

METHODS AND MATERIALS FOR
RESERVE DESIGN CRITERIA
RECHE CANYON/BADLANDS AREA PLAN
(*Preliminary Draft – Subject to Change*)

This section describes the methods and materials used for reserve design for the Reche/Badlands Area Plan. The approach primarily is map-based and incorporates available maps and databases, as described below. Anecdotal information from the habitat assessment workshops and communications with the wildlife agencies regarding biological issues, conservation priorities and specific project information are important components of the methodology. The following description of the reserve design methods is intended to provide the reader with the information necessary to understand and independently reconstruct the reserve design process.

➤ Target Acreages

As described in *Section 3.1* of this document, as part of the MSHCP planning process, rough conservation acreage estimates were developed. As part of those rough acreage estimates, a target acreage of 510,000 acres was established for conservation within the 1.26 million-acre MSHCP study area comprised of approximately 357,000 acres of existing public/quasi-public lands and 153,000 acres of new conservation on private lands. In conjunction with development of rough acreage estimates, target conservation acreages were also established for Area Plans and cities within the MSHCP study area. For the Reche Canyon/Badlands Area Plan, the total target conservation acreage was 33,290 to 33,620 acres, comprised of approximately 22,520 acres of existing public/quasi-public lands and 10,770 to 11,100 acres of new conservation on private lands. The City of Moreno Valley is located entirely within the Reche Canyon/Badlands Area Plan. A target acreage range within the city of Moreno Valley of 210 to 220 acres was established as part of the rough acreage estimates; the City of Moreno Valley target acreage is included within the 10,770 to 11,100 acre target conservation range on private lands for the entire Reche Canyon/Badlands Area Plan. These target acreages were used in development of the criteria-based conservation plan for the Reche Canyon/Badlands Area Plan.

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➤ Identify Preliminary Planning Species

Several wildlife and plant species were identified to provide guidelines for reserve design. Listed species known from the Reche Canyon/Badlands Area Plan were the highest priority, with reserve design issues species such as Bell's sage sparrow (requires large patches of undisturbed habitat) and bobcat (wildlife corridors) also as high priority. The following species were chosen to provide reserve design guidance:

- Bell's sage sparrow (requires large patches of undisturbed habitat)
- California gnatcatcher (need to conserve core populations/patches)
- loggerhead shrike (generalist, but declining)
- least Bell's vireo (indicator of high quality riparian habitat)
- cactus wren (key population of this species)
- peregrine falcon (state-listed endangered)
- mountain plover (key population of this species)
- arroyo toad (federally listed)
- orange-throated whiptail (indicators of high quality sage scrub and chaparral)
- granite spiny lizard (indicator of granite outcrops)
- Stephen's kangaroo rat (federally and state listed)
- bobcat (wildlife corridors)
- smooth tarplant (key population of this species)
- San Jacinto Valley crownscale (federally-listed plant; narrow endemic)
- Coulter's goldfields (key population of this species)
- Wright's trichocoronis (key population of this species)
- Davidson's saltscale (rare plant tied to alkali soils)
- spreading navarretia (listed plant)
- California Orcutt grass (listed plant)
- thread-leaved brodiaea (federally listed)

➤ Identify Key Biological Issues/Areas

Since the MSHCP planning process began in spring of 1999, information regarding biological resources and land planning issues has become available through the species and habitat

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assessment workshops, the MSHCP sensitive species database, and meetings with the wildlife agencies. The following resource issues, in no particular order of priority, were identified for the Reche Canyon/Badlands Area Plan:

1. Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands Area Plan. The Reche Canyon/Badlands Area Plan includes substantial areas of remaining natural habitat within the Riverside Lowlands including a portion of the San Jacinto River, the Badlands, Reche Canyon area, and Mystic Lake/San Jacinto Wildlife Area.
2. Conserve existing habitat values in the Reche Canyon/Badlands portion of the San Jacinto River with a focus on conservation of flood plain areas supporting Traver-Domino-Willows soils. Conservation should focus on maintaining habitat for sensitive plant species and maintaining and enhancing linkage values along this portion of the San Jacinto River between the San Jacinto and Santa Ana Mountains.
3. Conserve existing vernal pool complexes associated with the San Jacinto River floodplain, in the Mystic Lake/San Jacinto Wildlife Area. Conservation should focus on vernal pool surface area and supporting watersheds.
4. Conserve large core habitat area in Reche Canyon/Badlands. This area represents one of the largest intact habitat core areas in the eastern portion of the MSHCP study area and is characterized by a mosaic of upland and wetland habitats that contribute to species diversity in this area.
5. Conserve existing, intact upland habitat blocks between Sycamore Canyon Park area, Box Springs Mountain Reserve, and San Bernardino County to the north, focusing on sage scrub, grassland, and chaparral habitat.
6. Provide for a connection of intact habitat between San Jacinto Wildlife Area/Mystic Lake and adjacent Badlands area to the north.
7. Provide for connection of intact habitat between Badlands and San Bernardino National Forest to the south.

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8. Conserve high quality sage scrub and chamise chaparral in order to protect core population of Bell's sage sparrow in Badlands area.
 9. Conserve San Jacinto Valley crownscale, vernal barley, Davidson's saltbush, Coulter's goldfields, and spreading navarretia. Conservation should focus on the Traver-Domino-Willows soil series occurring in the San Jacinto River floodplain. Key populations of these three species are known to exist within this section of the San Jacinto River.
 10. Conserve vernal pool complexes supporting thread-leaved brodiaea and California Orcutt grass known to exist within the Mead Valley Area Plan.
 11. Conserve alluvial scrub and alkali vernal plain habitat supporting a key population of smooth tarplant, Wright's trichocoronis, and little mousetail within this section of the San Jacinto River system.
 12. Conserve sandy-granitic soils within chaparral and coastal sage scrub habitats capable of supporting Payson's jewelflower and prostrate spineflower known to exist within the Reche Canyon/Badlands Area Plan.
 13. Conserve existing populations of the California gnatcatcher in the Reche Canyon/Badlands Area Plan.
 14. Provide for and maintain a continuous linkage along the San Jacinto River from the southern boundary of the Reche Canyon/Badlands Area Plan to the southeastern area plan boundary.
- Identify General Reserve Configuration and Management Issues

The NCCP biological tenets for reserve design and other general design considerations also were incorporated:

1. Representativeness of Riverside Lowlands bioregion.

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2. Representativeness of other habitats in subarea plan area.
3. Habitat contiguity
4. Large habitat blocks
5. Minimize edge effects
6. Consideration of “directional” influences such as migration/dispersal patterns, rain, wind, fire (Habitat Assessment Workshop)
7. Special microhabitats (Habitat Assessment Workshop)
8. Minimum 1.5 mile dispersal patches for gnatcatchers (Habitat Assessment Workshop)
9. Patch sizes supporting 5-10 pairs of gnatcatchers is important (Habitat Assessment Workshop)
10. Ridgelines and riparian areas for movement of bobcats and mountain lions (Habitat Assessment Workshop)
11. Maintain buffers of at least 300 feet adjacent to riparian and wetland areas.

➤ Map Resources

The following map resources were used in the design of the hardline reserve:

- Vegetation Map (3,000-scale)
- Selected planning species (3000-scale)
- Open Space, Trails and Critical Circulation Study (includes SP areas, roads and parcels)
- CSS Habitat Quality Map (3,000 scale)
- Conceptual conservation scenario (3,000 scale acetate)
- Land use plan (3,000 scale)
- DOQQs

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- Parcel Map (3,000 scale acetate)
- Existing reserves, conservation banks, BLM lands, other public lands (3,000 scale acetate)
- Soils Map (Knecht 1971)
- Edge area map

➤ Methods

Drawing the hardline reserve generally involved the following steps:

- Compile map/data sources
- Compile area plan biological issues based on preliminary mapping, criteria analyses, pers. communications with agencies
- Rough sketch of reserve boundaries based on map data combined with identified key biological issues, without reserves, etc.
- Refine map based on other constraints and opportunities (still to be completed)
- existing and planned land uses
- parcel maps
- existing conserved habitat
- minimization of edge habitat

Following drawing of the conceptual hardline reserve, the reserve within the plan area was overlain with USGS quarter sections (*i.e.*, 160-acre cells) and a spreadsheet matrix was created that included an arbitrary quadrat cell identification number, USGS section, USGS quarter section, and township and range such that each cell is an area in real space with a legal description, but without being tied to a specific county assessors legal parcel. Reserve criteria were written for each cell that provide an explicit description for conservation within each quarter section cell that would allow one to generally re-create the hardline reserve. For example, a criterion for a cell might be “conserve coastal sage scrub in north one-half of cell to provide uninterrupted habitat connections to cells to west, north and east.” The criteria are written with the intent that the “naive observer” could re-create the reserve system.

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➤ Results

As described under Methods, the conceptual hardline reserve assembled for the Reche Canyon/Badlands Area Plan for analysis purposes was overlain with USGS quarter section cells and cell groupings. A map display was prepared depicting the cells and cell groupings as depicted in Figure ?. Criteria were written for each cell or cell grouping to describe the anticipated conservation within each cell or cell grouping based on the conceptual hardline reserve. The criteria statements first describe the geographic configuration of a fraction of percent of a cell grouping anticipated to be conserved. A brief statement of the biological resources toward which conservation efforts in the particular cell or cell grouping should be directed is also provided. The criteria matrix for the Reche Canyon/Badlands Area Plan is presented in Table ?. As noted in the footnote to the criteria matrix presented in Table ?, the criteria are based on the existing MSHCP vegetation map. It is understood that biological conditions are dynamic and will change. In cases where the vegetation description does not match existing conditions at the time of reserve assembly, the generalized geographic descriptions for each cell should take precedence to ensure that the overall reserve ultimately assembled conforms with the target acreage and generalized configuration analyzed in the MSHCP.

To further guide long-term reserve assembly and monitoring efforts, the Reche Canyon/Badlands Area Plan was divided into four subunits. Subunit boundaries are depicted on the cells and cell groupings map display (Figure ?). For each subunit, target conservation acreages have been established along with a description of the general conservation objectives for each subunit. The general conservation objectives are based on the planning species and biological issues for the Reche Canyon/Badlands Area Plan presented in the Methods section. Target acreages and conservation objectives for the subunits within the Reche Canyon/Badlands Area Plan are presented below.

Subunit 1: Sycamore Canyon/Box Springs East

Target acreage range for new conservation
on private lands within subunit: 1,430 to 1,470

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Cells and cell groups included within subunit: A, B, C, D, 282, 283, 284, 285, 286,
368, 459, 460, 462, 551, 553

Conservation objectives within subunit:

- Key planning species within this subunit include: bobcat, Bell’s sage sparrow, California gnatcatcher, loggerhead shrike, cactus wren, granite spiny lizard, orange-throated whiptail, Stephen’s kangaroo rat

- Important biological issues within this subunit include:
 - ! Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands Area Plan. The Reche Canyon/Badlands Area Plan includes substantial areas of remaining natural habitat within the Riverside Lowlands including a portion of the San Jacinto River, the Badlands, Reche Canyon area, and Mystic Lake/San Jacinto Wildlife Area.
 - ! Conserve existing, intact upland habitat blocks between Sycamore Canyon Park area, Box Springs Mountain Reserve, and San Bernardino County to the north, focusing on sage scrub, grassland, and chaparral habitat.
 - ! Conserve sandy-granitic soils within chaparral and coastal sage scrub habitats capable of supporting Payson’s jewelflower and prostrate spineflower.
 - ! Conserve existing populations of the California gnatcatcher.

Subunit 2: Reche/Badlands North

Target acreage range for new conservation
on private lands within subunit: 7,080 to 7,300

Cells and cell groups included within subunit: E, F, G, H, I, J, K, L, M, N, O, P, Q,
R, S, T, U, V, W, 382, 385, 465, 476,
1120, 1121, 1213, 1215

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Conservation objectives within subunit:

- Key planning species within this subunit include: cactus wren, Bell’s sage sparrow, loggerhead shrike, bobcat, Stephens’ kangaroo rat, arroyo toad, granite spiny lizard, orange-throated whiptail, smooth tarplant

- Important biological issues within this subunit include:
 - ! Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands Area Plan. The Reche Canyon/Badlands Area Plan includes substantial areas of remaining natural habitat within the Riverside Lowlands including a portion of the San Jacinto River, the Badlands, Reche Canyon area, and Mystic Lake/San Jacinto Wildlife Area.
 - ! Conserve large core habitat area in Reche Canyon/Badlands. This area represents one of the largest intact habitat core areas in the eastern portion of the MSHCP study area and is characterized by a mosaic of upland and wetland habitats that contribute to species diversity in this area.
 - ! Provide for a connection of intact habitat between San Jacinto Wildlife Area/Mystic Lake to adjacent Badlands area to the north.
 - ! Provide for connection of intact habitat between Badlands and San Bernardino National Forest to the south.
 - ! Conserve high quality sage scrub and chamise chaparral in order to protect core population of Bell’s sage sparrow in Badlands area.
 - ! Conserve sandy-granitic soils within chaparral and coastal sage scrub habitats capable of supporting Payson’s jewelflower and prostrate spineflower known to exist within the Reche Canyon/Badlands Area Plan.
 - ! Conserve existing populations of the California gnatcatcher.

Subunit 3: San Jacinto Wildlife Area/Mystic Lake

Target acreage range for new conservation
on private lands within subunit:

2,260 to 2,330

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Cells and cell groups included within subunit: X, Y, Z, A', B', 1682, 1683, 1778, 1873, 1874, 1881, 1978

Conservation objectives within subunit:

- Key planning species within this subunit include cactus wren, peregrine falcon, mountain plover, black-crowned night heron, loggerhead shrike, Stephens' kangaroo rat, smooth tarplant, San Jacinto Valley crownscale, Coulter's goldfields, Wright's trichocoronis, Davidson's saltscale, spreading navarretia, California orcutt grass, thread-leaved brodiaea

- Important biological issues within this subunit include:
 - ! Conserve habitat that captures the diversity of the Riverside Lowlands bioregion within the Reche Canyon/Badlands Area Plan. The Reche Canyon/Badlands Area Plan includes substantial areas of remaining natural habitat within the Riverside Lowlands including a portion of the San Jacinto River, the Badlands, Reche Canyon area, and Mystic Lake/San Jacinto Wildlife Area.
 - ! Conserve existing habitat values in the Reche Canyon/Badlands portion of the San Jacinto River with a focus on conservation of flood plain areas supporting Traver-Domino-Willows soils. Conservation should focus on maintaining habitat for sensitive plant species and maintaining and enhancing linkage values along this portion of the San Jacinto River between the San Jacinto and Santa Ana Mountains.
 - ! Conserve existing vernal pool complexes associated with the San Jacinto River floodplain, in the Mystic Lake/San Jacinto Wildlife Area. Conservation should focus on vernal pool surface area and supporting watersheds.
 - ! Provide for a connection of intact habitat between San Jacinto Wildlife Area/Mystic Lake to adjacent Badlands area to the north.
 - ! Conserve San Jacinto Valley crownscale, vernal barley, Davidson's saltbush, Coulter's goldfields, and spreading navarretia. Conservation should focus on the Traver-Domino-Willows soil series occurring in the San Jacinto River floodplain. Key populations of these three species are known to exist within this section of the San Jacinto River.

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- ! Conserve vernal pool complexes supporting thread-leaved brodiaea and California Orcutt grass known to exist within the Reche Canyon/Badlands Area Plan
- ! Conserve alluvial scrub and alkali vernal plain habitat supporting a key population of smooth tarplant, Wright's trichocoronis, and little mousetail within this section of the San Jacinto River system.
- ! Provide for and maintain a continuous linkage along the San Jacinto River from the southern boundary of the Reche Canyon/Badlands Area Plan to the southeastern area plan boundary.

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CELL GROUP	QUARTER NUMBER	TOWNSHIP/RANGE	USGS SECTION	QUARTER SECTION	CRITERIA
Subunit 1					
A	98	T2S-R4W	10	NE	Conserve the western 60% of the cell grouping. Focus conservation on sage scrub and grassland in order to maintain connection from Reche Canyon/Badlands Core Habitat Block to San Bernardino County to the north.
	99	T2S-R4W	11	NW	
B	149	T2S-R4W	10	SE	Conserve the eastern 70% and the northwestern 10% of the cell grouping. Focus conservation on sage scrub, chaparral, and grassland in order to maintain connection from Reche Canyon/Badlands Core Habitat Block to San Bernardino County to the north.
	150	T2S-R4W	11	SW	
C	199	T2S-R4W	15	NE	Conserve the central 70% of the cell grouping. Focus conservation on sage scrub, chaparral, and grassland in order to maintain connection from Reche Canyon/Badlands Core Habitat Block to San Bernardino County to the north and Box Springs Mountain Reserve to the south and west.
	200	T2S-R4W	14	NW	
	201	T2S-R4W	14	NE	
	282	T2S-R4W	15	SW	Conserve eastern 10% of cell. Focus conservation on sage scrub in order to maintain connection between Box Springs Mountain Reserve to the west and cell #283 to the east.
	283	T2S-R4W	15	SE	Conserve the northwestern 80% of the cell. Focus conservation on sage scrub and grassland in order to maintain connection between Box Springs Mountain Reserve to the west and south and habitat in neighboring cells to the north and east.
	284	T2S-R4W	14	SW	Conserve the northern one-half of the cell. Focus conservation on sage scrub and grassland in order to maintain connection between Box Springs Mountain Reserve to the west and south and neighboring cells to the north and east.
	285	T2S-R4W	14	SE	Conserve the northeastern 80% of the cell. Focus conservation on sage scrub, grassland, and chaparral in the cell in order to maintain habitat connectivity with surrounding cells.
	286	T2S-R4W	13	SW	Conserve the southern one-third of the cell. Focus conservation on sage scrub, grassland, and chaparral in the cell in order to maintain connectivity with habitat in surrounding cells.
E	102	T2S-R4W	12	NW	Conserve the southeastern 10% of the cell grouping. Focus conservation on grassland, sage scrub, alluvial fan sage scrub, and chaparral in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	103	T2S-R4W	12	NE	
	104	T2S-R3W	07	NW	
	105	T2S-R3W	07	NE	
	152	T2S-R4W	12	SW	
	153	T2S-R4W	12	SE	
	154	T2S-R3W	07	SW	
	155	T2S-R3W	07	SE	

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	205	T2S-R3W	18	NE	
	206	T2S-R3W	17	NW	
	207	T2S-R3W	17	NE	
	208	T2S-R3W	16	NW	
	209	T2S-R3W	16	NE	
	289	T2S-R3W	18	SE	
	290	T2S-R3W	17	SW	
	291	T2S-R3W	17	SE	
	292	T2S-R3W	16	SW	
	293	T2S-R3W	16	SE	
	378	T2S-R3W	21	NE	
	379	T2S-R3W	21	NW	
	380	T2S-R3W	20	NE	
	381	T2S-R3W	20	NW	
F	210	T2S-R3W	15	NE	Conserve the southwestern 10% of the cell grouping. Focus conservation on grassland, sage scrub, alluvial fan sage scrub, and chaparral in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	211	T2S-R3W	15	NW	
	212	T2S-R3W	14	NW	
	213	T2S-R3W	14	NE	
	294	T2S-R3W	15	SW	
	295	T2S-R3W	15	SE	
	296	T2S-R3W	14	SW	
	297	T2S-R3W	14	SE	
	298	T2S-R3W	13	SW	
	375	T2S-R3W	22	NE	
	376	T2S-R3W	23	NW	
	377	T2S-R3W	22	NW	
	368	T2S-R4W	22	NE	Conserve the northwestern 20% of the cell. Focus conservation on sage scrub and chaparral in order to maintain connection between Box Springs Mountain Reserve to the west and south and habitat in neighboring cells to the north.
D	369	T2S-R4W	23	NE	Conserve the central 80% of the cell grouping. Focus conservation on sage scrub and chaparral in order to maintain connection with habitat in neighboring cells to the north and south.
	371	T2S-R4W	24	NW	
	372	T2S-R4W	24	NE	

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	382	T2S-R3W	23	NE	Conserve the southeastern 5% of the cell. Focus conservation on grassland in cell in order to maintain Reche Canyon/Badlands Core Habitat Block.
	385	T2S-R3W	24	NW	Conserve southern one-half and north-central one-quarter of the cell. Focus conservation on grassland and sage scrub in the cell in order to maintain Reche Canyon/Badlands Core Habitat Block.
J	386	T2S-R3W	24	NE	Conserve southern two-thirds of cell grouping. Focus conservation on chaparral, grassland, and sage scrub in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	473	T2S-R3W	24	SE	
	564	T2S-R3W	25	NE	
	459	T2S-R4W	24	SW	Conserve the northeastern one-third of the cell. Focus conservation on sage scrub and woodland/forest in cell in order to maintain connection with habitat in neighboring cells to the north and east.
	460	T2S-R4W	24	SE	Conserve 80% of the cell, with conservation directed toward the central, northwest, and southeast regions of the cell. Focus conservation on sage scrub in order to maintain connection with habitat in neighboring cells to the northwest and southeast.
	462	T2S-R3W	19	SW	Conserve the southwestern 20% of the cell. Focus conservation on sage scrub in order to maintain connection with habitat in neighboring cells to the west and south.
H	464	T2S-R3W	22	SE	Conserve the northwestern 40% of the cell grouping. Focus conservation on grassland, sage scrub, and chaparral habitat in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	466	T2S-R3W	22	SW	
	555	T2S-R3W	27	NE	
	558	T2S-R3W	27	NW	
	649	T2S-R3W	27	SE	
	651	T2S-R3W	27	SW	
	465	T2S-R3W	23	SW	Conserve the southeastern 10% of the cell. Focus conservation on sage scrub, and chaparral habitat in the cell in order to maintain Reche Canyon/Badlands Core Habitat Block.
G	467	T2S-R3W	21	SE	Conserve the northeastern 45% of the cell grouping. Focus conservation on grassland, sage scrub, and chaparral habitat in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	468	T2S-R3W	21	SW	
	469	T2S-R3W	20	SW	
	470	T2S-R3W	20	SE	
	557	T2S-R3W	29	NW	
	559	T2S-R3W	28	NE	
	560	T2S-R3W	29	NE	
	561	T2S-R3W	28	NW	
	645	T2S-R3W	29	SW	

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	646	T2S-R3W	29	SE	
	647	T2S-R3W	28	SW	
	648	T2S-R3W	28	SE	
I	471	T2S-R3W	23	SE	Conserve southeastern 80% of the cell grouping. Focus conservation on grassland, sage scrub, chaparral, and alluvial fan sage scrub in order to maintain Reche Canyon/Badlands Core Habitat Block.
	472	T2S-R3W	24	SW	Conserve southern 80% of the cell grouping. Focus conservation on grassland, sage scrub, and chaparral in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with Norton Younglove Reserve to the south and east.
K	474	T2S-R2W	19	SW	
	475	T2S-R2W	19	SE	
	565	T2S-R2W	30	NW	
	570	T2S-R2W	30	NE	
	476	T2S-R2W	20	SW	Conserve southwestern one-quarter of the cell grouping. Focus conservation on chaparral and sage scrub in order to maintain Reche Canyon/Badlands Core Habitat Block.
	551	T2S-R4W	25	NE	Conserve the northeastern 4% of the cell. Focus conservation on sage scrub in order to maintain habitat contiguity with sage scrub in surrounding cells to the north, northeast, and east.
	553	T2S-R3W	30	NW	Conserve the northwestern 10% of the cell. Focus conservation on sage scrub in order to maintain habitat contiguity with sage scrub in surrounding cells to the north, northwest, and west.
L	556	T2S-R3W	26	NW	Conserve northeastern 60% of the cell grouping. Focus conservation on sage scrub and chaparral in order to maintain Reche Canyon/Badlands Core Habitat Block.
	562	T2S-R3W	26	NE	
	650	T2S-R3W	26	SW	
	652	T2S-R3W	26	SE	
M	563	T2S-R3W	25	NW	
	653	T2S-R3W	25	SW	
	745	T2S-R3W	36	NW	
N	654	T2S-R3W	25	SE	
	747	T2S-R3W	36	NE	
	841	T2S-R3W	36	SE	
O	744	T2S-R2W	32	NW	Conserve the south-central 20% of the cell grouping. Focus conservation on sage scrub, grassland, alluvial fan sage scrub, and chaparral in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public lands to the north and east.

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	750	T2S-R2W	32	NE	
	832	T2S-R2W	32	SW	
	834	T2S-R2W	32	SE	
	920	T3S-R2W	06	NE	
	921	T3S-R2W	05	NW	
	922	T3S-R2W	05	NE	
	924	T3S-R2W	04	NW	
	925	T3S-R2W	04	NE	
	927	T3S-R2W	06	NW	
	928	T3S-R2W	03	NW	
	931	T3S-R2W	03	NE	
	933	T3S-R2W	02	NW	
	1005	T3S-R2W	06	SE	
	1006	T3S-R2W	05	SW	
	1013	T3S-R2W	05	SE	
	1019	T3S-R2W	04	SW	
	1022	T3S-R2W	04	SE	
	1025	T3S-R2W	03	SW	
	1026	T3S-R2W	03	SE	
	1030	T3S-R2W	02	SE	
	1080	T3S-R2W	08	NW	
	1108	T3S-R2W	08	NE	
	1114	T3S-R2W	09	NW	
	1117	T3S-R2W	09	NE	
	1120	T3S-R2W	10	NW	Conserve the eastern 1% of the cell. Focus conservation on grassland, chaparral, and sage scrub in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public land in neighboring cells.
	1121	T3S-R2W	10	NE	Conserve the southwest one-quarter of the cell. Focus conservation on chaparral, grassland, and sage scrub habitat in the cell in order to maintain continuous connection with public land in remainder of cell and in cells to the west and southwest.
R	1122	T3S-R2W	11	NW	Conserve the northwestern three-quarters of the cell grouping. Focus conservation on sage scrub, grassland, chaparral, and riparian scrub, woodland, and forest in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public lands to the north and west.
	1124	T3S-R2W	11	NE	
	1125	T3S-R2W	12	NE	
	1126	T3S-R2W	12	NW	

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CELL GROUP	QUARTER NUMBER	TOWNSHIP/RANGE	USGS SECTION	QUARTER SECTION	CRITERIA
	1216	T3S-R2W	11	SW	
	1219	T3S-R2W	11	SE	
	1220	T3S-R2W	12	SE	
	1222	T3S-R2W	12	SW	
P	1194	T3S-R2W	08	SE	Conserve the eastern two-thirds of the cell grouping. Focus conservation on sage scrub, grassland, and chaparral in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public lands to the east.
	1204	T3S-R2W	09	SW	
	1209	T3S-R2W	09	SE	
	1213	T3S-R2W	10	SW	Conserve the eastern 1% of the cell. Focus conservation on chaparral and sage scrub in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public land in neighboring cells.
	1215	T3S-R2W	10	SE	Conserve the northeastern three-quarters of the cell. Focus conservation on grassland, chaparral, and sage scrub in the cell in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public lands to the north and west.
Q	1297	T3S-R2W	16	NW	Conserve the eastern 80% of the cell grouping. Focus conservation on grassland, chaparral, and sage scrub in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block and continuous connection with public lands to the north.
	1302	T3S-R2W	16	NE	
	1304	T3S-R2W	15	NE	
	1306	T3S-R2W	15	NW	
S	1305	T3S-R2W	14	NW	Conserve the northwestern 40% of the cell grouping. Focus conservation on grassland, chaparral, sage scrub, and riparian scrub, woodland, and forest in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.

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CELL GROUP	QUARTER NUMBER	TOWNSHIP/RANGE	USGS SECTION	QUARTER SECTION	CRITERIA
	1312	T3S-R2W	14	NE	Conserve the central three-quarters of the cell grouping. Focus conservation on grassland, chaparral, sage scrub, and alluvial fan sage scrub in the cell grouping in order to maintain Reche Canyon/Badlands Core Habitat Block.
	1310	T3S-R2W	13	NE	
	1315	T3S-R2W	13	NW	
T	1390	T3S-R2W	16	SE	
	1392	T3S-R2W	15	SW	
	1393	T3S-R2W	15	SE	
	1396	T3S-R2W	14	SW	
	1399	T3S-R2W	14	SE	
	1400	T3S-R2W	13	SE	
	1402	T3S-R2W	13	SW	
U	1478	T3S-R2W	22	NW	Conserve the eastern three-quarters of the cell grouping. Focus conservation on chaparral, sage scrub, and alluvial fan sage scrub in order to maintain Reche Canyon/Badlands Core Habitat Block.
	1485	T3S-R2W	22	NE	
	1492	T3S-R2W	23	NW	
	1494	T3S-R2W	23	NE	
V	1584	T3S-R2W	22	SE	Conserve eastern 70% of the cell grouping. Focus conservation on chaparral, sage scrub, alluvial fan sage scrub, and riparian scrub, woodland and forest in order to maintain Reche Canyon/Badlands Core Habitat Block.
	1587	T3S-R2W	23	SW	
	1588	T3S-R2W	23	SE	
W	1652	T3S-R2W	26	NE	Conserve northeastern three-quarters of the cell grouping. Focus conservation on chaparral, sage scrub, and riparian scrub, woodland and forest in order to maintain Reche Canyon/Badlands Core Habitat Block.
	1666	T3S-R2W	26	NW	
	1682	T3S-R2W	28	NW	Conserve the eastern two-thirds of the cell. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1683	T3S-R2W	28	NE	Conserve the western one-quarter of the cell. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
B'	1762	T3S-R2W	26	SE	Conserve the central two-thirds and the northeastern 10% of the cell grouping. Focus conservation on: (1) sage scrub in northeast in order to maintain Reche Canyon/Badlands Core Habitat Block, and (2) Traver-Willows soils and playas/vernal pools, in order to maintain habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1880	T3S-R2W	35	NE	
	1977	T3S-R2W	35	SE	

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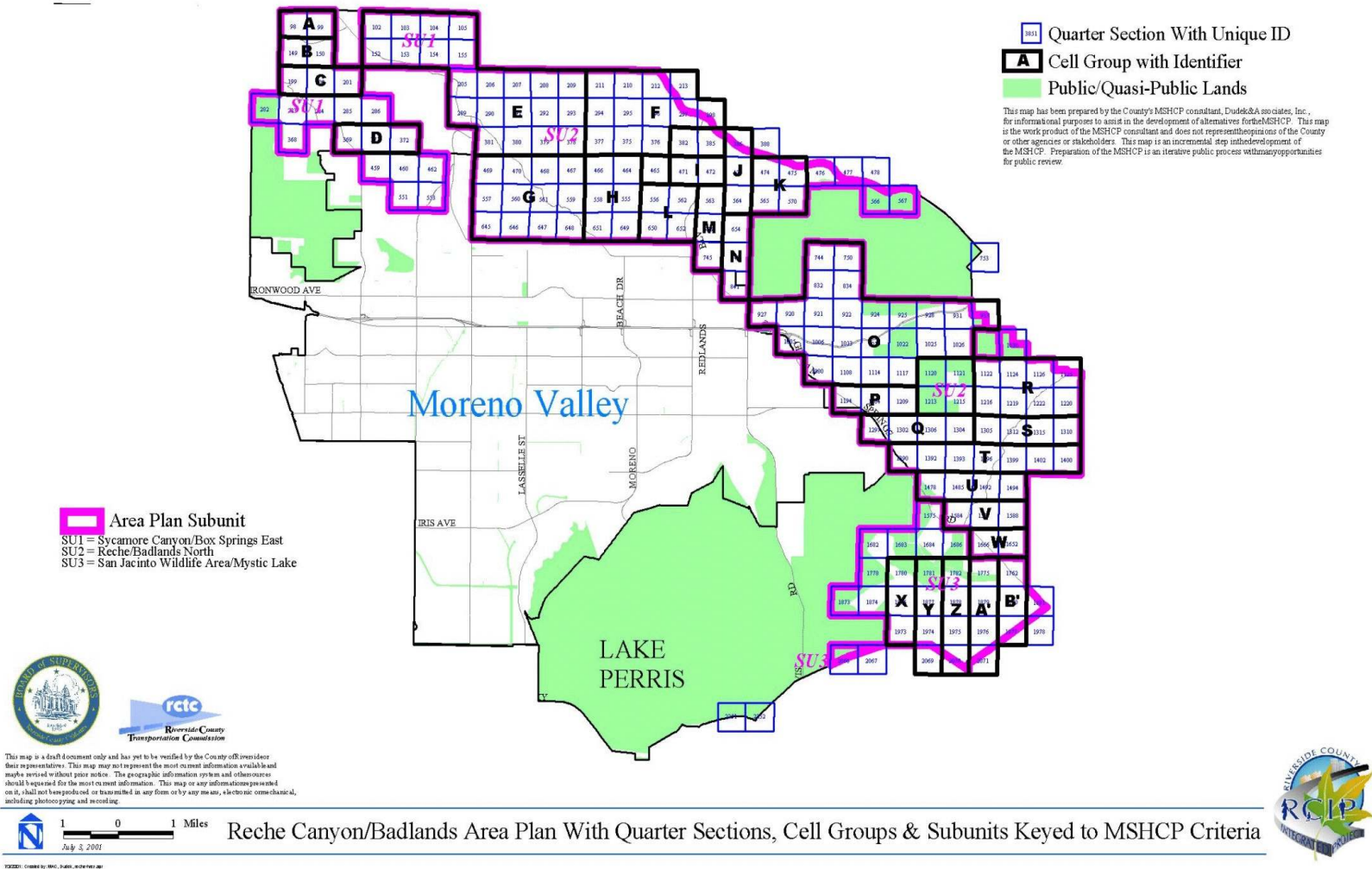
CELL GROUP	QUARTER NUMBER	TOWNSHIP/RANGE	USGS SECTION	QUARTER SECTION	CRITERIA
A'	1775	T3S-R2W	26	SW	Conserve the central 60% of the cell grouping. Focus conservation on Traver-Willows soils and playas and vernal pools, in order to maintain habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1879	T3S-R2W	35	NW	
	1976	T3S-R2W	35	SW	
	2071	T4S-R2W	02	NW	
	1778	T3S-R2W	28	SW	Conserve the northeastern 15% and southeastern 5% of the cell. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
X	1780	T3S-R2W	28	SE	Conserve the southern 80% of the cell grouping. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1875	T3S-R2W	33	NE	
	1973	T3S-R2W	33	SE	
Y	1781	T3S-R2W	27	SW	Conserve the central one-half of the cell grouping. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1877	T3S-R2W	34	NW	
	1974	T3S-R2W	34	SW	
	2069	T4S-R2W	03	NW	
Z	1782	T3S-R2W	27	SE	Conserve the central 80% of the cell grouping. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1878	T3S-R2W	34	NE	
	1975	T3S-R2W	34	SE	
	2070	T4S-R2W	03	NE	
	1873	T3S-R2W	32	NE	Conserve the east-central 20% of the cell grouping. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1874	T3S-R2W	33	NW	Conserve the central three-quarters of the cell, with conservation directed toward the central, northeast, and southwest areas. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.

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	1881	T3S-R2W	36	NW	Conserve 60% of the cell, with conservation directed toward the central and western areas. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	1978	T3S-R2W	36	SW	Conserve northwestern 2% of the cell. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.
	2069	T4S-R2W	03	NW	Conserve northeastern 2% of the cell. Focus conservation on Traver-Willows soils, playas and vernal pools, and maintenance of habitat contiguity with Lake Perris Recreation Area to the west and San Jacinto Wildlife Refuge/Mystic Lake to the east.

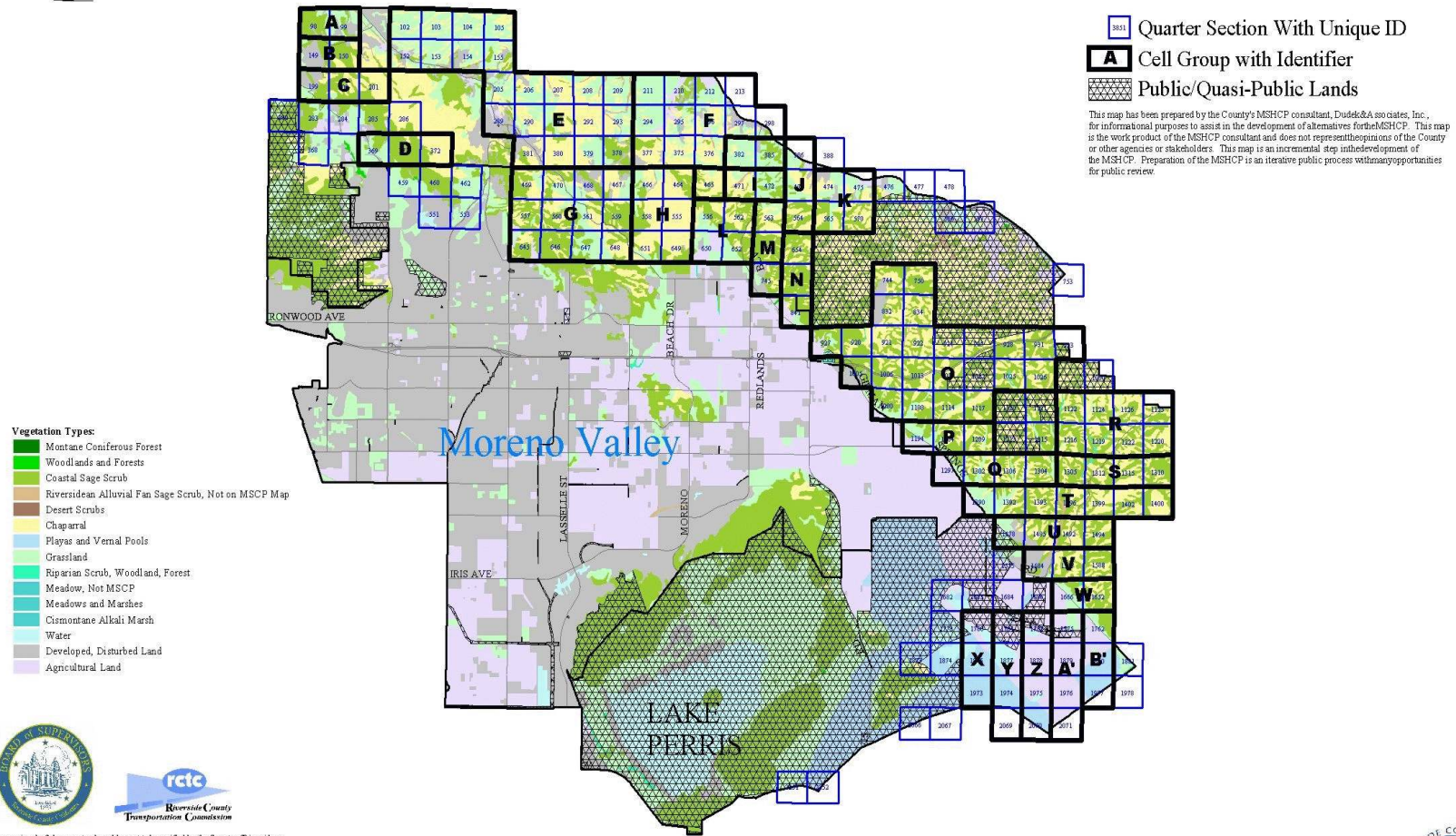
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1 0 1 Miles
July 3, 2001

Reche Canyon / Badlands Area Plan With Vegetation, Quarter Sections and Cell Groups Keyed to MSHCP Criteria

