archaeological and Native American resources which contribute to the outstanding resource values of the rivers. Designation of the rivers by Congress would provide additional protection to cultural resources from surface-disturbing activities. However, increased visitation could result in potential adverse effects such as trampling of archaeological sites by visitors and collection of artifacts and native plant materials. Access to these rivers for Native American cultural purposes would not change with designation.

Visual Resource Management. No impacts to cultural resources or Native American concerns would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes. Areas with a high density of recorded archaeological sites and areas identified as sacred lands generally coincide with areas designated as VRM Class 1 or Class 2.

Land Health Standards and Air Quality. Implementation of land health standards may have positive impacts on cultural resources and Native American concerns through the prevention of erosion and the preservation or reintroduction of native plants (Roney 1977; U.S. Department of the Interior 1976). Deer grass and juncus, materials used in traditional basket-making, are native species that are frequently displaced by introduced species such as fountain grass. Specific measures needed to promote land health standards, such as removal of exotic species, which could affect cultural resources will be analyzed on a case-by case basis as part of the NEPA review process.

Multiple Use Classification. Lands currently classified as Class L will remain in that status. With the remaining lands currently "Unclassified", cultural resources are at risk from unregulated uses of the lands such as off-road vehicle use. Designation of the unclassified lands as either Class C or Class L would afford greater protection to cultural resources by controlling multiple use of resources. Lands classified as Class M will allow a greater range of permitted activities and specific actions will be analyzed through the NEPA process. Effects to significant cultural resources from these uses will be avoided or mitigated. Class I (Intensive Use) provides for concentrated uses of lands and resources to meet human needs and could result in negative impacts to cultural resources.

Habitat Conservation Objectives. Adoption of habitat conservation objectives would provide additional protection to cultural resources as they call for at least 99% conservation of specific habitat types. These objectives limit surface disturbance, fostering native plants for cultural purposes. Alluvial Fan/Lowland Scrub and Riparian/Wetlands areas can be expected to contain the greatest density of cultural resources. Cahuilla villages are known to have been situated on alluvial plains. There is also a correlation between the presence of water and cultural resources. Specific actions, such as construction of new utilities within existing utility corridors, would be analyzed through the NEPA process and impacts to significant cultural sites would be avoided or mitigated.

Fire Management Categories. No impacts to cultural resources would result from designation of fire management categories. The potential for effects to significant cultural resources from prescribed fires will be analyzed through the NEPA process. Specific suppression activities will be evaluated for their potential for adverse effects to significant or sensitive cultural resources to the degree possible given concerns for protection of life and property.

Special Area Designations. Designation of lands as Wildlife Habitat Management Areas (WHMAs) will not affect cultural resources. Designation of new ACECs, or expansion of existing ACECs, could have both positive and negative effects on cultural resources. Positive effects would result from adoption of management plans which include limitation of uses to protect cultural resources. However, designation of an area as an ACEC may increase awareness of and visitation to the area.

Land Tenure Exchange and Sale Criteria. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Land Tenure Acquisition Criteria. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Management of Acquired Lands. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Communication Sites and Utilities. The CDCA Plan calls for the avoidance of sensitive resources whenever possible in the evaluation of future energy and communication site proposals. Alternative D enforces the status quo and will have no effect to cultural resources. Alternatives A, B, and C would decrease the potential for effects to cultural resources by imposing restrictions on the placement of future communication and utility sites and by applying the habitat conservation standards to proposals within designated conservation areas. Alternatives C and D specifically call for proposed utilities to be designed or mitigation measures imposed to ensure avoidance of impacts to significant cultural resources.

Sand and Gravel Mining. Alternatives A, B, and C would decrease the potential for effects to cultural resources by imposing restrictions on the location of future sand and gravel operations or by applying the habitat conservation standards to proposals within designated conservation areas.

Livestock Grazing. Livestock grazing can have a negative impact on cultural resources by encouraging erosion, causing trampling and displacement of artifacts, and introducing non-native plant species (Roney 1977, U.S. Department of the Interior 1976). The Whitewater Canyon ACEC Management Plan identifies Whitewater Canyon as an area with significant Native American values. Little archaeological inventory has been completed in the grazing allotment, but it has the potential to contain historic properties given its identification as significant by Native Americans and because it contains a reliable water source and plant foods important to the Cahuilla and Serrano. According to records on file in the Palm Springs-South Coast Field Office, nine archaeological sites have been recorded on BLM managed lands within the Whitewater grazing allotment. Adoption of Alternative C would provide for protection of Native American values and historic properties from the effects of livestock grazing. Alternative B would provide the same protection to the northern part of the allotment. Alternative A would protect cultural resources and allow for cultural resource studies to be conducted and evaluated as a factor in the prescribed suitability studies.

Wild Horse and Burro Program. Horses and burros have the same effects to cultural resources as other livestock. In Palm Canyon significant cultural resources are frequently associated with water sources, which is where livestock will congregate if not otherwise managed. BLM managed lands within the HMA are known to contain significant cultural resources. Horse trails currently cross recorded archaeological sites, resulting in surface disturbance and accelerated soil erosion. Alternatives A and D would allow the numbers of animals in Palm Canyon and Morongo Canyon HMAs to remain as set in the CDCA plan; negative impacts to cultural resources would continue or increase. Alternatives B and C would prevent further negative impacts to cultural resources within the HMAs.

Motorized Vehicle Area Designations. None of the candidate “open” areas has been subjected to a complete and intensive cultural resources inventory. Approximately half of the Windy Point area has been inventoried and no cultural resources were identified. Less than 10% of the Indio Hills site has been inventoried. No cultural resources were identified as a result of this survey, however numerous archaeological sites, including prehistoric trail segments, exist within and adjacent to the Indio Hills. The nearby Willow Hole and Edom Hill areas are known to contain significant cultural resource values. No cultural resources surveys have been completed for the Iron Door site, but it also falls within the potentially sensitive Indio Hills. Three short trail segments have been recorded in the Drop 31 area. However, the area is less likely to contain a high density of archaeological sites than the previously-mentioned areas. A cultural resources inventory should be conducted prior to designation of an area as “open” to off-road vehicle use in order to avoid or mitigate effects to historic properties and significant Native American values.

Motorized Vehicle Route Designations. Designation of vehicle routes may have positive or negative impacts on cultural resources. Closure of routes leading to areas containing significant resources would provide an additional measure of protection. However, closure of routes may also preclude Native Americans from reaching traditional ceremonial or plant gathering areas. Closure of routes may also lead to increased usage of the routes that remain open. Stopping, parking, and camping are allowed within defined distances of open routes. Surface disturbance from vehicle traffic, construction of fire rings, and collection of artifacts would have a negative impact on significant properties adjacent to open routes.

Special Recreation Management Area. No impacts to cultural resources would occur from the designation of a SRMA. Specific actions such as construction of visitors' facilities or wildlife guzzlers would be addressed through the NEPA process.

Stopping, Parking and Vehicle Camping. Stopping, parking, and camping may have negative impacts on cultural resources through activities such as surface disturbance from vehicle traffic, construction of fire rings, and collection of artifacts. Limitation of the width within which motorized vehicles may pull off of an approved route decreases the potential for impacts to cultural resources.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing impacts to archeological sites within the same vicinity.

Hiking, Biking and Equestrian Trails. Some trails within the planning area lead to or pass through archaeological sites. Non-motorized use of trails may have a negative impact on cultural resources by increasing visitor traffic to sensitive cultural areas. In some locations current trail users have constructed cairns or used spray paint to guide others to cultural resources. Mountain bikes and horse traffic may increase erosion where trails pass through archaeological sites. Alternatives A, B, and C allow for limits to be placed on non-motorized trail use, including area closures, as needed to protect sensitive resources.

Construction of new trails could have the same negative impacts to cultural resources as above and would also result in new surface disturbance which may damage historic properties. Based on currently available data, only the trail corridor south of La Quinta appears to pose a potential conflict with cultural resource values: nine archaeological sites occur on BLM managed lands within this corridor. Of these nine sites, three appear to contain qualities which make them eligible for listing on the National Register of Historic Places. All of the proposed trail corridors occur in the Lower Sonoran life zone. Based upon data available in the Palm Springs-South Coast Field Office, this zone has a high potential to contain archaeological sites. Proposed trail corridors will be subject to cultural resource studies as part of their suitability analysis. Specific proposed trail routes would be analyzed through the NEPA process.

4.1.10 Air Quality

Air quality is an issue of regional concern in the Coachella Valley CDCA Plan area. In addition to discussions and assessments set forth in this section, refer to Appendix C for a more detailed discussion of BLM's proposed air quality management strategy, a summary of the Coachella Valley PM10 State Implementation Plan, and a draft air quality conformity analysis and determination for the Coachella Valley CDCA Plan Amendment.

Air Quality Management Strategy. The efficacy of the air quality management strategy is directly related to the impact of the selected alternative under each of the plan elements for the Coachella Valley CDCA Plan Amendment. The following is a summary description of the more pertinent plan elements affecting the efficacy of the alternative air quality management strategies, followed by an air quality impact analysis of each plan element.

Alternative A. Under air quality management strategy Alternative A, BLM would be opting to keep open the existing motorized-vehicle route network. Installation of new communication sites, wind parks, and sand and gravel mining operations would be permissible throughout the Coachella Valley. Authorized uses would still need to be in compliance with Coachella Valley PM10 State Implementation Plan and would include applicable measures to minimize fugitive dust emissions. Where feasible, BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative B. Under the Alternative B air quality management strategy, BLM would be making a concerted effort to reduce PM10 emissions from the BLM - managed public lands, especially upwind of sensitive receptors, while still allowing for a reasonable level of multiple use of the public lands. The motorized-vehicle route network would be reduced by 20%, closing redundant routes in order to still allow for some vehicle access, and all informal off-highway vehicle "free-play" areas upwind of sensitive receptors (i.e. residents of the Coachella Valley). Installation of new communication sites, wind parks, and sand and gravel mining operations would be restricted to designated areas. These designated areas contain the best available resources for communication sites, wind parks, and sand and gravel mining, so as to not hamper the needs of the community for infrastructure. Where feasible, BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative C is highly restrictive of multiple uses in an effort to reduce PM10 emissions from all public lands, even those downwind of sensitive receptors. The motorized-vehicle route network would be reduced by 30%, making several areas unaccessible by vehicle. No off-highway vehicle "free-play" areas would be allowed anywhere in the planning area. No new communication sites, wind parks, and sand and gravel mines would be allowed on the public lands. BLM

would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative D. Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM10; however a greater economic burden would be placed on private interests to attain the PM10 standard valley wide.

Wild and Scenic River Recommendations. The preferred alternative includes eligibility recommendations to determine the appropriateness of designating wild and scenic rivers within the planning area. Prospective designations would apply only to BLM-managed public lands already under conservation management, including ACECs, wilderness areas and the San Jacinto/Santa Rosa National Monument. Future potential designation of wild and scenic rivers is not expected to result in air quality impacts. No impacts from the “no action” alternative.

Visual Resource Management. The proposed visual resource management classifications will not, in and of themselves, affect air quality. It is anticipated that future actions to preserve important visual and scenic components would not have an adverse impact on air quality. No impacts from the “no action” alternative.

Land Health Standards. Implementation of land health standards, especially minimizing soil erosion, would help to reduce potential PM10 emissions by maintaining healthy landscapes.

Fire Management Categories. The adoption of the proposed fire management categories are designed to protect and enhance the variety of habitats found in the planning area. Fire suppression would be applied in a manner consistent with the preservation of these habitat values. The implementation of these fire management strategies is not expected to have an adverse impact on regional air quality. Any prescribed burning must be conducted in consultation with the South Coast Air Quality Management District in order to minimize potential adverse impacts.

Habitat Conservation Objectives. The proposed objectives seek to preserve 99% or more of the important habitats identified in the planning area, including (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities. The proposed objectives would protect vegetative cover and limit habitat and soil disturbance. Sand fencing would be installed in sand dunes and sand fields to minimize sand flow from these areas and to reduce PM10 emissions.

Multiple Use Classification. Regardless of the multiple use classification assigned, future projects on BLM-managed lands would be subject to environmental review per the National Environmental Policy Act of 1969 , the Clean Air Act, and State Implementation Plans for improving air quality. The multiple use classifications

proposed under alternatives A, B and C would not, in and of themselves, affect air quality. Subsequent actions to use or conserve lands in the planning area would likely reduce air emissions, through application of air quality management requirements for permitted uses and implementation of habitat conservation objectives. All projects, including sand and gravel mining and off-highway vehicle open area management on Class "I" lands, must conform to the National Ambient Air Quality Standards and would likely include mitigation measures to reduce air quality impacts.

Special Area Designations. Regardless of the special area designation, future projects on BLM-managed lands would be subject to environmental review per the National Environmental Policy Act of 1969 , the Clean Air Act, State Implementation Plans for improving air quality, and conformance to the National Ambient Air Quality Standards. The special area designations proposed under alternatives A, B and C would not, in and of themselves, affect air quality. Subsequent actions to conserve lands within these special area designations would reduce air emissions. Overall, less surface disturbance would be allowed to conserve habitat for sensitive species within these special areas, resulting in lower air emissions. Air emissions would be reduced further through implementation of the air quality management strategy, land health standards and habitat conservation objectives.

Land Tenure Exchange and Sale Criteria. Alternatives B and C would establish criteria by which the appropriateness of proposed exchanges or sales of BLM lands would be judged. The goal of BLM's exchange and sale program in the Coachella Valley would be to benefit CVMSHCP conservation areas and other special are designations. Subsequent actions to conserve these special areas would reduce air emissions from the public lands, such as implementation of habitat conservation objectives. Such actions would preserve habitat and associated vegetation cover, and preclude incompatible development. Management of the designated special areas would enhance the long-term protection of regional air quality.

Under Alternatives A and D, land exchange and sales would be considered on a case-by-case basis. subject to NEPA review, including consideration of potential adverse impacts to regional air quality.

Land Tenure Acquisition Criteria. Alternatives B and C would establish criteria by which the appropriateness of proposed acquisitions would be judged. The goal of BLM's acquisition program in the Coachella Valley would be to benefit CVMSHCP conservation areas and other special are designations. Subsequent actions to conserve these special areas would reduce air emissions from the public lands, such as implementation of habitat conservation objectives. Such actions would preserve habitat and associated vegetation cover, and preclude incompatible development. Management of the designated special areas would enhance the long-term protection of regional air quality. Under Alternatives A and D, acquisitions would be considered on a case-by-case basis. subject to NEPA review, including consideration of potential adverse impacts to regional air quality.

Management of Acquired Lands. The preferred alternative (A-B-C) would provide management guidance for newly acquired and formerly withdrawn lands, precluding the need for additional planning in order to provide management direction for those lands. Subsequently, the air quality management strategy and other actions to reduce air qualtiy impacts proposed through this Coachella Valley CDCA Plan Amendment, would apply to those newly acquired and formerly withdrawn lands without need for additional planning.

Communication Sites and Utilities. The issuance of new or renewed rights of way for windparks, communication sites and utilities would be required to comply with the rules and provisions of the 2002 Coachella Valley PM10 State Implementation Plan (CVSIP), as well as the habitat conservation objectives which would minimize surface disturbance. The best wind resource areas have already been developed into wind parks. No new communication sites are anticipated as satellite technologies are used more in the future. Some air emissions (although in compliance National Ambient Air Quality Standards) would nonetheless result from generation of fugitive dust (PM10) from construction activiites, maintenance and use of roads, initial site disturbance for facilities (turbines, powerlines, substations, antennas, etc.).

Sand and Gravel Mining. The issuance of new or renewed rights of way for sand and gravel mining sites would be required to comply with the rules and provisions of the 2002 Coachella Valley PM10 State Implementation Plan (CVSIP), as well as the habitat conservation objectives which would minimize surface disturbance. Existing sand and gravel operations on BLM lands are already subject to a variety of requirements to control blowing sand and the emission of fugitive dust. Under Alternative B, sand and gravel mining would be restricted to State designated mineral resource zones, thereby further reducing the area of potential future PM10 emissions from sand and gravel mining. Under Alternative C, no sand and gravel mining would be allowed in the CVMSHCP conservation areas, virtually eliminating the potential for potential increases in PM10 emissions from sand and gravel mining on the public lands.

Livestock Grazing. The relatively low number of animal unit months (990, or 119 head of cattle) provided by the Whitewater grazing allotment would not perceptibly improve or degrade regional air quality under any of the livestock grazing alternatives. Locally, reduced grazing levels (Alternatives B and C) on the public lands would keep PM10 emissions down, in areas where trampling vegetation has reduced soil stability. In the same manner, compliance with rangeland health standards would also help to reduce localized PM10 emissions from grazing activities.

Wild Horse and Burro Program. The relatively low number of horses in Palm Canyon (eight animals) would not perceptibly improve or degrade regional air quality under any of the wild horse and burro alternatives. Locally, removing the horses (Alternatives B and C) would keep PM10 emissions down, as horses trample vegetation and contribute to accelerated soil erosion.

Motorized Vehicle Area Designations. Under Alternatives A and D, 2,360 acres of "open" off-highway vehicle areas would generate PM10 emissions upwind of sensitive receptors, with average weekly usage ranging from 320 to 600 vehicles during the cooler months. Motorized vehicles traveling on unpaved roads generate PM10 emissions; the relative amount depending on the velocity of the vehicle and prevailing wind speeds. At the 1,040 acre Drop 31 area, 250 to 500 vehicles use the area on a weekly basis. This area is downwind of sensitive receptors.

Under Alternative B, all historically used "open" areas upwind of sensitive receptors would be closed (2,360 acres) to off-highway vehicles. Only the 1,040 acre Drop 31 area, which is located downwind of sensitive receptors, would be available for "open" off-highway vehicle use. Any valley-wide reductions in PM10 emissions upwind of sensitive receptors, will depend on the extent to which displaced off-highway vehicle enthusiasts use non-federal land instead of public land, or travel farther to other "open" public land areas, such as Drop 31.

The off-highway vehicle users themselves would be exposed to PM10 emissions at the Drop 31 site, the relative amount depending on the velocity of the vehicle and prevailing wind speeds. As part of the overall management strategy for the Drop 31 area, mitigation measures will be included to reduce PM10 emissions, such as temporary closure of the Drop 31 area on high wind days (as defined by the South Coast Air Quality Management District), setting speed limits, establishing cattle guards to reduce "track out" onto paved roads, setting a carrying capacity if the place becomes enormously popular, and assuring compliance with the approved PM10 State Implementation Plan.

Alternative C would eliminate 3800 acres of off-highway vehicle "open" areas, up and downwind of sensitive receptors. Any valley-wide reductions in PM10 emissions will depend on the extent to which displaced off-highway vehicle enthusiasts use private land instead of public land, or travel outside the Coachella Valley planning area to recreate.

Motorized Vehicle Route Designations. Under Alternatives A and D, the existing route network on public land (71 miles) would be available for motorized vehicle access, generating PM10 emissions up and down wind of sensitive receptors. Use of this route network is estimated to be five (5) average daily trips (ADT) on weekdays and the summer months, and 25 average daily trips during cooler weekends and hunting season. In addition to the number of average daily trips, the relative amount of PM10 emissions generated by motorized vehicles depends on the velocity of the vehicle and prevailing wind speeds.

Under Alternative B, the route network would be reduced by 20%, by closing redundant routes upwind of sensitive receptors. The relative amount PM10 emissions generated by motorized vehicles on the remaining 45 miles of routes would depend on the average daily trips, the velocity of the vehicles and prevailing wind speeds. Route management would include provisions to comply with the approved PM10 State Implementation Plan,

such as signage, establishing cattle guards to reduce “track out” onto paved roads, 15 mile per hour speed limits on unpaved roads with 20 to 150 average daily traffic levels, and temporary closures on high wind days (as defined by the South Coast Air Quality Management District).

Alternative C would reduce the available route network on public lands by 30%, leaving 25 miles of routes. Any valley-wide reductions in PM10 emissions upwind of sensitive receptors, will depend on the extent to which motorized vehicle users use private land instead of public land. or hike to access traditional recreational areas for hunting, rock hounding, camping, bird watching, etc.

Special Recreation Management Area. The proposed amendment to the CDCA Plan would designate Drop 31 and the Mecca Hills and Orocopia Mountains Wilderness Areas as a special recreation management area (SRMA). The proposed management strategy for the SRMA would include mitigation measures to reduce PM10 emissions, such as temporary closure of the Drop 31 area on high wind days (as defined by the South Coast Air Quality Management District), setting speed limits, establishing cattle guards to reduce “track out” onto paved roads, setting a carrying capacity if the place becomes enormously popular, and assuring compliance with the approved PM10 State Implementation Plan.

Stopping, Parking and Vehicle Camping. The proposed amendment to the CDCA Plan would allow these activities within 300 feet of the centerline of approved routes of travel (see Chapter 2), except with such sensitive areas as ACECs and conservation areas where the limit would be within 100 feet of the route centerline. Said activities would be prohibited within wilderness areas. The impacts to air quality would be essentially the same as those identified for motorized vehicle access route (see above).

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing air quality impacts

Hiking, Biking and Equestrian Trails. The proposed amendment to the CDCA Plan involves the coordinated management of non-motorized trails on public lands. The proposed route assignments will be developed in coordination with other agencies and jurisdictions. The proposed amendment is not expected to have any impact on regional air quality.

4.1.11 Noise

Wild and Scenic River Recommendations. The proposed recommendation of certain rivers, or portions thereof, as wild and scenic rivers would have no impact on the noise environment in the planning area.

Visual Resource Management. The assignment of VRM classifications would have no impact on the noise environment, as such classifications are based on analyses of existing land uses and landscape quality.

Land Health Standards and Air Quality. Adoption of the proposed land health standards and air quality management strategy would not impact the surrounding noise environment.

Fire Management Categories. No direct impacts to the noise environment would occur as a result of fire management categorization. These categories would be based on analyses of existing land uses and vegetation types, with a priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas and may require the implementation of additional project-specific mitigation measures to meet these objectives. While the proposed action would not directly affect the surrounding noise environment, indirect reduced noise impacts would likely be realized. For example, mitigation measures that address the siting, construction and development of improvements (e.g. utility access roads or rights-of-way), would limit vehicular and operational noises to sensitive receptors.

Multiple Use Classification. The proposed multiple use classifications system would affect the noise environment, with ambient noise levels generally correlating to the intensity of permitted land uses. For example, the Class C (Controlled Use) designation, which is the most restrictive and is assigned to wilderness and wilderness study areas, allows only minimal levels of multiple use, and therefore, can be expected to result in the quietest noise environment. The Class I (Intensive Use) designation, which provides for concentrated uses of land and resources, would be applied to existing sand and gravel mining areas, and generally can be expected to result in the loudest noise environment. By designating lands within conservation areas as Class L (Limited Use), the proposed classification system would provide for a noise environment that is compatible with habitat conservation objectives.

Special Area Designations. The designation of special areas, in and of itself, would not impact the noise environment. However, any proposed changes in land use (e.g. motorized vehicle use, livestock grazing, wild horse and burro management), which would be determined based on management prescriptions for a particular special area, would indirectly impact the noise environment. Where more intensive land uses are prohibited, fewer noise impacts would be expected.

Land Tenure Exchange and Sale Criteria. The proposed adoption of land tenure exchange and sale criteria would have no impact on the surrounding noise environment.

Land Tenure Acquisition Criteria. The proposed adoption of land tenure acquisition criteria would have no impact on the noise environment in the planning area.

Management of Acquired Lands. The proposed action would not result in impacts to the noise environment. It was designed to facilitate consistency with the special area designations and surrounding land uses existing at the time.

Communication Sites and Utilities. Lands containing wind park and communication site development are exposed to noises from a wide range of sources, including construction equipment, vehicular traffic on access roads, wind turbine operations, and mechanical equipment. The proposed designation of areas for wind parks and communication site development would help minimize potential noise/land use incompatibilities by confining these noise generators to specific geographic areas, which are best suited for such uses, consistent with habitat conservation objectives. Additional noise attenuation would be achieved by implementing site-specific mitigation measures.

If no areas were designated at this time (Alternatives A and D), land use compatibility issues regarding noise would still need to be taken into consideration as new development projects are proposed; the evaluation would occur on a project-by-project basis. Potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. Sand and gravel mining operations generate noise from a variety of sources, including excavation equipment, loading and hauling trucks, conveyor systems, routine maintenance activities, and on-site asphalt and concrete plants. The proposed designation of areas for sand and gravel mining operations would help reduce noise/land use incompatibilities between mining operations and sensitive conservation areas. Such an action would confine mining noise to specified areas that are determined to be most suitable for such uses, consistent with habitat conservation objectives. Additional noise attenuation would be achieved by implementing site-specific mitigation measures.

If no areas were designated at this time, sensitive resources would still need to be considered when evaluating the compatibility of land use proposals on BLM-managed lands; however, such evaluation would occur on a project-by-project basis. Potential land use conflicts could arise within conservation areas.

Livestock Grazing. Allocating forage to wildlife within the Whitewater grazing allotment would have only a minimal impact on the surrounding noise environment. Discontinuing livestock grazing and the elimination of motorized vehicle and equipment use by lessees within the allotment would result in minor noise reductions.

Wild Horse and Burro Program. The proposed transfer of the Palm Canyon Herd Management Area to the Agua Caliente Band of Cahuilla Indians, and deletion of the

Palm Canyon and Morongo HMAs, would not result in impacts to the noise environment.

Motorized Vehicle Area Designations. Alternatives A and D would result in continuing existing noise levels at Windy Point, Indio Hills, Iron Door and Drop 31. These public lands are remote enough from sensitive receptors to not cause significant noise impacts. Alternative B would confine "open" area motorized vehicle noise levels to Drop 31. Overall noise levels would increase as displaced off-highway vehicle users travel to Drop 31 to play.
Noise from motorized vehicles may spill over into the Mecca Hills Wilderness..

Motorized Vehicle Route Designations. Alternatives A and D would result in continued ambient noise levels on the existing route network on public lands. These public lands are remote enough from sensitive receptors to not cause significant noise impacts. Alternative B would reduce the available route network to 45 miles and Alternative C would reduce the route network to 25 miles, locally reducing noise levels, assuming displaced motorized vehicle users do not move onto adjacent private lands.

Special Recreation Management Area. The proposed designation of the Mecca-Orocopia SRMA would help to reduce the noise environment in this area. The designation would result in the development of a management strategy that would include prescriptions to minimize motorized and mechanical equipment intrusions into the Mecca Hills and Orocopia Mountains Wilderness Areas, while simultaneously providing for semi-primitive motorized recreational opportunities on public lands surrounding the two wilderness areas. Such a management program would help reduce noise/land use conflicts between wilderness and motorized recreation activities.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within conservation areas would confine vehicular and other visitor-generated noises to the immediate vicinity of the roadway, thereby minimizing noise/land use conflicts in these sensitive areas.

Under the No Action Alternative, stopping, parking, and vehicle camping would be allowed within 300 feet of the roadway centerline in conservation areas, thereby allowing vehicular and visitor-generated noises to extend further into sensitive areas.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing noise impacts

Hiking, Biking and Equestrian Trails. Proposed limitations on trails use within Peninsular bighorn sheep habitat would help minimize noise levels generated by hikers, bicyclists, and equestrians, which, among other human disturbances, are known to disrupt sheep behavior. The extent of these limitations would be determined through a multi-jurisdictional adaptive trails management and monitoring program.

4.1.12 Hazardous Materials and Toxic Wastes

All activities on the BLM managed public lands must adhere to Federal laws addressing hazardous materials and toxic wastes, such as the Resources Conservation and recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Safe Drinking Water Act (SDWA), the Federal Clean Air Act d the Toxic Substances Control Act. Although illegal, dumping of hazardous materials on the public lands does occur. The BLM works with the appropriate State and local government agency to appropriately remove these materials off the public lands. Increased patrols and other conservation measures throughout the CVMSHCP conservation system will help to curtail illegal dumping on the public lands.

4.1.13 Visual and Scenic Resources

Visual Resource Management (VRM) classifications assigned through this CDCA Plan amendment are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and the Santa Rosa and San Jacinto Mountains National Monument). Within the 91,327 acres of BLM-managed lands designated as VRM Class 1 (San Gorgonio and Santa Rosa Mountains Wilderness Additions), very limited management activities would be allowed. Substantial protection of visual resources is also afforded to 94,637 acres of BLM-managed lands designated as VRM Class 2 (ACECs, Santa Rosa and San Jacinto Mountains National Monument, and CVMSHCP conservation areas, except for lands upon which wind energy facilities are located and/or sand and gravel mining occurs). Activities in these VRM Class 2 areas must remain subordinate to the existing landscape, thereby limiting the degree of landscape modification allowed. The greatest flexibility for landscape modifications would be found on the 13,727 acres of BLM-managed lands designated as VRM Class 4 where management activities may be a dominant element of the landscape. These lands include wind energy and sand/gravel mining sites, as well as all remaining public lands within the planning area boundary, except the NECO overlap area.

Conformance with VRM objectives would be determined through the Contrast Rating process as project proposals are submitted to the BLM. Contrast ratings measure the degree on contrast between a proposed activity and the existing landscape, and determine whether the proposed project meets applicable VRM objectives. If the proposed project exceeds the allowable contrast, BLM makes a decision to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts.

Within the NECO overlap area that encompasses 128,350 acres of BLM-managed lands, VRM classes would not be assigned. Instead, interim VRM objectives would be established for applicable lands on a case-by-case basis when project proposals are submitted to the BLM.

Preferred Alternative (A, B and C). Within the 91,327 acres of BLM-managed lands designated as VRM Class 1, very limited management activities would be allowed. Substantial protection of visual resources is also afforded to 94,637 acres of BLM-managed lands designated as VRM Class 2—activities on these lands must remain subordinate to the existing landscape, thereby limiting the degree of landscape modification allowed. The greatest flexibility for landscape modifications would be found on the 13,727 acres of BLM-managed lands designated as VRM Class 4 where management activities may be a dominant element of the landscape. Within the NECO overlap area that encompasses 128,350 acres of BLM-managed lands, VRM classes would not be assigned. Conformance with proposed visual resource management objectives would be determined as project proposals are submitted to the BLM. Contrast Ratings that measure the degree of contrast between a proposed activity and the existing landscape would be prepared in the classified areas. Decisions to redesign, abandon or reject, or proceed would be based on the Contrast Rating.

No Action Alternative. VRM classes would not be assigned at this time (though designated wilderness areas are managed in accordance with VRM Class 1 objectives by policy). Instead, interim VRM objectives would be established for affected lands on a case-by-case basis when project proposals are submitted to the BLM—VRM objectives would not be known prior to the time actions are proposed. Contrast Ratings that measure the degree of contrast between a proposed activity and the existing landscape would be prepared relative to the interim objectives. Decisions to redesign, abandon or reject, or proceed would be based on the Contrast Rating.

4.1.14 Utilities, Public Services and Facilities

Wild and Scenic River Recommendations. The proposed recommendation of eligible rivers, in and of itself, would have no effect on transportation facilities or regional circulation systems on BLM-managed public lands in the planning area. If the rivers, or portions thereof, were later studied and found to be suitable for designation, existing roads, access ramps, bridges, culverts and other facilities would be unaffected. However, per Section 7 of the Wild and Scenic Rivers Act, the Federal Energy Regulatory Commission (FERC) would be expressly prohibited from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act on or directly affecting any river which is designated as a component of the national wild and scenic river system. Furthermore, no federal agency or department would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such a designation was established. In this regard, the development of new utilities along these rivers would be restricted.

Visual Resource Management. The designation of VRM classifications, in and of itself, would have no impact on utilities and public services on BLM-managed public lands as the classifications would be based on analyses of existing land uses and landscape quality. However, should a utility development project be proposed in the future, the degree of contrast between the existing landscape and the proposed project (Contrast Rating) would be compared with the VRM classification to determine whether the anticipated level of contrast is acceptable. If the allowable contrast level is exceeded, the project would need to be redesigned or abandoned, or mitigation measures would need to be implemented to reduce critical impacts to acceptable levels. This process has the potential to limit the extent and increase the costs of future utility development on BLM-managed public lands in the planning area.

To minimize potential adverse effects of the VRM classification system on utilities, the Preferred Alternative would designate all BLM-managed public lands associated with existing and future development of wind energy facilities and sand/gravel mining sites as VRM Class 4, whether inside or outside the CVMSHCP conservation areas. VRM Class 4 is one of the least restrictive classifications, which allows any contrast to attract attention and be a dominant feature of the landscape in terms of scale, but requires it to repeat the form, line, color, and texture of the characteristic landscape. Mitigation measures and project redesign may be required to assure that future utility development meets this standard. Such action may result in increased costs to utility project developers.

Land Health Standards and Air Quality Management Strategy. The proposed land health standards and air quality management strategy are directed at promoting healthy landscapes and achievement of Federal and State air quality standards. To achieve these standards, utility projects would likely need to implement site-specific mitigation measures, such as improvements to soil, drainage, and vegetation, implementation of

Best Management Practices to minimize impacts to air and water quality, and special construction, design, or operational techniques. Such measures can be expected to result in increased costs to utility project developers. However, land health standards may not be used to permanently prohibit allowable uses established by law, regulation, or land use plans.

Fire Management Categories. No impacts to utilities would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property. With regard to public services, the proposed fire management categories would clarify BLM's fire management and response strategy for various habitat types on BLM-managed lands in the planning area.

Habitat Conservation Objectives. Implementation of the proposed habitat conservation objectives would define compatible uses within conservation areas, and may require site-specific mitigation measures to be implemented where utility development occurs within conservation areas. This will likely increase costs to the utility developer; costs would depend upon the location of the utility improvements relative to sensitive species, habitat conservation areas, and ecological processes, such as sand transport corridors.

If the proposed habitat conservation objectives were not adopted, or for land outside conservation areas, utility projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be determined on a project-by-project basis. However, additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. No impacts to utility development would occur. Utility development would still be allowed in multiple use classes "L," "M," and "I," but would continue to be prohibited in multiple use class "C," which applies only to wilderness areas.

Special Area Designations. Designation of areas as ACECs or wildlife habitat management areas would not directly impact utilities and public services on BLM-managed public lands in the CDCA planning area. The designation of such areas would not result in automatic closures of utility sites or operations. Any potential closures would be proposed through a separate action, based on protection of sensitive cultural or natural resources. Efforts would be made to accomplish such protection without unnecessarily or unreasonably restricting public lands from uses that are compatible with that protection.

Land Tenure Exchange and Sale Criteria. Implementation of the proposed land tenure exchange and sale criteria would not impact utilities or public services. The BLM would still have the option to retain utility development sites in public ownership. BLM may consider exchanges or sales of land, including land with utilities, if all the criteria described in Chapter 2.1.4.6 are met.

Land Tenure Acquisition Criteria. Implementation of the land tenure acquisition criteria would not impact utilities or public services. Any proposed acquisitions would have to meet the criteria set forth in Chapter 2.1.4.7.

Management of Acquired Lands. The proposed action would not impact existing utilities or public facilities on BLM-managed public lands in the planning area. However, should the BLM acquire new lands that already contain utilities or public facilities, the proposed action would require that they be managed in accordance with management practices on surrounding lands. Where surrounding lands are managed for the protection of sensitive cultural or natural resources (such as in an ACEC), this could result in the need for additional mitigation measures and associated costs to utility operators.

If no guidance for managing acquired lands were provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action would minimize land use conflicts (such as noise, traffic, construction and operational activity) between sensitive natural resource areas and more intensive windparks and communication sites. However, it would also limit windpark and communication development locations and opportunities on BLM-managed public lands in the planning area.

While opportunities for new wind parks and communication sites would be limited to designated areas, the best lands for these uses are included in the proposed designations. Designating areas for communication sites and wind parks would help to minimize potential land use conflicts.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the BLM-managed lands; however, this evaluation would occur on a project-by-project basis. Potential land use conflicts may arise within conservation areas. Although impacts to sensitive resources would likely be mitigated, any off-site mitigation would indicate incompatible land uses within conservation areas.

Sand and Gravel Mining. The proposed action would not impact utilities or public services.

Livestock Grazing. Discontinuing livestock grazing on all or a portion of the Whitewater Canyon grazing allotment would not affect utilities or public services.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Tribe of Cahuilla Indians, and the proposed deletion of the Palm Canyon and Morongo HMAs would not impact utilities or public facilities. Amendment of the existing MOU would require BLM to provide management assistance for horses on tribal lands.

Motorized Vehicle Area Designations. The proposed action would not impact utilities nor public services.

Motorized Vehicle Route Designations. Given that the designation of motor vehicle routes would be based on analyses of existing land uses, no impacts to existing utilities or public facilities would occur. Where access to future utility sites is necessary, it would be provided under a rights-of-way, with terms and conditions to facilitate conformance with the land health standards, habitat conservation objectives, air quality management strategy, and criteria described in Chapter 2.1.4.14.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would not impact utilities, public facilities, or public services.

Stopping, Parking and Vehicle Camping. The proposed action would not impact utilities or public facilities or services.

Peninsular Ranges Bighorn Sheep Management Strategy. No impact on utilities, public facilities or services.

Hiking, Biking and Equestrian Trails. No impacts to utilities or public facilities would result from the proposed action.

4.1.15 Socio-Economic Considerations

Wild and Scenic River Recommendations. The proposed amendment to the CDCA Plan and associated eligibility recommendations for wild and scenic rivers will apply only to BLM-managed lands already under conservation management. If these rivers are later studied for suitability status the potential socio-economic impacts of their designation as wild and scenic would then be assessed. At this time, potentially positive effects would be the provision of additional management mechanisms to maintain free-flowing conditions, protection against potentially degrading effects of OHV use, protection of water quality and indirect protection of associated ground water. Protection would also enhance opportunities for passive enjoyment of associated wetlands and riparian habitat and wildlife, and associated opportunities for ecotourism. Potentially adverse impacts appear to be limited to restrictions on OHV access and associated support businesses.

Visual Resource Management. The high value of the visual resources in the planning area constitute a significant economic resource that has helped to induce and supports and a thriving tourism and second home economy, as well as being an important contributor to the overall quality of life in the planning area. Therefore, the resource assessment and protection afforded by the proposed Plan amendment will serve to strengthen and secure this important economic asset for the long-term.

Conversely, proposed uses within BLM-managed lands within the CDCA planning area will be assessed for their potential to adversely impact the area's important visual resources. Proposed uses may be required to implement project design or mitigation measures which reduce impacts to visual and scenic resources to insignificant levels, which may result in additional costs to such land uses. While design solutions to impacts may be cost-effective, it is still likely that some economic effect, i.e. additional land use costs would be associated with mitigation.

Land Health Standards and Air Quality Management Strategy. The adoption of land health standards and the air quality management strategy proposed in the CDCA Plan amendment would apply to all BLM lands and programs, and would provide important baseline protections for land health areas of concern, including soils, native species, riparian/ wetlands/ stream functions, water quality and air quality. There are clear, although unquantified, positive relationships between the protection of land health, including water and air quality, and the economic health of a region. Land health standards and implementation of an air quality management strategy are recognized in the CDCA planning area as essential to the overall economic health of the resort, vacation and retirement economy of the region. Protection of land health through the implementation of the proposed Plan amendments will have positive long-term economic impacts.

The application of the proposed land health standards and air quality management streategy would affect the economic costs and performance of certain land uses. Depending upon the type of use proposed, terms and conditions and mitigation

measures associated with the issuance of permits, rights-of-way, leases and other use authorizations would result in varying additional costs to implement the proposed use. Mitigation cost controls can be achieved through thoughtful project design, phased mitigation implementation and by other means.

Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM10; however, a greater economic burden would be placed on private interests to attain the PM10 standard valley wide.

Fire Management Categories. The application of the fire management categories proposed in the CDCA Plan amendment is designed to be responsive to ecological, social and legal issues associated with fire suppression and management. To the extent that these management categories attempt to balance the various issues, including direct and indirect economic costs associated with fire management, the proposed amendment will have neutral to positive economic effects. Ecological considerations dictate the implementation of suppression strategies in desert floor and wash and uplands habitats where fire does not play a meaningful natural role in succession and regeneration. However, these areas seldom burn to low fuel densities and their priority for fire suppression should not result in significant adverse economic impacts.

Fire management, including the use of prescribed burns, will play an important role in protecting the health of montane and chaparral habitats. To the extent fire management is tied to the goals and objectives of the Coachella Valley Multiple Species Habitat Conservation Plan, fire management will also enhance land health status, protect visual and scenic resources, and contribute positively to the overall economic health of the region.

Habitat Conservation Objectives. The proposed CDCA Plan amendments address the habitat conservation objectives for six general habitat types with varying needs and opportunities for compatible use. The proposed Plan amendment does not adversely affect existing energy and mineral development uses, would have a limited adverse impact on routes of travel and associated economic activity, and would have a substantial effect in limiting future land uses. The amendment would allow the retrofitting of existing windparks to increase the cost-effective generation of power on reduced disturbed areas. Development of new windparks is not precluded under the proposed amendment but would restrict the extent of site disturbance that would be permitted.

Supplies of sand and gravel in the planning area are expected to remain adequate for a period of 40 years or more (Granite Construction EIR, 2002) and extensive areas of viable sand and gravel resources not yet developed are effected by neither the CDCA Plan amendment of the Coachella Valley Multiple Species Habitat Conservation plan.

Multiple Use Classification. The proposed CDCA Plan amendment would result in the designation of all planning area lands within conservation areas and outside

wilderness as Class "L" (Limited Use). Lands outside conservation areas would be classified "M" (Moderate Use). Class "I" (Intensive Use) would be assigned to designated OHV open space areas (Drop 31) and existing sand and gravel mining areas. The potential economic effect of this action would be multifold. First, it would limit mineral extraction to existing mining areas, which are proposed to include active mineral extraction sites, as well as sites designated by the California Division of Mines and Geology as quantified, cost-effectively extractable mineral resource zones (MRZs). The proposed action would not affect private lands outside the conservation areas established by the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) with extractable resources. Economic effects would be neutral in the near to mid-term, but could be adverse in the long-term as readily available resources are exhausted. The long-term impact horizon is probably 50 years or more (Granite Indio Quarry SEIR, 2002).

Wind energy development would be limited to existing permitted rights-of-way. However, current technology being applied to existing wind resource areas constitutes approximately 215± megawatts (Mwe) of installed capacity, with approximately 30 percent of existing wind turbines are small (65 kilowatt (Kwe)). The potential for the smaller and mid-range size turbines to be replaced by larger turbines (up to 1.5 Mwe) represents an opportunity for continued growth in windpark energy extraction on currently developed lands. Approximately 285 acres of available windpark land has not yet been developed. To the extent that harvestable wind resources are geographically limited and already well developed, the proposed action would appear to have less than significant impacts on the economics of wind energy development on BLM lands.

OHV use has already been somewhat curtailed in the planning area as a result of closures required to protect threatened and endangered species. The proposed action would provide new dedicated OHV activity areas and would provide continuing opportunities for associated economic activities to continue. While it is unclear whether or to what degree the proposed action would impact direct and indirect economic activity associated with OHV use, this impact is expected to be less than significant.

Based upon the currently conceived but as yet not adopted provisions of the Coachella Valley MSHCP, controlled access to conservation areas for purposes of private and commercial ecotourism uses is possible. A significant potential exist for substantial positive economic long-term benefit from expanded but managed ecotourism/nature tourism on lands designated "L".

Special Area Designations. The proposed amendment to the CDCA Plan would involve the expansion of one existing ACEC (Dos Palmas) and the creation of one new ACEC in the Mission Creek area. Both actions would not preclude the development of managed access programs consistent with the current version of the Coachella Valley MSHCP. The proposed action could further the long-term protection of valuable and finite natural resource areas with high biological, visual/scenic and other values marketable to the growing eco/nature tourism industry. Controlled access would be needed to protect the value of these resources. The balance of planning area lands

outside designated Wilderness Areas and the Santa Rosa/San Jacinto Mountains National Monument would be designated as the Coachella Valley Wildlife Habitat Management Area (WHMA). As with other lands within the MSHCP, controlled access could be made available with positive long-term economic effects.

Land Tenure Exchange and Sale Criteria. No impacts to existing designations or land uses would occur as a result of adopting land exchange and sale criteria (Alternatives B-C). The criteria were designed to ensure any exchanges or sales were compatible with designated conservation areas.

Future land uses would be impacted as a result of adopting land exchange and sale criteria (Alternatives B-C). The land exchange criteria would severely limit exchange opportunities in the 252,548 public land acres within the reserve system, wilderness or existing ACECs, allowing consideration of only those proposals where the land use proposed by an exchange proponent could be demonstrated to be 1) advantageous to conservation goals and 2) economically viable based on allowable land uses and appraised values.

The 77,968 acres of public lands outside the conservation reserves, wilderness or ACECs would be more available for exchange. However, exchange proposals would be required to ensure public needs for community resources (e.g. recreation access, sand and gravel supplies, communications facilities) could continue to be met.

The overall result would be to limit 1) conversion of current public lands to land uses other than conservation, 2) use of land exchange as a mechanism to assemble conservation reserves, and 3) the ability to reduce public costs of assembling reserve areas through use of land exchange where opportunities might be presented.

If these criteria were not adopted (Alternatives A-D), land exchanges and sales would be assessed on a case-by-case basis, taking into consideration sensitive resources, but not required to benefit the CVMSHCP conservation system.

Land Tenure Acquisition Criteria. The proposed amendment to the CDCA Plan would result in the BLM efforts and costs to acquire additional lands important to the creation of viable contiguous holdings of conservation lands, which would further the goals of the Coachella Valley MSHCP. BLM lands identified as appropriate for exchange or sale could be used to balance or more than offset the costs of acquiring conservation lands. The proposed Plan amendment establishes criteria by which the acquisition of conservation lands would be considered appropriate. These include acquisition from willing sellers, direct benefits to the MSHCP and indirect benefits through the diversion of potentially adverse land uses away from conservation lands, enhanced biotic and abiotic components of conservation areas, and coordination with local jurisdictions. Acquisition determinations would be made on a case-by-case basis. Based upon the current type and extent of proposed conservation lands as set forth in the Draft MSHCP, substantial opportunities could remain available for BLM to acquire

important conservation lands and cover costs from appropriate land exchanges or sales, which would also benefit overall conservation efforts.

Management of Acquired Lands. The proposed amendment (Alternatives A, B and C) would reduce, if not eliminate planning and administrative costs associated with developing separate land management plans for newly acquired lands. Where newly acquired land becomes part of an ACEC or similarly designated area, public access and development opportunities would be restricted to those permitted within the ACEC and other conservation areas, as set forth in the applicable management plan. The proposed action could further the long-term protection of valuable and finite natural resource areas with high biological, visual/scenic and other values marketable to the growing eco/nature tourism industry, thereby resulting in positive long-term economic effects.

If no guidance for managing acquired lands was provided at this time (Alternative D), a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands. The primary impact of this action would be to reduce future public planning costs, although it would limit opportunity to manage a parcel differently without a plan amendment.

Communication Sites and Utilities. The proposed CDCA Plan amendment would restrict windpark and communication site development to designated areas, to be managed in accordance with habitat conservation objectives and land health standards. The proposed action would not significantly affect the economics of wind energy development on BLM lands. The best available lands for harvesting wind in the Coachella Valley are already under production and are included in the proposed areas for designation. Wind energy resource areas are geographically limited and many are already developed, leaving few viable opportunities for future windpark development, regardless of the proposed action. Also, current wind energy technologies have increased the efficiency of wind turbines so that fewer turbines (and less acreage) are needed to achieve high energy output. The economic effects of the proposed amendment on communication site development would be neutral in the near to mid-term. In the long term, satellite technologies will become more the norm, reducing the need for additional communications sites. By restricting high-profile windpark and communication site development to designated areas, the proposed action could further the long-term protection of natural resource areas with high biological, visual/scenic, and other values marketable to the growing eco-tourism industry.

Sand and Gravel Mining. The proposed CDCA Plan amendment would restrict mineral extraction within Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) conservation areas to those resource areas designated by the California Division of Mines and Geology, and would require the implementation of appropriate mitigation measures in conformance with habitat conservation objectives. It would not affect private lands with extractable minerals outside the conservation areas established by the MSHCP. While opportunities for new sand and gravel sites would be limited to designated areas, the best lands for these uses are included in the proposed

designations. Designating areas for sand and gravel mining would help to minimize potential land use conflicts.

Economic effects would be neutral over the near to mid-term. Supplies of sand and gravel in the planning area are expected to remain adequate for a period of 40 years or more (Granite Construction EIR, 2002). However, as sand and gravel resources are exhausted over the long-term and fewer mining opportunities are available, the economic effects of the proposed action could be adverse. The application of site-specific mitigation measures would result in varying additional costs to the permittee or lessee, but these costs can be controlled through thoughtful project design and phased mitigation implementation. Nonetheless, the restriction of sand and gravel mining operations within MSHCP conservation areas would protect the biological, ecological, visual and other values of these sensitive areas, thereby contributing positively to their overall economic health.

Livestock Grazing. The proposed CDCA Plan amendment would not result in any changes to existing livestock grazing opportunities in the planning area, and therefore, would not have any economic implications.

Wild Horse and Burro Program. The proposed CDCA Plan amendment would involve the transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Band of Cahuilla Indians (ACBCI) via land exchange, and amendment of the existing MOU for BLM to provide management assistance for horses on tribal lands. Although the BLM would lose the existing value of Palm Canyon HMA lands, the proposed land exchange would provide BLM with an opportunity to acquire important conservation lands or other lands suitable for multiple use purposes. Depending on the location and suitability of these newly acquired lands, economic benefits could be realized from development leases, right-of-way permits, or similar land use mechanisms.

Proposed deletion of the Palm Canyon and Morongo HMAs would eliminate BLM's herd management costs for these areas, including provisions for feed, cover, and water requirements, herd surveillance and monitoring, and the removal of animals from designated areas. However, BLM would incur costs associated with management of newly acquired lands, as well as limited costs for providing management assistance for horses on tribal lands.

The ACBCI would gain additional acreage in the Santa Rosa and San Jacinto Mountains National Monument and would incur additional costs associated with management of these lands. The tribe would lose acreage elsewhere as a result of the land exchange, as well as any potential economic benefits associated with them, such as future development-related income. The BLM and ACBCI would work closely with one another to facilitate a land exchange that is mutually agreeable.

Motorized Vehicle Area Designations. The designation of public lands as either open, limited, or closed to off-road vehicles in the proposed CDCA Plan amendment

would be based on the protection of public land resources, the minimization of land use conflicts, and the minimization of damage to natural resources and wildlife habitats. Economic effects would be indirect, yet positive. “Open” and “limited” motor vehicle areas would provide casual OHV users with access to dedicated OHV activity areas and authorized users with access to rights-of-way or developed utility sites. This type of access would facilitate and indirectly promote the use of public lands for multiple use purposes, such as utility development or mining, as well as recreation and ecotourism. Surrounding land uses would be considered in the designation process to assure that potential land use conflicts, such as increased noise and fugitive dust from OHV use, would not adversely impact the value of adjacent lands. “Closed” areas would control public access in designated wilderness or primitive areas, thereby helping to preserve the important ecological, biological, visual/scenic and other values of these sensitive areas, and contributing positively to the overall economic health of the region.

Motorized Vehicle Route Designations. Like the motor vehicle area designations described above, the designation of open, limited, or closed motor vehicle routes would have indirect, but positive economic effects. “Open” and “limited” routes would provide both casual and authorized users with direct access to BLM-managed lands, thereby facilitating and promoting the use of public lands for multiple use purposes, including recreation and ecotourism. Land use compatibility issues would be evaluated in the route designation process to assure that land use conflicts, such as increased fugitive dust and noise from motor vehicles, are minimized and do not threaten the economic or other values of surrounding lands. “Closed” routes would be designated where the biological, ecological, scenic or other values of the land require a high level of protection. The protection afforded by “closed” routes would strengthen and secure these important economic assets for the long-term.

Special Recreation Management Area. The proposed CDCA Plan amendment would result in the designation of the Mecca-Orocopia SRMA and implement provisions to protect wilderness values of the area, while simultaneously providing semi-primitive motorized recreational opportunities on public lands surrounding the area. The proposed action would result in finite investment by BLM for the development of a detailed recreation plan, which establishes site-specific management directives and prescriptions for the SRMA. Greater, on-going managerial investment by BLM would also be required for supervision and enforcement of recreational restrictions, possible planning and construction of on-site management facilities, and related items. Designation of the SRMA would not preclude public use of the SRMA, but such uses would be restricted to those that are compatible with established management prescriptions.

Stopping, Parking and Vehicle Camping. The proposed amendment to the CDCA Plan would restrict stopping, parking, and vehicle camping to within 100 feet of an approved route within sensitive areas, such as ACECs and conservation areas. In other areas, such activity would be permitted within 300 feet of an approved route. The economic effects of the proposed action would be indirect, yet positive. The proposed action would enhance the long-term protection of valuable and finite natural resource

areas with high biological, ecological, scenic and other values. In this regard, it would contribute to the overall economic health of these sensitive areas and the region's growing eco-tourism/ nature tourism industry.

Peninsular Ranges Bighorn Sheep Management Strategy. Any limitations on recreational trail use of the public lands will have an impact on the generally unlimited casual use that residents and visitors to the Coachella Valley have historically enjoyed (Alternatives A, B and C). The extent of these limitations would be addressed through activity level, in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game.

Hiking, Biking and Equestrian Trails. The proposed interagency trails management plan for the Santa Rosa and San Jacinto Mountains is intended to provide reasonable recreational trail use, while also facilitating recovery of the Peninsular Ranges bighorn sheep. The plan would restrict, to some extent, primitive recreational trail use in this portion of the valley by limiting trails use to specific routes, seasons, times of day, and modes of travel. However, the economic implications of such restrictions are expected to be less than significant, given the multitude of other trails and recreational opportunities available in the Coachella Valley. The plan would enhance the long-term recovery of the bighorn sheep, which is an important component of the regional ecosystem, which is in turn an integral part of the overall regional economy.

4.1.16 Environmental Justice and Health Risks to Children

Wild and Scenic River Recommendations. The proposed recommendations will have no adverse impacts on minority populations or children. Should a river, or portion thereof, later be determined to be eligible for inclusion in the National Wild and Scenic River System, the designation will preserve the river's outstanding recreational, geologic, and other values for the enjoyment of all present and future populations, without regard to income, race, nationality, age or other characteristics.

Visual Resource Management. No impacts to special populations would occur as a result of the proposed action. All proposed projects on federal lands would be subject to the consequences of the VRM classification system, including potential project redesign or the implementation of mitigation measures, regardless of the social, racial or other characteristics of the project proponent.

Land Health Standards. The proposed land health standards would apply to all BLM-managed lands and programs and would be implemented through the terms and conditions of permits, leases, and other authorizations, regardless of social, racial, economic or other characteristics of the project proponent. The proposed standards are intended to reduce the impacts of development on air quality, water quality, soils, vegetation and biological species, which would indirectly benefit all human populations.

Air Quality Management Strategy. The proposed air quality management strategy would help to reduce PM10 emissions off of the public lands, and in conjunction with PM10 reducing actions on other lands, would help the Coachella Valley attain the National Ambient Air Quality Standard for PM10. Reductions in PM10 emissions would help to improve health prospects for children and the elderly, who are particularly susceptible to poor air quality.

Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM10; however, a greater economic burden would be placed on private interests to attain the PM10 standard valley wide.

Multiple Use Classification. Implementation of the proposed multiple use classification system would not adversely or disproportionately impact minority or special populations. MUC categories would be assigned based on ecological characteristics of BLM-managed lands. MUC assignments are intended to preserve the values of these lands for all populations, while still providing for concentrated human uses, where possible.

Habitat Conservation Objectives. The proposed habitat conservation objectives would be based on biological habitat type, not the characteristics of the human population. All proposed development, regardless of the ethnic or other characteristics of the project proponent, would be assessed for compatibility with the conservation system and may be required to implement appropriate mitigation measures on BLM-managed lands.

Fire Management Categories. No impacts to minorities, children, or special populations would occur as a result of the proposed action. The proposed fire management categories would be determined based on biological habitat type, not the characteristics of a particular segment of the population.

Special Area Designations. The designation of special areas, such as ACECs and wildlife habitat management areas, would provide special management attention for the protection of important ecological, cultural or other natural resources. Where cultural resources are being protected, such a designation may indirectly benefit certain ethnic groups, such as Native American populations, by protecting elements of their heritage. Otherwise, such designations would not adversely or disproportionately impact minority or special populations.

Land Tenure Exchange and Sale Criteria. The proposed criteria were designed to ensure that future land exchanges and sales are compatible with designated conservation areas. Adoption of these criteria would not adversely impact any minority group or special population. In fact, it would indirectly benefit Native American groups by assuring that BLM-managed public lands containing historic Native American values are not disposed from public ownership, except for stewardship transfer to the appropriate tribes. Should the criteria be adopted, all land exchange, sale, and acquisition proposals would still be subject to NEPA environmental review, public review and input, and land appraisals to assure the proposed exchange is in the public interest.

Land Tenure Acquisition Criteria. Adoption of the land acquisition criteria would not adversely or disproportionately affect any segment of the human population. Such an action would assure that land is acquired from willing sellers only and that acquisitions are conducted in coordination with local jurisdictions.

Management of Acquired Lands. The proposed action would facilitate consistency between special areas designations, such as ACECs, and newly acquired lands located within their boundaries. It would not adversely or disproportionately impact any segment of the human population.

Communication Sites and Utilities. The proposed action would limit windpark and communication site development to designated areas. Areas would be selected for their consistency with habitat conservation objectives, not the presence or absence of a particular segment of the human population. All development proposals would be required to occur within designated areas, regardless of racial, ethnic, or other characteristics of the project proponent. Future development projects would be required to meet land health standards and implement necessary mitigation measures, which would minimize impacts to all segments of the population.

Sand and Gravel Mining. No impacts to minorities or special populations would occur as a result of designating areas for sand and gravel mining. Areas where mining is permitted would be selected for the presence of mineral resources and their

compatibility with habitat conservation objectives, not the presence or absence of a particular segment of the population.

However, the development of future mining projects within these areas could concentrate fugitive dust and other pollutant emissions on these and surrounding lands, thereby increasing potential health problems to children and others. All projects would be required to meet BLM land health standards and state and federal ambient air quality standards, and may be required to implement additional site-specific mitigation measures to minimize these impacts to acceptable levels.

Livestock Grazing. Discontinuing livestock grazing use of all or a portion of the Whitewater Canyon grazing allotment would not adversely or disproportionately impact any special segment of the human population, other than the permittee. Such an action would affect all BLM land lessees or permittees in the same manner, regardless of their ethnic, economic, or other affiliations.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon HMA to the Agua Caliente Band of Cahuilla Indians (ACBCI) would benefit the tribe by providing it with additional acreage within the Santa Rosa and San Jacinto Mountains National Monument. Such a transfer would occur in close coordination and consultation with the tribe to assure that the action is mutually agreeable. Amendment of the existing MOU would also benefit the ACBCI by providing it with management assistance from BLM for horses on tribal lands. The proposed deletion of the Palm Canyon and Morongo HMAs would not adversely affect any segment of the human population.

Motorized Vehicle Area Designations. The designation of motor vehicle access areas, in and of itself, would not adversely of disproportionately affect any segment of the population. However, concentrated motor vehicle use within designated areas could result in the generation of fugitive dust and other pollutant emissions that could affect children and other sensitive populations. Regardless, the number of motor vehicle users and the frequency of use within these areas are not expected to be sufficient enough to constitute a significant health threat. As required by 43 CFR §8342.1, BLM must assure that area designations are based on the promotion of public safety and the minimization of land use conflicts within and surrounding designated areas, including populated areas. Furthermore, the criteria described in Chapter 2.1.4.13 specifically require that motor vehicle areas be located to minimize damage to air and other resources of the public lands.

Motorized Vehicle Route Designations. The proposed designation of motor vehicle routes would not adversely or disproportionately affect any minorities or other special populations. Although vehicle use on such routes would result in the generation of fugitive dust and other air pollutants, the number of vehicles utilizing designated routes is not expected to be sufficient enough to constitute a public health hazard. Furthermore, in accordance with 43 CFR §8342.1, BLM must assure that all route designations are based on the promotion of public safety and the minimization of land

use conflicts, and all routes must be located to minimize damage to air and other natural resources of the public lands.

Special Recreation Management Area. No impacts to minorities, children, or other special populations would occur as a result of designating the Mecca-Orocopia SRMA. The SRMA would be designated for the purpose of protecting wilderness values in this area, and any management prescriptions would apply equally to all segments of the population.

Stopping, Parking and Vehicle Camping. The proposed action is intended to restrict stopping, parking, and vehicle camping in ACECs and conservation areas to the immediate vicinity of approved routes of travel. All restrictions would apply equally to all segments of the population, regardless of racial, economic, or other characterizations.

Peninsular Ranges Bighorn Sheep Management Strategy. The proposed action is intended to facilitate recovery of the bighorn sheep. Any resultant restrictions would apply equally to all segments of the population, regardless of racial, economic, or other characterizations.

Hiking, Biking and Equestrian Trails. Limitations on trail use within Peninsular bighorn sheep habitat would not adversely or disproportionately impact minorities or special populations. All restrictions would be applied equally to all trail users, regardless of racial or other characterizations, in an effort to limit impacts to sensitive biological species. Trails management would be coordinated with local jurisdictions and other public agencies to assure that all public interests are represented.

4.1.17 Cumulative Impacts

Cumulative effects are those effects in a particular area which result from the incremental effects of a proposal added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes them (40 CFR 1508.7). The analysis and disclosure of cumulative effects are important because they alert decision makers and the public to the context within which effects are occurring, and to the environmental implications of the interaction of proposed actions with other known and likely actions within the planning area and the region. The scope of this cumulative impact analysis addresses the entire *California Desert Conservation Area Plan* (1980, as amended), encompassing portions of Inyo, San Bernardino, Riverside and Imperial Counties.

4.1.17.1 **Activities Prior to 1970**

For many decades the California Desert served as a place to pass through, via highways, railroad, and utilities to and from the coastal urban cities, and episodes of mining and grazing occurred in several localities, often at intense use scales. Scattered towns, facilities, and access infrastructure were established to support the trans-desert uses and mining. Most minerals operations were boom-bust phenomena over 100 years duration. Sheep and cattle grazing occurred across the desert, mostly in northern areas and higher elevations.

In the 1930's, Death Valley and Joshua Tree National Monuments (now parks) were designated. In the 1940's, the value of desert lands for military training, testing, and staging was realized for the War/Cold War efforts and several large military reservations were created. By this time monuments and military lands totaled about six million acres, about 25% of the CDCA. Until the 1950's relatively little of the desert had been visited with any intensity by humans for economic or social purposes, except perhaps for cattle and sheep grazing. Only a small amount of the desert had been temporarily or permanently disturbed.

During the 1960's the southern California population boom continued and along with that, a boom in affordable vehicles and motorcycles. The western desert became a very popular place to escape the urban routine, driving desert roads and cross country, camping, hunting, and sightseeing and motorized vehicle racing. Along with the social benefits provided by these land uses came increases in access routes, surface disturbances, and impacts to natural and cultural values. But with visitation also came an increased public awareness and concern for the desert environment.

4.1.17.2 **Activities from 1970 to 2002.**

Federal Land Policy and Management Act of 1976. The boom of activity in the desert, and the concurrent increase in public awareness and concern for environmental issues, helped spur Congress to pass in 1976 the Federal Land Policy and Management Act (FLPMA). FLPMA serves as the Bureau’s organic act, establishing the Bureau’s

multiple use and sustained yield mandate, and giving BLM the authority to authorize uses and to manage casual uses of the public lands. The Bureau's multiple-use /sustained yield mandate provides opportunities for economic and social uses as well as protection and conservation of natural and cultural resources. Inherent with the multiple-use /sustained yield is the mandate to resolve conflicts in values and uses in any given place. These issues are sorted out through land use planning, relying on the best available science and public participation to achieve to arrive at informed and balanced decisions. FLPMA established the California Desert Conservation Area (CDCA), and directed BLM to inventory lands possessing wilderness characteristics and to develop a land use plan for the CDCA.

In response to these emerging conflicts, the *California Desert Conservation Area Plan* (1980, as amended) established a desert-wide land management program which included multiple-use classification guidelines and decisions for managing a variety of activities in the California Desert. Among the most significant was the decision that unrestricted motorized vehicle access on public lands was no longer allowed throughout most of the California desert. Instead vehicles were restricted, at a minimum, to existing routes of travel, except in designated open areas. Along with these access restrictions came limitations on where one could park and stop their vehicle, as well as where one could camp.

<u>The Endangered Species Act</u>. In 1973, Congress enacted the Endangered Species Act in an effort to stem the tide of native flora and fauna extinctions. Throughout the 1990's, approximately 20 species of plants, amphibians, reptiles, birds, and mammals were listed or proposed for listing under federal and state endangered species acts. Habitats for many of these listed, or proposed for listing, species are localized. A few, such as the desert tortoise, Mojave ground squirrel and Peninsular bighorn sheep, cover millions of acres of habitat. For many of the listed species such as the desert tortoise and Peninsular Ranges bighorn sheep, the USFWS has designated "critical habitat." The need for listing are often the result of various factors, including:

- Cumulative habitat losses from various land uses such as urban/industrial development, military exercises, or uses of public and private lands;
- Decline in habitat quality from human activities such as water diversions, casual use and wildland fire suppression;
- Disease;
- Changes in predator/prey relationships and changes to natural habitat as a result of invasions by non-native species;
- Natural rarity combined with the above.

The listing of various species has resulted in several restrictions on the public lands. Most effects relate to the listing of the desert tortoise as a threatened species in 1990 and the designation of critical habitat in 1994. Due to the desert tortoise listing, opportunities for off-highway vehicle racing have become increasingly constrained. Permits for such events as the Barstow-to-Vegas motorcycle race and the Parker 400 event have not been issued in California for more than 10 years. Following are additional prominent effects from the listing of the desert tortoise: 1) acquisitions of

private lands in critical habitat and discouragement of federal disposals in critical habitat, 2) no competitive vehicle events in critical habitat, and 3) a programmatic consultation for cattle and sheep grazing that is still current in which there is no sheep grazing in critical habitat (which reduced sheep grazing in CDCA by 56%). Many proposed uses have been re-proposed outside critical habitat. Casual use recreation activities, including use of existing routes and washes, have not been affected except in some special management areas.

California Desert Protection Act. FLPMA mandated wilderness inventories be conducted and a recommendation report submitted to Congress by 1990. Until Congress acted on wilderness recommendations wilderness study areas (WSA) were to be managed so as not to compromise wilderness quality and narrow the opportunity for Congressional designation. Between 1978 and 1994 nearly half of the public lands were in WSA status which highly restricted new disturbing uses. In 1994 Congress passed the California Desert Protection Act in which 3.5 of the 13 million acres that BLM managed were transferred to the national parks system (Death Valley National Park, Joshua Tree National Park, and the new Mojave National Preserve) and nearly 40% of the remaining 9.5 million acres were designated into 69 wilderness areas. As required by statute, casual use of motorized vehicles in wilderness is prohibited. Through passage of the California Desert Protection Act, access to 50% of the CDCA was limited, including military reservations, national park system, and BLM wilderness areas. Of the 50% that is not restricted, almost half is private lands to which public uses do not apply.

Recreational activities based on motorized-vehicle use have become increasingly limited in the California desert over the past quarter century. As a result of the California Desert Protection Act of 1994, at least 637 miles of motorized-vehicle access routes (approximately 15% of routes) on public lands in the entire California Desert Conservation Area were included in new BLM wilderness areas and new national parks, and effectively closed. Among the most notable closures were segments of the East Mojave Heritage Trail, identified for vehicle touring by Friends of the Mojave Road. This has created considerable changes in recreational activities, especially in desert mountains. The most challenging mountainous 4-wheel drive roads are now closed due to wilderness designation. Rock-hounding opportunities, a popular activity among retirees, have been effectively reduced by 50% throughout the CDCA. 25% of rock-hounding sites are in national parks where rock-hounding is not allowed; the other 25% are in wilderness and not accessible to many retirees on foot.

While landowners have the right to reasonable access to their lands, the designation of wilderness has added considerable regulatory burden in order to achieve that access. Approximately 600,000 acres of State and private land are affected. Many landowners have opted to dispose of their lands within wilderness to the appropriate managing federal agency. Both the Catellus Development Corporation (formerly the Southern Pacific Land Company) and State Lands Commission, the two largest landowners, have been engaged in such actions. These large and complex exchanges and purchases are changing the pattern of land ownership which had existed for more than a hundred

years. Several millions of acres are involved. Some effects of this change is loss of the opportunity to develop private lands and loss of tax base to counties. While land exchanges are encouraged, most acquisitions to date have involved fee purchase with loss of private land tax base in most desert counties, particularly San Bernardino County. Payments in lieu of taxes (PILT) to counties does not totally compensate for such monetary loss and San Bernardino has reached the PILT maximum limit. However, the effects of this change are not all negative: State Lands Commission has acquired former federal properties elsewhere in the State which generate considerably greater economic values. Likewise, private landowners obtain cash or lands which have greater development and tax base potential. There may be a benefit to counties in so far as county services do not have to be so extended, but this benefit is unknown.

Opportunities for new rights-of-way, such as utilities and communication sites, are restricted in wilderness. However, corridors and sites for utilities have been established, especially in the more-populated areas. While, grazing is a compatible use in wilderness, grazing activities on public lands have recently been limited primarily due to Endangered Species Act issues. Public lands transferred to the National Park Service are more restricted in terms of opportunities for new rights-of-way and grazing. Ten allotments formerly managed by BLM are now included in National Park Service lands. In the new or revised general management plans developed by NPS these allotments are deleted.

The number of Wild Horse and Burro Management Areas has been progressively dropping over the past twenty years as wild herds die out or public lands are transferred to the California Department of Parks of Recreation and the National Park Service.

4.1.17.2 **From 2002 and into the Future**

Human migrations continue into the Southwest, spurring burgeoning urban populations and the supporting development that is occurring throughout southern California and southwestern Arizona. BLM managed public lands are becoming increasingly important to the public as a source of recreational opportunities, open space, community infrastructure support, and habitat for threatened and endangered species.

In seeking to implement its multiple use/sustained yield mandate for healthy public landscapes, the Bureau in cooperation with many agencies, jurisdictions and interests, has initiated a series of bio-regional planning efforts for the California desert. While the California Desert Conservation Area Plan (1980, as amended) has undergone numerous minor amendments over the past 20 years, these bio-regional planning efforts are designed as major amendments to the California Desert Conservation Area Plan, and cover the following planning areas: 1) the Northern and Eastern Colorado Desert (NECO), 2) the Northern and Eastern Mojave Desert (NEMO), 3) the West Mojave Desert, 4) the Imperial Sand Dunes and 5) the Coachella Valley. Military reservations are addressed in both the NECO and West Mojave Plans. The National Park Service has revised its general plans for Joshua Tree National Park, Death Valley National Park, and the Mojave National Preserve. The Imperial Sand Dunes, NECO

and NEMO plans will have Proposed Plans/Final EISs available for public review Summer 2002.

The CDCA plan amendment for the Coachella Valley would take deliberate steps for the management of threatened and endangered species, air quality and open spaces while also addressing other important quality-of-life issues such as recreation opportunities and necessary infrastructure support for communities within the planning area. The planned integration of these natural, social, economic and cultural needs is at a particularly significant crossroads in the history of the American West. As more and more private land is dedicated to support housing and urban development, decisions must be made concerning habitats to conserve in order to avoid more species listings under the Endangered Species Act. Decisions are also necessary concerning management of native habitats and open spaces to ensure they are delivering the natural, social, economic and cultural values intended.

The public and private land decisions, in a growing area like the Coachella Valley with complex land ownerships and jurisdictions, are inherently interdependent. The development of this plan amendment in coordination with those local jurisdictions and agencies, using common scientific information and linked planning processes, should help ensure well-considered public decisions designed to deliver the natural, social, economic and cultural values intended. Delivering coordinated decisions at the landscape level is consistent with addressing 1) community development and quality of life concerns, and 2) a long term framework for species and habitat conservation. Further benefits would also accrue, including the scenic vistas provided by undeveloped landscapes and the environmental health provided by protecting air and water quality.

These land use planning processes address many of these issues while options and choices still remain. With the passage of time, resources are committed by individual public and private land use decisions. The cumulative effect of these decisions may limit options to deliver quality of life amenities or conservation outcomes. Establishing a coordinated framework to support local communities and provide for long term conservation increases opportunities to deliver the intended public benefits. Stakeholder involvement and use of best available science would continue to be the keys to successful completion of these plans and their implementation.

Upon completion, approximately 50 percent of the Federal lands in the California Desert Conservation Area will be under conservation status (BLM, National Park lands and Military reservations) in order to provide for open space, the recovery of special status species and improvements in air quality. The percentages of conserved land in the Coachella Valley would be much higher (75 percent or greater). Uses and values which will be most affected by conservation measures include off-highway vehicle use and access routes, competitive events, livestock grazing, wild horse and burros, and a net reduction of tax base among some counties. However, the alternatives are deliberately designed to account for community infrastructure needs for transportation, sand and gravel sources, communication sites and energy production.