

Section 5 - Cumulative Impacts



Western Riverside County MSHCP Final EIR/EIS

June 2003

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5.0 CUMULATIVE IMPACTS

The purpose of a cumulative effects analysis is to ensure that the full range of consequences of actions is considered. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time. Section 15130 of the CEQA Guidelines requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impacts from several projects is the change in the environment that results from the incremental impact of the development when added to other closely related past, present, and reasonably foreseeable or probable future developments. Section 15130 states (in pertinent parts):

(a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

(1) As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.

(2) When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.

(3) An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

(4) [The wording of this section was invalidated in litigation.]

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

(1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

The EIR/EIS employs CEQA Guidelines Section 15130 b(1)B, a summary of projections, and bases projections upon Southern California Association of Governments (SCAG) regional population growth forecasts for 2025 for unincorporated western Riverside County and the Cities within western Riverside County. According to these forecasts, the region's population is expected to grow 56 percent between 2000 and 2020. Total housing units are expected to grow 47.4 percent, and employment to increase 86 percent.

Forecasts of population, housing, and employment for the proposed MSHCP cities are shown in Tables 5A, 5B, and 5C. The most rapid increases in population are projected for Beaumont (72 percent between 2010 and 2020) and Calimesa (78.6%). Similarly, rapid increases in total housing units are projected for Beaumont (76.7 percent from 2010 to 2020) and Calimesa (77.2%). Employment in Beaumont is projected to increase 33.5 percent between 2010 and 2020, followed by Murrieta (32%), and Calimesa (28.4%). In addition, city and County General Plans are used to consider future land use patterns.

Table 5A - Population Growth Trends within Cities of Western Riverside County

City	1990	2000	2010	2025	% Change 2000-2025
Banning	20,570	23,562	34,811	47,328	101
Beaumont	9,685	11,384	26,279	56,450	396
Calimesa ¹	0	7,139	13,112	29,554	314
Canyon Lake ¹	0	9,952	10,675	10,702	8
Corona	76,095	124,966	138,896	156,522	25
Hemet	36,094	58,812	80,904	127,899	117
Lake Elsinore	18,285	28,928	49,338	81,820	183
Moreno Valley	118,779	142,381	169,459	221,343	555
Murrieta ¹	0	44,282	67,601	96,382	118
Norco	23,302	24,157	29,579	30,568	27
Perris	21,460	36,189	52,985	109,377	202
Riverside	226,505	255,166	302,507	340,328	33
San Jacinto	16,210	23,779	46,983	67,115	182

Table 5A - Population Growth Trends within Cities of Western Riverside County

City	1990	2000	2010	2025	% Change 2000-2025
Temecula	27,099	57,716	76,704	86,000	49
Total	594,084	848,413	1,099,833	1,461,388	72

Note: ¹ Calimesa, Canyon Lake, and Murrieta were incorporated after the 1990 Census.

Sources: 1990 Census, 2000 Census, SCAG.

Table 5B - Housing Growth Trends within Cities of Western Riverside County

City	1990	2000	2010	2025	% Change 2000-2025
Banning	8,279	9,735	11,614	15,904	63
Beaumont	3,718	4,258	9,249	20,544	382
Calimesa ¹	0	3,229	5,523	12,316	281
Canyon Lake ¹	0	4,036	3,727	3,794	94
Corona	26,480	38,903	42,382	52,303	34
Hemet	19,692	29,287	31,388	38,922	33
Lake Elsinore	6,993	9,436	15,220	25,099	166
Moreno Valley	37,945	41,388	48,170	65,679	59
Murrieta ¹	0	14,800	21,753	31,091	110
Norco	5,785	6,238	7,138	7,603	22
Perris	7,780	10,484	15,669	34,395	228
Riverside	80,260	85,631	93,245	109,803	282
San Jacinto	6,845	9,340	15,296	21,650	132
Temecula	10,659	18,749	23,140	27,742	48
Total	214,436	285,514	343,514	466,845	64

Note: ¹ Calimesa, Canyon Lake, and Murrieta were incorporated after the 1990 Census.

Source: 1990 Census, 2000 Census, SCAG.

In 2000, employment within the cities of western Riverside County was 301,501. The region's employment is expected to rise 54.6 percent by the year 2010 and approximately another 20.3 percent between 2010 and 2020. Rapid increases are projected to occur in Beaumont, Lake Elsinore, and Murrieta by 2010. Less growth is expected to occur in Norco and the unincorporated areas of western Riverside County.

Table 5C - Employment Growth within the Cities of Western Riverside County

City	2000	2010	2025	% Change 2000-2025
Banning	8,453	12,145	15,342	81
Beaumont	6,185	14,811	22,291	260
Calimesa	1,867	3,692	5,273	182
Canyon Lake	1,958	2,451	2,875	47
Corona	41,583	56,751	69,905	68
Hemet	17,818	23,859	29,095	63

Table 5C - Employment Growth within the Cities of Western Riverside County

City	2000	2010	2025	% Change 2000-2025
Lake Elsinore	8,289	17,539	25,562	208
Moreno Valley	33,163	53,887	71,859	117
Murrieta	8,447	19,028	28,205	234
Norco	8,891	10,631	12,140	37
Perris	11,701	22,747	32,300	176
Riverside	125,938	182,943	232,326	84
San Jacinto	6,328	11,215	15,455	144
Temecula	20,880	34,471	46,260	122
Total	301,501	466,170	608,888	102

Source: SCAG, 2001 RTP Growth Forecast.

The unincorporated areas of western Riverside County have slightly different growth rate trends than do the cities within the region. The growth projections in population, housing, and employment are shown in Table 5D.

Table 5D - Growth Forecasts for the Unincorporated Western Riverside County

	2010	2025	2040 ¹	Annual % Change
Population	490,941	771,595	1,234,552	4
Housing	160,440	254,582	407,331	4
Employment	135,750	192,918	279,731	3

Note: ¹ Buildout of the Riverside County General Plan.

Source: SCAG, 2001 RTP Growth Forecast, 2040 numbers are derived from 2010 and 2025 forecasts.

Developed land in residential use within unincorporated western Riverside County totaled 141,050 acres in 1999. Between 1999 and the build out of unincorporated western Riverside County, developed residential land within western Riverside County is projected to increase by 420 percent to 592,957 acres.

The Council on Environmental Quality's (CEQ) regulations implementing the procedural provisions of NEPA of 1969, as amended defines "cumulative effects" as:

... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or persons undertakes such other actions. (40 CFR § 1508.7).

NEPA requires that cumulative effects must be evaluated along with the direct effects and indirect effects (those that occur later in time or farther removed in distance) of each alternative. The range of alternatives must consider the no-project alternative as a baseline against which to evaluate cumulative effects. The range of actions that must be considered under the cumulative effects includes not only the project but all connected and similar actions that could contribute to cumulative effects. Cumulative effects may arise from single or multiple actions and may result in additive or interactive effects.

To determine major cumulative effects of a project involves the following:

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- C The direct and indirect effects of the proposed action;
- C Which resources, ecosystems, and human communities, are affected; and
- C Which effects on these resources are important from a cumulative effect perspective.

In a general sense, all impacts on affected resources are cumulative; however, it is the goal of this analysis to narrow the important issues to those of national, regional, or local significance.

The assessment of the cumulative impacts is done qualitatively, because it is difficult to predict timing and density of all the projects. Many of these projects have been or will be the subject of separate environmental studies. The cumulative impact analysis is provided in each issue area discussed in Sections 3.0 and 4.0 of the EIR/EIS (i.e., biological resources, land use, traffic, etc.).

As stated in the Executive Summary, the County of Riverside is involved in a comprehensive and integrated planning process. In addition to the development of the MSHCP for western Riverside County, this integrated planning effort includes the preparation of a General Plan to set forth the policies and implementation measures needed to express community goals of accommodating anticipated growth while maintaining natural environments, as well as the identification of transportation corridors to meet the County's anticipated future transportation needs.

The cumulative analysis is based on forecasts made by SCAG, including population increases anticipated in the western Riverside County region as provided in Tables 5A, 5B, 5C and 5D. Other related planning documents considered in the cumulative analysis include the following general plans, which have guidance for development within cities and their spheres of influence, or within the County, as appropriate.

- | | |
|--------------------------------------|------------------------------------|
| C City of Banning General Plan | C City of Murrieta General Plan |
| C City of Beaumont General Plan | C City of Norco General Plan |
| C City of Calimesa General Plan | C City of Perris General Plan |
| C City of Canyon Lake General Plan | C City of Riverside General Plan |
| C City of Corona General Plan | C City of San Jacinto General Plan |
| C City of Hemet General Plan | C City of Temecula General Plan |
| C City of Lake Elsinore General Plan | C County of Riverside General Plan |
| C City of Moreno Valley General Plan | |

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5.1 Cumulative Impact Analysis

This discussion evaluates the potential cumulative effects of the proposed MSHCP and alternatives on biological resources; land use; housing, population, and employment; public services; and transportation. In particular, the analysis focuses on the cumulative effects of the proposed MSHCP with the regional growth forecasts.

5.1.1 Biological Resources

Cumulative biological impacts are defined as those impacts resulting from development within the MSHCP Plan Area as a result of build out of the County's General Plan and Cities within western Riverside County consistent with SCAG's regional growth projections. The life span of the MSHCP is proposed to be 75 years, and the MSHCP includes consideration of growth and development within the MSHCP Plan Area for build out of the County's General Plan and Cities within western Riverside County in accordance with SCAG's regional growth projections.

As stated in Section 4.1.2 *Assumptions* of this document, the cumulative biological impacts are defined as those impacts resulting from development within the MSHCP Plan Area as a result of build out of the Cities and County's General Plans and consistent with SCAG's projections for regional growth. The term of the MSHCP is proposed to be 75 years, and the MSHCP includes consideration of SCAG's projected growth and development within the MSHCP Plan Area for build out of the General Plans. This analysis examines all of the alternatives under a General Plan build out scenario for the County's and Cities' General Plans, consistent with the SCAG regional growth projections. Thus, impact conclusions in Section 4.1 and those presented below are based on similar analysis assumptions. ~~Therefore, the analysis of cumulative biological impacts of the Proposed Action and alternatives is assumed to be incorporated into the analysis of the alternatives themselves, since cumulative growth including build out of the General Plans consistent with SCAG's regional growth projections is considered in the MSHCP and the alternatives.~~

Implementation of the MSHCP and Covered Projects will not result in a cumulative adverse effect, either directly or through habitat modifications, on any of the Covered Species, including the 31 species that are currently listed as threatened or endangered and the one species that is currently proposed for listing. Implementation of the MSHCP will benefit the Covered Species by preserving their habitat in order to address their life cycle needs. Thus, based on the features of the Plan itself, impacts to Covered Species are mitigated below a level of significance.

However, implementation of the MSHCP will result in cumulatively significant impacts on the Non-Covered Species because the issuance of incidental take permits will remove an impediment to development outside of the MSHCP Conservation Area. Non-Covered Species would receive little or no protection outside the reserves under existing ordinances and regulations.

The Plan will not cause adverse cumulative effects related to the reduction of sensitive vegetation communities within the Plan Area; rather, the Plan is designed to preserve sufficient acreage of the sensitive vegetation communities present in western Riverside County. Similarly, the Plan will not cause adverse cumulative effects related to interference with the movement of any native resident or migratory fish or wildlife species or obstruction of genetic flow for the identified Planning Species. Part of the

purpose and goals of the MSHCP is to use regional planning efforts to assemble a reserve that will preserve contiguous blocks of habitat in large enough areas to ensure that the reserve will allow movement of species and flow of genetic information.

The MSHCP will not cause adverse cumulative impacts by conflicting with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional, or State habitat conservation plan either within or outside of the Plan area. Rather, the MSHCP has been written specifically to complement existing HCPs, such as the Stephens' kangaroo rat long-term HCP.

~~The MSHCP will cause adverse significant cumulative effects associated with the introduction of land use within an area immediately adjacent to Conservation Areas.~~ Cumulative effects associated with the proposed take authorization would involve direct loss of habitat and species associated with ground disturbance in take authorized areas as development occurs in accordance with projected growth. Cumulative indirect effects would occur to species and habitats within the MSHCP Conservation Area and would be associated with development of proposed land uses and activities in take authorized areas in proximity to the MSHCP Conservation Area. Indirect effects primarily result from adverse "edge effects" and may be short-term indirect effects related to construction or long-term indirect effects associated with development or land use practices in proximity to conserved habitat areas. Cumulative indirect impacts resulting from construction activities include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality and construction-related soil erosion and runoff. An edge effect is defined as a change in the "conditions or species composition within an otherwise uniform habitat as one approaches a boundary with a different habitat (Ricklefs 1993)." Edge effects at the boundary between natural lands and human-occupied lands ("urban edge effects") arise due to human-related intrusions such as lighting, noise, invasive species, exotic predators (dogs, cats, and opossums), hunting, trapping, off-road activities, dumping, and other forms of recreation and disturbance. Although some species are in some ways unaffected by edges [e.g., reproductive output of the rufous-crowned sparrow (Morrison and Bolger 2002), distribution of arthropod species (Bolger et al. 2000)] or even show preferences for edges (e.g., indigo buntings and northern cardinals in Woodward et al. 2001), human-induced edge effects are generally unfavorable to native species and are considered cumulative as edge increases throughout the landscape.

Cumulative significant indirect impacts associated with edge effects and increased development ~~pressure outside the conservation areas established by the proposed MSHCP and other MSHCPs or HCPs proposed in areas adjacent to western Riverside County are considered cumulatively significant~~ are addressed in the provisions of Section 6.1.4 of the Draft MSHCP, and were taken into account when developing the reserve requirements of the proposed MSHCP. Edge effects will result as development occurs in proximity to habitat; however, the proposed MSHCP contains provisions that will reduce the adverse impacts associated with edge effects. Furthermore, the MSHCP does not authorize development, although it does provide take authorization for Covered Species. The MSHCP would not directly cause edge effects, but it would dictate where such effects could occur through the reserve assembly process. Thus, cumulative indirect impacts associated with edge effects are considered less than significant.

5.1.2 Agriculture and Extractive Resources

Agricultural Resources

Under the proposed MSHCP and each of the alternatives, varying numbers of acres of State-designated Prime, Unique, or Statewide Important farmland are located within the Conservation Area. As previously stated, the designation of farmland as Prime, Unique, or State Important does not necessarily indicate that such land is utilized for agricultural production. The precise boundaries of the reserve are not fixed and the Criteria Area covers thousands of acres. Due to these facts and the fact that future development is dependent upon future market conditions, it is not possible to determine the extent to which implementation of the proposed MSHCP might result in the conversion (to non-agricultural uses) of specific parcels that are designated as Prime, Unique, or Statewide Important farmland on maps prepared by the Farmland Mapping and Monitoring Program. Likewise, it is not possible to determine whether implementation of the proposed MSHCP would conflict with existing agricultural designations or a Williamson Act contract on specific parcels of land within the MSHCP Plan Area.

Overall, however, the proposed MSHCP will permit the continuation of existing agricultural operations within the Conservation Area. Additionally, the proposed MSHCP has a mechanism to allow up to 10,000 acres of new agricultural land within the MSHCP Criteria Area, which, if implemented, will offset potential impacts to agricultural resources that may result from implementation of the MSHCP. Development outside the limits of the MSHCP Criteria Area may contribute to the conversion of agricultural land to non-agricultural uses. However, the MSHCP expressly permits existing agriculture and, if the provisions for new agricultural land are implemented, also has opportunities for new agricultural operations. Therefore, no cumulatively significant impact to agricultural resources will occur.

Mineral Resources

Throughout western Riverside County, approximately 19,500 acres have been identified as State-designated Mineral Resource Zones (MRZs). MRZs are known mineral resources that are of value to the region and the residents of the State. Active mineral extraction areas will not be incorporated into the Conservation Area. Under the Proposed MSHCP, land designated as MRZs (but with no permitted mineral extraction operation) will be incorporated into the Conservation Area. The loss of any portion of such an MRZ, when taken with similar losses that may result from the implementation of other projects (such as from assembling the existing reserves) represents a cumulatively significant and unavoidable impact. The MSHCP will not have any other significant direct or indirect cumulative impacts on mineral resources, because implementation of the MSHCP will not result in the loss of a locally important mineral resource recovery site, as delineated on a General Plan or other land use plan.

5.1.3 Housing, Population, and Employment

Implementation of the Proposed Action or any of the alternatives will not change any regional projections, displace persons or dwelling units, nor will it exacerbate the jobs-to-housing imbalance within western Riverside County. Thus, the MSHCP will not have significant cumulative impacts in any of these impact categories.

With development being shifted from the Conservation Area to areas that will not be conserved, increased urbanization or intensification of land use may occur in areas presently not subject to these kinds of development pressures. This would occur both inside and outside the MSHCP Plan Area. Such land use intensification may result in community character impacts. While the Proposed Action and to some degree the other MSHCP alternatives, could shift development to outlying areas or encourage increases in development intensity in areas not currently subject to substantial development pressure, the growth projected in the County's and Cities' General Plan consistent with SCAG's projected growth will result in substantial pressure to increase development intensity in some areas with or without the MSHCP.

By encouraging intensification of development outside of the reserve areas, and possibly encouraging in-fill development, the MSHCP could have transportation and air quality benefits by encouraging development trends along transportation corridors and possibly reducing traffic congestion and air pollution.

The Proposed Action is growth-accommodating, not growth-inducing. The Proposed Action does not itself propose any growth or development; it merely provides a regional plan to address the biological effects of existing and anticipated future market-driven growth in western Riverside County. Given these circumstances, it may be appropriate to find that the Proposed Action is merely a means of planning for growth, and not a means of accommodating it. However, the Proposed Action will remove impediments to growth and development within the Plan Area outside the reserves. Therefore, out of an abundance of caution, the Lead Agencies have determined that the Proposed Action will have significant indirect impacts on Population, Housing, and Employment. For the same reasons, the Lead Agencies have determined that the Proposed Action will have significant cumulative impacts on Population, Housing, and Employment.

5.1.4 Public Services

Fire Protection

The proposed MSHCP does not propose or authorize any physical development and therefore will not directly result in the deletion, relocation, growth or modification of existing fire protection facilities, roads, or wildland-urban interface areas. Thus, the MSHCP will not have any significant cumulative direct impacts to fire protection. The proposed MSHCP would, however, remove an impediment to growth by authorizing take of Covered Species and allowing development outside of the reserve areas. As development occurs in accordance with regional growth projections, additional fire protection facilities will be needed, but, because the location and timing of future development cannot be predicted, the location and timing of new fire protection facilities is also speculative. Overall, though, the Project's cumulative impact on fire protection will be beneficial because the establishment of the reserve will allow municipalities to plan land uses with the knowledge of where the likely wildland-urban boundaries will be located, and to plan for fire-safe development (including strategic placing of fire protection facilities). No adverse cumulative effects would occur.

Parks and Recreation

Implementation of the proposed MSHCP would set aside land for conservation use. Recreational use is conditionally compatible with conservation, and would be permitted in many locations throughout the Conservation Areas. The MSHCP would not remove

any existing park or recreational facilities, nor would it prohibit their development in the future. It would protect the quality of natural resources available for recreational use throughout western Riverside County. Thus, no adverse direct or indirect cumulative impacts would occur as a result of the proposed MSHCP.

5.1.5 Transportation

The MSHCP does not authorize or contemplate any physical development. Therefore, implementation of the MSHCP will not have significant cumulative direct impacts on transportation because it will not decrease the level of service or increase traffic on any roadway.

As indicated above, the MSHCP will accommodate projected growth within the Plan Area. However, the MSHCP will not have significant indirect cumulative impacts on transportation. Roadway projects have been planned to reduce traffic-related impacts resulting from the current and future growth projected to occur in western Riverside County. The Circulation Element of the General Plan identifies roadway improvement/construction required to accommodate anticipated traffic volumes, and the construction of planned roadways will reduce impacts resulting from the cumulative growth anticipated to occur within the MSHCP Plan Area. Maintenance activities on existing roadways within public/quasi-public lands, the construction of CETAP corridors, and the construction/improvement of roadways identified in the General Plan Circulation Element within Criteria Areas are Covered Activities under the MSHCP. Thus, although the MSHCP accommodates development in accordance with regional growth projections, it will not result in any cumulatively significant indirect decrease in the level of service or increase in traffic on any roadway. Cumulative impacts related to transportation issues will be less than significant.

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