CHAPTER 4
CONSERVATION PROGRAM

This Chapter of the Tribal HCP sets forth the Tribe's Conservation Program, including a description of those activities proposed for coverage by the Tribal HCP and Section 10(a) Permit, a listing of the goals and objectives for the Plan and for each Covered Species, a definition of the Tribe's conservation goals and objectives, the specific operating conservation program of the Tribal HCP, and the estimated levels of impact anticipated to result from the maximum habitat disturbance to be authorized by the Section 10(a) Permit. It also describes how a Habitat Preserve will be assembled and legally protected as well as development standards and avoidance, minimization, and mitigation measures for Covered Activities. Additionally, it sets forth a monitoring program for the Plan, Habitat Preserve management program, assurances for funding, and other provisions necessary to achieve the conservation goals and objectives set forth herein.

4.1 COMPLIANCE WITH ESA REQUIREMENTS

The USFWS has the legal authority to approve this Plan, enter into an IA, and issue a Section 10(a) Permit for Covered Activities described in the Plan pursuant to ESA. The requirements that an HCP/Section 10(a) Permit application must meet in order to qualify for USFWS approval are detailed in section 1.6.3.2 of this Plan.

This Tribal HCP together with the IA are intended to meet the mandatory requirements for an HCP and application for permit for incidental taking of wildlife species as follows:

Requirement	**Where Addressed**
1. Complete description of the activities sought to be authorized [50 CFR 17.22 (b)(1)(i), 17.32 (b)(1)(iii)]	Section 4.2 of the Tribal HCP
2. Identification of the number, age, and sex of Covered Species sought to be covered, if known [50 CFR 17.22 (b)(1)(ii), 17.32 (b)(1)(iii)]	Section 4.3 of the Tribal HCP
3. Impacts likely to result	Section 4.4 of the Tribal HCP
4. Monitoring program	Section 4.12 of the Tribal HCP
5. Minimization and mitigation to the maximum extent practicable	Sections 4.5-4.13 of the Tribal HCP
6. Adequate funding ensured by the applicant [50 CFR 17(b)(2)(iii)]	Section 4.15 of the Tribal HCP
7. Procedures to deal with unforeseen circumstances	Section 4.16.4 of the Tribal HCP; IA
8. Alternatives analysis	Chapter 5 of the Tribal HCP
9. Overall and species-based biological goals and objectives (5 Point Policy)	Section 4.3 of the Tribal HCP
10. Adaptive management strategy	Section 4.13 of the Tribal HCP; IA
11. Permit duration	Section 4.16 of the Tribal HCP; IA
12. Assurances the Plan will be implemented [50 CFR 17(b)(2)(vi)]	Section 4.15 of the Tribal HCP

4.2 COVERED ACTIVITIES

The Tribal HCP provides conservation, minimization, and mitigation for impacts to the species covered by the Plan from the following Covered Activities, provided that such activities are consistent with the provisions of the Tribal HCP and under the Tribe's discretion during the permit term.

The Plan will provide for the following Covered Activities in the MCCA:

1. Covered Projects undertaken by the Tribe within the Plan Area or a Third Party Participant within the Reservation (including on non-Indian fee owned land to the extent authorized by law or provided for in an agreement between the Tribe and landowner) under a development permit issued by or under the discretion of the Tribe, consisting of:
   a. New commercial, residential, industrial, disturbance/clearing for agricultural and/or horticultural development, and surface mining.
   b. Construction of public and/or private streets as listed below:
      :
      - Tramway Road from Highway 111 to the Aerial Tram Station (widen to 66-foot General Plan width)
      - South Palm Canyon Drive from MCCA boundary to the Trading Post
   c. Public utility infrastructure, facilities, and projects, including but not limited to new projects approved pursuant to this Tribal HCP and adopted General Plans (County or Cities of Palm Springs, Cathedral City, or Rancho Mirage), master drainage plans, or Capital Improvement Programs.

   Such infrastructure could include but is not limited to publicly maintained roads and rights-of-way; flood control facilities; public buildings; surface disturbance for water development and production facilities; water storage, treatment, and transmission facilities; public parks; substations and electrical transmission facilities; and other public utility facilities providing services essential to the health, safety and welfare of the public. Future flood control projects include:
      - Palm Springs MDP Line 16B
      - Palm Springs MDP Lateral 16A
      - Palm Springs MDP Lateral 16
      - Palm Springs MDP Lateral 19A
      - Palm Springs MDP Line 19
      - ALERT Stations – Cathedral Canyon
   d. Cooperative projects consistent with this Tribal HCP undertaken between the Tribe and public or quasi-public agencies such as cities, water districts, Riverside County Flood Control and Water Conservation District, utility agencies, or any other state or local agencies.

e. Public access uses such as hiking, bird watching, photography, horseback riding, picnicking, and scientific research, along with associated signs and barriers (new trails are not a Covered Activity).
All Covered Projects are subject to acreage limits as described in section 4.4.

2. Covered Maintenance Activities undertaken by or at the Tribe's discretion in the MCCA, including:
   a. Ongoing operation, use, and maintenance of existing public and private facilities within current disturbance footprints (Figure 28). This will include maintenance of existing trails shown on Figures 9a and 9b, removal of unauthorized trails, and minor re-routing of existing trails as described in section 2.1.1.3. Mitigation would not be required for these activities because they would be limited to areas that are already disturbed. This includes maintenance of the following facilities:
      - Indian Canyons Trading Post and related facilities
      - Tahquitz Canyon and Visitor Center and related facilities
      - Tahquitz Canyon Dam, Debris Basin, and related facilities
      - Tachevah Creek Detention Dam and related facilities
      - Palm Canyon Wash flood control facilities
      - Cathedral Canyon Channel – West
      - Cathedral Canyon Channel – East
      - Desert Water Agency (DWA) Water Tanks and related facilities
      - Tramway Road
      - South Palm Canyon Drive from the MCCA boundary to the Trading Post
   b. Ongoing operation, use, and maintenance of flood control facilities within current disturbance footprints. Operations and maintenance activities will typically include:
      - The removal of sand, silt, sediment, debris, rubbish, and woody and herbaceous vegetation in existing flood control facilities in order to maintain design capacity of the facility and/or compliance with local fire regulations.
      - Control of weeds and vegetation by non-chemical means, and control of debris on all access roads and rights-of-way.
      - The repair or replacement of constructed flood control facilities, such as channels, basins, drop structures, and levees, as necessary to maintain the structural integrity and hydraulic capacity of the facility.
      - For ALERT stations, an annual inspection visit.
      - For ALERT stations, maintenance to replace batteries or make repairs on transmitters, solar panels, tipping buckets, etc.
   c. Operation, use, and maintenance of public and private facilities developed in the future that are approved subject to the requirements of the Plan within the approved Development Envelope. Such facilities include those described in Section 2.b and 2.c above. Mitigation would not be required for these activities because mitigation would have already been provided in accordance with the terms

of this Plan when construction of the facility was approved. Covered Activities may occur within the approved limits of disturbance.

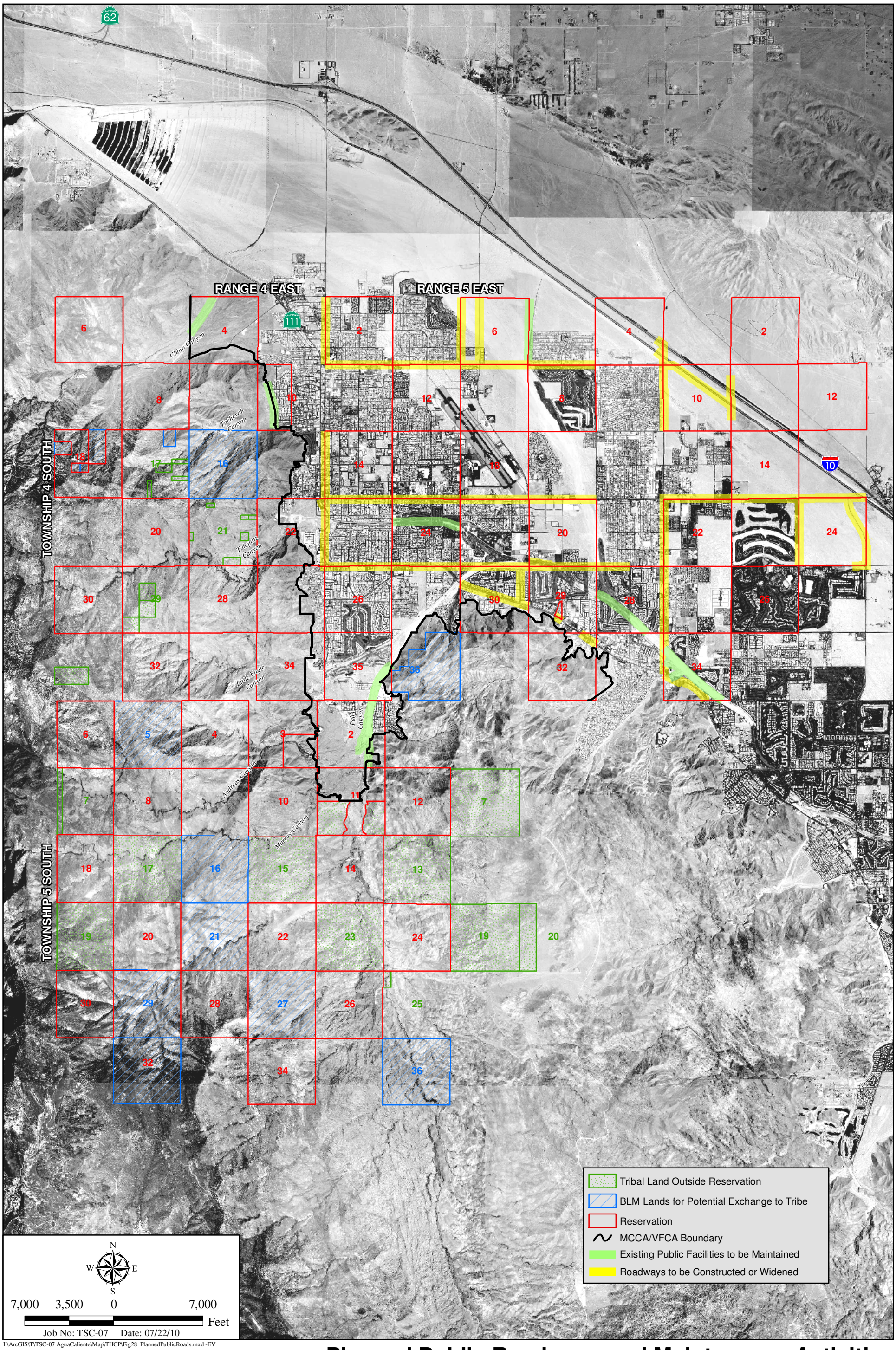
d. Temporary maintenance activities outside of such areas that will allow recovery of native habitats in the near term. Mitigation would not be required for these activities because any disturbance would be short-term (i.e., generally five years or less), with the area returning to its natural state.

Activities that would result in permanent, long-term, or regular disturbance outside of such limits shall not be considered Covered Maintenance Activities but rather subject to review as a new Covered Project. Because they would occur on sites that have been disturbed prior to adoption of this Plan or are approved for disturbance pursuant to the provisions of the Plan, Covered Maintenance Activities would not be subject to additional acreage limits (beyond the requirement to work within the facility's approved disturbance footprint), dedication requirements, or siting criteria (other than any required for initial approval). However, Covered Maintenance Activities would be subject to construction and operation avoidance/minimization requirements.

The Plan will provide for the following Covered Activities in the VFPA, except Section 6:

1. Development permitted or approved within the VFPA. This includes, but is not limited to, new commercial, residential, recreational, industrial, disturbance/clearing for agricultural and/or horticultural development or construction, and surface mining projects approved pursuant to county and city general plans, including the circulation element of said general plans, transportation improvement plans for roads, master drainage plans, capital improvement plans, water and waste management plans, Indian Canyons Master Plan, and other Tribal land use plans.

2. Public facility construction, operations, and maintenance and safety activities undertaken by the Tribe within the Plan Area or a Third Party Participant within the Reservation (including on non-Indian fee owned land to the extent authorized by law or provided for in an agreement between the Tribe and landowner). Such infrastructure could include but is not limited to publicly maintained roads and rights-of-way; materials pits; maintenance yards; flood control facilities; landfills, transfer stations, and other solid waste related facilities, including those for the processing of organic materials; public buildings; surface disturbance for water development and production facilities (including Eagle Canyon Dam); water storage, treatment, and transmission facilities; sewage treatment and transmission facilities; reclaimed water storage and transmission facilities; public parks; substations and electrical transmission facilities; telecommunication towers; and other public utility facilities providing services essential to the health, safety, and welfare of the public.



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Planned Public Roadways and Maintenance Activities

AGUA CALIENTE THCP

Figure 28

The Plan will provide for the following Covered Activities in Section 6 in the VFPA:

1. Covered Projects undertaken by the Tribe within the Plan Area or a Third Party Participant within the Reservation (including on non-Indian fee owned land to the extent authorized by law or provided for in an agreement between the Tribe and landowner) under a development permit issued by or under the discretion of the Tribe, consisting of:
   a. New commercial, residential, recreational, industrial, disturbance/clearing for agriculture and/or horticultural development or construction, and surface mining, to the extent described in Section 4.9.3.
   b. Construction of public streets as listed in the table below:

Street Name	Agency[1]	Segment Description	Activities Covered[2]	Width
GENE AUTRY TRAIL	PS	Vista Chino To Whitewater River Crossing	Widening to 6 lanes and O&M	110'
	PS	Whitewater River Bridge Crossing	Widening to 6 lanes and O&M	110'
	PS	Whitewater River to So. Of Railroad Crossing	Widening to 6 lanes and O&M	110'
VISTA CHINO	PS	Gene Autry Trail to Whitewater River	Widening to 6 lanes and O&M	110'
	PS	Whitewater River Bridge Crossing	Widening to 6 lanes and O&M	110'
	CC	East Bank of Whitewater Bridge to Landau Blvd.	Widening to 6 lanes and O&M	110'

[1]PS=Palm Springs; CC=Cathedral City

[2]O&M=Operations and Maintenance

   c. Conversion of existing outdoor advertising displays to digital outdoor advertising displays
   d. Upgrading existing radio broadcast facilities including antennae, accessory building, and access road

2. Covered Maintenance Activities undertaken by or at the Tribe's discretion in Section 6, including:
   a. Ongoing operation, use, and maintenance of existing streets within current disturbance footprints (Figure 28). Operations and maintenance activities typically will include:
      - Installation and maintenance of new and/or replacement signs, including overhead signs
      - Installation and maintenance of traffic control devices, such as traffic signals
      - Installation and maintenance of guardrails and fences (that would not block sand transport) for vehicle and pedestrian safety
      - Routine repair, resurfacing, and reconstruction of pavement
      - Repair of natural disaster damage and restoration of emergency access
      - Grading of shoulders up to 12 feet from the edge of paved roadways
      - Construction, replacement, and repair of curbs, gutters, and sidewalks

- Minor widening and realignment for safety purposes that does not add through
- travel lanes, but may include turn lanes
- Slope maintenance and slope protection such as rip-rap
- Dust stabilization, including application of soil stabilizers and paving of dirt roads
- Construction, repair, replacement, and cleaning out of culverts, drop structures,
- and down drains
- Bridge maintenance, including deck, railing, and column replacement
- Ditch clearing and lining
- Tree trimming and weed control by non-chemical means
- Landscape maintenance
- Utility relocation incidental to above activities
- Sand removal

b. Operation, use, and maintenance of public streets developed in the future that are approved subject to the requirements of the Plan within the approved Development Envelope. Operations and maintenance activities will typically include those as listed in Section 3.a above. Mitigation would not be required for these activities because mitigation would have already been provided in accordance with the terms of this Plan when construction of the facility was approved.

c. Ongoing operation, use, and maintenance of flood control facilities within current disturbance footprints. Operations and maintenance activities will typically include:
    - The removal of sand, silt, sediment, debris, rubbish, and woody and herbaceous vegetation in existing flood control facilities in order to maintain design capacity of the facility and or compliance with local fire regulations.
    - Control of weeds and vegetation by non-chemical means, and control of debris on all access roads and rights-of-way.
    - The repair or replacement of constructed flood control facilities, such as channels, basins, drop structures, and levees, as necessary to maintain the structural integrity and hydraulic capacity of the facility.
    - For ALERT stations, an annual inspection visit.
    - For ALERT stations, maintenance to replace batteries or make repairs on transmitters, solar panels, tipping buckets, etc.

d. Temporary maintenance activities (such as those detailed in Section 3.a above) outside of the approved disturbance footprint and in areas that will allow recovery of native habitats in the near term. Mitigation in the form of acquisition or dedication of land would not be required for these activities because any disturbance would be short-term (i.e., generally five years or less), with the area returning to its natural state.

e. Ongoing operation, use, and maintenance of outdoor advertising displays.

f. Ongoing operation, use, and maintenance of radio broadcast facilities including antennae, accessory buildings and access roads.

The Plan will provide for the following Covered Activities in the MCCA and lands acquired for conservation within the Valley Floor:

1. Covered Conservation Activities, undertaken by agents or employees of the Tribe or any person acting under the direct guidance or authority of the Tribe in the Action Area, including:
   a. Management of the Habitat Preserve as described in the Adaptive Management Plan or in annual work plans (refer to sections 4.11.3 and 4.13).
   b. Monitoring of the Habitat Preserve, provided that:
      (1) Such take occurs during activities specifically described in the annual work plans prepared by the Tribe (section 4.11.3);
      (2) The person(s) undertaking such activities has been determined by the Tribe to be a Qualified Biologist;
      (3) The person(s) undertaking such activities carries out his or her duties in conformance with the protocols and procedures specified in the annual work plan; and
      (4) The activity is consistent with the monitoring program (as described in section 4.12).
   c. Management of Existing Tribal Conservation Programs as described in section 2.1 to the extent that such actions are expressly taken to benefit Covered Species. Other management activities will be considered maintenance activities, addressed as Covered Maintenance Activities above.

   Because Covered Conservation Activities will be designed with the specific purpose of creating a net biological benefit relative to any associated impacts, such activities would not be subject to acreage limits or mitigation requirements provided they are implemented as directed by the adaptive management plan and/or the applicable work plan. Such activities would be required to comply with applicable minimization requirements.

Applicability

All Covered Activities (regardless of whether they are undertaken by the Tribe, a Tribal member, or a non-Federal third party; including activities subject to Federal permits, authorizations, and/or approvals) will be subject to the applicable provisions of this Tribal HCP, including avoidance, minimization, and mitigation requirements. Compliance with such requirements will be established through the Conditional Use Permit process as described in section 4.8 or 4.9 (for MCCA and VFPA, respectively). Impacts beyond the acreages contemplated in this Tribal HCP will not be allowed without pre-authorization from USFWS and any appropriate amendments. Additionally, actions not defined in this section as Covered Activities may require independent incidental take authority from USFWS and/or other compliance with the ESA.

Activities undertaken by Federal agencies are not Covered Activities. To the extent activities undertaken by Federal agencies warrant Section 7 consultation and with respect to any Section 7 consultation processes triggered by other projects within or impacting the Reservation and/or its resources, it is the

Tribe's intent that any such consultation process include Tribal participation and will be conducted in concert with the Tribal HCP. No activities currently are expected from Federal project proponents. The BIA is expected to cooperate with the Tribe in fully implementing the Tribal HCP with respect to any projects for which the BIA is the lead federal agency.

Any projects undertaken by third parties that are proposed to take place partially within and partially outside the Reservation shall be subject to requirements of both the Coachella Valley MSHCP and the Tribal HCP. The Tribe retains jurisdiction over that portion of the project that occurs on the Reservation. In accordance with existing land use agreements and contracts the Tribe has with local agencies, the Tribe may, at its discretion, choose to delegate its authority to that local agency with jurisdiction over the off-Reservation portion of the project. In all instances, the Tribe shall be consulted directly by the third party and the local agency, as provided in the land use agreement/contract. The Tribe shall retain jurisdiction over these actions, assuring that Covered Projects will be consistent with the Plan, and will ensure that the Plan will be fully implemented regarding the portion of such Covered Projects in the Plan Area. Activities occurring outside of the Plan Area are not Covered Activities.

4.3 CONSERVATION NEEDS AND BIOLOGICAL GOALS AND OBJECTIVES FOR COVERED SPECIES

The Tribal HCP is proposed to be the basis for the Tribe to obtain a USFWS Section 10(a) Permit, which would authorize incidental take of covered wildlife species for discretionary activities of the Tribe, resulting from implementation of the Tribal HCP. This Permit would enable the Tribe to authorize or engage in Covered Activities that may result in incidental take of covered wildlife species, including those species currently listed as threatened or endangered and certain species that may become listed during the term of the Tribal HCP. The Covered Species, along with their current status, are listed in Table 3-2.

Among other things, the USFWS's 5 Point Policy Guidance requires that an HCP set forth biological goals and objectives that "translate the applicable statutory and regulatory criteria or standards into meaningful biological measures," relative to the conservation of each species proposed for coverage. Also consistent with the 5 Point Policy, the adaptive management strategy of the Plan is "tied to the biological goals and objectives of the HCP and based on the best scientific information available." This is important, as adaptive management is a "method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned" (65 FR 106). In accordance with this policy, overall biological goals and objectives as well as the conservation needs, goals, and objectives for each Covered Species in the Action Area are described below. These are primarily habitat-based and include some species-specific components based on the needs of the species as outlined in Chapter 3 of this Plan. Conservation objectives for Covered Species are summarized in Tables 4-1a and 4-1b.

4.3.1 Overall Biological Goals and Objectives

The Plan will result in the establishment and management of a Habitat Preserve within the MCCA, VFPA, and Target Acquisition Areas. Pursuant to the USFWS's 5 Point Policy (64 FR 11485-11490) regarding issuance of Section 10(a)(1)(B) permits, the following overall Conservation Goals for this Habitat Preserve are restated from Section 1.3 (specific biological goals and objectives for each Covered Species follow):

1. Represent native ecosystem types or natural communities across their natural range of variation in a system of conserved areas.
2. Protect and manage a comprehensive Habitat Preserve system of connected ecologically functional preserves having high long-term benefit to Covered Species.
3. Coordinate Tribal conservation efforts with those of the Coachella Valley MSHCP.
4. Support the maintenance or restoration of self-sustaining populations or metapopulations of the Covered Species included in the Plan to ensure their permanent conservation, so that take authorization can be obtained for currently listed wildlife species, and non-listed wildlife species can be covered in case they are listed in the future.
5. Sustain the ecological and evolutionary processes necessary to maintain the biological integrity and functionality of the conserved natural communities and habitats utilized by the species included in the Plan.
6. Maximize connectivity among populations and minimize habitat fragmentation within the Habitat Preserve to conserve biological diversity, ecological balance, and connected populations of Covered Species.
7. Minimize adverse impacts from OHV use, illegal dumping, edge effects, exotic species, and other disturbances in accordance with the management and monitoring programs.
8. Manage the Habitat Preserve adaptively to be responsive to short-term and long-term environmental change and new science.
9. 9. Use the Tribe's existing legal authorities to assure the Habitat Preserve is protected and managed in perpetuity.

Table 4-1
Conservation Objectives for Mountains and Canyons Covered Species*

Species	Avoid habitat impacts to the maximum extent practicable and ensure no net loss of existing habitat in the MCCA	Conserve 85% of existing habitat in the MCCA	Conserve 100% of use areas and linkages	Avoid occupied habitat to the maximum extent practicable	Relocate individuals	Minimize indirect impacts	Create/restore habitat	Remove tamarisk	Control brown-headed cowbird populations	Control predators	Fund or undertake studies	Develop wildland fire management policy
Peninsular bighorn sheep		X	X			X		X			X	X
Least Bell's vireo	X			X		X	X	X	X			X
Southwestern willow flycatcher	X			X		X	X	X	X			X
Summer tanager	X					X	X	X	X			X
Yellow-breasted chat	X					X	X	X	X			X
Yellow warbler	X					X	X	X	X			X
Mountain yellow-legged frog	X			X		X	X	X		X†		
Southern yellow bat	X					X	X	X				X
Triple-ribbed milk-vetch		X		X		X						
Desert tortoise‡		X		X§	X	X						
Burrowing owl‡		X		X§	X	X						
Gray vireo		X				X			X			X

*Table is limited to those Covered Species that occur primarily within the MCCA.
†Predators of these species will be controlled only if the sensitive species are determined to be present.
‡Also may occur on the valley floor.
§ Restriction applies only within the Section 6 Target Acquisition Area.

Table 4-1 (cont.)
Conservation Objectives for Mountains and Canyons Covered Species*

Species	Maintain sand source	Conserve habitat in Section 6 Target Acquisition Area	Conserve habitat in other Target Acquisition Areas	Conserve habitat in MCCA	Conserve habitat in Indian Canyons		Avoid impacts to Maximum Extent Practicable	Create/restore habitat	Conserve or transplant individuals	Minimize indirect impacts	
Coachella Valley fringe-toed lizard	X	X	X							X	
Coachella giant sand-treader cricket	X	X	X							X	
Flat-tailed horned lizard	X	X	X							X	
Palm Springs pocket mouse†	X	X	X	X	X					X	
Palm Springs (Coachella Valley round-tailed) ground squirrel†	X	X	X	X	X					X	
Coachella Valley Jerusalem cricket	X	X	X							X	
Coachella Valley milk-vetch†	X	X	X	X	X			X‡		X	
Le Conte's thrasher†		X	X	X						X	
Crissal thrasher							X	X		X	
Little San Bernardino Mountains gilia							X		X	X	

*Table is limited to those Covered Species that occur primarily within the VFCA.
†Also may occur in lower elevations of the MCCA.
‡Restriction applies only within the Section 6 Target Acquisition Area.

4.3.2 Species-specific Conservation Needs/Strategy, Biological Goals, and Objectives/Conditions

Conservation calculations throughout this Chapter 4 assume that the maximum permitted development occurs within the Plan Area. If less development occurs, a proportionally smaller amount of land would be dedicated to the Habitat Preserve. For the purposes of the impact and conservation calculations, it is also assumed that conservation in each conservation criteria category (100 percent, 95 percent, 85 percent, and 0 percent conservation) would be distributed evenly among the various species' modeled habitat occurring within that category. Each conservation requirement is applied to the number of acres in the applicable conservation category to calculate the number of acres of modeled habitat assumed to be conserved/impacted under the Tribal HCP.[1] Habitat for riparian species is assumed to be 90 percent conserved overall because of Plan requirements (no net loss requirements would result in creation/restoration of additional Riparian Habitat)[2]. The Fluvial Sand Transport Process Area is included in both the impact and conservation totals because, as described in section 4.9.3.1(a), the area could be subject to some interim impacts but ultimately would be reclaimed and dedicated to the Habitat Preserve to provide some potentially suitable habitat for Covered Species over the long term.

Accounting of actual impacts and conservation (for comparison with the species objectives provided below) would be based on the individually modeled habitat for each Covered Species. As such, the same area may be counted as impacted/conserved habitat for several Covered Species.

4.3.2.1 Peninsular Bighorn Sheep

Conservation Needs/Strategy

The San Jacinto ewe group of Peninsular bighorn sheep is restricted to the east-facing, lower-elevation slopes of the San Jacinto Mountains generally between 700 and 3,400 feet AMSL. The conservation needs for Peninsular bighorn sheep include the following:

- Steep, rugged topography for lambing and rearing habitat that allows Peninsular bighorn sheep to avoid disturbance and predation;

[1]Areas designated as 85 percent conservation where mitigation is not required to occur on site may meet some or all conservation obligations within areas designated for 95 or 100 percent conservation. As a result, it was assumed that upland habitats in these areas are subject to only 79.9 percent conservation, the amount required to meet the overall goal of 85 percent conservation for the MCCA as a whole. Acreages throughout this Tribal HCP are rounded to the nearest whole number. For example, if there were 400 acres of habitat for a certain species distributed evenly among the four categories, 275 acres of its habitat are assumed to be conserved (100 acres in the 100 percent conservation area; 95 acres in the 95 percent conservation area; 80 acres in the 85 percent conservation area; and no land in the 0 percent conservation area). This represents the most conservative assumption of potential impacts/conservation. Overall, conservation within the MCCA must occur at a minimum 85:15 ratio.

- Steep escape terrain of adequate area and forage that minimize predation risk;
- Open vegetation with good visibility to allow Peninsular bighorn sheep to detect predators visually;
- Access to permanent water sources;
- Maintenance of potential habitat linkages to other subpopulations for the purpose of maintaining genetic diversity;
- Alluvial fans and washes that have forage critical to Peninsular bighorn sheep nutrition; these fans are especially important for pregnant or lactating ewes during the spring "green-up" of vegetation and for all Peninsular bighorn sheep during times of drought;
- Large blocks of undisturbed land that allow for the current small population to expand numerically and spatially in order to establish a large, self-sustaining, healthy population. Although home ranges usually overlap, each individual Peninsular bighorn sheep uses approximately 20 to 25 square kilometers of habitat (DeForge et al. 1997); and
- Isolation from potential sources of domestic livestock disease, especially those transmitted from domestic sheep and goats.

The conservation strategy is to conserve populations and habitat essential to the recovery of the bighorn sheep in the Plan Area, consistent with the strategy contained in the Peninsular bighorn sheep Recovery Plan (USFWS 2000b).

Goals

The Tribe's biological goals for conservation of Peninsular bighorn sheep are to proportionally contribute to immediate and long-term conservation of self-sustaining populations and the USFWS' recovery effort in conjunction with the Coachella Valley MSHCP by: (1) conserving habitat of the San Jacinto and Santa Rosa mountain populations of the Peninsular bighorn sheep within the Plan Area; (2) maintaining connectivity by preventing habitat fragmentation in the Plan Area to allow dispersal and movement of Peninsular bighorn sheep within key linkage areas; and (3) adaptively managing habitat quality[3] and subpopulations/ewe groups to alleviate direct and indirect threats in the Plan Area.

[2] Because a disproportionate amount of the overall 90 percent required riparian conservation would occur in the areas designated for 95 or 100 percent conservation, areas designated as 85 percent conservation are assumed to have a minimum 86 percent conservation of riparian habitats.

[3] Habitat quality assessments are based on the current understanding of PBS biology. Because ecological relationships between species, habitats, and physical attributes of landscapes are extremely complex, caution would be used in defining "habitat quality" at any point in time during the Tribal HCP implementation phase**.** As the Peninsular bighorn sheep knowledge base continues to expand, definitions of habitat quality will likely need to be modified to incorporate this new information, and management measures may need to be modified consistent with an adaptive management strategy.

Objectives and Conditions

These goals are supported by the following biological objectives:

- Ensure that implementation of the Tribal HCP is consistent with the recovery strategy delineated in the Peninsular bighorn sheep Recovery Plan (USFWS 2000b)[4] and subsequent empirical research and data.
- Conserve a minimum of 14,070 acres of existing Peninsular bighorn sheep habitat in the Plan Area to provide the full range of environmental conditions needed for long-term, self-sustaining bighorn sheep populations, including provisions for population fluctuations and maintenance of genetic diversity.
- Conserve 100 percent of Peninsular bighorn sheep Use Areas (as defined in section 4.8.4.1) within the Plan Area. This will ensure that any allowed Covered Activity does not fragment those areas with high functional value, which include Peninsular bighorn sheep home ranges, known movement or dispersal areas, foraging areas, lambing areas, seasonal and perennial water sources, and escape habitat in close proximity to high function areas.
- Conserve land necessary to maintain linkages within the Plan Area as shown on Figure 34 or identified by studies that are based on empirical data accepted by the USFWS (radio or global positioning system [GPS] collar data and accepted observation records by qualified parties, etc.) to facilitate existing and future Peninsular bighorn sheep movement and connectivity.
- Minimize direct and indirect impacts to Peninsular bighorn sheep and their habitat from Covered Activities by ensuring implementation of development standards, including avoidance and minimization measures (see section 4.8.4.2[a]). These measures include ensuring that edge effects are minimized by clustering Covered Projects and placing them in the portion of project sites that would result in the least biological impact to Peninsular bighorn sheep.
- Minimize impacts to Peninsular bighorn sheep from recreational activities by monitoring recreational trail use and ensuring compliance with restrictions described in the Tribal Trail Plan (Tribal Planning Department 2000) and sections 2.1.1.3 and 4.11.2 of this Plan to ensure that human disturbance associated with recreation does not adversely affect the conservation of Peninsular bighorn sheep.
- Alleviate the threat of disease transfer from domestic livestock or non-native wildlife to Peninsular bighorn sheep through appropriate measures or restrictions associated with project approvals and/or ordinances (see section 4.8.4.2[a]).
- Monitor Peninsular bighorn sheep population size and mortality rates.
- Fund or undertake additional studies regarding the species (refer to section 4.12.1.2).
- Ensure that management action thresholds are routinely assessed during the annual review and reporting period as described in section 4.15.5.2.
- Clear from a minimum of 10 acres per year any tamarisk, umbrella sedge (*Cyperus alternifolius*), and/or African fountain grass (*Pennisetum setacetum*) in Indian Canyons and other accessible areas of

[4]All references to recovery plans include subsequent updated recovery plans and direction provided in five-year reviews.

the MCCA for at least a total of 80 acres (refer to section 4.11.2.1). These 80 acres will continue to be maintained free of such species for the life of the Plan.

4.3.2.2 Avian Riparian Species (Least Bell's Vireo, Southwestern Willow Flycatcher, Summer Tanager, Yellow-breasted Chat, and Yellow Warbler)

Conservation Needs/Strategy

Threats to these species' survival are loss and degradation of riparian habitat as well as brood-parasitism by brown-headed cowbirds. Conservation needs for these species include the protection and management of riparian habitats in the Plan Area. The conservation strategy is to ensure no net loss of suitable habitat for these species and provide for a net gain in functions of the riparian habitat by non-native species removal.

Least Bell's Vireo

The least Bell's vireo is a migratory bird that breeds throughout southern California, including the Coachella Valley. Potential breeding habitat includes riparian woodland with a generally dense, stratified tree and scrub cover harboring very little open area along the river and stream systems in the San Jacinto and Santa Rosa mountains. Typical habitat will have an overstory of cottonwoods with a dense willow and mule fat understory. This species is known to breed in Chino, Palm, Murray, and Andreas canyons on the Reservation.

Goals

The Tribe's biological goals for the least Bell's vireo are to contribute proportionally to the long-term conservation of the species, allowing evolutionary processes and natural population fluctuations to occur in conjunction with other existing and planned regional conservation efforts by (1) conserving habitat for the species; (2) protecting essential ecological processes, including hydrological regimes necessary to maintain habitat for this species; and (3) adaptively managing habitat quality, cowbird parasitism, and vireo populations to alleviate direct and indirect threats in the Plan Area.

Objectives and Conditions

The following biological objectives support these goals:

- Determine presence, absence, distribution, and abundance of vireo in the Plan Area;
- Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area;
- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 1,164 acres (1,048 in place and 116 acres of restoration), and provide for a net gain in functions of the riparian habitat by non-native species removal;

- Avoid impacts to occupied habitat (as determined by surveys conducted and/or required by the Tribe) to the Maximum Extent Practicable;
- Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages;
- Minimize fragmentation, human-caused disturbance, and edge effects by ensuring implementation of development standards, including avoidance and minimization measures (see section 4.8.4);
- Monitor population size;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan; and
- Control brown-headed cowbird populations, if present (refer to section 4.11.2.3).

In addition to these biological objectives, additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is a migratory bird that breeds in southern California and several other western states but in a limited number of locations and in extremely low population numbers. Potential breeding habitat includes dense riparian woodlands and forests along the river and stream systems in the San Jacinto and Santa Rosa mountains. Only one pair located in Mission Creek has ever been confirmed as breeding in the Coachella Valley. A southwestern willow flycatcher was reported in Palm Canyon in 2003 (Jones & Stokes 2003). A flycatcher was observed in Murray Canyon in 2003, but the subspecies was not confirmed (UCR 2003).

Goals

The Tribe's biological goals for the southwestern willow flycatcher are to contribute to the long-term conservation of the species by protecting habitat for the species and minimizing nest parasitism and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Determine presence, absence, distribution, and abundance of flycatcher in the Plan Area;
- Minimize fragmentation and edge effects;
- Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area;

- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 1,164 acres (1,048 acres in place and 116 acres of restoration), and provide for a net gain in functions of the riparian habitat by non-native species removal;
- Avoid impacts to occupied habitat (as determined by surveys conducted and/or required by the Tribe) to the Maximum Extent Practicable (as defined in section 4.8.4);
- Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan ; and
- Monitor brown-headed cowbird populations and take appropriate corrective actions (as described in section 4.11.2.3), if present.

In addition to these biological objectives, additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

Summer Tanager

The summer tanager is a migratory bird that breeds across the southern U.S. from California (as far north as the Kern River Valley) to Florida. Potential breeding habitat includes mature riparian woodlands dominated by willows and cottonwoods in areas with openings near water and forests. This species was observed in Andreas, Palm, and Tahquitz canyons on the Reservation; it also was observed on off-Reservation (and outside the Plan Area) land in Chino Canyon.

Goals

The Tribe's biological goals for the summer tanager are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by protecting habitat for the species and minimizing nest parasitism and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Determine presence, absence, distribution, and abundance of summer tanager in the Plan Area;
- Minimize fragmentation and edge effects;
- Conserve a minimum of 1,048 acres of the existing riparian habitat in place within the Plan Area;

- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 1,164 acres (1,048 acres in place and 116 acres of restoration), and provide for a net gain in functions of the riparian habitat by removal of non-native species;
- Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan ; and
- Monitor brown-headed cowbird populations and take appropriate corrective actions (as described in section 4.11.2.3), if present.

In addition to these biological objectives, additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

Yellow-breasted Chat

The yellow-breasted chat is a migratory bird that breeds throughout the U.S. and southern Canada. Potential breeding habitat includes riparian areas with dense vegetation along the river and stream systems in the San Jacinto and Santa Rosa mountains. This species was observed in Murray Canyon on the Reservation in 2003 and 2006.

Goals

The Tribe's biological goals for the yellow-breasted chat are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by protecting habitat for the species and minimizing nest parasitism and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Determine presence, absence, distribution, and abundance of yellow-breasted chat in the Plan Area;
- Minimize fragmentation and edge effects;
- Conserve a minimum of 1,048 acres of the existing riparian habitat in place within the Plan Area;
- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 1,164 acres (1,048 acres in place and 116 acres of restoration), and provide for a net gain in functions of the riparian habitat by removal of non-native species;

- Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan; and
- Monitor brown-headed cowbird populations and take appropriate corrective actions (as described in section 4.11.2.3), if present.

In addition to these biological objectives, additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

Yellow Warbler

The yellow warbler is a migratory bird that breeds throughout southern California and much of the U.S. Potential breeding habitat includes riparian woodlands and forests with a dense understory along the river and stream systems in the San Jacinto and Santa Rosa mountains. This species has been observed in Palm and Tahquitz canyons on the Reservation (Haas and Nordby 2006) and on private property off the Reservation (and outside of the Plan Area) in Chino Canyon (UCR 2003).

Goals

The Tribe's biological goals for the yellow warbler are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by protecting habitat for the species and minimizing nest parasitism and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Determine presence, absence, distribution, and abundance of yellow warbler in the Plan Area;
- Minimize fragmentation and edge effects;
- Conserve a minimum of 1,048 acres of the existing riparian habitat in place within the Plan Area;
- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 1,164 acres (1,048 acres in place and 116 acres of restoration), and provide for a net gain in functions of the riparian habitat by non-native species removal;
- Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages;

- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan; and
- Monitor brown-headed cowbird populations and take appropriate corrective actions (as described in section 4.11.2.3), if present.

In addition to these biological objectives additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

4.3.2.3 Mountain Yellow-legged Frog

Mountain yellow-legged frog has potential to occur but has not recently been observed in the river and stream systems in the Plan Area. Additionally, reintroduction will likely occur adjacent to the Plan Area (and possibly within the Plan Area) in the near future.

Conservation Needs/Strategy

The conservation needs identified for this amphibian are the protection of riparian and stream habitats and the control of non-native predators in the Plan Area. The conservation strategy is to ensure no net loss of suitable habitat for these species in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal.

The mountain yellow-legged frog has potential to occur in the Plan Area and was historically observed in Chino (1960), Tahquitz (1972), and Andreas (1979) canyons but has not recently been observed in the Plan Area. This species inhabits ponds, dams, lakes, and perennial streams at moderate to high elevations. It seems to be absent from the smallest creeks and prefers open stream or lakes with gently sloping margins. The species seems to be most successful where predatory fish are absent.

Goals

The biological goals for the mountain yellow-legged frog are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by protecting habitats that may have the potential to support the species, minimizing predation, and minimizing direct and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Conserve a minimum of 181 acres of the existing mountain yellow-legged frog habitat within the Plan Area;
- Ensure no net loss of suitable habitat functions and values in the Plan Area, resulting in net conservation of 192 acres of habitat (181 acres in place and 11 acres of restoration), and provide for a net gain in functions of the riparian habitat by removal of non-native species;
- Avoid impacts to occupied habitat (as determined by surveys conducted and/or required by the Tribe) to the Maximum Extent Practicable;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan;
- Control predators such as bullfrogs and non-native fish if mountain yellow-legged frog is determined to be present; and
- At the Tribe's sole discretion, provide access for re-establishment (including monitoring of potentially dispersing populations re-introduced on adjacent lands) of mountain yellow-legged frogs within the Plan Area by the USFWS or USGS within drainages where the species is apparently extirpated. If it allows reintroduction of mountain yellow-legged frogs, the Tribe will not be obligated to remove predators in areas of reintroduction but will work with the applicable agencies/organizations to facilitate their removal.

In addition to these biological objectives, additional habitat restoration is possible through the Clean Water Act Section 404 process and/or other restoration activities discussed in this Plan.

4.3.2.4 Southern Yellow Bat

Conservation Needs/Strategy

Southern yellow bats have been recorded in Palm, Andreas, and Murray canyons on the Reservation. The southern yellow bat is not federally listed but has been designated as a Tribal sensitive species. Conservation needs for this species in the Plan Area include the protection and enhancement of palm oases as well as the development of a wildland fire management policy to address consideration of southern yellow bat habitat requirements versus fire risks associated with untrimmed palm trees. Outside of outright loss of palm trees themselves and foraging habitat, the most serious threat to the southern yellow bat would be loss of dead palm fronds, which can result from fire or pruning when trees are used for landscape purposes. If loss of palm fronds on site would occur in the spring or summer before the young can fly, it

could result in the loss of a year's reproduction. This species may form small maternity groups in the trees and palms in the Plan Area. Pregnancy likely occurs from April to June in the Coachella Valley, with lactation occurring in June and July. In Texas, bat pups have been found on fronds that have been trimmed from trees. Additionally, pesticide use likely adversely affects food availability for this species.

Goals

The biological goal for the southern yellow bat is to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by conserving habitat for the species and minimizing direct and indirect impacts.

Objectives and Conditions

This goal is supported by the following biological objectives:

- Determine presence, absence, distribution, and abundance of southern yellow bat in the Plan Area;
- Conserve a minimum of 782 acres of the existing palm oases within the Plan Area;
- Ensure no net loss of suitable fan palm oasis habitat functions and values in the Plan Area, resulting in net conservation of 869 acres of habitat (782 acres in place and 87 acres of restoration), and provide for a net gain in functions of the fan palm oasis habitat by removal of non-native species;
- Conserve a minimum of 17,404 acres of uplands in the MCCA portion of the Plan Area;
- Maximize buffers adjacent to conserved natural palm oases as part of the Conditional Use Permit process;
- Clear from a minimum of 10 acres per year of invasive exotic plant species/noxious weeds in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres over the course of eight years (refer to section 4.11.2). These 80 acres will continue to be maintained free of such species for the life of the Plan;
- Develop and implement a wildland fire management policy that protects the southern yellow bat habitat requirements;
- Work with local residents to educate them regarding the conservation needs of the southern yellow bat, including promoting the appropriate trimming of palm trees; and
- Prohibit trimming of naturally occurring fan palms within the Habitat Preserve in Indian Canyons, unless it is determined through peer-reviewed scientific studies that such activities do not pose a threat to this species.

4.3.2.5 Triple-ribbed Milk-vetch

Conservation Needs/Strategy

This species is not known to occur in the Plan Area but has potential to occur in the washes and/or at the base of the canyon slopes of the San Jacinto and Santa Rosa mountains, where slides or flooding occur. This species' conservation need is the protection of extant locations (including any newly discovered occurrences) within the Plan Area to the Maximum Extent Practicable.

Goals

The biological goal for conserving the triple-ribbed milk-vetch is to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by conserving habitats in the Plan Area with potential to support the species and minimizing direct and indirect impacts to the species.

Objectives and Conditions

This goal is supported by the following biological objectives:

- Conserve a minimum of 85 percent of all MCCA habitats in the Plan Area, including potential triple-ribbed milk-vetch habitat;
- Avoid impacts to populations of this species (as determined by surveys conducted and/or required by the Tribe in suitable habitat) to the Maximum Extent Practicable; and
- Mitigate any unavoidable impacts through conservation of extant populations and/or preparation and implementation of a USFWS-approved restoration plan as described in section 4.8.4.2(f).

4.3.2.6 Desert Tortoise

Conservation Needs/Strategy

Although the number of desert tortoise in the Coachella Valley is low, isolated individuals or remnant low-density populations are found on the alluvial fans and canyon bottoms, washes, and slopes on the eastern side of the San Jacinto and Santa Rosa mountains. Conservation needs for this species in the Plan Area include conservation of potential habitat and avoidance of direct impacts to individuals.

Goals

The biological goals of the Plan for conserving the desert tortoise are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by conserving habitats with potential to support this species and providing effective avoidance measures for direct impacts to this species.

Objectives and Conditions

These goals are supported by the following biological objectives:

- Completely avoid direct loss of individuals through relocation in accordance with the protocols described in section 4.8.4.2(f);
- Conserve a minimum of 10,301 acres of this species' suitable or occupied habitat in the Plan Area; and
- Avoid impacts to occupied habitat (as determined by surveys conducted and/or required by the Tribe) within the Section 6 Target Acquisition Area to the Maximum Extent Practicable.

4.3.2.7 Burrowing Owl

Conservation Needs/Strategy

The burrowing owl is not federally listed but has been designated as a Tribal sensitive species. It can be found in the canyon bottoms in the San Jacinto and Santa Rosa mountains and in portions of the valley floor. The conservation needs for this species are conservation of potential habitat and avoidance and/or minimization of impacts to individuals or populations.

Goals

The biological goals for conserving the burrowing owl are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by conserving habitats with potential to support the species and providing effective avoidance of direct impacts to this species.

Objectives and Conditions

These goals are supported by the following biological objectives:

- Minimize direct loss of individuals through relocation in accordance with the protocols described in section 4.8.4.2(g);

- Conserve a minimum of 977 acres of suitable habitat in the Plan Area;
- Ensure that a minimum of 364 acres of the habitat acquired for conservation in Target Acquisition Areas inside and outside of the Reservation are potentially suitable to support this species; and
- Avoid impacts to occupied habitat (as determined by surveys conducted and/or required by the Tribe) within the Section 6 Target Acquisition Area to the Maximum Extent Practicable.

4.3.2.8 Gray Vireo

Conservation Needs/Strategy

The gray vireo is not federally listed but has been designated as a Tribal sensitive species. It usually occurs in semi-arid, shrub-covered foothills and mesas in pinyon-juniper, juniper, and chamise-redshank chaparral habitat. This species has not been previously recorded in the Plan Area but is known from the San Jacinto Mountains and is likely to occur in the MCCA. The conservation needs for this species are habitat conservation and minimizing impacts from brown-headed cowbird parasitism.

Goals

The Tribe's biological goals for the gray vireo are to complement other existing and planned regional efforts intended to result in the long-term conservation of the species by conserving habitats with potential to support the species and minimizing nest parasitism and indirect impacts.

Objectives and Conditions

The following biological objectives support these goals:

- Conserve a minimum of 782 acres of suitable habitat within the Plan Area;
- Control brown-headed cowbird populations, if present, in these same areas; and
- Develop and implement a wildland fire management policy that provides due consideration for gray vireo habitat requirements.

4.3.2.9 Blow Sand-dependent Species

An underlying premise to determining the conservation needs for blow sand-dependent species (Coachella Valley fringe-toed lizard and Coachella giant sand-treader cricket) is the recognition that large blocks of land in the Coachella Valley are shielded from receiving blow sand by upwind obstructions such as I-10, the tamarisk windrow along the railroad, and various developments throughout the valley. Most of the remaining sand habitats in the VFPA are now classified as stabilized and partially-stabilized shielded sand fields, indicating that they no longer receive a viable natural sand source and the underlying substrate has

subsequently become stabilized. As a result, these areas (outside of Section 6, Township 4 South, Range 5 East) will not provide long-term viable habitat for the blow sand-dependent species. However, active and ephemeral sand fields located outside the Reservation and north of I-10 and those remaining within Section 6 (Township 4 South, Range 5 East) on the Reservation would, if protected, provide habitats with higher viability in the long term for blow sand-dependent species.

Conservation Needs/Strategy

The conservation needs of blow sand-dependent species are to conserve remaining habitats still subject to the influence of sand movement (e.g., active and ephemeral sand fields) in the Coachella Valley and enhance/restore ecological and physical processes where these processes have been degraded to levels insufficient to maintain the minimum needed for viability of species that depend on the blow sand ecosystem.

Coachella Valley Fringe-toed Lizard

The Coachella Valley fringe-toed lizard is associated with a substrate of wind-blown sands. Primary threats are direct loss as well as degradation of habitat and the processes that create and maintain its habitat.

Goals

The biological goal for conserving the Coachella Valley fringe-toed lizard is to conserve the majority of Section 6, Township 4 South, Range 5 East and to complement other existing and planned regional efforts intended to result in the long-term conservation of this species through acquisition and management of habitat and the areas required to support the processes that maintain active and ephemeral sand field habitats off of the Reservation.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand field habitats and biological core and linkage habitat within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Assuming the maximum development in the Section 6 Specific Plan Area is undertaken, ensure that a minimum of 32 acres of habitat potentially suitable to support this species are acquired for conservation in Target Acquisition Areas outside of the Reservation;

- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and
- Minimize fragmentation and edge effects to this species.

Coachella Giant Sand-treader Cricket

The Coachella giant sand-treader cricket occurs exclusively in the active and ephemeral sand fields in the Coachella Valley; stabilized sand areas are avoided.

Goals

The biological goal for conserving the Coachella giant sand-treader cricket is to conserve the majority of Section 6, Township 4 South, Range 5 East and to complement other existing and planned regional efforts intended to result in the long-term conservation of this species through acquisition and management of habitat and the areas required to support the processes that maintain active and ephemeral sand field habitats off of the Reservation.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Ensure that a minimum of 32 acres of habitat potentially suitable to support the species are acquired for conservation in Target Acquisition Areas outside of the Reservation if the maximum development in the Section 6 Specific Plan Area is undertaken;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and
- Minimize fragmentation and edge effects to this species.

4.3.2.10 Active and Stabilized Sand-dependent Species

The species discussed below occur in both active and partially stabilized or stabilized sand habitats. Most of the approximately 2,971 acres of partially stabilized and stabilized shielded sand field habitat in the

Plan Area is isolated and fragmented by existing development, which substantially reduces its anticipated long-term viability. The existing fragmentation is illustrated in Table 4-2.

Table 4-2
Stabilized Sand Field Patch Size Analysis

Patch Size*	Number of Patches	Total Acres	Percentage
<10 acres	22	96	3
10-50 acres	20	439	13
50-100 acres	6	450	17
100-250 acres	3	540	18
>250 acres	3	1,446	49
TOTAL	**54**	**2,971**	**100**

*Patch delineations are based on the presence of surrounding development, including roads.

As illustrated in the table, only three patches of stabilized sand fields exceeding 250 acres in size remain on the Reservation, in its northeastern corner. Most of the relatively large patches are abutted on two sides by development, and the ownership/allotment is highly fragmented (ranging from 8 in Section 14 [Township 4 South, Range 5 East] to over 50 in Section 10 [Township 4 South, Range 5 East], very little of which is held by the Tribe), substantially limiting conservation options. Only Section 2 and Section 12, located north of I-10, currently do not have development bounding at least two sides, although Section 12 does have an existing mining operation on the northern boundary. Section 2 abuts the southern boundary of a conservation area identified in the Coachella Valley MSHCP. Including other portions of the Reservation in the Target Acquisition Areas would not provide conservation of any unique biological resources not already available for conservation elsewhere within the currently proposed Target Acquisition Areas. Adding areas to the Target Acquisition Areas could cause some other portion of the Target Acquisition Areas with higher conservation value to not be conserved.

Conservation Needs/Strategy for Active and Stabilized Sand-dependent Species

The conservation need of these species is to conserve habitats with long-term viability in the Coachella Valley.

Flat-tailed Horned Lizard

The flat-tailed horned lizard typically inhabits desert dry washes and desert flats (stabilized and partially stabilized sand fields) on the valley floor in the Coachella Valley, including the Plan Area. It also occurs far from blow sand on the valley floor in the Coachella Valley. Primary threats are loss or degradation of habitat and mortality due to roadways and household pet predation.

Goals

The biological goal for conserving the flat-tailed horned lizard is to complement other existing and planned regional efforts intended to result in the long-term conservation of the species through acquisition and management of habitat within desert flats and sand dunes.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields and biological core and linkage habitat within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and Minimize fragmentation and edge effects to this species
- .

<u>Palm Springs Pocket Mouse</u>

The Palm Springs pocket mouse is found in sandy habitats on the valley floor of the Coachella Valley, including the Plan Area. Generally its habitat has level to gently sloping topography, sparse to moderate vegetative cover and loosely packed or sandy soils. Threats to the species include habitat disturbance, illegal trash dumping, and household pet predators.

Goals

The biological goal for conserving the Palm Springs pocket mouse is to complement other existing and planned regional efforts intended to result in the long-term conservation of the species through acquisition and management of habitat within sandy areas.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields and biological core and linkage habitat within the Section 6 Target Acquisition Area;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Conserve a minimum of 293 acres of potential habitat in the MCCA;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and
- Minimize fragmentation and edge effects to this species.

Palm Springs (Coachella Valley Round-tailed) Ground Squirrel

The Palm Springs ground squirrel is generally found throughout the Coachella Valley, including the Plan Area. This species is typically associated with sand fields and dune formations, although it does not require active blow sand areas. Squirrels may also be found in areas where sandy substrates occur in Sonoran creosote bush scrub and desert saltbush or desert sink scrub that supports herbaceous scrub, and in areas of coarser sands associated with dry desert washes. They most commonly occur in mesquite hummocks with accumulations of blow sand conducive to the excavation of burrow networks. Threats include loss of habitat (including loss of mesquite hummocks due to lowered water tables), surface disturbances (e.g., OHVs) and predation.

Goals

The biological goal for conserving the Palm Springs ground squirrel is to complement other existing and planned regional efforts intended to result in the long-term conservation of the species through acquisition and management of habitat within sand fields and dune formations.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Conserve a minimum of 124 acres of potential habitat in the MCCA;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and
- Minimize fragmentation and edge effects to this species.

Coachella Valley Jerusalem Cricket

The Coachella Valley Jerusalem cricket inhabits windblown sand habitats on the floor of the Coachella Valley, including known locations adjacent to the Plan Area. Although they normally occur in sandy to somewhat gravelly sandy soils, they do not necessarily require active blow sand habitat. The most significant threats to the species are habitat fragmentation and habitat damage from OHV use.

Goals

The biological goal for conserving the Coachella Valley Jerusalem cricket is to complement other existing and planned regional conservation efforts for the species through acquisition and management of both windblown sand and stabilized sand habitats.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that a minimum of 640 acres of habitat acquired for conservation in the other Target Acquisition Areas are potentially suitable to support this species;

- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas; and
- Minimize fragmentation and edge effects to this species.

Coachella Valley Milk-vetch

The Coachella Valley milk-vetch is commonly found in sandy flats, washes, and other sand habitats along the I-10 corridor on the valley floor, including within the Plan Area. It tends to occur in the coarser sands at the margins of dunes, not in the most active blow sand areas. Threats to the species include urban development, human activity, and introduction of non-native plants.

Goals

The biological goal for conserving the Coachella Valley milk-vetch is to complement other existing and planned regional conservation efforts for the species through acquisition and management of sand habitats.

Objectives

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species;
- Avoid impacts to extant populations (as determined by surveys conducted and/or required by the Tribe) within the Section 6 Specific Plan Area (see section 4.9.3.1[b]) to the Maximum Extent Practicable;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term;
- Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas;
- Conserve a minimum of 42 acres of potential habitat in the MCCA; and

4.3.2.11 Other Valley Floor Species

Three additional Covered Species (crissal thrasher, LeConte's thrasher, and Little San Bernardino Mountains gilia) are not sand-dependent but occur primarily in the VFPA. Each of these species also has potential to occur within the MCCA.

LeConte's Thrasher

Conservation Needs/Strategy

The LeConte's thrasher occurs in the Plan Area and prefers open, sparsely vegetated desert flats, dunes, alluvial fans, and hills, often in habitat where saltbrush and cholla cactus are present. Threats to the species include agriculture and urbanization. The conservation need of the species, therefore, is to conserve habitats with long-term viability in the Coachella Valley.

Goals

The biological goal for conserving the Le Conte's thrasher is to complement other existing and planned regional efforts intended to result in the long-term conservation of this species through acquisition and management of habitat within the Valley Floor as well as in the MCCA.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area on the Reservation;
- Conserve at least 177 acres within the Section 6 Target Acquisition Area;
- Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term; and
- Conserve a minimum of 100 acres of potential habitat for this species in the MCCA.

Crissal Thrasher

Conservation Needs/Strategy

The crissal thrasher occurs primarily in desert saltbush scrub, mesquite hummocks, and dense mesquite areas, including portions of the Action Area. Threats to the species include agriculture and urbanization. The conservation need of the species, therefore, is to conserve habitats with long-term viability in the Coachella Valley.

Goals

The biological goal for conserving the crissal thrasher is to complement other existing and planned regional efforts intended to result in the long-term conservation of this species through acquisition and management of habitat on the valley floor as well as in the MCCA.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid impacts to mesquite hummocks and thickets associated with riparian habitat in the Plan Area to the Maximum Extent Practicable; and
- Conserve, create, or restore mesquite hummock and mesquite thicket habitats at a minimum ratio of 2:1 as mitigation for any unavoidable impacts to these areas. Impacts to mesquite hummocks and thickets associated with riparian habitat shall include a minimum of 1:1 creation to ensure no net loss of this habitat type in riparian zones.

Little San Bernardino Mountains Gilia

Conservation Needs/Strategy

The Little San Bernardino Mountains gilia is found on loose, soft sandy soils that occur on low benches along washes with little shrub or tree cover. The primary threat to this species is development of suitable habitat, primarily outside of the Plan Area. The conservation needs of this species are the preservation and management of extant populations and suitable habitat.

Goals

The biological goal for conserving the Little San Bernardino Mountains gilia is to complement other existing and planned regional efforts intended to result in the long-term conservation of this species through acquisition, protection of ecological processes, and management of habitat on the Valley Floor.

Objectives and Conditions

The following biological objectives support this goal:

- Avoid impacts to populations of this species (as determined by project-specific surveys conducted and/or required by the Tribe) to the Maximum Extent Practicable; and
- As mitigation for any unavoidable impacts, conserve or restore populations at a minimum ratio of 3:1 as described in section 4.9.3.4.

4.4 IMPACTS TO COVERED SPECIES

This section serves to quantify impacts to Covered Species and incidental take levels of covered animal species that are anticipated to occur based on maximum acres of habitat disturbance authorized by this Plan. This is necessary to assess the potential impacts of the Tribal HCP on Covered Species, as required by 16 USC 1539(a)(2)(A)(i) and implementing regulations.

This section contains a discussion of conservation and impact levels for each Covered Species, as summarized in Table 4-3. In general, these impact levels are estimated based on loss of potential habitat as modeled by CVAG and reviewed by the USFWS. Accordingly, the table accompanying the discussion of each Covered Species described below contains the following information:

- The number of acres of modeled habitat or the number of known locations that occur in the Coachella Valley as a whole;
- The number of acres of modeled habitat or the number of known locations that occur in the Plan Area;
- The number of acres of modeled habitat for each species that will be conserved by the Tribe under the Plan, assuming the maximum authorized disturbance; and
- The number of acres of modeled habitat for each species or the number of known locations of each species in the Plan Area that are authorized to be disturbed by Covered Projects in accordance with this Plan.

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Table 4-3
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Peninsular bighorn sheep (*Ovis canadensis*)	3	The Peninsular bighorn sheep (PBS) is one of two populations of bighorn sheep that occur in southern California and is restricted to the east-facing lower-elevation slopes (below 4,600 feet AMSL) of the Peninsular Ranges in the Sonoran Desert life zone. Surveys during the 1970s, 1980s, and 1990s indicate that declines have occurred in multiple ewe groups. The current population of approximately 700 animals is distributed in eight known ewe groups from the San Jacinto Mountains south to the Mexican border. The current (2007) population of PBS in the San Jacinto Mountains consists of 22 adult sheep, including 10 ewes. The species' population in the Peninsular Ranges is federally listed endangered. Lands within the Plan Area are excluded from designated critical habitat.	Objective 1: Ensure that implementation of the Tribal HCP (THCP) is consistent with the recovery strategy delineated in the Recovery Plan for PBS (USFWS 2000) and subsequent empirical research and data. Objective 2: Conserve a minimum of 14,070 acres of existing PBS habitat in the Plan Area, including 100 percent of use areas within the Plan Area and land necessary to maintain linkages within the Plan Area. Objective 3: Minimize direct and indirect impacts to PBS and their habitat from Covered Activities by ensuring implementation of development standards, including avoidance and minimization measures. Objective 4: Minimize impacts to PBS from recreational activities by monitoring recreational trail use and ensuring compliance with restrictions. Objective 5: Alleviate the threat of disease transfer from domestic livestock or non-native wildlife to PBS through appropriate measures or restrictions associated with project approvals and/or ordinances. Objective 6: Monitor PBS population size and mortality rates. Objective 7: Fund or undertake additional studies regarding the species. Objective 8: Ensure that management action thresholds are routinely assessed during the annual review and reporting period. Objective 9: Clear from a minimum of 10 acres per year any tamarisk, umbrella sedge, and/or African fountain grass, in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres.	Conservation of this species will occur through preservation of at least 14,070 acres of habitat within the Plan Area that will expand upon existing public lands already being set aside. The Plan includes provisions to protect the most sensitive areas by requiring preservation of 100 percent of use areas and defined habitat linkages and by requiring on-site mitigation in certain sensitive areas. Potential indirect impacts would be minimized through the imposition of specific requirements applicable to development and recreational activities. Additional research and management activities also will benefit the species.	The THCP will allow impacts to up to 14 percent (2,278 acres) of potential habitat in the Plan Area. Impacts to the species, which may increase with development, include increased susceptibility to disease, increased mortality from motorized vehicles, poisoning from exotic vegetation, and behavioral modifications resulting in decreased productivity.	None	Upland habitats will be managed in the MCCA. Management activities including public access control, exotic weed control, and fire management will likely benefit this species. It is the Tribe's intent to work closely with cooperating federal and state agencies to address survey and research needs each year for PBS and to make funding commitments each year as part of the implementation of the THCP. The Tribe also will continue to coordinate with these agencies regarding re-introduction of captive-bred PBS onto Tribal Lands for population augmentation.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Least Bell's vireo (*Vireo bellii pusillus*)	2	The least Bell's vireo was formerly known to inhabit dense willow thickets along streams throughout California's Sacramento and San Joaquin valleys from Red Bluff south and coastal areas inland to the foothills of the Sierra Nevada as well as in Owens and Death valleys. Currently, the vireo in southern California breeds primarily in San Diego, Santa Barbara, and Riverside counties. There also are populations known to breed in northern Baja California, Mexico (Baja). The least Bell's vireo is federally listed endangered. The USFWS-designated Critical Habitat and Recovery Units for this species do not extend into the Plan Area.	Objective 1: Determine presence, absence, distribution, and abundance of vireo in the Plan Area. Objective 2: Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area. Objective 3: Ensure no net loss of suitable/occupied habitat functions and values in the Plan Area through habitat restoration and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 4: Avoid impacts to occupied habitat to the Maximum Extent Practicable. Objective 5: Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages. Objective 6: Minimize fragmentation, human-caused disturbance, and edge effects by ensuring implementation of development standards, including avoidance and minimization measures. Objective 7: Monitor population size. Objective 8: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 9: Control brown-headed cowbird populations, if present.	The least Bell's vireo is known to breed in Chino, Palm, Murray, and Andreas canyons in the Plan Area. Conservation of this species will occur through preservation of at least 1,048 acres of currently extant riparian habitat within the Plan Area that will expand upon existing public lands already being set aside. Occupied habitat would be avoided to the Maximum Extent Practicable, and no net loss of existing riparian habitat suitable to support Covered Species within the Plan Area would occur as a result of required habitat restoration for Covered Activity impacts. Thus, a total of 1,163 acres of riparian habitat would be conserved. Enhancement of riparian habitat through removal of non-native plant and animal species will result in a net increase in functions and values of riparian habitat for this species. Native vegetation removal during the nesting season would be subject to restrictions to avoid impacts to active nests. Because 90 percent of the habitat suitable for vireos in the Plan Area will not be disturbed by Covered Activities, the breeding population of vireos will not be significantly impacted by the Plan. Additionally, the tamarisk removal and cowbird control proposed by the Plan will significantly enhance habitat quality for the vireo throughout the Plan Area.	Up to 10 percent (155 acres) of the riparian habitats could be impacted within the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Indirect threats to the species that may increase with development include the alteration of riparian habitat and an increase in nest parasitism by the brown-headed cowbird, a species that is common around developed and agricultural areas.	Prior to disturbances in potential vireo habitat in the Plan Area, surveys will be conducted according to the most current protocol to detect the presence/absence of the vireo.	Management activities for the vireo include tamarisk removal from potential habitat and the control of cowbirds. Monitoring surveys were conducted in 2002 through 2005. Point count sampling stations will be established within two years of permit issuance for surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Southwestern willow flycatcher (*Empidonax trallii extimus*)	3	The southwestern willow flycatcher's breeding range includes southern Nevada, Arizona, New Mexico, Utah, California, western Texas, and southwestern Colorado. Historically in California, the southwestern willow flycatcher occurred throughout the lower third of the state. Currently, populations can be found in only four counties: Kern, San Diego, San Bernardino, and Riverside. Only two locations in California contain viable populations: along the South Fork of the Kern River and along the Santa Margarita River on Camp Pendleton. In other places in California, the species occurs only in small scattered and isolated populations. The willow flycatcher winters in Mexico, Central America, and northern South America. The breeding status of the southwestern willow flycatcher in the Coachella Valley is not well known. A breeding pair was confirmed only once in Mission Creek. The southwestern willow flycatcher is federally listed endangered. The USFWS-designated Critical Habitat and Recovery Units for this species do not extend into the Plan Area.	Objective 1: Determine presence, absence, distribution, and abundance of flycatcher in the Plan Area. Objective 2: Avoid fragmentation (to the Maximum Extent Practicable) and minimize edge effects. Objective 3: Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area. Objective 4: Ensure no net loss of suitable/occupied habitat functions and values in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 5: Avoid impacts to occupied habitat to the Maximum Extent Practicable. Objective 6: Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages. Objective 7: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 8: Monitor brown-headed cowbird populations and take appropriate corrective actions, if present.	Suitable habitat is limited on the Reservation to Chino, Andreas, Murray, and Palm canyons. This species has been observed in Palm Canyon. Breeding habitat for this species likely does not occur in the Plan Area. Conservation of this species will occur through preservation of at least 1,048 acres of currently extant riparian habitat within the Plan Area that will expand upon existing public lands already being set aside. Occupied habitat would be avoided to the Maximum Extent Practicable, and no net loss of existing riparian habitat suitable to support Covered Species within the Plan Area would occur as a result of required habitat restoration for Covered Activity impacts. Thus, a total of 1,163 acres of riparian habitat would be conserved. Enhancement of riparian habitat through removal of non-native plant and animal species will result in a net increase in functions and values of riparian habitat for this species. Native vegetation removal during the nesting season would be subject to restrictions to avoid impacts to active nests. Additionally, the tamarisk removal and cowbird control proposed by the Plan will significantly enhance habitat quality for this species throughout the Plan Area.	Up to 10 percent (116 acres) of the riparian habitats could be impacted within the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Indirect threats to the species that may increase with development include the alteration of riparian habitat and an increase in nest parasitism by the brown-headed cowbird.	Prior to disturbances in potential flycatcher habitat in the Plan Area, surveys will be conducted according to the most current protocol to detect the presence/absence of the flycatcher.	Management activities for this species include tamarisk removal from potential habitat and the control of cowbirds. Monitoring surveys were conducted in 2002 through 2005. Point count sampling stations will be established within two years of permit issuance for surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Summer tanager (*Piranga rubra cooperi*)	1	The summer tanager is migratory. The species breeds across the southwestern U.S. from California to west Texas and northern Mexico to Florida and as far north as the Kern River Valley. The species' distribution also extends throughout the southeastern half of the U.S. Two subspecies of summer tanagers are recognized, the current of which generally inhabits riparian woodlands but will utilize woodlands dominated by mesquite and salt cedar at higher elevations. Although summer tanager populations have remained stable throughout much of the species' range, the population has declined drastically in California, likely in response to the loss of riparian forests. .	Objective 1: Determine presence, absence, distribution and abundance of summer tanager in the Plan Area. Objective 2: Minimize fragmentation and edge effects. Objective 3: Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area. Objective 4: Ensure no net loss of suitable habitat functions and values in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 5: Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages. Objective 6: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. . Objective 7: Monitor brown-headed cowbird populations and take appropriate corrective actions, if present.	This species has been observed in Andreas, Tahquitz, and Palm canyons in the Plan Area. Conservation of this species will occur through preservation of at least 1,048 acres of currently extant riparian habitat within the Plan Area that will expand upon existing public lands already being set aside. Because 90 percent of the habitat suitable for this species in the Plan Area will not be disturbed by Covered Projects, the population of this species will not significantly be impacted by the Plan. No net loss of existing habitat suitable to support Covered Species within the Plan Area would occur as a result of required habitat restoration for Covered Activity impacts. Thus, a total of 1,163 acres of riparian habitat would be conserved. Enhancement of riparian habitat through removal of non-native plant and animal species will result in a net increase in functions and values of riparian habitat for this species. Native vegetation removal during the nesting seasons would be subject to restrictions to avoid impacts to active nests. Additionally, the tamarisk removal and cowbird control proposed by the Plan will significantly enhance habitat quality for this species throughout the Plan Area.	Up to 10 percent (116 acres) of the riparian habitats could be impacted in the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Additional impacts to the species that may increase with development include alteration of riparian habitat and an increase in cowbird brood parasitism.	None	Conservation measures established for the least Bell's vireo and southwestern willow flycatcher will likely benefit the tanager. These measures include tamarisk removal from potential habitat and the control of cowbirds. Monitoring surveys were conducted in 2002 through 2005. Point count sampling stations will be established within two years of permit issuance for surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Yellow-breasted chat (*Icteria virens*)	1	The yellow-breasted chat is found throughout most of the U.S. and southern Canada during the breeding season. It spends the rest of the year in parts of Mexico south to Panama. In the Coachella Valley, this species is known or likely to breed in Whitewater Canyon, Mission Creek, Chino Canyon, and the Whitewater River between Mecca and the Salton Sea, and likely elsewhere in the vicinity. In migration, the yellow-breasted chat could potentially use many different habitat types throughout the Plan Area. Direct observations of the species have been made at Dos Palmas, the Coachella Valley Preserve, and Willow Hole, as well as in Murray Canyon on the Reservation. Populations of chats are declining.	Objective 1: Determine presence, absence, distribution and abundance of yellow-breasted chat in the Plan Area. Objective 2: Minimize fragmentation and edge effects. Objective 3: Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area. Objective 4: Ensure no net loss of suitable habitat functions and values in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 5: Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages. Objective 6: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 7: Monitor brown-headed cowbird populations and take appropriate corrective actions, if present.	This species has been observed in Murray Canyon on the Reservation. Conservation of this species will occur through preservation of at least 1,048 acres of currently extant riparian habitat within the Plan Area that will expand upon existing public lands already being set aside. Because 90 percent of the habitat suitable to this species in the Plan Area will not be disturbed by Covered Projects, the breeding population of this species will not significantly be impacted by the Plan. No net loss of existing habitat suitable to support Covered Species within the Plan Area would occur as a result of required habitat restoration for Covered Activity impacts. Thus, a total of 1,163 acres of riparian habitat would be conserved. Native vegetation removal during the nesting season would be subject to restrictions to avoid impacts to active nests. Additionally, the tamarisk removal and cowbird control proposed by the Plan will significantly enhance habitat quality for this species throughout the Plan Area.	Up to 10 percent (116 acres) of the riparian habitats could be impacted within the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Additional impacts to the species that may increase with development include alteration of riparian habitat and an increase in cowbird brood parasitism.	None	Conservation measures established for the least Bell's vireo and southwestern willow flycatcher will likely benefit the chat. These measures include tamarisk removal from potential habitat and the control of cowbirds. Monitoring surveys were conducted in 2002 through 2005. Point count sampling stations will be established within two years of permit issuance for surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Yellow warbler (*Dendroica petechia brewstri*)	1	The yellow warbler is migratory, breeding in riparian areas throughout the U.S., Alaska, Canada, and portions of Mexico. A subspecies of the yellow warbler occurs in Central and South America. Populations of yellow warblers appear to be fluctuating in North America. In California, the bird was once common in the Sacramento Valley, the San Joaquin Valley, San Francisco, and along the Colorado River, but little or no breeding now occurs in these locations. Numbers also are known to have declined in Siskiyou and Marin counties. However, the bird is still maintaining healthy populations in some areas of California, such as Santa Cruz County and the eastern Sierra Nevada. Despite its changing distribution, the yellow warbler has declined significantly as a breeding bird in the coastal lowlands of southern California.	Objective 1: Determine presence, absence, distribution and abundance of yellow warbler in the Plan Area. Objective 2: Minimize fragmentation and edge effects. Objective 3: Conserve a minimum of 1,048 acres of existing riparian habitat in place within the Plan Area. Objective 4: Ensure no net loss of suitable habitat functions and values in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 5: Conserve the riparian habitat within a larger upland matrix that includes connectivity between adjacent drainages. Objective 6: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 7: Monitor brown-headed cowbird populations and take appropriate corrective actions, if present.	This species has been observed in Palm and Tahquitz canyons on the Reservation and on private property in Chino Canyon. Conservation of this species will occur through preservation of at least 1,048 acres of currently extant riparian habitat within the Plan Area that will expand upon existing public lands already being set aside. Because 90 percent of the habitat suitable to this species in the Plan Area will not be disturbed by Covered Projects, the population of this species will not significantly be impacted by the Plan. No net loss of existing habitat suitable to support Covered Species within the Plan Area would occur as a result of required habitat restoration for Covered Activity impacts. Thus, a total of 1,163 acres of riparian habitat would be conserved. Native vegetation removal during the nesting season would be subject to restrictions to avoid impacts to active nests. Additionally, the tamarisk removal and cowbird control proposed by the Plan will significantly enhance habitat quality for this species throughout the Plan Area.	Up to 10 percent (116 acres) of the riparian habitats could be impacted within the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Additional impacts to the species that may increase with development include alteration of riparian habitat and an increase in cowbird brood parasitism.	None	Conservation measures established for the least Bell's vireo and southwestern willow flycatcher will likely benefit the warbler. These measures include tamarisk removal from potential habitat and the control of cowbirds. Monitoring surveys were conducted in 2002 through 2005. Point count sampling stations will be established within two years of permit issuance for surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Mountain yellow-legged frog (*Rana muscosa*)	3	The species is endemic to California and western Nevada. It was historically distributed from southern Plumas County southward to southern Tulare County. It was observed in two forks of Tahquitz Canyon (approximately 4,000 and 13,000 feet west of the Reservation) in 2009. In southern California, it also can be found in the upper San Jacinto River and portions of the San Gabriel and San Bernardino mountains. The frog also is known to occur in small populations in the upper portion of the Little Rock Creek, Devil's Canyon, and the east fork of the San Gabriel River. The mountain yellow-legged frog is federally listed endangered. Critical habitat does not extend into the Plan Area and no Recovery Plan has been published.	Objective 1: Conserve a minimum of 181 acres of the existing mountain yellow-legged frog habitat in place within the Plan Area. Objective 2: Ensure no net loss of suitable habitat functions and values in the Plan Area and provide for a net gain in functions of the riparian habitat by non-native species removal. Objective 3: Avoid impacts to occupied habitat to the Maximum Extent Practicable. Objective 4: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 5: Control predators such as bullfrogs and non-native fish if mountain yellow-legged frog is determined to be present. Objective 6: At the Tribe's sole discretion, provide access for re-establishment and associated monitoring of mountain yellow-legged frogs within the Plan Area, within drainages where the species is apparently extirpated.	The mountain yellow-legged frog has not been recently observed in the Plan Area, but was historically observed in Chino, Tahquitz, and Andreas canyons. The Plan calls for avoidance of occupied frog habitat to the Maximum Extent Practicable, and provides for conservation of a minimum of 181 acres (94 percent) of habitat suitable to support this species. Mitigation for riparian habitats would be required to ensure that no net loss of habitats suitable to support Covered Species occurs within the Plan Area, and to provide for a net gain in functions of riparian habitat through non-native species removal. Thus, a total of 192 acres of habitat for this species would be conserved. Additionally, the tamarisk removal proposed by the Plan will significantly enhance habitat quality for this species throughout the Plan Area. The Tribe would undertake control efforts for predators such as bullfrogs and non-native fish in occupied habitat (if any) and would not authorize stocking of fish species that could adversely affect this species.	Up to 6 percent (11 acres) of suitable habitat could be impacted within the Plan Area. No net loss standard would result in no suitable habitat functions and values or acreage being lost after mitigation. Additional indirect threats to the species that may increase with development include the manipulation of its habitat through alteration and changes to natural flooding cycles; water quality impacts; and predation by exotic fish species and bullfrogs, which may increase with development. Exotic plants and the presence of humans in riparian areas also may have an effect on the frog.	Focused surveys following current protocol shall be required for projects proposing to impact potential frog habitat.	Management activities for this species include tamarisk removal from potential habitat and the control of predators such as bullfrogs and non-native fish (if the species is present). No stocking of fish species that could adversely affect this species would be authorized by the Tribe. Additionally, the Tribe will evaluate proposals for re-establishment and associated monitoring of this species within drainages where it is apparently extirpated. Surveys for this species were conducted in 2002 through 2005. In suitable habitat, a biologist will conduct surveys of these areas once a month between April and August. Surveys will be repeated for two years upon Plan approval by USFWS. Subsequent monitoring of streams with populations (if any) will occur, focusing on identification of population concentrations or nodes as well as the identification of potential threats.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Southern yellow bat (*Lasiurus ega xanthinus*)	2	The southern yellow bat is known to occur in the Coachella Valley Preserve, Dos Palmas/ACEC, and on the Applegarth Ranch in the Thermal area. They also were identified on the Reservation within Palm, Andreas, and Murray canyons. Other locations throughout the Coachella Valley may contain yellow bats, but surveys have not been conducted in most locations. It is likely that the bat occurs throughout the Coachella Valley and into the residential areas where ungroomed palm trees are common. The Coachella Valley is likely important to this species, as it has a significant portion of the native palm oases in southeastern California.	Objective 1: Determine presence, absence, distribution, and abundance of southern yellow bat in the Plan Area. Objective 2: Conserve a minimum of 1,022 acres of the existing palm oases in place within the Plan Area. Objective 3: Ensure no net loss of suitable fan palm oases habitat functions and values in the Plan Area and provide for a net gain in functions of the fan palm oases habitat by non-native species removal. Objective 4: Conserve a minimum of 17,404 acres of uplands within the MCCA portion of the Plan Area. Objective 5: Maximize buffers adjacent to conserved natural palm oases as part of the Conditional Use Permit process. Objective 6: Clear from a minimum of 10 acres per year invasive exotic plant species in Indian Canyons and other accessible areas of the MCCA for at least a total of 80 acres. Objective 7: Develop and implement a wildland fire management policy that protects the southern yellow bat's habitat requirements. Objective 8: Work with local residents to educate them regarding the conservation needs of the southern yellow bat, including promoting the appropriate trimming of palm trees. Objective 9: Prohibit trimming of naturally occurring fan palms within the Habitat Preserve in Indian Canyons, unless it is determined through peer–reviewed scientific studies that such activities do not pose a threat to this species.	The southern yellow bat has been detected within Palm, Andreas, and Murray canyons. The Plan provides for conservation of a minimum of 782 acres (90 percent) of desert fan palm oasis woodlands. The Tribe would dedicate 10 acres of naturally occurring palm oases to the Habitat Preserve within one year of Plan approval. Mitigation for impacts to fan palm oasis woodland would be required to ensure that no net loss of habitats suitable to support Covered Species occurs within the Plan Area, and to provide a net gain in functions of the palm oases habitat through non-native species removal. Thus, a total of 869 acres of palm oases would be conserved. Additionally, this species may use upland areas of which a minimum of 85 percent is required for conservation in the MCCA and 95 percent is required for conservation in Palm Canyon. The Plan also calls for habitat enhancement measures including tamarisk removal and would attempt to minimize potential indirect impacts through appropriate fire management policies.	Up to 10 percent (87 acres) of the naturally occurring palm oases and 15 percent of adjacent upland areas could be impacted within the Plan Area. No net loss standard would result in no fan palm oases habitat being lost after mitigation. Additional habitat may be lost, as it is likely that the bat is utilizing palms throughout the valley floor in urbanized areas where conservation is not proposed. Very little is known about the southern yellow bat, whose most significant threat (aside from the loss of habitat) is the potential loss of acceptable roosting sites. Because the bat requires dead palm leaves, pruning dead vegetation off of palms could pose a serious threat to the species. Fire also could be devastating to the species by removing roosting sites. Additionally, the bat (being an insectivore) requires insects, so the use of insecticides could limit food availability in parts of its distribution.	None	This species will benefit from tamarisk removal efforts in riparian areas. The Tribe will include policies for reducing or avoiding the impacts of fire to the species in its Fire Management Plan. All naturally occurring stands of palms (*Washingtonia* spp.) will be identified and mapped upon approval of the Plan. Long-term echolocation monitoring stations were installed in 2005 in Palm, Andreas, and Murray canyons. The Tribe will maintain these stations.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Triple-ribbed milk-vetch (*Astragalus tricarinatus*)	3	The triple-ribbed milk-vetch is an endemic species found in a narrow range, primarily from the northwestern portion of the Coachella Valley from the area of Whitewater Canyon in Mission Creek Canyon to Dry Morongo Wash and Big Morongo Canyon. Most of the populations of this species appear to be in the eastern end of the San Bernardino Mountains and at the western end of the Little San Bernardino Mountains. Potential habitat occurs in scattered locations along canyon bottoms in the MCCA. None of the modeled distribution of this species extends into the Plan Area. The triple-ribbed milk-vetch is a federally listed endangered plant. Critical habitat has not been designated and a Recovery Plan has not been prepared for this species.	Objective 1: Conserve a minimum of 85 percent of all MCCA habitats, including potential triple-ribbed milk-vetch habitat. Objective 2: Avoid impacts to populations of this species to the Maximum Extent Practicable. Objective 3: Mitigate any unavoidable impacts through conservation of extant populations and/or preparation and implementation of a USFWS-approved restoration plan.	This species is not known from the Plan Area, and the modeled distribution for the species does not include any potential habitat in the Plan Area. Most locations where the species is likely to be found in the Plan Area are areas with a low potential to be impacted. If a population were found in the Plan Area, it would be avoided to the Maximum Extent Practicable, and unavoidable impacts would be mitigated at a 3:1 ratio. Elsewhere within the Coachella Valley, this species occurs on existing conservation lands in protected status, including those in Mission Creek on land owned by the BLM or the Wildlands Conservancy, in Big Morongo Canyon on BLM land, and in Whitewater Canyon on BLM land.	Up to 10 percent of the riparian habitats and 15 percent of adjacent upland areas could be impacted within the MCCA. No known location or modeled habitat will be impacted by Covered Activities.	If a Covered Activity proposes to impact habitat that the Tribal Biologist deems suitable for the species, presence/absence surveys will be conducted between February 1 and May 15, depending on weather conditions for that given year.	The Tribe will manage any future occurrences of this species should it be found within the Habitat Preserve and surveys will be conducted on nearby lands within the Habitat Preserve. Special focus will be on maintaining appropriate hydrological processes within drainages where the species is found.
Desert tortoise (*Xerobates* or *Gopherus agassizii*)	2	The Plan Area supports a small portion of the desert tortoise's overall range (approximately 2 percent of the habitat available to the tortoise in the Coachella Valley). The tortoise's distribution spans 680 miles from the northern Sinaloa state, Mexico across the Sonoran and Mojave Deserts to the edge of the Colorado Plateau in southwestern Utah. Tortoises are found naturally along the northern, eastern, and western rims of the Coachella Valley. Tortoises in the foothills of the southeastern San Bernardino Mountains (especially in the Whitewater Hills) outside of the Plan Area represent the westernmost reproductively active population of tortoises in the Colorado Desert ecosystem. The species is federally listed as threatened. A Recovery Plan and Critical Habitat have been adopted by the USFWS for the desert tortoise, but neither extend into the Plan Area.	Objective 1: Completely avoid direct loss of individuals through relocation in accordance with accepted protocols. Objective 2: Conserve a minimum of 10,301 acres of this species' habitat in the Plan Area. Objective 3: Avoid impacts to occupied habitat within the Section 6 Target Acquisition Area to the Maximum Extent Practicable.	Recorded observations of this species on the Reservation are limited to sightings in the vicinity of Chino and Little Eagle canyons. Conservation of this species will occur through preservation of 10,301 acres of potential habitat in the Plan Area. Impacts to this species will be minimized through implementation of relocation requirements.	Up to 26 percent (2,649 acres) of potential habitat could be impacted. Direct impacts to individuals would be avoided. Additional indirect threats to the tortoises that may increase with development include an increase in predation by edge generalist animals such as ravens and coyotes, which increase with fragmented land. Development also increases activities such as OHV use, which can kill individuals and crush burrows. Additionally, exotic plants are a problem that increases with development and can lead to an increased fire frequency and decreased forage quality.	Prior to disturbances in potential tortoise habitat in the Plan Area, surveys will be conducted to detect the presence of the tortoise. If fresh sign is located, the Development Envelope must be fenced with tortoise-proof fencing and a presence/absence clearance survey conducted during the clearance window in order to find tortoises within the impact area for monitoring and potential relocation. Surveys, construction monitoring, and relocation will follow the Guidelines for Handling Desert Tortoises During Construction Projects prepared by the Desert Tortoise Council (1994, revised 1999) or other current protocol. If found, tortoises shall be relocated to an appropriate location.	Management activities, including exotic weed control and fire management, will likely benefit this species.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Burrowing owl (*Athene cunicularia*)	2	Burrowing owls occur throughout the idwestern and western portion of the U.S., Texas, and southern Florida, with their distribution extending into Canada, Mexico, and portions of Central and South America. In southern California, it is known from lowlands over much of the region, particularly in agricultural areas. Despite the owl's extensive distribution, numbers of burrowing owls are known to be declining. The species can utilize a wide variety of habitats. Owls are scattered in low to moderate numbers throughout the Coachella Valley.	Objective 1: Minimize direct loss of individuals through relocation in accordance with accepted protocols. Objective 2: Conserve a minimum of 977 acres of suitable habitat in the Plan Area. Objective 3: Ensure that a minimum of 364 acres of habitat acquired for conservation in the Target Acquisition Areas are potentially suitable to support this species. Objective 4: Avoid impacts to occupied habitat in the Section 6 Target Acquisition Area to the Maximum Extent Practicable.	Burrowing owls have been observed in the vicinity of the Palm Springs Airport and may occur in both the MCCA and VFCA. The THCP will conserve 1,341 acres of habitat. Impacts to this species will be minimized through implementation of relocation requirements. Conservation of this species within the Coachella Valley occurs at Big Dune, Snow Creek/Windy Point, the Willow Hole-Edom Hill Reserve, Whitewater Floodplain Reserve, and Coachella Valley Preserve.	The THCP will allow up to 78 percent (3,450 acres) of potential habitat to be disturbed by Covered Projects. Impacts to individuals would be minimized through relocation. Additional threats to the species that may increase with development include the alteration or disturbance of nest sites by humans and domestic animals, poisonings from pesticides used to control insects and rodents, and habitat degradation by non-native plant species. Burrowing owls also are killed on roadways while foraging.	Protocol surveys for burrowing owls will be conducted prior to the disturbance of potential owl habitat. If owls are found during project pre-disturbance surveys, they will be relocated to an area with suitable habitat at a time that does not interfere with the breeding season. If necessary, artificial burrows will be created as part of the relocation effort.	Management measures that will likely benefit this species include controlling access and exotic weeds.
Gray vireo (*Vireo vicinior*)	1	In California, breeding gray vireos are known from semi-arid, shrub-covered foothills and mesas in pinyon juniper, juniper, and chamise-redshank chaparral habitat on the northeastern slopes of the San Bernardino Mountains in the vicinity of Rose Mine and Round Valley, the San Jacinto and Santa Rosa mountains from Mountain Center to Pinyon Flat and Sugarloaf Mountain, and on the southern slopes of the Laguna Mountains near Campo and Kitchen Creek. The vireo also is known from the mountains of the eastern Mojave Desert, including the Grapevine, Kinston, Clark, and New York mountains. Historically, the breeding distribution was much broader, with the species being observed in Kern County, Joshua Tree National Park, portions of the San Gabriel Mountains, and in the San Bernardino, Riverside, and San Diego County desert slopes. The vireo also was known as a migrant in Whitewater Canyon. This species spends winters primarily south of the Mexican border and in southwestern Arizona.	Objective 1: Conserve a minimum of 782 acres of suitable habitat in the Plan Area. Objective 2: Control brown-headed cowbird populations, if present, in these same areas. Objective 3: Develop and implement a wildland fire management policy that provides due consideration for gray vireo habitat requirements.	Regular surveys for this species have not been conducted in the Plan Area, and it is not known if viable populations exist there. It does have potential to occur in the higher elevations of the Plan Area. Conservation of this species (if it occurs) will occur through preservation of at least 782 acres of habitat within the MCCA that will expand upon existing public lands already being set aside. It is likely that a much larger portion of this species' habitat would actually be conserved because this species typically occurs at high elevations that are difficult to access. The cause of the decline in gray vireo populations are not fully understood. One factor in the decline of the species may be brood parasitism by the brown-headed cowbird. Cowbird control measures implemented by the Tribe would benefit this species. Fire management activities in accordance with the Tribe's draft Fire Management Plan would minimize impacts associated with habitat change due to fire suppression activities.	The THCP will allow impacts to up to 25 percent (196 acres) of potential habitat. Impacts to the species that may increase with development include an increase in brood parasitism by brown-headed cowbirds, which are common in edge environments. Other threats may include habitat changes to vegetation as a result of fire suppression activities.	None	Upland habitats will be managed in the MCCA. Management activities including exotic weed control and fire management will likely benefit this species. Any reduction of cowbird populations on Tribal lands also will benefit the gray vireo. Point count sampling stations will be established within the Habitat Preserve during initiation of the long-term monitoring phase, with surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Coachella Valley fringe-toed lizard (*Uma inornata*)	3	The Coachella Valley fringe-toed lizard is restricted to the Coachella Valley. This species has well defined habitat requirements, and significant areas of appropriate habitat have already been conserved. Historically, the species was found from the Cabazon area to near Thermal. The Coachella Valley fringe-toed lizard is federally listed as threatened. Designated critical habitat extends into the off-Reservation Target Acquisition Areas.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand field habitats and biological core and linkage habitat within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 4: Assuming the maximum development in the Section 6 Specific Plan Area is undertaken, ensure that a minimum of 32 acres of the habitat potentially suitable to support this species is acquired for conservation in Target Acquisition Areas outside of the Reservation. Objective 5: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 6: Minimize fragmentation and edge effects to this species.	The only recorded sighting and the only likely location for this species on the Reservation is in the Section 6 Target Acquisition Area. In 1993, three fringe-toed lizard preserves were established as a result of the Coachella Valley fringe-toed lizard HCP: Coachella Valley, Whitewater, and Willow Hole. These preserves protect nearly 20,000 acres of habitat and blowsand sources within Target Acquisition Areas. Additionally, the CVMSHCP has proposed the creation of a large interconnected preserve system that will protect areas containing the most suitable habitat known for the species, including the east end of the Indio Hills, Big Dune, Snow Creek/Windy Point, the Willow Hole-Edom Hill Reserve, Whitewater Floodplain Reserve, and Coachella Valley Preserve at Thousand Palms. The THCP will provide for conservation of a minimum of 524 acres of active or ephemeral sand fields within the Target Acquisition Areas, including a minimum of 492 acres within the Section 6 Target Acquisition Area (the only remaining area on the Reservation that contains these habitats). The habitat would be located adjacent to or in the vicinity of other existing reserves, thereby minimizing potential edge effects. Although the loss of Plan Area habitat would result in the loss of up to 10 percent of the habitat modeled as available to the species in the Coachella Valley, because a majority of these areas no longer have viable sand sources, the preservation of habitat with long-term viability is considered to benefit the species.	The THCP will allow disturbance to 69 percent (386 acres) of active and ephemeral sand fields in the Plan Area (55 percent of temporary impact resulting from activities in the Fluvial Sand Transport Process Area and 14 percent from other activities within Section 6). A maximum of 32 acres of such habitats would be subject to permanent impact. Additional threats to the species that may increase with development include loss or degradation of wind-blown sand habitat (with which the species is associated), introduction of roads, feral pets, and reptile collectors, all of which increase with development. OHV activity, illegal garbage dumping, and exotic plant and animal species invasion also becomes more prevalent in urbanized areas.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Trap arrays will be established within conserved habitat in the Target Acquisition Areas, with surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Coachella Valley giant sand-treader cricket (*Macrobaenetes valgum*)	3	The Coachella Valley giant sand-treader cricket is endemic to the active sand hummocks and dunes in the Coachella Valley. The historic distribution of this species is entirely within the Coachella Valley, from Fingal's Finger east to the sand dune areas in the vicinity of Indio. Data on the occurrence of this species in Big Dune from Palm Springs east to La Quinta and Indio is limited, as most of the land is privately owned. Potential habitat occurs on the Big Dune; however, the active blowsand areas apparently preferred by the Coachella giant sand treader cricket are no longer present. The cricket is most abundant in the active dunes and ephemeral sand fields in the west end of the Coachella Valley.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 4: Assuming the maximum development in the Section 6 Specific Plan Area is undertaken, ensure that a minimum of 32 acres of the habitat potentially suitable to support this species is acquired for conservation in Target Acquisition Areas outside of the Reservation. Objective 5: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 6: Minimize fragmentation and edge effects to this species.	This species has not been observed on the Reservation. Conservation of this species will occur through acquisition of appropriate habitat within the Target Acquisition Areas that will expand upon existing reserves in the Coachella Valley. The Coachella Valley giant sand-treader cricket is strongly associated with wind-blown, active sand dunes and fields, sand sources, sand corridors, and dune hummocks. Suitable habitat occurs within the Whitewater Floodplain Reserve and at the Coachella Valley Preserve on the main dunes and the Simone Dunes. Despite the low numbers reported from pit-trap samples at the Coachella Valley Preserve, burrows of these crickets are commonly observed in the main dunes. The THCP will provide for conservation of a minimum of 524 acres of active or ephemeral sand fields within the Target Acquisition Areas, including a minimum of 492 acres within the Section 6 Target Acquisition Area (the only remaining area on the Reservation that contains these habitats). The habitat would be located adjacent to or in the vicinity of other existing reserves, thereby minimizing potential edge effects. Although the loss of Plan Area habitat would result in the loss of up to 10 percent of the habitat modeled as available to the species in the Coachella Valley, because a majority of these areas no longer have viable sand sources, the preservation of habitat with long-term viability is considered to benefit the species.	The THCP will allow the disturbance of 69 percent (386 acres) of active and ephemeral sand fields in the Plan Area (55 percent of temporary impact resulting from activities in the Fluvial Sand Transport Process Area and 14 percent from other activities within Section 6). A maximum of 32 acres of such habitats would be subject to permanent impact. Additional threats to the species that may increase with development include reduction and stabilization of aeolian sand ecosystems and sand sources and corridors that maintain them. OHV activity is also a threat to the habitat of this species, as their shallow burrows can be crushed and the sand compacted. Also, non-native plant species can significantly stabilize active sand habitats.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Insect monitoring stations may be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas, if it is determined by the Tribe and the USFWS that such monitoring is warranted.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Flat-tailed horned lizard (*Phrynosoma mcalli*)	2	Historically, the flat-tailed horned lizard occurred in southeastern California; southwestern Arizona; northwestern Sonora, Mexico; and northeastern Baja. The flat-tailed lizard population in the Coachella Valley is isolated from other flat-tailed lizard populations by agriculture, urban development, and the Salton Sea. The Coachella Valley population of flat-tailed lizards occurs at the northern and western limits of the species' distribution.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields and biological core and linkage habitat within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that a minimum of 640 acres of habitat acquired for conservation in the other Target Acquisition Areas are potentially suitable to support this species. Objective 4: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 5: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 6: Minimize fragmentation and edge effects to this species.	The flat-tailed horned lizard occurs in the Thousand Palms Preserve, which was established to protect the Coachella Valley fringe-toed lizard. One additional population occurs in an unprotected area at the east end of the Indio Hills on the north side of the Coachella Canal, which could provide a habitat corridor to the Coachella Valley Preserve. This species has been recorded in the northeastern portion of the Reservation. Although Reservation lands contain 8 percent of the potential habitat available to the species in the Coachella Valley based on habitat modeling, a majority of these habitats are already isolated by development and have limited long-term conservation value. The THCP will provide for conservation of at least 1,132 acres of appropriate habitat within the Target Acquisition Areas, including a minimum of 492 acres within the Section 6 Target Acquisition Area. This habitat would be located adjacent to or in the vicinity of other existing reserves, thereby minimizing potential edge effects.	The THCP will allow disturbance of 95 percent (3,215 acres) of habitat available to the lizard within the Plan Area. This would represent approximately 7 percent of habitat in the Coachella Valley. Additional threats to the species that may increase with development include loss or alteration of sand habitats and agriculture. Development also brings in roads, which increase mortality to individuals and cause an increase in OHV activity. Developments also cause an increased presence of domestic animals, which may prey on the lizard.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Special consideration will be given to edge conditions that could affect the ability to maintain healthy ant populations as prey for this species. Trap arrays will be established within conserved habitat in the Target Acquisition Areas, with surveys to be conducted every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Palm Springs pocket mouse (*Perognathus longimembris bangsi*)	1	The Palm Springs pocket mouse is found only in the Coachella Valley floor. The subspecies is restricted to the lower Sonoran life zone from the San Gorgonio Pass east to the Little San Bernardino Mountains and south along the eastern edge of the Peninsular Range to Borrego Valley and the eastern side of San Felipe Narrows. This species has fairly broad habitat requirements that include loosely packed or sandy soils in locations with level or gently sloped topography with sparse to moderate vegetative cover.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields and biological core and linkage habitat within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species. Objective 4: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 5: Conserve a minimum of 293 acres of potential habitat in the MCCA. Objective 6: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 7: Minimize fragmentation and edge effects to this species.	This species has been observed in the northeastern portion of the Reservation. Conservation of this species will occur through acquisition of at least 1,256 acres of appropriate habitat within the Target Acquisition Areas and Plan Area that will expand upon existing reserves in the Coachella Valley. The species maintains significant populations in the Snow Creek and Mission Creek areas. It also occurs throughout the Coachella Valley Preserve, the Whitewater Floodplain Reserve, and the Willow Hole-Edom Hill Reserve/ACEC.	The THCP will allow the disturbance to 88 percent (5,838 acres) habitat in the Plan Area by Covered Projects. This would represent approximately 3 percent of habitat in the Coachella Valley. Agriculture and development are threats to this species, as are road construction, OHV use, the illegal dumping of trash, and predation by domestic animals, all of which may increase with development.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Small mammal trapping grids will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas for monitoring every five years.

Table 4-3 (cont.)
Species Conservation Summary

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Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus* var. *chlorus*)	1	The distribution of the Palm Springs ground squirrel is from San Gorgonio Pass to the Salton Sea in a variety of sandy areas, including sand fields and dune formations. It does not require active blow sand. Although the species is most often found in mesquite habitat, it is also found in other habitats, such as Sonoran creosote bush scrub, desert saltbush, desert sinks with herbaceous growth, and washes with coarse sands. The species is found throughout the Coachella Valley, including within the Plan Area. The Palm Springs round-tailed ground squirrel is a Federal candidate for listing.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that a minimum of 640 acres of habitat acquired for conservation in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species. Objective 4: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 5: Conserve a minimum of 124 acres of potential habitat in the MCCA. Objective 6: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 7: Minimize fragmentation and edge effects to this species.	This species has been observed in the northeastern portion of the Reservation and near Palm Springs Airport. The ground squirrel has been observed in multiple areas throughout the Coachella Valley, including the Whitewater Floodplain Reserve, the Whitewater Channel, near Snow Creek from Fingal to Windy Point, the Mission Creek Wash, and in the west near Cabazon. In Edom Hill-Willow Hole Reserve/ACEC, quality habitat exists and many individuals have been observed. The Coachella Valley Preserve also possesses quality habitat. Conservation for this species will occur through acquisition of a minimum of 1,256 acres of appropriate habitat within the Target Acquisition Areas and Plan Area that will expand upon existing reserves in the Coachella Valley.	The THCP will allow the disturbance to 92 percent (5,160 acres) of habitat in the Plan Area by Covered Projects. This would represent approximately 4 percent of habitat in the Coachella Valley. Additional threats that may increase with development include the alteration and destruction of sand habitats and an increase in roads, which can cause noise pollution and mortality to individuals. Development can also increase the quantity of non-native plants that may restrict the species' line of sight, making them more susceptible to predation. In addition, development will increase the number of domestic animals, which may outcompete or prey on the squirrels. There is also a significant threat to the squirrel caused by OHVs, which can kill individuals and crush burrows.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Small mammal trapping grids will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas for monitoring every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*)	3	The Coachella Valley Jerusalem cricket is known to occur from the Snow Creek area from Fingal's Finger east to Indian Avenue, as well as in remnants of sand dune habitat around the Palm Springs Airport. Known locations where this species has been observed occur on some of the lands either owned by the BLM (in the Windy Point area) or by the Friends of the Desert Mountains (along Snow Creek Road) or purchased by the BLM. This species' habitat preferences include sandy to somewhat gravelly sandy soils. The species does not necessarily require active blow sand habitat but has been observed in loose wind blown drift sands and dunes. Jerusalem crickets have been observed most widely at the western edge of the Coachella Valley, which possesses cool, moist conditions, re-affirming the belief that the cricket is dependent on a specific climate type.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that a minimum of 640 acres of habitat acquired for conservation in the other Target Acquisition Areas are potentially suitable to support this species. Objective 4: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 5: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 6: Minimize fragmentation and edge effects to this species.	Conservation of this species will occur through acquisition of at least 1,132 acres of appropriate habitat within the Target Acquisition Areas that will expand upon existing reserves in the Coachella Valley. At present, the only location where this species has been reliably observed (and where a viable population of this species may occur) is in the area from Windy Point west to Snow Creek Road and Fingal's Finger. Some observations have occurred within the remnants of sand dune habitat around the Palm Springs Airport. Observations of this species east of Windy Point are few and suggest that the species may not occur in significant numbers in the central Coachella Valley. The Coachella Valley Jerusalem cricket appears to exist only in areas with a specific range of climatic conditions. According to estimates of habitat potential for the species on lands on the Reservation, less than 2 percent of the habitat is suitable for the species, and off-Reservation acquisition will likely benefit this species.	The THCP will allow the disturbance of 95 percent (3,442 acres) of habitat in the Plan Area by Covered Projects. This would represent approximately 12 percent of the habitat in the Coachella Valley. Additional threats to the Coachella Valley Jerusalem cricket that may increase with development are an increase in land fragmentation and OHV activity, which can crush burrows and eliminate native vegetation. Cleaning up surface debris may also pose a problem, as the species uses it for cover. This species is apparently limited to sand dunes and sand fields at the northwest end of the Coachella Valley, where the temperature/moisture gradients are within their tolerance levels. Alteration of these habitats may affect the species.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Insect monitoring stations may be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas, if it is determined by the Tribe and the USFWS that such monitoring is warranted.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Coachella Valley milk-vetch (*Astragalus lentiginosus coachellae*)	3	The Coachella Valley milk-vetch is endemic to the Coachella Valley. It occurs at elevations from 180 to 1,100 feet AMSL. The distribution of this species is restricted to the area between Cabazon and Indio, with the exception of six outlying occurrences within a 5-mile area along the Rice Road in the Chuckwalla Valley north of Desert Center. The Coachella Valley milk-vetch is a federally listed endangered species. The USFWS declined to designate any areas as critical habitat for this species.	Objective 1: Avoid, minimize and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Avoid impacts to extant populations within the Section 6 Specific Plan Area to the Maximum Extent Practicable. Objective 4: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 5: Ensure that a minimum of 640 acres of habitat acquired in Indian Canyons and the other Target Acquisition Areas are potentially suitable to support this species. Objective 6: Consider benefits to this species in making acquisitions in the off-Reservation Target Acquisition Areas. Objective 7: Conserve a minimum of 42 acres of potential habitat in the MCCA.	The Coachella Valley milk-vetch exhibits fluctuating population sizes from year to year as a result of drought conditions. This is a concern as stochastic events could extirpate the plant from an area. This species occurs in three preserves: Whitewater Floodplain, Willow Hole-Edom Hill/ACEC, and Coachella Valley. It also has been observed in the northeastern portion of the Reservation. The Reservation contains approximately 8 percent of the potential habitat available to the species, although almost all of this habitat has been isolated by existing development and no longer provides long-term conservation value for the species. Acquisition of habitat within the Target Acquisition Areas and conservation elsewhere within the Plan Area will benefit this species by conserving 1,174 acres of appropriate habitats within a larger reserve system. The extant population within the Section 6 Specific Plan Area will be avoided to the Maximum Extent Practicable.	The THCP will allow the disturbance of 95 percent (4,557 acres) of habitat in the Plan Area. This would represent approximately 7 percent of the habitat in the Coachella Valley. Additional threats to the species that may increase with development include the loss of suitable habitat through the stabilization of sand. Other impacts may include OHV use, trampling, and introduction of non-native plants, which increase with development.	Surveys of portions of the Section 6 Specific Plan Area proposed for disturbance will be conducted by a qualified biologist during the appropriate season and conditions to identify this species.	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Populations identified during the Specific Plan process that are conserved will be monitored during vegetation monitoring conducted every eight years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Le Conte's thrasher (*Toxostoma lecontei*)	1	The Le Conte's thrasher occurs in a limited area in the southwestern portion of the U.S. and northwestern Mexico in undisturbed, sparsely vegetated desert flats, dunes, alluvial fans, and hills, often in habitat where saltbush or cholla cactus dominate. Specifically, the species is known to occur in the San Joaquin Valley, Mojave, and Colorado deserts of California and Nevada into central and coastal Baja. The bird also has been known in the Sonoran Desert from southwestern Utah and western Arizona into western Sonora, Mexico. Despite its moderate distribution, the species is rare, only being observed in patches of this area.	Objective 1: Avoid, minimize, and/or mitigate impacts to active or ephemeral sand fields within the Section 6 Target Acquisition Area on the Reservation. Objective 2: Conserve at least 177 acres within the Section 6 Target Acquisition Area. Objective 3: Ensure that activities within the 315-acre Section 6 Fluvial Sand Transport Process Area do not disrupt sand transport, and ensure that reclamation of the site would result in potentially suitable habitat for the species over the long term. Objective 4: Conserve a minimum of 100 acres of potential habitat in the MCCA.	Historical records from the California Natural Diversity Database have placed this bird throughout the Coachella Valley, many areas of which have been impacted by development. Records of sightings of the bird over the last 10 years place the species in multiple areas, including Desert Hot Springs, west of Whitewater Canyon, south of I-10, west of Gene Autry Trail, Willow Hole ACEC, Pushwalla Canyon, Thousand Palms Oasis, and Indian Wells. It has not been recorded on the Reservation (and has not been the subject of extensive surveys there). Conservation of this species will occur through acquisition of at least 492 acres of appropriate habitat within the Target Acquisition Areas and 100 acres elsewhere in the Plan Area that will expand upon existing reserves in the Coachella Valley.	The THCP will allow the disturbance of 96 percent (5,149 acres) of the habitat in the Plan Area by Covered Projects. This would represent approximately 2 percent of the habitat in the Coachella Valley. Urbanization and agriculture often occur in areas with habitat suitable to the bird. Other threats to the species may include fire, pesticides, predation of young by house cats, and collisions with cars, all of which may increase with development.	None	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Avian survey stations will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas for monitoring every five years.

Table 4-3 (cont.)
Species Conservation Summary

COMMON NAME/ SCIENTIFIC NAME	GROUP DESIGNATION*	RATIONALE FOR GROUP DESIGNATION	SPECIES OBJECTIVES†	CONSERVATION ANALYSIS SUMMARY	INCIDENTAL TAKE	PRE-DISTURBANCE SURVEY REQUIREMENTS	MANAGEMENT AND MONITORING ACTIVITIES SUMMARY
Crissal thrasher (*Toxostoma crissale*)	1	The crissal thrasher occurs throughout the southwesternmost portion of the U.S. and northwestern Mexico. Its range in the U.S. includes southeastern California, southern Nevada, the southern portions of Arizona and New Mexico, and the westernmost portion of Texas. Its preferred habitats are desert saltbush scrub and mesquite hummocks.	Objective 1: Avoid impacts to mesquite hummocks and thickets associated with riparian habitat in the Plan Area to the Maximum Extent Practicable. Objective 2: Conserve, create, or restore mesquite hummock and mesquite thicket habitats at a minimum ratio of 2:1 (including a 1:1 minimum creation component for impacts to mesquite hummocks and thickets associated with riparian habitat) as mitigation for any unavoidable impacts to these areas.	In the Coachella Valley, the crissal thrasher occurs in desert saltbush scrub and mesquite hummocks. As a result, the species likely occurs throughout the Coachella Valley floor. These vegetation communities have not been mapped within the Plan Area, but may occur in small areas not mapped at a regional scale. This species has not been the subject of extensive surveys in the Plan Area, and it has not been recorded there in recent years. All mesquite hummocks and thickets associated with riparian habitat (which may support this species) in the Plan Area will be avoided to the Maximum Extent Practicable and any impacts will be mitigated at a 2:1 ratio, including a 1:1 creation component.	No modeled habitat occurs in the Plan Area. It is not known if viable populations exist in the potential impact area, and if the destruction of this habitat will have an effect on the species.	The presence of mesquite hummocks and thickets associated with riparian habitat (which may provide habitat for this species) on lands proposed to be subject to a Covered Activity must be reported to the Tribe.	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds. Avian survey stations will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas for monitoring every five years.
Little San Bernardino Mountains gilia (*Linanthus maculatus*)	3	The Little San Bernardino Mountains gilia is an endemic plant species that occurs along the margins of washes in the vicinity of the Little San Bernardino Mountains and Mission Creek Canyon to Dry Morongo Wash and Big Morongo Canyon as well as the northwest portion of the Coachella Valley. It also occurs in Whitewater Canyon and from Whitewater to Palm Springs. Recently, an additional population was discovered in Rattlesnake Canyon on the north side of the San Bernardino Mountains. Populations of this species also occur outside the Coachella Valley along washes at the northern edge of Joshua Tree National Park in the vicinity of Joshua Tree, Yucca Valley, and Twentynine Palms. Populations may occur in the 22-mile area between Rattlesnake Canyon and Yucca Valley, but data are lacking.	Objective 1: Avoid impacts to populations of this species to the Maximum Extent Practicable. Objective 2: As mitigation for any unavoidable impacts, conserve or restore populations at a minimum ratio of 3:1.	It is not known whether the Little San Bernardino Mountains gilia exists on lands within the Plan Area's boundaries, but habitat has not been modeled there. Extant populations will be avoided to the Maximum Extent Practicable and any impacts will be mitigated at a 3:1 ratio.	No modeled habitat occurs in the Plan Area, and it is not known if any viable populations exist there. Threats to the species that may increase with development include the loss of or degradation to suitable habitat, which can occur from activities such as flood control maintenance activities, OHVs, illegal dumping of garbage, and sand and gravel mining. Edge effects are also a problem when development encroaches into areas where the species occurs.	If a Covered Activity proposes to impact habitat that the Tribal Biologist deems suitable for the species, presence/absence surveys will be conducted at the appropriate time of year and in appropriate conditions to detect the species.	As part of Habitat Preserve acquisition, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted. Management measures that will benefit the species include controlling access and exotic weeds.

*Group 1: Take coverage is warranted based on regional or landscape-level considerations, such as healthy population levels, widespread distribution throughout the Coachella Valley, and life history characteristics that respond to habitat-scale conservation and management actions.
Group 2: Take coverage is warranted based on regional or landscape-level considerations with the addition of site-specific conservation and management requirements clearly identified in the Tribal HCP for species that are generally well-distributed but have core habitats that require conservation.
Group 3: Take coverage is warranted based on site-specific considerations and the identification of specific conservation and management conditions for species within a narrowly defined habitat or limited geographic area within the Coachella Valley.
†Species conservation objectives assume implementation of the maximum allowable disturbance to fund associated conservation.

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Acreage is based on the habitat modeling that is graphically depicted on the figures in Chapter 3. The acreage and percentages given for Coachella Valley habitat are provided for comparison purposes to assess impacts likely to result from implementation of this Plan.

Conservation would occur only as impacts occur, proportionate to the amount of impact. Based on the vagaries of how development (and resultant impacts and mitigation) under the Plan may occur within the Plan Area, a maximum of 1,455 acres would be acquired and managed within the Target Acquisition Areas. It should be noted that the habitat suitability models for the blow sand-dependent species potentially occurring on the valley floor substantially overestimate the amount of suitable habitat for species, based on the fact that many of the sand fields are already stabilized.

Impacts to covered species and their habitat within the Plan Area will result from private development projects and public projects consistent with the Tribal HCP. Additionally, where preserve areas are planned adjacent to existing developed areas, the fuel management zone may encroach into the preserve. Such fuel management zones are typically maintained by removing exotic and non-native vegetation that increase fire risk and decrease habitat value. As such, fuel management areas that involve such activities shall be counted as conservation.

Direct Effects

With the exception of Peninsular bighorn sheep and migratory birds, direct effects from the proposed plan may include injury, death, and/or harassment of listed and Tribal sensitive species. Direct effects may also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Organisms with multiple life stages may be affected in different ways (e.g., amphibians have certain hydrologic requirements in streams or ponds depending on their life stage). Additionally, direct effects to plants can include crushing of adult plants, bulbs, or seeds.

Indirect Effects

Indirect effects from the proposed plan may include habitat fragmentation, edge effects, noise effects, disruption of the natural fire regime, changes in hydrology from adjacent development, increased lighting, and the proliferation of exotic species.

Habitat Fragmentation. Habitat fragments generally have less conservation value than large habitat blocks because smaller habitat areas usually contain fewer species, have proportionally larger perimeters (making them more vulnerable to edge effects), are more likely to be biologically isolated from other habitat areas, and tend to be more vulnerable to adverse stochastic events.

Edge Effects. A negative effect of fragmentation is exposure to incompatible land uses along the habitat edge (edge effects). The biological integrity of habitats adjoining development can be diminished by adverse effects of noise, lighting, exotic plant and animal invasion, dust/air pollution, predators, parasites, disturbance from human activities, pesticides, fuel modification, and other factors. Numerous predators such as snakes, opossums, raccoons, skunks, ground squirrels, and various corvids thrive on edges by making use of additional food and water sources provided by residential development adjacent to preserves.

Alteration of Fire Regimes. Alteration of the natural fire regime could lead to elimination of fire in small habitat fragments adjacent to development or to an increase in fire frequency from anthropogenic ignition.

Noise. Development in the Plan Area is likely to result in higher ambient noise levels which is likely to adversely affect some Covered Species within the Plan Area and those areas where work is conducted adjacent to preserves. The impact of noise on wildlife is likely to differ from species to species and is not only dependent on the source of the noise (e.g., aircraft versus blasting), but also on the duration and schedule. Organisms that rely on sound to communicate (e.g., birds, frogs, etc.) may be indirectly impacted from noise. Construction activity (for example) that is outside of a preserve area may also generate noise that impacts species within the preserve.

Changes in Hydrology. Changes in the character of urbanization in the Plan Area may be indirectly affected by implementation of the Tribal HCP. Resulting changes in hydrology, run-off, and sedimentation could indirectly impact surface water dependent Covered Species both in and outside of the preserve system. Increased urban run-off into the preserve system and channelization for flood control is likely to result in increased erosion and increased rates of scouring, which is likely to result in downstream habitat loss for some species. Because urbanization has the potential to increase the magnitude and frequency of high flows causing bank erosion and channel widening, species could be adversely affected if they rely on natural flow regimes for their persistence. Additionally, urban run-off increases the temperature of adjacent streams due to higher water temperatures from streets, roof tops, and parking lots, and increases the variety and amount of pollutants carried into streams, rivers, and lakes.

Lighting. Artificial night lighting adversely impacts the habitat value for some species, particularly for nocturnal species through potential modification of predation rates, obscuring of lunar cycles, and/or causing direct habitat avoidance. Illumination of foraging habitat by artificial light during surface activity periods of prey likely makes detection by predators easier, potentially increasing the predation rate by owls, coyotes, fox, house cats, etc. Artificially lit habitat areas may also be directly avoided by certain species.

Illumination of bird habitat by increased night lighting of the Plan Area has the potential to adversely affect bird species. Physiological, developmental, and behavioral effects of light intensity, wavelength,

and photoperiod on domestic bird species are well documented. Placement of nests away from lighted areas implies that part of the home range is rendered less suitable for nesting by artificial light. If potential nest sites are limited within the bird's home range, reduction in available sites associated with artificial night lighting may cause the bird to use a suboptimal nest site that is more vulnerable to predation, cowbird parasitism, or extremes of weather.

Exotic Species. Native species are often at a disadvantage after exotic species or nonnative predators are introduced. Nonnative plant and animal species have few natural predators or other ecological controls on their population sizes, and they often thrive in disturbed habitats. These species may aggressively out-compete native species or otherwise harm sensitive species. When top predators are absent, intermediate predators multiply and increase predation on native bird species and their nests. Feral and domestic animal holding areas, and golf courses provide resources for increased populations of parasitic cowbirds, which adversely effect native songbird populations. Litter and food waste from picnickers can contribute to an increase in Argentine ant populations which out-compete native ants. Invasive plant species such as tamarisk and giant reed can alter water flow and quantities resulting in adverse effects to water dependent species.

4.4.1 Peninsular Bighorn Sheep

The Action Area and adjacent lands support one of the eight subpopulations, or ewe groups, of the Peninsular bighorn sheep metapopulation. The Plan Area includes 20,527 acres or 11 percent of the habitat within the Coachella Valley for this species. With implementation of this Plan, authorized development could directly disturb up to 2,278 acres or 11 percent of Peninsular bighorn sheep habitat in the Plan Area, or approximately 1 percent of suitable habitat in the Coachella Valley. This development will be subject to a number of minimization measures and restrictions (see section 4.8.4.2(a)), including that no habitat disturbance will be authorized in use areas and habitat linkages will be maintained (as identified in section 4.8.4.1). Impacts that could occur include direct loss of habitat, indirect effects to habitat, and harassment of individuals through construction, recreation, and maintenance activities. Although some disturbance would occur, the actual impacts of disturbance to the species are expected to be low as a result of the avoidance, minimization, and mitigation requirements incorporated into the Plan. These measures, including habitat protection, indirect impact minimization, and management will provide for protection of habitat and individuals to ensure the long-term conservation of the species. Implementation of the Plan would be consistent with the Recovery Plan adopted for the species. This Tribal HCP, therefore, is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Peninsular Bighorn Sheep

Total Potential Acres of Habitat within Coachella Valley	Acres of Habitat in the Plan Area	Minimum Habitat Acres to be Conserved	Maximum Habitat Acres to be Disturbed
173,415	16,269 (11% of potential habitat in Coachella Valley)	14,070	2,278

4.4.2 Avian Riparian Species (Least Bell's Vireo, Southwestern Willow Flycatcher, Summer Tanager, Yellow-breasted Chat, and Yellow Warbler)

The Plan Area represents a small proportion of the range of each of these species (refer to section 3.3 for details), and less than two percent of the potential habitat for these species in the Coachella Valley. The Plan Area and other lands throughout the Action Area include potential breeding habitat for least Bell's vireo, summer tanager, yellow-breasted chat, and yellow warbler in riparian woodlands, including desert fan palm oasis woodland, Sonoran cottonwood-willow forest, and Sonoran sycamore-alder woodland. These species are known to breed in low numbers in the Plan Area and adjacent lands in the Action Area. Potential breeding and foraging habitat for the southwestern willow flycatcher is similar to that of the least Bell's vireo, although southwestern willow flycatcher generally prefer a more developed canopy and are often found only adjacent to open water; breeding habitat for this species likely does not occur in the Plan Area.

Habitat disturbance by Covered Projects will be conditioned to ensure that no more than 116 acres or 10 percent of existing riparian habitat in the Plan Area is disturbed, and that no net loss of existing riparian habitat suitable to support Covered Species within the Plan Area occurs through creation of habitat at a minimum 1:1 ratio, with habitat functions and values fully replaced within 5 years of initiating creation efforts. Enhancement of riparian habitat through removal of non-native plant and animal species will result in a net increase in functions and values of riparian habitat for these species. All Covered Activities will be subject to the conditions of any required Clean Water Act permits. Additional riparian habitat may be conserved, created, or restored through Clean Water Act Section 404 mitigation requirements and other restoration activities described in this Plan (refer to section 4.10). As a result of these measures, along with the small proportion of the species' ranges and populations that the Plan Area represents, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of any of these species.

Potential habitat along the Whitewater River, Snow Creek, and Mission Creek, among others, occur outside of the Plan Area and are afforded some level of protection by other conservation efforts in the region, as well as the wetland permitting process.

Conservation and Incidental Take Levels for Avian Riparian Species

Total Potential Acres of Habitat within the Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Habitat Acres to be Conserved*	Maximum Habitat Acres to be Disturbed†
69,035	1,164 (2% of potential habitat in Coachella Valley)	1,048	116

*With restoration, an amount equal to at least 100% of the existing amount of suitable habitat functions and values will be conserved.

†No net loss standard would result in no suitable acreage and habitat functions and values being lost after mitigation.

4.4.3 Mountain Yellow-legged Frog

This species was historically distributed throughout substantial proportions of California (refer to section 3.3 for details). While there are only historic sightings of the mountain yellow-legged frog within the Plan Area and Action Area, riparian areas in the MCCA may provide habitat for this species. As described in section 3.3.1.7, further habitat assessments have been conducted to develop a more accurate estimate of the amount of habitat in the Plan Area that currently may be suitable to support this species. If occupied habitat is identified, it will be avoided to the Maximum Extent Practicable (although some take may occur).

Habitat disturbance by Covered Projects will be conditioned to ensure that no more than 11 acres of mountain yellow-legged frog habitat or 6 percent of existing suitable riparian habitat is disturbed, and that no net loss of existing riparian habitat suitable to support Covered Species within the Plan Area occurs through creation of habitat at a minimum 1:1 ratio, with habitat functions and values fully replaced within 5 years of initiating creation efforts. Enhancement of riparian habitat through removal of non-native plant and animal species will result in a net increase in functions and values of riparian habitat for this species. All Covered Activities will be subject to the conditions of any required Clean Water Act permit. Furthermore, approximately 73 acres (38 percent) of habitat determined through USGS surveys to be potentially suitable to support the mountain yellow-legged frog are within areas designated for 100 percent conservation. Some additional riparian habitat may be conserved, created, or restored through Clean Water Act Section 404 mitigation requirements and other restoration activities described in this Plan (section 4.10). As a result of these measures, combined with the lack of recent observations and the small proportion of the species' range that the Plan Area represents, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the mountain yellow-legged frog.

The USFS's Angeles, San Bernardino, and Cleveland National forests manage lands containing all known extant locations of mountain yellow-legged frog in southern California. The Plan Area is in the extreme southeastern portion of the species' ranges, and available habitat in the Plan Area represents a small fraction of their available range. Regardless, current USGS and other partners efforts are underway to potentially reintroduce mountain yellow-legged frogs on Forest Service lands and possibly Tribal Lands in the near future.

Conservation and Incidental Take Levels for Amphibian Species

Species	Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Habitat Acres to be Conserved*	Maximum Habitat Acres to be Disturbed†
Mountain yellow-legged frog	2,148‡	192	192	11

*With restoration, an amount equal to at least 100% of the existing amount of suitable habitat functions and values will be conserved.
†No net loss standard would result in no suitable acreage and habitat functions and values being lost after mitigation.
‡Estimate based upon riparian habitat, more precise delineation is not available for the Coachella Valley.

4.4.4 Southern Yellow Bat

As described in section 3.3.1.9, the range of this species extends from southeastern California to southwestern Texas and includes the northwestern portion of Mexico. Known occupied habitat for this species within the Plan Area includes the palm oases occurring in the San Jacinto and Santa Rosa Mountains, including the canyons of Indian Canyons Heritage Park. Habitat disturbance by Covered Projects will be conditioned to ensure that no more than 81 acres or 10 percent of existing naturally occurring palm oasis habitat is disturbed, and that no net loss of existing riparian habitat suitable to support Covered Species within the Plan Area occurs through creation of habitat at a minimum 1:1 ratio, with habitat functions and values fully replaced within 5 years of initiating creation efforts. Enhancement of riparian habitat through removal of non-native plant species will result in a net increase in functions and values of riparian habitat for this species. All Covered Activities will be subject to the conditions of any required Clean Water Act permits. The maximum allowable level of impact represents approximately five percent of the modeled potential habitat for this species in the Coachella Valley. As a result of these considerations, combined with the small proportion of the species total range that the Coachella Valley represents, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Additionally, it should be noted that the species also is expected to occur in palms used as landscaping in the Action Area and throughout the valley floor. Acreage estimates for such landscaping are not currently available. As mitigation for Covered Activities undertaken by or under the discretion of the Tribe within the Plan Area that would result in impacts to this species (e.g., trimming or removal of palm trees used in landscaping around Tribal facilities), the Tribe would dedicate 10 acres of naturally occurring palm oases to the Habitat Preserve within one year of Plan approval. Palm trimming or removal activities that are not under Tribe discretion are not Covered Activities. The Tribe would continue to work with local residents to educate them regarding the conservation needs of the southern yellow bat, including by promoting the appropriate trimming of palm trees.

Appropriate habitat is conserved in the Coachella Valley and Dos Palmas preserves outside of the Plan Area, and is provided some additional protection through the wetland permitting process.

Conservation and Incidental Take Levels for Southern Yellow Bat

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Habitat Acres to be Conserved*	Maximum Habitat Acres to be Disturbed†
1,831	869 (47% of potential habitat in Coachella Valley)	869	81

*With restoration, an amount equal to at least 100% of the existing amount of suitable acreage and habitat functions and values will be conserved.

†No net loss standard would result in no suitable habitat functions and values being lost after mitigation.

4.4.5 Triple-ribbed Milk-vetch

This species is known from a narrow range in the Coachella Valley. Although there have been no sightings of this species in the Plan Area, and none of the modeled habitat in the Coachella Valley occurs in the Plan Area, populations could occur in the rugged canyons and washes within Indian Canyons. It is anticipated that the protection of such habitat in connection with other species (i.e., Peninsular bighorn sheep and riparian-dependant species) will likely conserve most, if not all, possible habitat for this species within the MCCA. If a Covered Activity would impact habitat determined by the Tribal Biologist to have the potential to support this species, surveys will be conducted at the appropriate time of year (February 1 through May 15 depending on weather conditions for a given year). If present, this species will be avoided to the Maximum Extent Practicable; however, impacts could occur to this species. The Covered Activity Proponent would be required to conserve extant populations elsewhere and/or prepare and implement a restoration plan as mitigation for any unavoidable impacts, to the satisfaction of the Tribe. As explained in Section 3.3.1.10, 85 percent of the known locations of this species occur on public lands that have some form of protective status. As a result of the protective measures that would be applied should this species be observed within the Plan Area, combined with its limited potential to occur there, this Tribal HCP is not anticipated to affect adversely the range-wide recovery of the species.

Conservation and Incidental Take Levels for Triple-ribbed Milk-vetch

Known Locations within Coachella Valley	Known Locations in Plan Area	Maximum Potential Disturbance (%)
4	0	Although observed locations will be avoided to Maximum Extent Practicable, up to 100% potential impact to occupied habitat, if any, may occur.†

†Mitigation for any unavoidable impacts would be required at a 3:1 ratio.

4.4.6 Desert Tortoise

Desert tortoises are known to occur across the Sonoran and Mojave deserts from Colorado to Utah and into Mexico. The species is known to occur in the Plan Area, which contains approximately 2 percent of the modeled habitat for this species in the Coachella Valley. Potential desert tortoise habitat occurs on the alluvial fans and slopes found along the foothills in the MCCA. Under the Tribal HCP, up to 2,649 acres (26 percent) of modeled desert tortoise habitat in the Plan Area (less than 1 percent of the modeled habitat for this species in the Coachella Valley) will be available for disturbance by Covered Projects. A minimum of 10,301 acres of potential desert tortoise habitat would be conserved if the Tribal HCP is fully implemented. In addition, direct impacts to individuals will be minimized through avoidance of impacts to occupied habitat within the Section 6 Target Acquisition Area to the Maximum Extent Practicable and relocation requirements (see sections 4.8.4.2(f) and 4.9.3.4 below). As a result of these considerations, this Tribal HCP is not anticipated to affect adversely the range-wide recovery of the species.

Conservation and Incidental Take Levels for Desert Tortoise

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
602,321	12,950 (<1% of potential habitat in Coachella Valley)	10,301	2,649

4.4.7 Burrowing Owl

The burrowing owl is known to occur throughout the midwestern and western U.S., Texas, and southern Florida, parts of central Canada, and into Mexico and the drier regions of Central and South America. It has been documented to occur in the Plan Area and can occupy any open habitat within the canyon bottoms in the San Jacinto and Santa Rosa Mountains and on the valley floor. Specifically, it has potential to occur in the desert dry wash and Sonoran mixed woody and succulent scrub communities found on canyon bottoms within Indian Canyons Heritage Park and Tahquitz and Chino canyons as well as in the stabilized and partially stabilized desert sand fields found along the I-10 corridor in the northeast portion of the Reservation. A majority of suitable habitat for this species in the Coachella Valley occurs outside of the Plan Area. Subject to the provisions of this Tribal HCP, up to 3,450 acres (78 percent) of modeled habitat for this species could be impacted in the Plan Area, much of which occurs in areas already fragmented by development. A minimum of 1,341 acres of habitat suitable to support this species will be conserved within much larger continuous blocks of habitat compared with the acres to be impacted. It should be noted that direct impacts to individuals will be minimized through avoidance of impacts to occupied habitat within the Section 6 Target Acquisition Area to the Maximum Extent

Practicable and relocation requirements (see sections 4.8.4.2(g) and 4.9.3.4 below). As a result of the conservation measures that will be employed, combined with the small proportion of the species' range that the Plan Area represents, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Burrowing Owl

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
Not Available	4,427	1,341	3,450

4.4.8 Gray Vireo

The gray vireo occurs in semi-arid, shrub-covered foothills and mesas in pinyon-juniper, juniper, and chamise-redshank chaparral habitat. It breeds in the southwestern U.S. and in Baja California, Mexico, and its summer range includes New Mexico, southern Nevada, southern Utah, southern Colorado, western Texas, Arizona, and southeastern California. The Plan Area represents less than 1 percent of modeled habitat for this species in the Coachella Valley. Although this species has not been documented to occur in the Plan Area, observations have occurred elsewhere in the San Jacinto Mountains. A minimum of 782 acres (80 percent) of the available gray vireo habitat will be conserved within the MCCA. Up to 20 percent of potential habitat in the Plan Area could be impacted by Covered Activities. Existing conserved habitat for this species includes public lands in the Santa Rosa and San Jacinto Mountains, Joshua Tree National Park, Whitewater Canyon Conservation Area, and San Gorgonio Wilderness. As a result of the proposed habitat conservation and the small proportion of the species' range that occurs within the Plan Area, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Gray Vireo

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
111,883	978 (1% of potential habitat in Coachella Valley)	782	196

4.4.9 Blow Sand-dependent Species

The Coachella Valley fringe-toed lizard and Coachella giant sand-treader cricket are associated exclusively with active and ephemeral sand fields. The only remaining area on the Reservation that

supports these conditions is 571 acres of modeled habitat in Section 6 (Township 4 South, Range 5 East). The remaining 2,820 acres of modeled habitat within the Plan Area consist of stabilized and partially stabilized sand fields, which may currently support remnant populations of these species, but are not considered to have long-term viability. The total area of modeled habitat available for potential disturbance by Covered Projects represents approximately 10 percent of modeled habitat for these species in the Coachella Valley, although most areas within the Reservation are fragmented and no longer are maintained by a viable sand source. The remainder of this analysis focuses on active and ephemeral sand fields.

As described in detail in section 4.9.3.1, Covered Activities in the Section 6 Target Acquisition Area will be subject to avoidance, minimization, and/or mitigation requirements. Activities within the 315-acre Fluvial Sand Transport Process Area would be limited to activities that do not disrupt sand transport (e.g., sand mining), and the site would be reclaimed and dedicated to the Habitat Preserve upon completion of activities (which would be authorized for a maximum 20-year term). Activities within the 209-acre Section 6 Specific Plan Area would be limited to a maximum disturbance footprint of 32 acres and be subject to design standards to minimize impacts. The remaining 177 acres within the Section 6 Specific Plan Area would be conserved. Thus, a minimum of 492 acres (315 acres in the Fluvial Sand Transport Process Area and 177 acres in the Specific Plan Area) of potentially suitable habitat (i.e., active and ephemeral sand fields) would ultimately be conserved within Section 6. Development in the Specific Plan Area would require off-site mitigation at a 1:1 ratio. Therefore, an additional 32 acres of active and ephemeral sand fields would be acquired for conservation in off-Reservation Target Acquisition Areas if the maximum allowable development in the Section 6 Specific Plan Area is ultimately implemented. This would result in a total of 524 acres of active and ephemeral sand field conservation.

A maximum of 69 percent of existing active and ephemeral sand fields, which have long-term viability to support these species, on the Reservation would be authorized for disturbance (55 percent of temporary impact resulting from activities in the Fluvial Sand Transport Process Area and 14 percent of permanent impact from other areas within Section 6). Thus, a maximum of 347 acres of habitat with long-term viability for these species would be impacted (315 acres of it temporarily) in exchange for dedication and management in perpetuity of a minimum of 524 acres of habitat with long-term viability, a ratio of 1.3:1. In the ultimate condition (if the maximum authorized amount of development and associated mitigation occur and once the Fluvial Sand Transport Process Area is reclaimed and dedicated to the Habitat Preserve), 79 acres would be impacted in exchange for 524 acres of conservation, a ratio of 6.7:1. This would represent on-site conservation of 85 percent of the existing habitat, or (with the off-site conservation) net conservation of 91 percent. As a result of these considerations, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Blow Sand-dependent Species

Species	Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
Coachella Valley Fringe-toed Lizard and Coachella Valley Giant Sand-treader Cricket	32,384	3,391 (10% of potential habitat in Coachella Valley)	524	3,214

4.4.10 Blow Sand and Stabilized Sand-dependent Species

The flat-tailed horned lizard, Palm Springs pocket mouse, Palm Springs ground squirrel, Coachella Valley Jerusalem cricket, and Coachella Valley milk-vetch can occur in both blow sand and stabilized sand environments. The flat-tailed horned lizard, Palm Springs pocket mouse, Palm Springs ground squirrel, and Coachella Valley milk-vetch all occur within the Plan Area, while the Coachella Valley Jerusalem cricket has been documented within the Action Area. As described in section 4.4.9, 394 acres (69 percent) of the 571 acres of active and ephemeral sand fields that potentially provide habitat for these species could be impacted. This total acreage adversely affected includes 315 acres of the Section 6 Fluvial Transport Process Area, which may be impacted through sand mining operations, although this Covered Activity would not be allowed to interrupt natural fluvial sand transport. Upon completion of authorized activities, this area would be reclaimed and dedicated to the Habitat Preserve. As described in section 4.3.2.10, stabilized sand habitats on the valley floor portions of the Plan Area are highly isolated, fragmented, and subject to extensive edge effect, but may still provide habitat for sand-dependent species in the near-term. Under the Tribal HCP, all stabilized sand habitat within the Plan Area will be available for disturbance by Covered Activities. The amount of potential impact contemplated by the Plan represents less than 10 percent of the currently remaining modeled habitat in the Coachella Valley for each species other than Coachella Valley Jerusalem cricket (13 percent). It should be noted that most of the modeled habitat for these species in the Plan Area is isolated and therefore these areas would not likely provide long-term viable habitat. Mitigation for development impacts to stabilized and partially stabilized sand fields would consist of a fee payment. A minimum of 80 percent of the total habitat conserved on the Valley Floor (1,164 acres, assuming the maximum development allowed on the valley floor under the Tribal HCP occurs) would be for the benefit of these species. The Palm Springs pocket mouse, Palm Springs ground squirrel, and Coachella Valley milk-vetch may also benefit from the conservation of modeled habitat within the MCCA and/or Indian Canyons. Additionally, Coachella Valley milk-vetch populations occurring within the Section 6 Specific Plan Area would be avoided to the Maximum Extent Practicable. As a result of these considerations and the proposed conservation and management of suitable habitat in an appropriate reserve configuration, this Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Blow Sand and Stabilized Sand-dependent Species

Species	Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
Flat-tailed Horned Lizard	43,478	3,392 (8% of potential habitat in Coachella Valley)	1,132	3,215
Palm Springs Pocket Mouse	174,644	6,666 (4% of potential habitat in Coachella Valley)	1,425	5,838
Palm Springs Ground Squirrel	121,347	5,579 (5% of potential habitat in Coachella Valley)	1,256	5,160
Coachella Valley Jerusalem Cricket	28,202	3,619 (13% of potential habitat in Coachella Valley)	1,132	3,442
Coachella Valley Milk-vetch	63,544	4,812 (8% of potential habitat in Coachella Valley)	1,174	4,557

4.4.11 Other Valley Floor Species

Four species have specialized habitat requirements that do not fit within active or stabilized sand habitat categories: crissal thrasher, Le Conte's thrasher, and Little San Bernardino Mountains gilia.

Crissal thrashers occur in southeastern California, southern Nevada, southern portions of Arizona and New Mexico, westernmost portion of Texas, and northwestern Mexico. In the Coachella Valley, they occur in the Action Area and are restricted to mesquite hummocks and desert saltbush scrub. These vegetation communities have not been mapped within the Plan Area, but may occur in small areas not mapped at a regional scale. Under the Tribal HCP, all mesquite hummocks and thickets associated with riparian habitat in the Plan Area will be avoided to the Maximum Extent Practicable and any impacts will be mitigated at a 2:1 ratio. As a result of these considerations, the Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Le Conte's thrasher has been observed in the Plan Area and occurs in a patchy distribution in the southwestern portion of the U.S. and northwestern Mexico. Its habitat includes desert flats, dunes, alluvial fans, and habitat where saltbush or cholla cactus is present. Under the Tribal HCP, all desert flats, alluvial fans outside of the MCCA, and habitat where saltbush or cholla cactus is present in the Plan Area (with the exception of active and ephemeral sand fields in the conservation portion of the Specific Plan Area of the Section 6 Target Acquisition Area) will be available for disturbance by Covered Activities. The area available for potential impacts represents approximately two percent of the modeled habitat for this species in the Coachella Valley. Therefore, the Tribal HCP is not anticipated to adversely affect the range-wide recovery of this species.

Little San Bernardino Mountains gilia is restricted to the vicinity of the Coachella Valley. It occurs in loose, soft, sandy soils on low benches along washes, usually in areas where there is evidence of water flow. No modeled habitat for this species extends into the Plan Area; however, the species may occur in the bajadas and alluvial fans in the northeastern portion of the Reservation. Unless considered jurisdictional habitat under Section 404 of the Clean Water Act, these habitats will be available for disturbance by Covered Activities. Impacts to populations documented through surveys conducted or required by the Tribe will, however, be avoided to the Maximum Extent Practicable and any impacts will be mitigated at a 3:1 ratio. As a result of these considerations, the Tribal HCP is not anticipated to adversely affect the range-wide recovery of the species.

Conservation and Incidental Take Levels for Crissal Thrasher

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
10,826	None modeled	2:1 ratio for any impacts	100%

Conservation and Incidental Take Levels for Le Conte's Thrasher

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
250,198	5,426 (2% of potential habitat in Coachella Valley)	592	5,149

Conservation and Impact Levels for Little San Bernardino Mountains Gilia

Total Potential Acres of Habitat within Coachella Valley	Potential Acres of Habitat in the Plan Area	Minimum Acres to be Conserved	Maximum Habitat Acres to be Disturbed
3,554	None modeled	3:1 ratio for any impacts	100%

4.4.12 Summary of Impact Restrictions

Impacts likely to result to Covered Species, as contemplated by this Plan, can be summarized as follows:

1. A maximum of 15 percent of the modeled potential habitat found in the MCCA may be subject to ground disturbance associated with Covered Projects, leaving protected a minimum of 85 percent of such habitats from such activities. This is subject to the following restrictions:
   a. Impacts will not be authorized in use areas and defined habitat linkages of the Peninsular bighorn sheep will be maintained (as described in section 4.8.4.1).
   b. Impacts to riparian areas (i.e., desert fan palm oasis woodland, Sonoran cottonwood-willow riparian forest, and southern sycamore-alder riparian woodland) shall be avoided to the Maximum Extent Practicable. A maximum of 10 percent of such habitat in the MCCA as a whole may be disturbed, including a maximum of 10 percent of the naturally occurring palm oases. Any unavoidable impacts shall be mitigated such that no net loss of riparian habitat suitable to support riparian Covered Species occurs in the Plan Area, and provide for a net gain in functions of the riparian habitat by removal of non-native species.
   c. Covered Activities within Indian Canyons Heritage Park and Tribal Reserve would be subject to impact minimization and mitigation requirements as described in section 4.9.3.3.
   d. Impacts to mesquite hummocks and thickets associated with riparian habitat shall be avoided to the Maximum Extent Practicable.
   e. Impacts to habitats occupied by the least Bell's vireo, southwestern willow flycatcher, mountain yellow-legged frog, triple-ribbed milk-vetch, and/or Little San Bernardino Mountains gilia (as determined by surveys conducted and/or required by the Tribe) will be avoided to the Maximum Extent Practicable. Nonetheless, the Plan does allow for impacts to these species if present and avoidance is determined not to be practicable and appropriate mitigation is provided.
   f. All MCCA Covered Activities must minimize direct impacts to burrowing owl and desert tortoise individuals through relocation, as described in section 4.8.4.2(f) and (g).
2. Impacts in the VFPA will be subject to the VFPA Project Design and Mitigation Standards detailed in section 4.9.2 and summarized as follows:
   a. Covered Activities within the Section 6 Target Acquisition Area will be required to employ impact avoidance, minimization, and mitigation measures as described in section 4.9.3.1.
   b. Covered Activities within Peninsular bighorn sheep-sensitive VFPA areas would be subject to measures to minimize indirect impacts to the species as described in section 4.9.3.2.
   c. Impacts to riparian areas shall be avoided to the Maximum Extent Practicable. Any unavoidable impacts shall be mitigated such that no net loss of habitats suitable to support riparian Covered Species occurs in the Plan Area, and provide for a net gain in functions of the riparian habitat by removal of non-native species.
   d. All VFPA Covered Activities must minimize impacts to burrowing owl and desert tortoise individuals through relocation, as described in section 4.8.4.2(f) and (g); impacts to occupied

habitat in the Section 6 Target Acquisition Area will be avoided to the Maximum Extent Practicable.

e. Impacts to habitats occupied by crissal thrasher and Little San Bernardino Mountains gilia (as determined by surveys conducted and/or required by the Tribe) will be avoided to the Maximum Extent Practicable. Any impacts to habitat occupied by these species would be mitigated at a 2:1 or 3:1 ratio, respectively.

4.5 HABITAT PRESERVE

This Plan provides for long-term conservation of Covered Species by establishing a Habitat Preserve, with legally protected lands and management. The Habitat Preserve shall be managed and legally protected by the Tribe, as described in sections 4.11 and 4.13, for the benefit of all Covered Species. Management of the Habitat Preserve will be the responsibility of the Department under guidance of the Tribal Council. Assembly of the Habitat Preserve will occur as described in the following sub-sections.

In order for lands to be considered mitigation lands, all of the methods described below will include use of appropriate legal authorities (including the Tribe's existing legal authorities) to protect such parcels for conservation purposes. Covered Activities authorized in the Habitat Preserve will be limited to public access uses, Covered Maintenance Activities, and Covered Conservation Activities, as described in section 4.2. Habitat Preserve lands will be managed and monitored in accordance with the terms of this Tribal HCP.

The Habitat Preserve shall be assembled over time as Covered Activities are undertaken. If no development occurs, no impacts will occur and no assembly of the Habitat Preserve will occur. Should the Plan Area become developed to the full extent allowed by this Plan, the Habitat Preserve will include all lands dedicated for conservation in perpetuity as a result of mitigation measures implemented by this Tribal HCP and all lands acquired by the Tribe from funds generated through the fee applied to Covered Activities. In such event, the Habitat Preserve would include an estimated 18,870 total acres, comprising approximately one half of the entire Reservation, including 16,367 acres of upland habitat in the MCCA and 1,048 acres of currently extant riparian habitat, as well as up to 1,455 acres of valley floor species habitat on and off the Reservation, which would be legally protected and managed in perpetuity (see section 4.5.1).

4.5.1 Habitat Preserve Assembly by Covered Activities

Habitat Preserve assembly will primarily occur through land dedications, restrictions, or conditions on Covered Projects. Land use designations, restrictions on development, adoption of development standards, assessment of development fees, and other impact avoidance, minimization, and mitigation measures will be implemented to ensure that all Covered Activities are approved consistent with the Tribal HCP and that

Covered Projects in particular contribute to the Habitat Preserve. As such activities are implemented, compliance with these conservation measures will result in lands being dedicated to the Habitat Preserve. The rough proportionality of impacts of Covered Activities to protection of Habitat Preserve lands is described in Section 4.15.4.3 and 4.15.4.4. It can be described as the proportionality of lands subject to impacts (by acreage) in basic proportionality in area and time to lands (by acreage) legally protected and managed, pursuant to this Plan. Thus, the Tribe will ensure that mitigation will remain roughly proportional with impacts as they occur. These measures are more fully described in sections 4.8 and 4.9 below.

Dedications of land for the Habitat Preserve will occur using specific mechanisms appropriate for each land tenure type, as described below:

1. Fee Land on the Reservation not owned by the Tribe: Land will be dedicated via a perpetual conservation easement granted to the Tribe or acquisition of the land by the Tribe or authorized agent of the Tribe. Specific steps are expected to include:
   a. Developer submits project application package to agency.
   b. Tribe reviews project and determines consistency with Tribal HCP and imposes conditions of approval as needed to ensure consistency with the Tribal HCP. This information shall be presented to the agency in a Determination Letter (DL) in the form of a letter, memo, or email. A copy of the DL shall be sent to the BIA.
   c. If land dedication is required, Developer works with Tribe to create/sign a perpetual conservation agreement (CA) over land to be conserved.
   d. Once CA is signed, copy forwarded to City/County for release of construction permits.
   e. Conservation easements held by Tribe for conservation in perpetuity.
2. Tribal Trust or Tribal Fee Land: Land will be dedicated via a commitment in the IA that the Tribe will conserve its holdings in perpetuity.
   a. Tribe develops project plans.
   b. Tribe reviews project and determines consistency with Tribal HCP.
   c. If land dedication is required, Tribe adopts a resolution that reiterates the commitment made in the IA and reconfirms its applicability to the project.
3. Allotted Trust Land: Land will be dedicated via the Tribe enacting a resolution or ordinance mandating the conservation of dedicated lands in perpetuity. The Tribe will work with the BIA to incorporate language in BIA-approved leases acknowledging this conservation dedication requirement.
   a. Developer submits project application package to agency.
   b. Tribe reviews project and determines consistency with Tribal HCP and imposes conditions of approval as needed to ensure consistency with the Tribal HCP. This information shall be presented to the agency in a DL in the form of a letter, memo, or email. A copy of the DL shall be sent to the BIA.
   c. The BIA will ensure that the following language is included in the lease agreement:

(1) *"Purpose of the Lease. Lessee shall use the Premises and keep the premises, and all improvements located thereon in full compliance with all applicable laws. Lessee shall not use or suffer to permit any person or persons to use the premises or any part thereof for any use or purpose in violation of the applicable laws of the United States of America, the applicable laws, ordinances, regulations and the requirements of the State, County or City where the property is situated including those of the Agua Caliente Band of Cahuilla Indians or of any other applicable governmental authorities and Lessee shall keep the premises and every part thereof in good condition, free from any nuisances and shall comply with any and all applicable health and police regulations in all material respects."*

(2) *"General Provisions. Governing Law. This lease shall be governed exclusively by the provisions hereof and by the laws of the United States and to the extent applicable, California Law."*

(3) *"Environmental Protection Requirements. The Lessee shall comply with 40 CFR, Parts 1500 through 1508, Council on Environmental Quality regulations and all other regulations applicable to Environmental Protection Requirements on Federal lands. No ground disturbing activities for the Business Lease shall occur until National Environmental Policy Act (NEPA) Compliance has been met and the Business Lease has been approved by the Secretary or his authorized representative. No hazardous substance, as defined by Federal and State of California law can be stored or placed on the subject property."*

(4) *If the dedication land is within the area covered by the lease, the identification of that land and the use restrictions also will be included in the lease.*

i. If land dedication is required, Tribe adopts a resolution that reiterates the commitment made in the IA and reconfirms its applicability to the project. The resolution will specifically identify the lands that will be conserved in perpetuity (e.g., legal description). A copy of the resolution is provided to the USFWS.

ii. Copy of signed lease and Tribal resolution to agency for release of construction permits.

4.5.2 Habitat Preserve Assembly by Acquisitions

As described above, Habitat Preserve assembly will primarily occur through land dedications, restrictions, or conditions on Covered Projects. However, Habitat Preserve lands may also be acquired by the Tribe or through government or private partnerships from willing sellers and/or may be obtained in advance of development mitigation requirements. Prior to issuance of a grading permit for the applicable Covered Project, all associated Habitat Preserve lands will be designated as such by the Tribe using its existing legal authorities, and the Tribe will assure the long-term protection of such lands in perpetuity.

4.5.2.1 Acquisition

Acquisitions by the Tribe are anticipated to be used to meet the Preserve assembly obligations of this Plan. Acquisition from willing sellers may be used by the Tribe to increase lands of the Habitat Preserve.

While the Tribe is committed to implementing the required conservation under the Tribal HCP independent of outside funding sources, Tribal funding/acquisition partnerships with local, state, and/or federal agencies may also be used to facilitate the acquisition program. As these funds become available, they will be used to acquire lands for conservation that complement the strategies of the Tribal HCP. Federal funds will be used as mitigation for specific Covered Activities or to otherwise meet required conservation obligations of this Plan consistent with Federal regulations in effect at the time that mitigation is required. Lands conserved through such funding would proportionately reduce the acreage available for disturbance, thus reducing overall disturbance and increasing the total conservation provided through implementation of the Tribal HCP. Acquisition priorities will be defined and updated by the Department after consultation with USFWS. Such priorities will provide for preservation of the most sensitive or highest quality habitats for which non-acquisition mechanisms do not provide adequate protection. Acquisition can be accomplished through purchase of fee title, conservation easement, land exchange donation, or such other method as deemed appropriate by the Tribe and approved by the USFWS.

4.5.2.2 Advance Habitat Preserve Acquisitions

The Tribe anticipates acquisition of lands for the Habitat Preserve in advance of the triggering of development mitigation requirements. These lands may be held by the Tribe or its designee to preserve habitat before mitigation is required under the Tribal HCP. Advance acquisitions that are consistent with this Plan (e.g., in areas targeted by the Plan for conservation) may be accomplished by the Tribe, or by another party upon agreement with the Tribe. Advance acquisitions by the Tribe may be used for preservation in perpetuity and mitigation in both the MCCA and the Valley Floor (Target Acquisition Areas). For example, advance acquisitions in the MCCA may, in the Tribe's sole discretion, be used to facilitate mitigation required of Covered Projects in that area. The Tribe may also purchase lands in any of the Target Acquisition Areas (defined in section 4.9.1 below) in advance of the imposition of mitigation fees on Covered Projects proposed to take place in the VFPA and apply future fee revenues as a reimbursement to the Tribe for costs of the acquisition. Lands within the Indian Canyons Heritage Park and Tribal Reserve targeted for conservation already are owned by or held in trust for the Tribe and would be available for use as mitigation at the Tribe's discretion. Such lands would not be required to be formally dedicated to the Preserve until they are needed as mitigation for an impact. Upon formal dedication to the Preserve, such lands would be subject to the record-keeping and reporting system described in sections 4.15.5.1 and 4.15.5.2, respectively, and could not be used as mitigation of impacts resulting from projects that are not Covered Activities under this Plan.

4.5.3 Conservation Banking

The Tribe or other landowners may use Conservation Banking as a tool to facilitate assembly of the Habitat Preserve by allowing conservation of habitat in advance of mitigation. The Tribe or another

landowner may enter into a Conservation Bank Agreement with USFWS whereby land is committed to conservation through a conservation easement or other means and the property is assigned conservation credits that can be sold to offset mitigation requirements. Each conservation bank proposal shall be evaluated by the Tribe and USFWS for its consistency with the Tribal HCP and must comply with USFWS policies at the time of the proposal.

4.5.4 Density Transfers, Density Bonus Program, and Development Clustering

The Tribe may adopt and make available density transfer, density bonus, or development clustering programs to facilitate Habitat Preserve assembly. These techniques have the potential to minimize the impact of new development and encourage the preservation of large tracts of land across ownerships. Until such time as the Tribe may adopt one or all of these programs for this purpose, density transfers, density bonuses, and development clustering shall be considered on a case-by-case basis. The potential exists that density transfers from the MCCA to a VFPA Covered Project may facilitate the conservation of land in the MCCA. This type of program may provide that as density is reduced on a parcel of land in the MCCA and transferred to a VFPA Covered Project, a proportionate amount of land associated with the density transferred from the MCCA Covered Project (based upon the project acreage, permittable density, and Habitat Preserve dedication requirements discussed in section 4.8 below) shall be contributed to the Habitat Preserve within the MCCA, including necessary management funding. For example, if a Covered Project in the MCCA would be permitted to develop 20 units and 10 of those units are transferred to a valley floor project, one half of the MCCA project's Habitat Preserve requirements should be dedicated prior to ground disturbance of the VFPA Covered Project. A density bonus and/or development clustering program may be adopted to provide incentives for Covered Projects to increase dedication of land for the Habitat Preserve. Such programs also may be applied to encourage conservation within the Section 6 Target Acquisition Area. Any application of these programs would be applied on a project-specific basis in accordance with applicable local land use regulations, and cannot be mapped at this time.

4.6 CREATION OF CONSERVATION AREAS

This Plan will cause the assembly of a Habitat Preserve as described above and the imposition of development-specific avoidance, minimization, and mitigation measures through the use of mechanisms (such as development restrictions) that differ geographically; therefore, the Tribal HCP creates two distinct Conservation Areas within the Plan Area:

- The MCCA, from which a portion of the Habitat Preserve shall be created, and in which certain development standards and conditions shall be imposed; and
- The VFPA, in which impacts to active and ephemeral sand fields, as well as riparian habitat, shall be avoided, minimized, and/or mitigated; portions of Indian Canyons shall be conserved; and a

mitigation fee program applied to other valley floor habitats shall fund acquisition and management of Habitat Preserve lands in perpetuity within specified Target Acquisition Areas.

The boundary delineating these two planning areas is depicted on Figure 5.

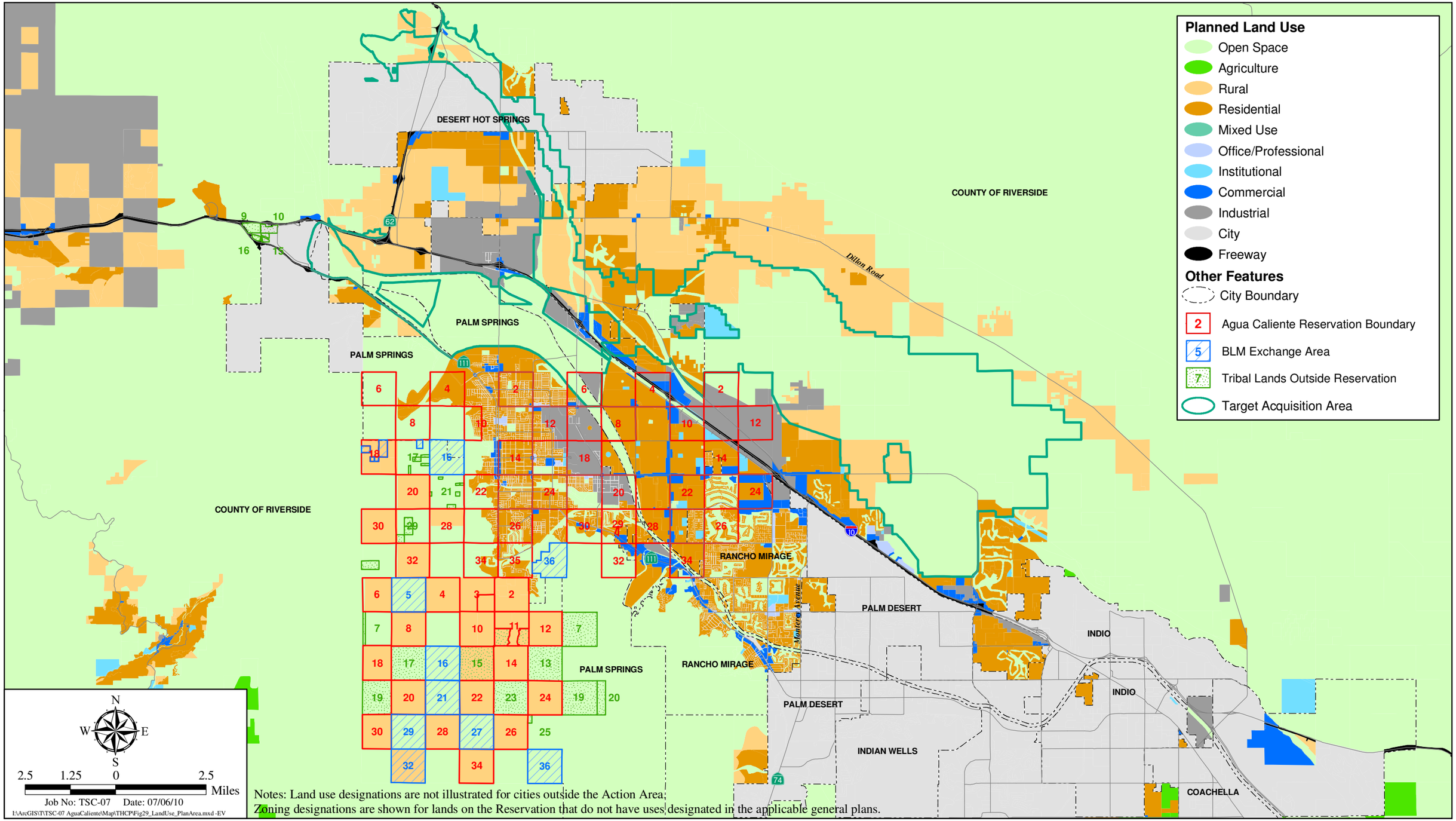
4.7 GENERAL DESIGN AND MITIGATION REQUIREMENTS FOR COVERED ACTIVITIES

Project design and mitigation requirements will be imposed upon Covered Activities by the Tribal HCP and Tribal implementing regulations to facilitate assembly of the Habitat Preserve and to assure that conservation goals for Covered Species are met. These requirements include existing general plan and land use designations (see below) and the adoption of new requirements (sections 4.8 and 4.9).

Through its Land Use Agreements with the Cities of Palm Springs, Cathedral City, and Rancho Mirage, and the County, the Tribe has already authorized the application of certain state and local land use regulations on certain lands within the Reservation, including general plan land use designations, zoning regulations, and specific development standards. General plan land use designations for lands in the Action Area are illustrated on Figure 29 and summarized in Appendix E.

Immediately upon issuance of a Section 10(a) Permit, the Tribe will provide copies of the approved Tribal HCP to the applicable local land use jurisdictions and inform them that its provisions must be enforced. The Tribe will ensure that all development or other activities approved by the Tribe or other entities within the Plan Area will be subject to impact acreage accounting and limits (such as the 85:15 MCCA ratio) and all other requirements of the Plan. Compliance with the Tribal HCP will be mandatory in order for a project to receive incidental take authorization within the Plan Area.

The Tribe will incorporate its determinations regarding the consistency of proposed Covered Projects with the provisions of the Tribal HCP into the existing framework for project permitting within the Plan Area (refer to Figures 30 through 32). Specifically, requirements will be imposed through the established entitlement process of each of the local jurisdictions with which the Tribe has existing Land Use Agreements, or by the Tribe itself where those Agreements do not apply. The Tribe will be responsible for making the consistency determinations, working with the local jurisdictions, as appropriate, to ensure that appropriate conditions are placed on Covered Activities, and monitoring compliance with the Tribal HCP and Section 10(a) Permit. Regardless of whether a project is processed through a local jurisdiction, the Tribal Council has ultimate authority over the appeals process (Ordinance 5; Appendix A). The Tribe will notify the USFWS in writing with (1) a draft set of consistency findings for all Covered Activities in the MCCA, Indian Canyons, or the Section 6 Target Acquisition Area at least 30 days prior to the Tribe approving such findings; and (2) any notices of appeal pertaining to the Tribal HCP.



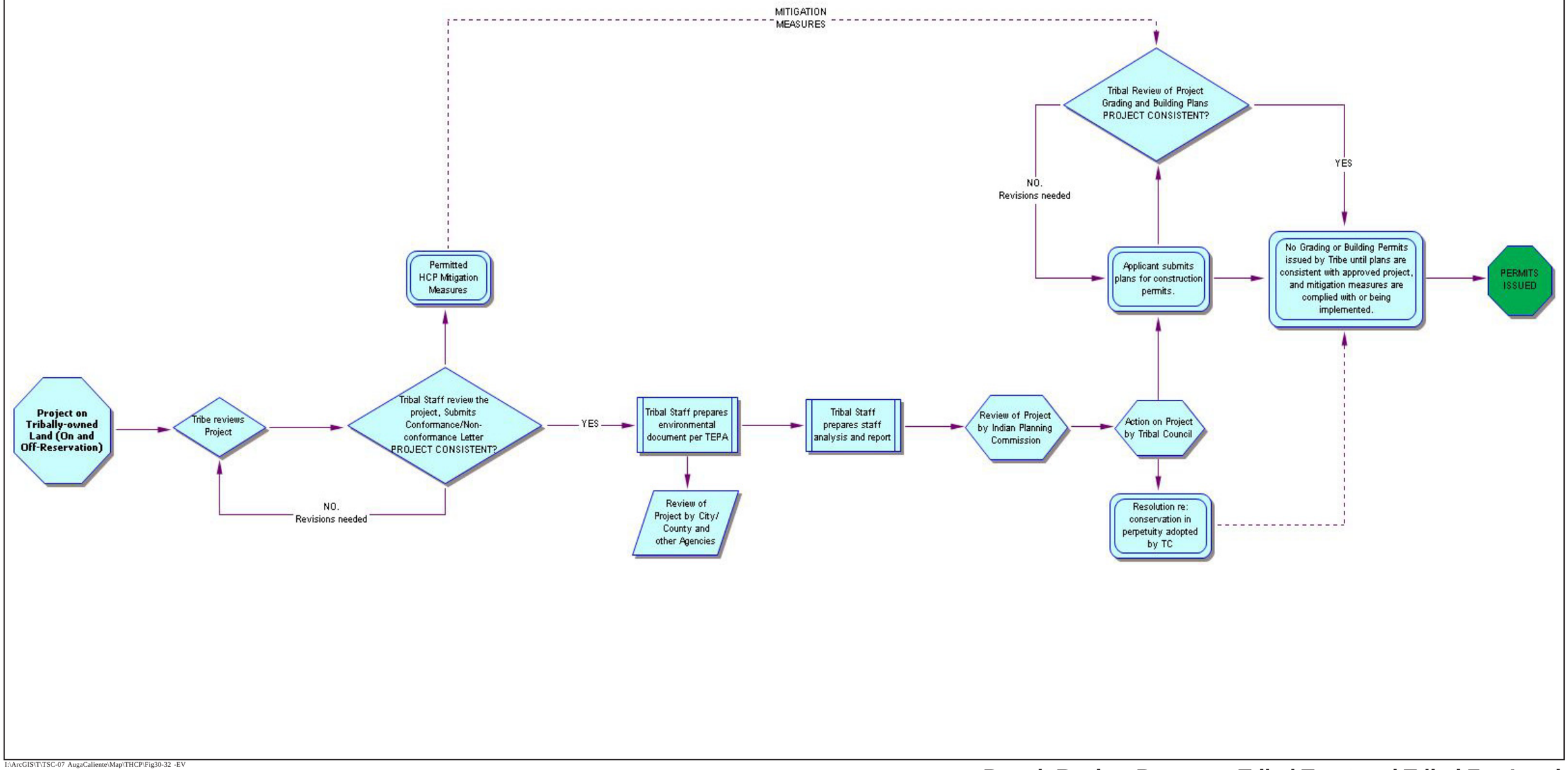
Notes: Land use designations are not illustrated for cities outside the Action Area.
Zoning designations are shown for lands on the Reservation that do not have uses designated in the applicable general plans.

Sources: County of Riverside 2003, City of Cathedral City 2002, City of Rancho Mirage 2006,
City of Palm Springs 1993, City of Desert Hot Springs 2000

Planned Land Use

AGUA CALIENTE THCP

Figure 29



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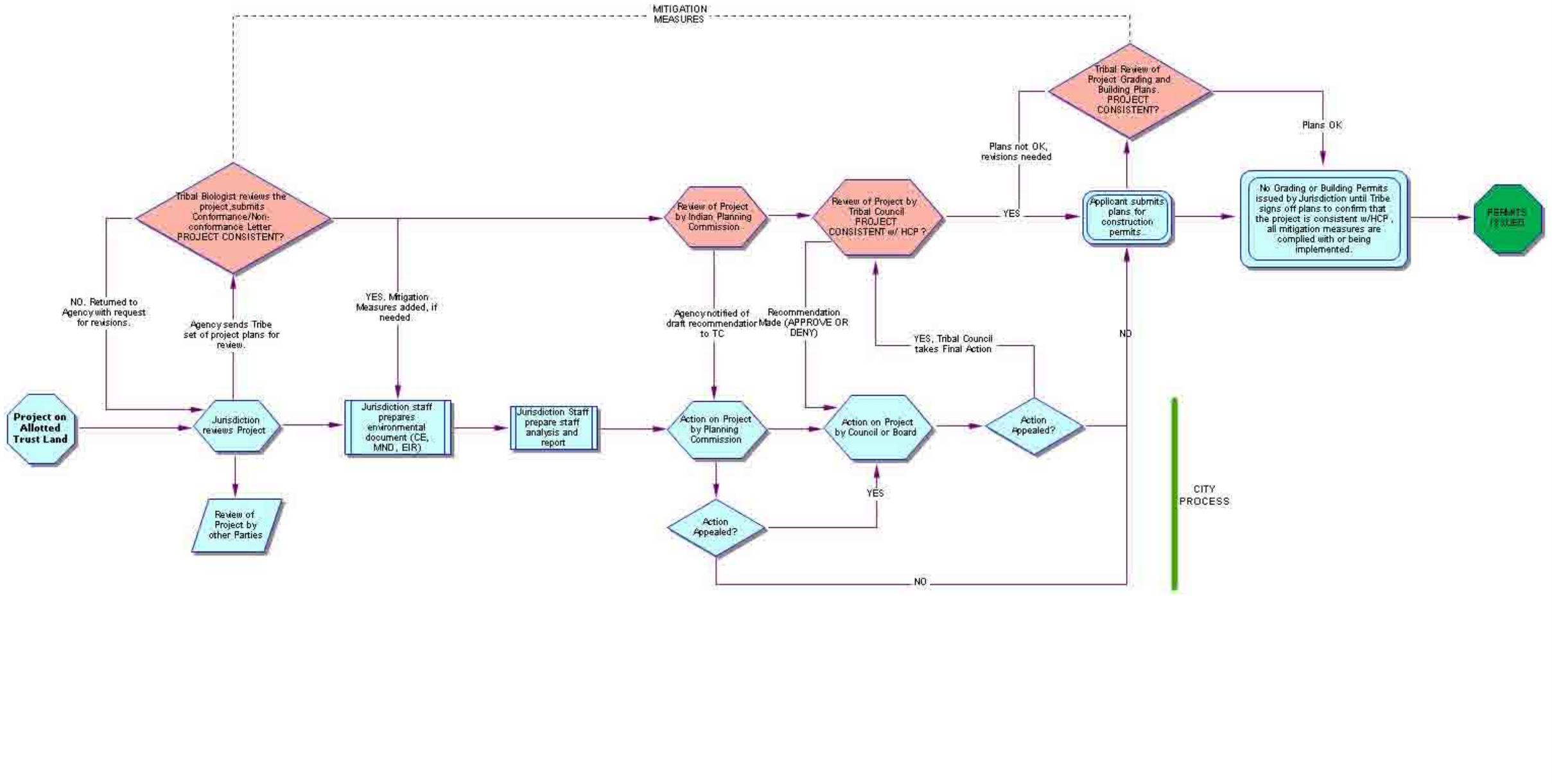
Permit Review Process - Tribal Trust and Tribal Fee Land

AGUA CALIENTE THCP

Figure 30



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Permit Review Process - Allotted Trust Land

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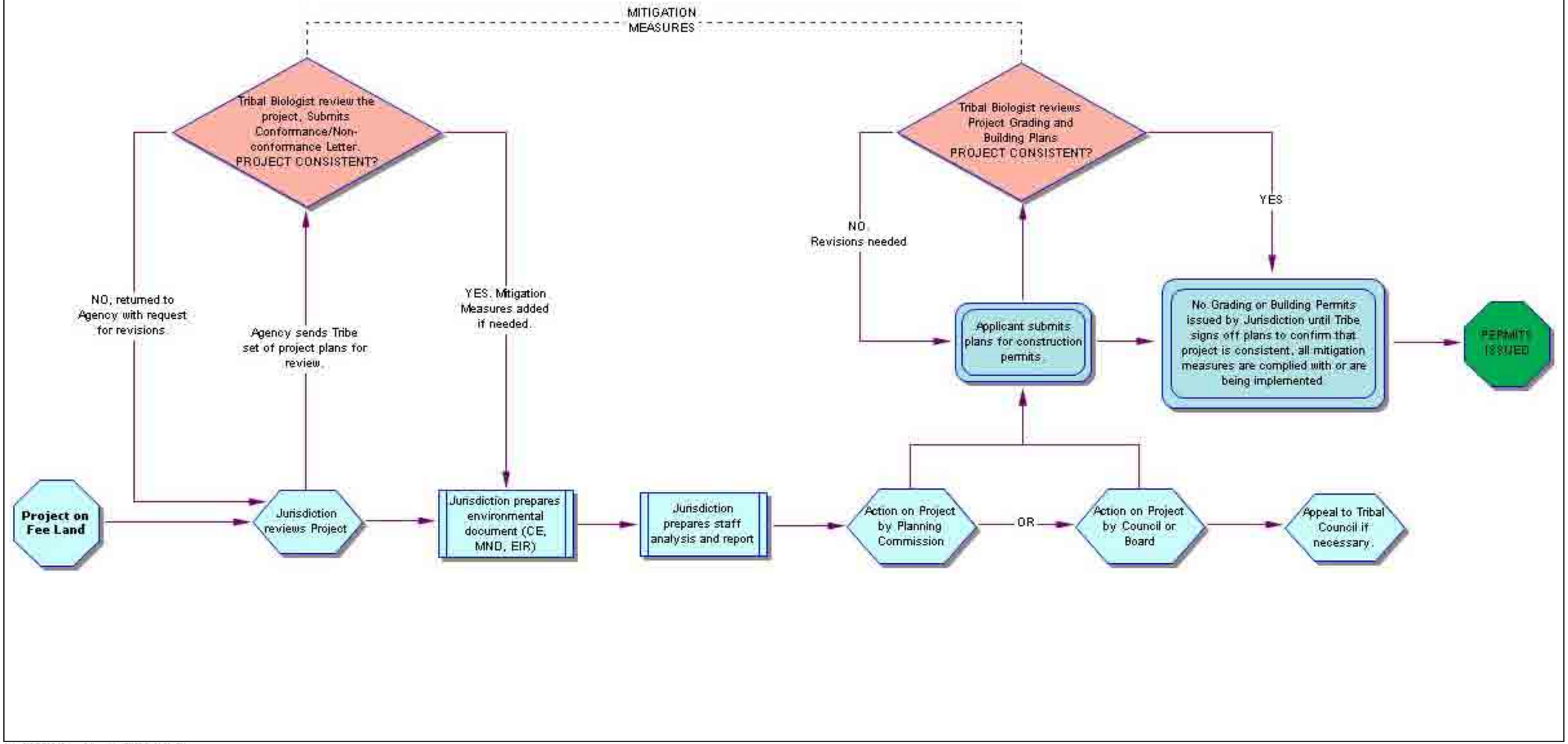
Figure 31



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Permit Review Process - Reservation Fee Land

AGUA CALIENTE THCP

Figure 32

4.8 MCCA OVERLAY ZONE

To implement the Tribal HCP, the Tribe adopted (via adoption of the Tribal Zoning Code in 2009) an Overlay Zone for the MCCA, in which the additional processes, standards, and restrictions described in this section 4.8 shall apply. The 26,331-acre MCCA is located in the mountainous western and southern regions of the Action Area. Its boundaries, which are described in the preamble to Chapter 2, encompass portions of the San Jacinto and Santa Rosa mountain ranges. Natural Plant Communities and Covered Species found in the MCCA are described in Chapter 3. In summary, the MCCA provides the primary potential habitat for 12 of the Covered Species, including Peninsular bighorn sheep, riparian bird species, mountain yellow-legged frog, southern yellow bat, triple-ribbed milk-vetch, desert tortoise, burrowing owl, and gray vireo. Some habitat is also available for some Covered Species that occur primarily on the valley floor, including Palm Springs pocket mouse, Palm Springs ground squirrel, Le Conte's thrasher, and Coachella Valley milk-vetch.

As described in section 2.1.1, the Tribe has already established Existing Conservation Programs within the MCCA. These programs result in ongoing Tribal management of Indian Canyons Heritage Park and Tahquitz Canyon, and include Tribal trails and wetland management programs.

The balance of the MCCA remains mostly undeveloped and will remain undisturbed habitat for Covered Species unless and until Covered Activities, approved consistent with the provisions of this Plan, are implemented. The Tribe has determined that the best way to protect Covered Species and their habitat in the MCCA, where existing habitat values are still high, is to conserve existing habitat by imposing a limit on the percentage of Covered Species habitat disturbed by the implementation of Covered Projects in the MCCA, requiring that the acreage conserved through such restrictions on development be dedicated to the Tribe for inclusion in the Habitat Preserve, and protecting (through appropriate legal authorities) and managing these lands in perpetuity. In addition to conserving habitat, this Tribal HCP will result in the provision of funding for management of the conserved habitat in perpetuity. Such funding shall be provided from mitigation fees or Tribal funding as set forth in section 4.15. Development standards and avoidance, minimization, and mitigation requirements, described in sections 4.8.2 to 4.8.4 below, will further minimize or mitigate for impacts to Covered Species and their habitat in the MCCA resulting from Covered Activities.

The MCCA Overlay Zone shall include revisions to the development process and a mandatory program of the development standards described in section 4.8.1 below.

4.8.1 Permitting Process for Covered Activities in the MCCA

All Covered Activities within the MCCA shall require a Conditional Use Permit and shall be subject to TEPA and/or other applicable environmental review requirements (NEPA, California Environmental Quality Act [CEQA]). As part of the Conditional Use Permit process, the following shall apply:

4.8.1.1 Pre-application

1. Prior to submitting a Conditional Use Permit application, an entity seeking a permit (Covered Activity Proponent) may submit a letter of intent to seek an agreement with the Tribe to conserve property through acquisition by the Tribe, density transfer, or other means.

2. Prior to submitting a Conditional Use Permit application, a proposed activity plan shall be submitted to the Department. The activity plan shall delineate the extent of the proposed activity, topography and potential for presence of sensitive biological resources (including Natural Plant Communities and known detections, records, or observances of any Covered Species), shall describe any applicable compliance standards or issues under the Tribal HCP, and shall describe how the proposed activity would be consistent with the Tribal HCP. The Department shall meet and confer with the Covered Activity Proponent to comment on the activity plan; make recommendations as to the project's Tribal HCP compliance requirements and location of the least sensitive Development Envelope (as applicable); and identify information requirements that must be satisfied in order for Conditional Use Permit processing to proceed. The Department will make its best effort to prepare this initial response within 30 days of receipt of the application. The intent is to develop an activity plan that focuses on avoidance of the most sensitive biological resources to the extent feasible. Priorities shall (as applicable depending upon the type of activity) be placed on avoiding, to the Maximum Extent Practicable, riparian habitats, especially those occupied by Covered Species; maximizing buffer areas adjacent to conserved habitat and riparian areas; minimizing edge effects; and using sound conservation planning principles. These shall be in addition to species-specific measures identified in section 4.8.4.2. The Tribe also encourages the use of smart growth and low-impact development design features.

4.8.1.2 Application

1. A biological assessment of the site may, at the Tribe's discretion based on Pre-Application Item 2, be required of the Covered Activity Proponent when sufficient information does not exist or the information is more than one year old. This assessment will be used for the Covered Activity Proponent and the Tribe to agree upon the Tribal HCP requirements for the proposed Covered Activity. In the Tribe's discretion, the assessment shall include but not be limited to any or all of the following information: topography; habitat types; vegetation maps; drainage areas (including any

USACE jurisdictional areas); the results of presence-absence studies for Covered Species (except Peninsular bighorn sheep[5]) for which appreciable potential for occurrence exists in the project area, based on habitat characteristics; location of Covered Species, based on occurrence data or records; and evaluation of the site for its importance and function for Covered Species and their habitats. Specifically, the Tribe will require that surveys be conducted by Qualified Biologists who are qualified to conduct such surveys in accordance with applicable protocols, if potential habitats for least Bell's vireo, southwestern willow flycatcher, mountain yellow-legged frog and/or triple-ribbed milk-vetch is/are determined by the Tribal Biologist to likely exist on the site of a proposed activity, as described in section 4.8.4.2, below.

2. In accordance with TEPA (and/or other applicable environmental law), a document shall be prepared to assess the proposed Covered Activity's environmental impacts, including those on biological resources, and identify all the mitigation measures that will be implemented by the Covered Activity as required by this Plan.

4.8.1.3 Conditional Use Permit Conditions

If the Conditional Use Permit is approved, it shall be conditioned to ensure that the implementation of the Covered Activity is consistent with the Tribal HCP, including the MCCA development standards and applicable avoidance, minimization, and mitigation standards described in this section 4.8. The Tribe shall issue take via the conditions of approval issued by the Tribal Council for each project. These project conditions shall note the amount of take extended to the project.

4.8.2 Density Categories and Slope/Density Ratios

In addition to limits on development as set forth in any applicable general plan, allowable development within the MCCA (on properties identified on Figure 34 as requiring 85 percent or greater conservation) shall be subject to a maximum residential density that is based on topography of the subject property according to the following categories (see Figure 33 for generalized slope categories within the MCCA):

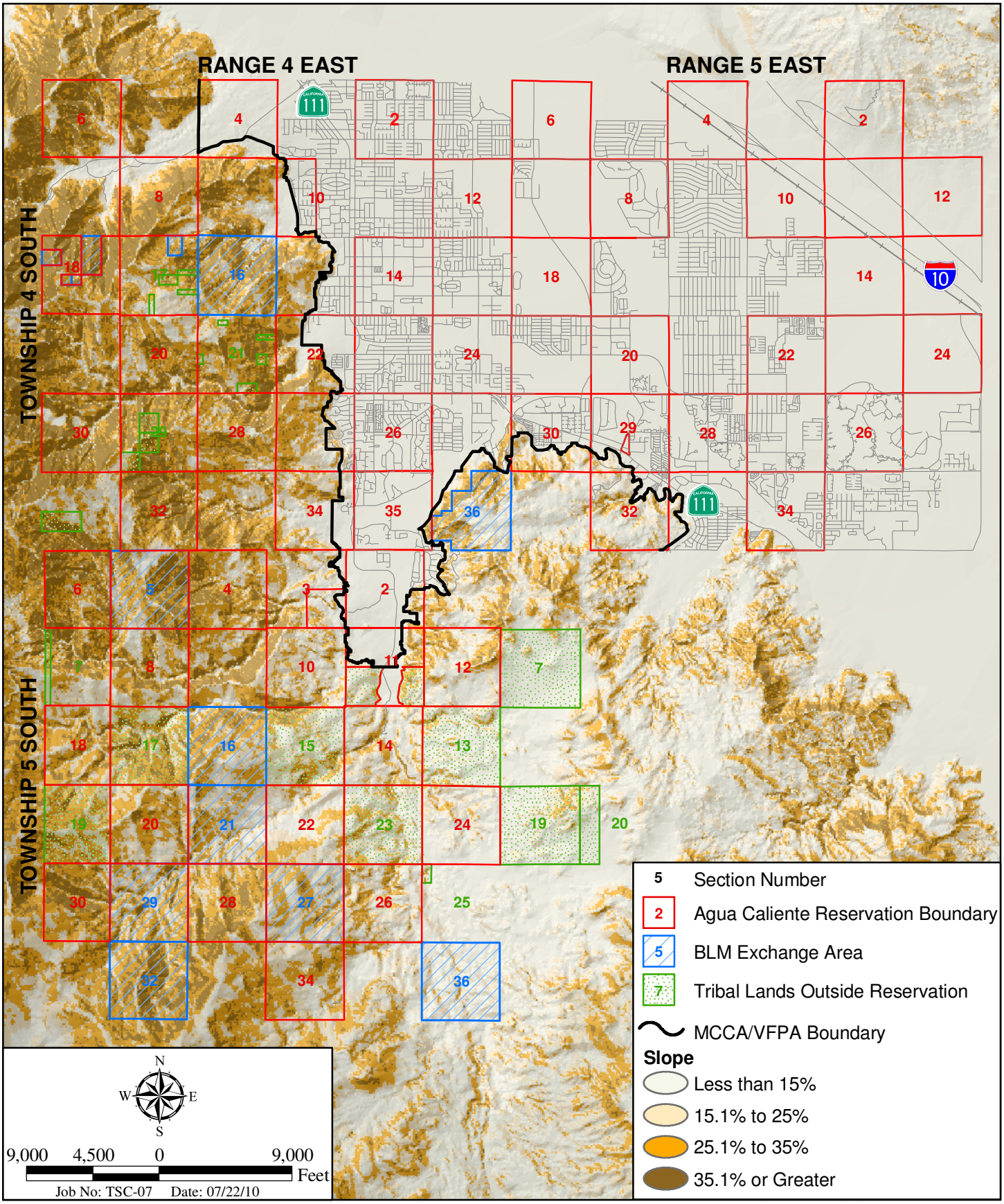
1. For areas up to 15 percent slope, the maximum density is one unit per 2.5 acres;
2. For areas from 15.1 percent to 25 percent slope, the maximum density is one unit per 5 acres;
3. For areas from 25.1 percent slope to 35 percent slope, the maximum density is one unit per 15 acres; and
4. For slopes greater than 35 percent, the maximum density is one unit per 20 acres.

[5]Peninsular bighorn sheep habitat usage is tracked on a regional basis. Surveys for individual projects would therefore be duplicative and may result in unnecessary harassment of the sheep.

4.8.3 MCCA Covered Activity Design and Mitigation Standards

Covered Activities within the MCCA shall comply with the following design and mitigation standards:

1. Covered Activities' impact on property within the MCCA shall be limited to the Development Envelope. The Development Envelope shall include all areas of contiguous land upon which structures shall be located, and shall include any access roads or driveways, fuel modification zones, non-native landscaping, necessary maintenance areas, and domestic animal use areas.
2. The Development Envelope shall be sited to avoid impacts to the parcel's most sensitive biological resources and the most sensitive portions of the site to the extent feasible. In addition to specific measures outlined in section 4.8.4.2, priorities shall be placed on avoiding, to the Maximum Extent Practicable, riparian habitats and mesquite hummocks and thickets, especially those occupied by Covered Species; maximizing buffer areas adjacent to conserved habitat and riparian areas; minimizing edge effects; and using sound conservation planning principles. Mitigation may also occur through off-site conservation within the MCCA, except as otherwise specifically described in section 4.8.4.1 and shown on Figure 34.
3. The Covered Project's impacts, reflected in the siting of the Development Envelope, shall not cause to be exceeded the habitat impact restrictions for each of the habitat categories present on the project site, as set forth in section 4.4. A maximum of 15 percent of the habitat of Covered Species found in the MCCA may be subject to ground disturbance associated with Covered Projects, resulting in an overall minimum of 85 percent (a 5.67:1 ratio) of such habitat being conserved and dedicated to the Habitat Preserve. Within this overall requirement, each section of the MCCA is assigned a maximum percentage of allowable development, as described in section 4.8.4.1 and shown on Figure 34, and is subject to additional restrictions as described in this section 4.8. The specified percentages shall be applied on a project-specific basis but may except in certain specified areas for Peninsular bighorn sheep be achieved through conservation of lands outside of the project site, elsewhere within the MCCA. No disturbance shall be allowed within a use area or defined linkage for Peninsular bighorn sheep [as determined in accordance with section 4.8.4.1]. Covered Projects must be sited to avoid, to the Maximum Extent Practicable, impacts to riparian areas and to mesquite hummocks and thickets associated with riparian habitat; must comply with the conditions of any required Clean Water Act permits; and must provide compensatory mitigation through restoration/creation at a minimum 1:1 ratio, such that no net loss of habitats suitable to support riparian Covered Species occurs within the Plan Area. Such compensatory mitigation would be designed on a project-specific basis, taking into account the functions for Covered Species of the habitat to be impacted. It may include enhancement of existing habitats that currently are not suitable to support riparian Covered Species through activities such as tamarisk removal, revegetation with native plant species, and cowbird removal activities. Such activities would result in a net gain in functions of the riparian habitat.
4. Prior to any ground or habitat disturbance, the portion of the parcel outside of the Development Envelope (on which development is not allowed) and/or any off-site mitigation lands as may be



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Percent Slope in the MCCA

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Figure 33

RANGE 4 EAST

RANGE 5 EAST

TOWNSHIP 4 SOUTH

TOWNSHIP 5 SOUTH

Chino Canyon

Tachevah Canyon

Tahquitz Canyon

Little Eagle Canyon

Palm Canyon

Andreas Canyon

Murray Canyon

Development May be Allowed Through Major Amendment or May Receive Bonus to Transfer Off-site

15% Development Allowance for Entire Section Must be Located in Northern Half

15% Development Allowance for Northern Quarter of Section Must be in This Location

- Tribal Land Outside Reservation
- BLM Lands for Potential Exchange to Tribe
- Reservation
- MCCA/VFPA Boundary
- Bighorn Sheep Use Area
- 100% Conservation
- 95% Conservation
- 85% Conservation
- 100% Impact
- Fluvial Sand Transport Process
- Specific Plan Area
- Mitigation Must Occur On Site
- Uses Must be Consistent With Indian Canyons Master Plan
- Park-related Uses Only

4,500 2,250 0 4,500 Feet

Job No: TSC-07 Date: 06/22/10

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Conservation Requirements

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HELIX

Figure 34

approved or required by the Tribe, shall be dedicated to the Tribe or its designee for inclusion in the Habitat Preserve through any of the mechanisms defined in section 4.5. This shall include, at a minimum, dedication of habitats at a 5.67:1 ratio, habitat sufficient to ensure no net loss of suitable habitat functions and values for riparian species, and mitigation for any impacted mesquite hummocks and thickets associated with riparian habitat at a minimum ratio of 2:1. The value of lands dedicated to the Habitat Preserve may, at the Tribe's discretion, be credited against the Tribal HCP Mitigation Fee.

5. The Covered Activity shall be conditioned to comply with applicable impact avoidance and minimization measures set forth in section 4.8.4.

4.8.4 Impact Avoidance and Minimization Measures

Except as otherwise provided, implementation of the measures specified in the following sub-sections shall be required of all Covered Activities in the MCCA.

In the context of this Tribal HCP, the term "Maximum Extent Practicable" refers to changes in the proposed Development Envelope in order to site Covered Activities in the least environmentally sensitive location practicable, where the fewest impacts to Covered Species and their habitats would occur and habitat disruption and fragmentation would be at a minimum. Determination of the least environmentally sensitive location shall consider all biological resources that potentially could be affected by the project alternatives (e.g., both wetland and upland impacts). The determination that impacts would be avoided and minimized to the Maximum Extent Practicable shall include an evaluation of biological functions and values, based on the best available science. This evaluation will consider rarity of the resource, support of Covered Species, proportion of natural to exotic vegetation, existing levels of habitat disturbance, reserve design considerations, and other relevant ecological factors.

Project design changes to achieve avoidance shall, in the light of overall project purposes, take into consideration cost, technical constraints (e.g., roadway geometry, slope stability, geotechnical hazards, etc.), and logistics, and shall not involve extraordinary engineering design. Any deviation for economic viability should be the minimum necessary to achieve economically viable use of the property, and will only be done for circumstances not of the Covered Project Proponent's making. This means that a deviation should not be granted to achieve economic viability when the primary reason a project is economically unviable, absent the deviation, is because of a poor investment decision by a land owner.

The Covered Project Proponent shall submit documentation to the Tribe demonstrating that avoidance has occurred to the Maximum Extent Practicable. This shall include the following information:

- Definition of the Covered Project area.
- A written Covered Project description.

- A written description of biological information available for the Covered Project area, including the results of resource mapping and all relevant species surveys.
- Quantification of unavoidable impacts to the subject resource(s).
- A written description of project design features and mitigation measures that reduce indirect effects, such as edge treatments, landscaping, elevation difference, minimization, and/or compensation through restoration or enhancement.
- An analysis of alternatives to avoid the impacts, including a full description and economic and/or other factual substantiation of the reasons that these alternatives were not pursued. Alternatives shall include, as applicable, an avoidance alternative and a substantive minimization alternative with regard to the resource in question.

The Tribe will include a summary of this information for each Covered Activity in its consistency findings, which must be approved by the Tribal Council. Any unavoidable impacts must be mitigated in accordance with the terms of the Tribal HCP. This information will be supplied in an annual report to the USFWS as described in section 4.15.5.2.

4.8.4.1 Area-specific Conservation Requirements

The Tribe will apply specific development criteria to Covered Activities proposed in certain sections of the Plan Area, as described below. Should the BLM Exchange Areas be transferred to the Tribe during the term of the Section 10(a) Permit, they would become subject to the terms of this Plan; therefore, they are shown on Figure 34 and described below. All sections or areas in the MCCA for which criteria are not specifically described herein in section 4.8.4.1 shall be subject to the MCCA conservation criteria described throughout this section 4.8.

Chino Canyon

A Peninsular bighorn sheep corridor study area has been identified across Chino Canyon. The Chino Canyon corridor study area consists of the eastern half of Section 6 and approximately the northwestern third of Section 8 (Township 4 South, Range 4 East). The Tribe has agreed to conserve the entirety of the southeastern quarter of Section 6 as part of broader efforts to maintain a corridor. The northeastern quarter of Section 6 would be authorized for up to 15 percent development in the least environmentally sensitive area, with the remaining 85 percent of the quarter section required for on-site conservation. The northwestern portion of Section 8 would be authorized for 15 percent development in the least environmentally sensitive area, with the remaining 85 percent required for on-site conservation. Development in this area must be designed to retain a corridor. The north-central portion of Section 8 (shown as blue on Figure 35), which was previously authorized for development as part of the former Shadowrock project (USFWS 2007a), is designated for 100 percent development but would be included within the corridor study area, within which a Peninsular bighorn sheep corridor must be maintained.

Peninsular Bighorn Sheep Use Areas

The Peninsular bighorn sheep Use Areas discussed herein and identified in Figure 34 are based on tracking data provided by the Bighorn Institute. Within these identified Peninsular bighorn sheep Use Areas, development rights shall be transferred to land elsewhere within the Plan Area or the land shall be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of these areas. The Peninsular bighorn sheep Use Area encompasses all or portions of Sections 4, 8, 10, 16, 17, 20, 21, 22, 28, 32, and 34 (Township 4 South, Range 4 East) and Sections 4 and 5 (Township 5 South, Range 4 East) in the Action Area. Portions of the Peninsular bighorn sheep Use Areas within which 100 percent conservation would not be required are limited to portions of Sections 4, 22, and 34 (Township 4 South, Range 4 East), as illustrated on Figure 34; these areas would be available for partial development, subject to requirements for on-site conservation. In Section 22, any development would be limited to park-related uses (see Tahquitz Canyon in this section, below).

Tachevah Canyon

Within the southwestern corner of Section 10 (Township 4 South, Range 4 East), as illustrated on Figure 34, development rights shall be transferred to land elsewhere within the Plan Area (with a density bonus as described in section 4.5.4) or the land shall be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of these areas. Within the area identified for 85 percent minimum conservation, development should be designed so as to provide a buffer between urban uses and the Peninsular bighorn sheep Use Area to the west. The remaining portions of the MCCA in this section would be authorized for 100 percent development, subject to applicable adjacency measures and mitigation requirements that are identified in sections 4.8.3 and 4.8.4.

Tahquitz Canyon

Tahquitz Canyon (located in Section 22, Township 4 South, Range 4 East) would be authorized for 5 percent development, consisting only of park-related uses. The adjacent slopes outside of the Peninsular bighorn sheep Use Area would be authorized for 15 percent development in the least environmentally sensitive area (generally, adjacent to the existing urban edge), with the remaining 85 percent of the site required for on-site conservation.

Upper Tahquitz Creek

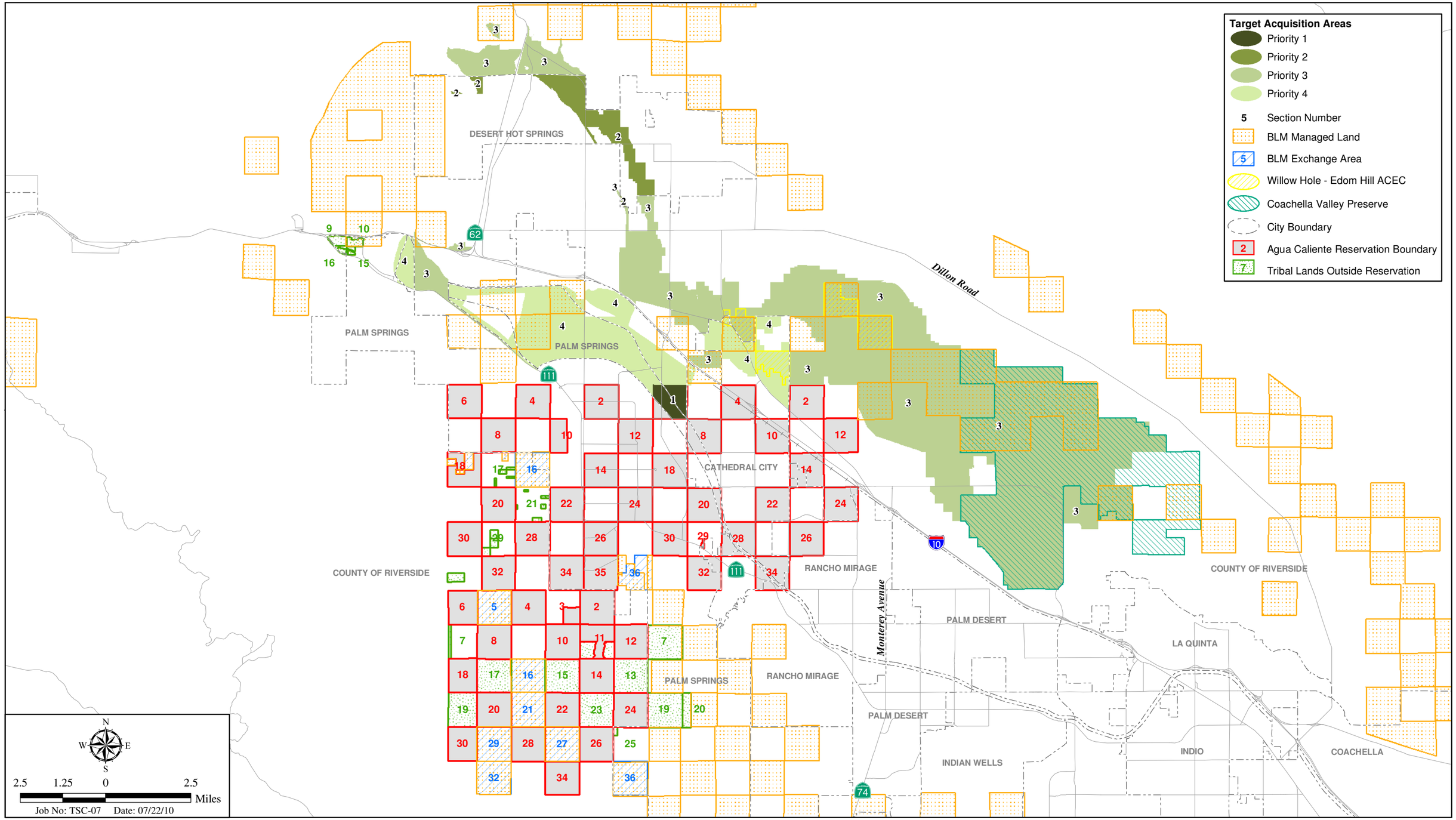
A minimum 500-foot-wide swath would be maintained along Tahquitz Creek in Section 30 (Township 4 South, Range 4 East).

Sections 20 and 32 (Township 4 South, Range 4 East)

The portions of these sections located west of the limits of the Peninsular bighorn sheep Use Area would be authorized for 15 percent development in the least environmentally sensitive area, with the remaining 85 percent required for on-site conservation.

Little Eagle Canyon

In 2006, the City of Palm Springs approved a residential development project at the mouth of Little Eagle Canyon. (Please note that the Section 10(a) Permit to be issued in conjunction with this Tribal HCP would apply to discretionary activities/approvals of the Tribe. Any project that would proceed outside the discretion of the Tribe, such as a previously approved action or an action approved by some other party, would not be discretionary and would not receive incidental take coverage under this Plan.) In order to receive incidental take coverage pursuant to this Tribal HCP, Little Eagle Canyon and the slopes to its north (shown as stippled areas in Section 34, Township 4 South, Range 4 East on Figure 34) could be authorized for



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Target Acquisition Areas

AGUA CALIENTE THCP

Figure 35

15 percent development in the least environmentally sensitive area (generally adjacent to the existing urban edge), with the remaining 85 percent required for on-site conservation. On slopes to the south of the canyon (shown as green on Figure 34), development rights shall be transferred to land elsewhere within the Plan Area (with a density bonus) or the land shall be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of these areas.

North Fork of Andreas Canyon

The portion of Section 4 (Township 5 South, Range 4 East) located to the southeast of the Peninsular bighorn sheep Use Area, as well as a small area in the west-central portion of the section (shown as yellow stippled on Figure 34) would be authorized for 15 percent development in the least environmentally sensitive area, with the remaining 85 percent required for on-site conservation. In the area southwest of the Peninsular bighorn sheep Use Area (shown as green on Figure 34), development rights shall be transferred to land elsewhere within the Plan Area (with a density bonus) or the land shall be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of these areas.

Upper Andreas Creek

A minimum 500-foot-wide swath would be maintained along the upper portion of the southern fork of Andreas Creek in Sections 7 and 8 (Township 5 South, Range 4 East).

Indian Canyons

A Peninsular bighorn sheep corridor study area has been identified across Palm Canyon. Any development in the Indian Canyons Master Plan area (hatched on Figure 34) would be required to be in accordance with the Indian Canyons Master Plan, described in Section 2.1.1.1 of this Tribal HCP. Development within the southeastern quadrant of Section 3 within the MCCA; eastern half of Section 10; entirety of Section 11 within the MCCA; and southern three-quarters of Section 14 (Township 5 South, Range 4 East) would be limited to 5 percent of the property. The remaining 95 percent of this area would be required for conservation. Development in the northeastern quarter of Section 11 could be authorized only through a major amendment. In the absence of such amendment, development rights shall be transferred to land elsewhere within the Plan Area (with a density bonus) or the land shall be acquired for dedication to the Habitat Preserve, resulting in 100 percent conservation of this area.

The 15 percent development allowance for the northern quarter of Section 14 (Township 5 South, Range 4 East) would be authorized only in the central portion of this area (see Figure 34). Similarly, the 15 percent (96 acres) development allowance for the entirety of Section 12 would be authorized only within the northern half of Section 12. The remaining 85 percent (544 acres) of Section 12 would be targeted for

acquisition for dedication to the Habitat Preserve (or dedicated as mitigation for the noted development), resulting in 100 percent conservation of the southern half of the section, shown as green on Figure 34.

Within the southeastern corner of Section 2 (Township 5 South, Range 4 East, shown as stippled yellow on Figure 34), 15 percent development of the area may be authorized in the least environmentally sensitive area, with the remaining 85 percent of the area required for conservation. Alternatively, some or all of the development within this area may be transferred to the one-sixteenth section immediately to its north (as a result, this area is identified as available for 100 percent development, subject to applicable adjacency measures and mitigation requirements).

Low-priority Conservation Areas

Several small areas (totaling approximately 104 acres) within the MCCA that were identified as having low priority for conservation are identified as being available for 100 percent development. Development in these areas would be subject to the indirect impact minimization measures described in sections 4.8.4.3 and 4.8.4.4. The areas are identified as blue on Figure 34, and include portions of Section 10 (Township 4 South, Range 4 East) and Section 2 (Township 5 South, Range 4 East). As previously noted, it is anticipated that the portion of Section 2 within the MCCA in Indian Canyons designated for up to 100 percent development may be the recipient of a transfer of development rights from the property immediately to the south. For those properties that are within the MCCA, mitigation at a 5.67:1 ratio would be required.

4.8.4.2 Species-specific Avoidance and Minimization Measures

In addition to the general conservation and minimization measures discussed elsewhere in this section 4.8, the measures described in this section 4.8.4.2 must be implemented to achieve the Tribe's conservation goals and objectives with regard to Peninsular bighorn sheep, least Bell's vireo, southwestern willow flycatcher, mountain yellow-legged frog, triple-ribbed milk-vetch, desert tortoise, and burrowing owl. Species-specific surveys and avoidance measures for other Covered Species are not considered necessary to achieve the Tribe's conservation goals and objectives because of their generally broader distribution and/or lower overall sensitivity.

4.8.4.2(a) Peninsular Bighorn Sheep

No direct kill or injury of an individual Peninsular bighorn sheep shall be authorized to occur as a result of any Covered Activity. Take may occur in the form of habitat loss, as well as indirect effects that potentially could disrupt normal behavioral patterns. The following measures have been incorporated into this Tribal HCP to minimize such take and assist in implementation of the tasks identified by the Peninsular bighorn sheep Recovery Plan. They shall be made a condition of Covered Activity approval

and Covenants, Conditions and Restrictions (CC&Rs) (if applicable), to ensure preservation/protection of the species in the MCCA (and Peninsular bighorn sheep-Sensitive VFPA Areas discussed in section 4.9.3.2 below):

1. The Tribe may require clustering or other measures to ensure that the most sensitive biological areas for the Peninsular bighorn sheep are avoided to the extent feasible. For example, development densities on a less sensitive portion of the site could be increased beyond the limits specified in section 4.8.2 in exchange for providing a larger buffer from use areas or defined habitat linkages.
2. Known Peninsular bighorn sheep watering areas, surrounding areas within one-quarter mile, and slopes above these watering areas to the ridgeline shall be avoided.
3. Fences shall be constructed around Covered Projects implemented within or adjacent to Peninsular bighorn sheep habitat to exclude Peninsular bighorn sheep from urban areas where the species might otherwise use urban sources of food and water, or otherwise potentially be subject to adverse effects. Barriers, a minimum of eight feet high, must be constructed in conformance with the Peninsular bighorn sheep Recovery Plan where development adjoins Peninsular bighorn sheep habitat. These fences will be constructed concurrent with the proposed development and prior to issuance of Certificates of Occupancy. Their maintenance will be required by the CC&Rs for the development, if applicable, or Tribe if enforcement of CC&Rs proves problematic.
4. Goats, sheep, and cattle shall not be permitted in areas adjacent to Peninsular bighorn sheep habitat.
5. No toxic vegetation shall be used within 50 feet of fenced habitat interfaces and areas accessible to Peninsular bighorn sheep. Such species include oleander (*Nerium oleander*), laurel cherry (*Prunus laurocerasus*), and ornamental nightshade (*Solanum* sp.). The Department will develop a list of such plants, and will distribute the list to Covered Activity Proponents and review project landscaping plans against the list. (This list is in addition to the list of invasive plants listed on Table 4-4 and discussed in section 4.8.4.3(c)). Covered Project Proponents shall provide information in the CC&Rs that describes the prohibited species and the importance of avoiding their use in landscaping areas accessible by Peninsular bighorn sheep.
6. The Department shall require utilization of native landscaping that requires less use of pesticides, herbicides, and other chemicals along the project edge abutting native habitat. Brochures provided to homeowners also will describe the benefits of such landscaping.
7. Water features shall be designed to include water deeper than three feet, slopes greater than 30 degrees and, if possible, rapidly fluctuating water levels to eliminate bluetongue and other vector-carried diseases.
8. Water diversions shall be regulated to preserve Peninsular bighorn sheep water sources.

4.8.4.2(b) Least Bell's Vireo

If, based on the determination of the Tribal Biologist, habitat assessments indicate the potential for the presence of the species, the Tribe will require surveys for least Bell's vireo in appropriate habitat within or immediately adjacent to the Covered Activity area in accordance with USFWS protocols current at that time. If least Bell's vireos are detected on the site, occupied habitat shall be avoided to the Maximum Extent Practicable.

4.8.4.2(c) Southwestern Willow Flycatcher

If, based on the determination of the Tribal Biologist, habitat assessments indicate the potential for the presence of the species, the Tribe will require surveys for southwestern willow flycatcher in appropriate habitat within or immediately adjacent to the Covered Activity area in accordance with USFWS protocols current at that time. If southwestern willow flycatchers are detected on the site, occupied habitat shall be avoided to the Maximum Extent Practicable.

4.8.4.2(d) Mountain Yellow-legged Frog

If, based on the determination of the Tribal Biologist, habitat assessments indicate the potential for the presence of the species, the Tribe will require surveys for mountain yellow-legged frog in appropriate habitat within or immediately adjacent to the Covered Activity area. Surveys shall be conducted between May 1 and August 31 or in accordance with USFWS protocols current at that time. If this species is detected on the site, occupied habitat shall be avoided to the Maximum Extent Practicable. No stocking of fish species that could adversely affect this species will be authorized by the Tribe.

4.8.4.2(e) Triple-ribbed Milk-vetch

If, based on the determination of the Tribal Biologist, habitat assessments indicate the potential for the presence of the species, the Tribe will require surveys to be conducted at the appropriate time of year (February 1 through May 15, depending on weather conditions for a given year). If present, this species will be avoided to the Maximum Extent Practicable. If avoidance is determined not be practicable, the Covered Project Proponent will be required to conserve extant populations of the species elsewhere, or to prepare and implement a USFWS-approved restoration plan, at a minimum 3:1 ratio, to the satisfaction of the Tribe prior to Project implementation. Conservation or restoration activities will occur in a location suitable to support the species. This could include a location outside of the Action Area if determined appropriate by the Tribe and USFWS.

4.8.4.2(f) Desert Tortoise

Prior to any ground or habitat disturbance associated with any Covered Activity on a site that provides modeled (or potential based on ground truthing) desert tortoise habitat, the Covered Activity Proponent shall require a Qualified Biologist to conduct a pre-disturbance presence/absence survey of the Development Envelope and adjacent areas within 200 feet of the Development Envelope, or to the property boundary if less than 200 feet and permission from the adjacent landowner cannot be obtained to determine if the desert tortoise occupies the site. The Qualified Biologist will survey for fresh sign of desert tortoise, including live tortoises, tortoise remains, burrows, tracks, scat, or egg shells. The presence/absence survey must be conducted during the clearance window between February 15 and October 31. Presence/absence surveys require 100 percent coverage of the survey area. If no sign is found, no further surveys are required. A presence/absence survey is valid for 90 days or indefinitely if tortoise-proof fencing is installed around the Development Envelope following negative survey results.

1. If fresh signs are located, the Development Envelope must be fenced with tortoise-proof fencing and a presence/absence clearance survey conducted during the clearance window in order to find tortoises within the impact area for monitoring and potential relocation. Presence/absence clearance surveys must cover 100 percent of the Development Envelope. A presence/absence clearance survey must be conducted during different tortoise activity periods (morning and afternoon).
2. All surveys, construction monitoring, and relocation (if necessary) will follow the Guidelines for Handling Desert Tortoises During Construction Projects prepared by The Desert Tortoise Council (1999), or other protocol accepted by USFWS at that time. If tortoises are found, they shall be relocated to a destination selected by the Tribe on a case-by-case basis to provide the greatest long-term conservation potential for the species (regardless of whether it is within the Action Area), considering factors such as habitat characteristics, long-term viability, and the presence/status of existing populations of this species on the available sites. Then-current protocols shall be used in handling individuals.
3. For Covered Maintenance Activities in the Habitat Preserve, the Tribe shall ensure that personnel conducting such activities are instructed to be alert for the presence of desert tortoise. If a tortoise is spotted, activities adjacent to the tortoise's location will be halted until such time as the tortoise moves away from the activity area. If the tortoise does not move in an amount of time determined to be a reasonable waiting period by a Qualified Biologist based on site-specific considerations, it may be relocated by a Qualified Biologist to nearby suitable habitat and placed in the shade of a shrub. If the original location of the tortoise is near the edge of the Plan Area, it may be moved outside of the Plan Area if the Qualified Biologist determines that is the most appropriate location for the individual.

4.8.4.2(g) Burrowing Owl

Prior to any ground or habitat disturbance associated with any Covered Activity on a site that provides potential burrowing owl habitat, the Covered Activity Proponent shall cause a pre-disturbance survey of the site to be conducted for presence of the species.

1. Surveys and relocation, if applicable, shall be conducted between September 1 and January 31. The Tribe and USFWS currently are working together to develop appropriate relocation protocols. It is anticipated that these protocols will, at a minimum, reflect the standards of the CDFG Staff Report on Burrowing Owl Mitigation (1995, as summarized below).
2. Owls shall be excluded from burrows within the approved limit of disturbance and an appropriate buffer zone as determined by a Qualified Biologist by installing one-way doors in burrow entrances or other technique as deemed appropriate by the Tribe. The biological monitor must ensure through appropriate means (e.g., monitoring for owl use, excavating burrows) that the burrows to be impacted are not being used. If active relocation methods are employed, the destination will be selected by the Tribe on a case-by-case basis to provide the greatest long-term conservation potential for the species (regardless of whether it is within the Action Area). Factors to be considered include habitat characteristics, long-term viability, and the presence/status of existing populations of this species on the available sites based on available information or a site reconnaissance by a Qualified Biologist. Artificial burrows will be constructed at the receptor site under supervision of the Qualified Biologist. Artificial burrows shall not be required for passive relocation unless there is already conserved land immediately adjacent to the parcel from which the owls will be passively relocated.
3. Occupied burrows shall not be disturbed during the nesting season unless a Qualified Biologist verifies through non-invasive methods that either the birds have not begun egg laying and incubation or juveniles from the occupied burrows are foraging independently and capable of independent survival.

4.8.4.3 Planning Avoidance and Minimization Measures (Adjacency Measures)

The following avoidance and minimization measures must be included in the project plans and implemented during operation of Covered Activities in the MCCA (and Peninsular bighorn sheep-Sensitive VFPA Areas, as discussed in section 4.9.3.2 below), to the extent that such activities are adjacent to habitat that is conserved or anticipated to be conserved. The Department shall ensure that the following measures are addressed in project development plans, included as conditions of approval for applicable proposed Covered Activities and, if applicable, included in the project's CC&Rs. If a development would establish a Homeowner's Association (HOA), the HOA shall be responsible for enforcing the CC&Rs addressing these and all other standards required by this Plan. The Tribe shall have oversight authority to ensure that this enforcement occurs, and shall be directly responsible for ensuring that the standards are followed on lands without CC&Rs and/or HOAs.

4.8.4.3(a) Lighting

Lighting shall be selectively placed, shielded, and directed away from habitat. In addition, lighting from homes abutting habitat shall be screened by planting vegetation, and large spotlight-type backyard lighting directed into habitat shall be prohibited.

4.8.4.3(b) Fuel Management Zones

Fuel management zones separating habitat from the location of the activity shall be developed, designed, and managed to minimize impacts to native vegetation. Fuel management activities shall be conducted in accordance with the Tribe's Fire Management Plan. To minimize the potential spread of non-native insect species such as the Argentine ant, either (1) fuel management zones in new developments adjacent to the Habitat Preserve shall not be irrigated; or (2) a moisture barrier shall be provided to ensure that excess irrigation does not seep into the adjacent native habitats. All future developments shall have adequate fuel modification zones designed within their development envelope (footprint), with appropriate impacts quantified and mitigated per the Plan. Any additional fuel management activities required within existing areas designated as preserves shall be minimized by applying all measures possible that do not require removal of native vegetation. If native vegetation removal is not avoidable, such impacts will be mitigated fully by acquisition of additional Habitat Preserve lands of equivalent ecological value at a minimum 1:1 ratio.

4.8.4.3(c) Landscaping

Invasive species such as giant reed and pampas grass shall not be used. A list of prohibited landscaping vegetation shall be provided to each Covered Activity Proponent for planning purposes (Table 4-4). This list will periodically be updated by the Tribe based on the California Invasive Pest Plant Council's list of invasive species and/or other applicable resources. Covered Project Proponents also shall be responsible for providing information in the CC&Rs that explains the importance of avoiding landscaping with invasive species.

Table 4-4
Prohibited Invasive Ornamental Plants

BOTANICAL NAME	COMMON NAME
Acacia spp. (all species except *A. greggii*)	acacia (all species except native catclaw acacia)
Acroptilon repens	Russian knapweed
Alianthus altissima	tree-of-heaven
Arundo donax	giant reed or arundo grass
Asphodelus fistulosus	onion weed
Atriplex semibaccata	Australian saltbush
Avena barbata	slender wild oat

Table 4-4 (cont.)
Prohibited Invasive Ornamental Plants

BOTANICAL NAME	COMMON NAME
Avena fatua	wild oat
Brassica tournefortii	African or Saharan mustard
Bromus diandrus	ripgut grass
Bromus madritensis ssp. *rubens*	red brome
Bromus tectorum	cheat grass, downy brome
Carduus pycnocephalus	Italian thistle
Centarea spp.	star thistle
Cirsium vulgare	bull thistle
Cortaderia jubata (syn. *C. atacamensis*)	Jubata grass, Andean Pampas grass
Cortaderia dioica (syn. *C. selloana*)	pampas grass
Cynodon dactylon	Bermuda grass
Cytisus spp.	broom
Descurainia sophia	tansy mustard
Ehrharta spp.	veldtgrass
Eichhornia crassipes	water hyacinth
Elaegnus angustifolia	Russian olive
Eucalyptus camaldulensis	river red gum
Foeniculum vulgare	sweet fennel
Holcus lanatus	common veldt grass
Hirschfeldia incana	Mediterranean or short-pod mustard
Hordium marinum	Mediterranean barley
Hordium murinum	hare barely
Hydrilla verticillata	hydrilla
Kochia scoparia	kochia
Lepidium latifolium	perennial pepperweed
Lolium multiflorum	Italian ryegrass
Lolium perenne	perennial ryegrass
Ludwigia hexapetala	Uruguay water-weed
Ludwigia peploides	creeping water-weed
Lythrum hyssopifolium	hyssop loosestrife
Mesembryanthemum spp.	iceplant
Mryiophyllum spp.	parrot feather
Nicotiana glauca	tree tobacco
Olea europea	European olive tree
Pennisetum clandestinum	Kikuyu grass
Pennisetum setaceum	fountain grass
Phoenix canariensis	Canary Island date palm
Potamogetion crispus	crispate-leaved pondweed
Ricinus communis	castor bean
Salsola tragus	Russian thistle
Schinus molle	Peruvian pepper tree, California pepper
Schinus terebinthifolius	Brazilian pepper tree
Schismus arabicus	Mediterranean grass
Schismus barbatus	Saharan grass, Abu mashi
Sisymbrium irio	London rocket
Spartium junceum	Spanish broom
Taeniatherum caput-medusae	medusa-head
Tamarix spp. (all species)	tamarisk, salt cedar

Table 4-4 (cont.)
Prohibited Invasive Ornamental Plants

BOTANICAL NAME	COMMON NAME
Tribulus terrestris	puncture vine
Trifolium hirtum	rose clover
Vinca major	periwinkle
Vulpia myuros	foxtail fescue
Washington robusta	Mexican fan palm

4.8.4.3(d) Controlled Access

The Covered Project Proponent shall be responsible for installation of security fences/walls for the purpose of controlling human and pet access into lands where Covered Project development abuts natural habitats. Prior to construction of any foundations or structures, the Tribe shall approve the final design of these barriers. Signs shall be posted at potential access points into the Habitat Preserve informing residents of the wildlife habitat value of the open space and to minimize intrusions. Maintenance of access controls shall be the responsibility of the HOA or, if no HOA is formed, the individual landowner. Signs shall be maintained by the HOA or, if no HOA is formed, the Tribe. If any unauthorized pedestrian or pet access results in any degradation of habitat, the HOA, landowner, or Tribe, as applicable, shall take extra steps to control access by additional signage, fencing, or other steps as necessary, to the satisfaction of the Tribe.

4.8.4.3(e) Trash Sequestration

Covered Project Proponents developing multi-family, commercial, or industrial development projects shall provide trash receptacles contained in accordance with the ordinances and policies of the Tribe's governmental agents for land use.

4.8.4.4 Disturbance Period Avoidance and Minimization Measures

The avoidance and minimization measures specified in the following subsections must be implemented during performance of Covered Activities within the MCCA (and Peninsular bighorn sheep Sensitive VFPA Areas, as discussed in section 4.9.3.2 below).

Disturbance Monitoring

Each Covered Activity Proponent proposing new habitat disturbance shall provide the names, addresses, and phone numbers of all biological monitors contracted for project implementation to the Department prior to ground- or habitat-disturbing activities. At least two days prior to grading, Tribe-approved monitor(s) shall contact the Tribe to verify that the limits of disturbance have been properly staked and are readily identifiable.

A pre-disturbance meeting shall be conducted by the biological monitor(s) and on-site activity manager(s) to ensure that on-site personnel are informed of the sensitivity of conserved habitat and all applicable avoidance and minimization requirements to ensure conformity with all applicable provisions of this section 4.8.

The monitor(s) shall be responsible for ensuring, on at least a weekly basis during rough grading, that the approved limits of disturbance are not exceeded and that the contractor adheres to the other provisions set forth in this section. The monitor(s) shall have the authority to halt disturbance activities in the event that these provisions are not met. In such an event, the monitor shall report the situation to the Tribe, which will determine appropriate remediation measures (a 10:1 ratio of mitigation is required for all disturbance to natural habitat outside of the approved Development Envelope). All such impacts shall be recorded and tracked by the Tribe to ensure the cumulative maximum amount of habitat disturbance of the Tribal HCP is accurately accounted and not exceeded. The monitor(s) shall submit a report to the Department at the end of March, June, September, and December of each year during construction documenting the implementation of all disturbance period minimization measures. The Tribe will forward a copy of the annual construction monitoring reports as an appendix to the annual report that will be submitted to the USFWS by December 31 of each year.

Control of Toxic Substances

During and after the implementation of any Covered Activity, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, herbicides, and other toxic substances shall be restricted so as to avoid and minimize impacts to Covered Species and their habitat.

Fire Prevention

Equipment to extinguish small brush fires (e.g., from trucks or vehicles) shall be present on site during all phases of disturbance, along with personnel trained in the use of such equipment. Smoking shall be prohibited in disturbance areas adjacent to flammable vegetation.

Controlled Access

Prior to commencement of new ground- or habitat-disturbing activities, areas proposed for conservation shall be flagged by a biologist, and silt or snow fencing shall be installed to prevent disturbance by construction vehicles. All movement of personnel, including ingress and egress of equipment and personnel, shall be limited to designated disturbance areas. This flagging/fencing may be removed upon completion of all disturbance activities and/or replaced with permanent fencing to protect conserved habitat. Pets shall be prohibited on the site during disturbance activities. The Covered Activity

Proponent and its contractor(s)/subcontractor(s) shall be responsible for compensating at a ratio of 10:1 (acre restoration or acquisition/acre impact) for the disturbance of natural habitat outside of the approved limits of disturbance (Development Envelope). Any restoration mandated for infringements outside the approved disturbance footprint shall require a restoration plan approved by the Tribe.

Storage and Staging Areas

No temporary storage or stockpiling of construction materials shall be allowed outside of the Development Envelope (within conserved habitat or habitat to be conserved), and all staging areas for equipment and materials shall be located a minimum of 50 feet away from conserved habitat or habitat to be conserved. Staging areas and construction sites shall be kept free of trash, refuse, and other waste; no waste dirt, rubble, or trash shall be deposited within conserved habitat or habitat to be conserved.

Dust Control

Active disturbance areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to disturbance areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat or habitat to be conserved, then corrective measures must be taken immediately.

For projects that involve dust control watering for a period of 12 months or more, the monitoring biologist shall report to the Tribe any observation that watering activities are encouraging encroachment by non-native species. The Tribe shall determine any appropriate corrective measures to be implemented by the Covered Activity Proponent (e.g., application of chemical stabilizers instead of water, removal of non-native species), as necessary to protect the Habitat Preserve.

Lighting

Night lighting shall be prohibited during the course of activities, unless determined by the Tribe to be absolutely necessary for safety and protection of property. Any lighting determined to be necessary by the Tribe shall be shielded to avoid impacts to the surrounding habitat.

Breeding Season Restrictions

Native vegetation removal for Covered Activities will not be permitted within the MCCA during the period from March 15 to August 15 (or March 15 to September 15 for riparian areas; January 15 to June 15 for crissal thrasher habitat) because of the potential to disturb active nests during this period, unless a Qualified Biologist determines that no nesting activity is occurring at that time. As an exception, hand crew activities, such as trail maintenance and non-native invasive species control efforts, would be

permitted provided that a Qualified Biologist conducts a pre-disturbance survey to identify any active nests, marks their locations, and monitors activities to ensure that they are avoided.

4.9 VALLEY FLOOR PLANNING AREA (VFPA)

The VFPA includes most of the northeastern half of the Action Area, encompassing approximately 15,517 acres (excluding off-Reservation Target Acquisition Areas). Its boundaries are described in the preamble to Chapter 2. Natural Plant Communities and Covered Species that occur in the VFPA are described in detail in Chapter 3. In summary, 12 Covered Species occur or have the potential to occur within the VFPA, including desert tortoise, burrowing owl, Coachella Valley fringe-toed lizard, flat-tailed horned lizard, Palm Springs ground squirrel, Palm Springs pocket mouse, Coachella Valley giant sand treader cricket, Coachella Valley Jerusalem cricket, crissal thrasher, Le Conte's thrasher, Little San Bernardino Mountains gilia, and Coachella Valley milk-vetch. Approximately 56 percent of the VFPA (8,726 acres) is already developed and no longer provides habitat for native plants and animals. Most portions of the valley floor still supporting native vegetation are fragmented and largely surrounded by existing development, and no longer receive a consistent natural source of sand. They therefore cannot be considered long-term viable habitat. Active and ephemeral sand fields having long-term preservation benefits to Covered Species do, however, occur within a small portion of the VFPA in Section 6 (Township 4 South, Range 5 East).

This Tribal HCP incorporates and enhances, the Tribe's existing valley floor fee and acquisition program to ensure the continued conservation of valley floor Covered Species and their habitat through specification of additional conservation on the Valley Floor and implementation and management measures.

Conservation on the Valley Floor is anticipated to include portions of the Indian Canyons Master Plan area and the Target Acquisition Areas. Indian Canyons Heritage Park would be authorized for five percent development, consisting only of park-related uses. Tribal Reserve lands within the Indian Canyons Master Plan (refer to Figure 7) also would be authorized for five percent development. The remaining 95 percent of these areas would remain undisturbed and may be dedicated to the Habitat Preserve, at the Tribe's discretion, in partial fulfillment of overall conservation acreage requirements for the Plan. Those portions of the VFPA within 500 feet of Peninsular bighorn sheep habitat, while not subject to land dedication requirements, shall be subject to requirements to minimize potential indirect impacts to that species.

4.9.1 Conservation Areas on the Valley Floor

An analysis of available data shows that the valley floor Covered Species are found primarily in association with active sand field habitat, ephemeral sand field habitat and stabilized and partially stabilized shielded sand field habitat. In total, there are approximately 561 acres of active or ephemeral sand field habitats and 2,971 acres of stabilized and partially stabilized shielded sand field habitat within

the VFPA (excluding off-Reservation Target Acquisition Areas). As described in section 4.3.2.10 above, the remaining stabilized and stabilized shielded sand fields within the Plan Area have limited long-term habitat value due to their isolation and fragmentation. Based upon this information, the Tribe will emphasize the preservation of active and ephemeral sand fields both on the Reservation and in off-Reservation Target Acquisition Areas. As described in Chapter 3, other habitats near the base of the mountains (e.g., Sonoran mixed woody and succulent scrub) provides suitable habitat for several species that occur primarily in the VFPA. As a result, conservation within Indian Canyons would benefit species such as a Coachella Valley ground squirrel, Palm Springs pocket mouse, and Coachella Valley milk-vetch.

Impacts to habitat in the VFPA will be mitigated through preservation and management of habitat acquired within Indian Canyons and Target Acquisition Areas on the valley floor (Figure 35). In total, the Tribe will preserve, or acquire, and dedicate to the Habitat Preserve up to 1,455 acres of land within any or all of the Indian Canyons and Target Acquisition Areas based on the conservation priorities described in this section. Habitat may be purchased for mitigation credit outside of the Target Acquisition Areas with approval by the Tribe and USFWS.

Target Acquisition Areas habitat to be acquired is based on (1) providing appropriate replacement habitat for the habitat to be impacted; and (2) consideration of regional conservation needs. Specifically, although a relatively small amount of the habitat in the Plan Area to potentially be impacted would consist of active or ephemeral sand field habitats, these are the habitats with the greatest losses regionally and that support the Covered Species with the greatest level of threat (the federally listed threatened Coachella Valley fringe-toed lizard). The Tribe will, therefore, commit to the goal of acquiring a proportionately larger acreage of active or ephemeral sand field habitat types than of stabilized sand field habitats. In conjunction with this regional contribution, the Tribe will also ensure that an adequate amount of stabilized sand field habitats will be acquired to mitigate for impacts to those habitats. To this end, the Tribe commits to the goal of acquiring mitigation habitats in the following proportions:

- *Active or ephemeral sand fields: Minimum of 25 percent*
  Based upon 1,455 acres of required VFCA mitigation, conservation of a minimum of 364 acres of active or ephemeral sand field habitat would be required. Much of this acquisition will likely occur in the Section 6 Target Acquisition Area, where it is expected that this minimum will be exceeded. Development of Section 6 will require 492 acres (of the existing 571 acres) of active and ephemeral sand field habitats to be preserved. When fully developed, Section 6 impacts will require an additional 32 acres of active and ephemeral sand field habitat to be acquired based upon the 1:1 mitigation requirement. Therefore, active and ephemeral sand field mitigation from Section 6 development is a total of 524 acres.

The maximum amount of impact that would be authorized under this Tribal HCP would be 74 acres of active sand field habitats (58 acres of which would be limited to activities that would allow for continued fluvial sand transport) and 320 acres of ephemeral sand field habitats (257 acres of which would be limited to activities that would allow for continued fluvial sand transport and 47 of which are located southwest of the Whitewater River levee and so not considered to have long-term viability).[6] Thus, a maximum of 347 acres of habitat with long-term viability for these species would be impacted (most of it temporarily) in exchange for dedication and management in perpetuity of a minimum of 524 acres of habitat with long-term viability, a ratio of 1.3:1. In the ultimate condition (if the maximum authorized amount of development and associated mitigation occur and once the Fluvial Sand Transport Process Area is reclaimed and dedicated to the Habitat Preserve), 32 acres would be impacted in exchange for 524 acres of conservation, a ratio of 16.4:1. This would represent on-site conservation of 86 percent of the existing habitat, or (with the off-site conservation), net conservation of 92 percent.

- *Stabilized or stabilized shielded sand fields: Minimum of 25 percent*
  This would represent a minimum of 364 acres, assuming that enough development occurs to warrant acquisition of the entire 1,455 acres as mitigation. It is anticipated that most of this acquisition will occur off of the Reservation. Assuming impacts to all of the approximately 2,971 acres of stabilized and stabilized shielded sand fields on the Reservation, the resulting mitigation ratio would be a minimum of 1 acre of higher quality habitat preserved for every 7.9 acres of habitat with lower long-term conservation values impacted. Given the isolated and fragmented nature of the habitat existing within the Reservation, compared to the relatively high long-term conservation value of lands to be acquired, in conjunction with the prioritization of regional conservation needs (i.e., disproportionate acquisition of active and ephemeral sand field habitats), the proposed ratio of impact to preservation is considered appropriate.

- *Other habitat types: Maximum of 20 percent*
  The Tribe recognizes that other habitat types have value for some of the Covered Species. Habitat types that would be acceptable for acquisition include mesquite hummocks, desert scrub, Sonoran creosote bush scrub, and Sonoran mixed woody and succulent scrub. Other habitat types also may be acquired for credit if approved by USFWS. Habitat acquired for credit in this category may include habitat within Indian Canyons. Conservation of these habitats for credit against VFCA mitigation requirements would not exceed 291 acres without authorization from USFWS.

Overall, up to 6,164 acres (91 percent) of existing habitat in the VFPA portion of the Plan Area may be impacted (including 315 acres of Fluvial Sand Transport Process Area to be revegetated), in exchange for

[6] These values assume that development within the Specific Plan is divided equally between active and ephemeral sand fields. The actual disturbance of each of these habitat types may vary; however, the combined disturbance within the Specific Plan Area would not exceed 32 acres.

up to 1,455 acres of mitigation, proportionate to the amount of development that occurs. The resulting mitigation ratio would be 1 acre of higher quality habitat preserved for every 4 acres of habitat having lower long-term conservation values impacted and not restored. The distribution of the impacts and mitigation among VFPA habitat types is summarized in Table 4-5.

Table 4-5
Summary of VFPA Impacts and Conservation*

Vegetation Community	Maximum Impacts	Minimum Acres Conserved	Maximum Acres Conserved
Active or ephemeral sand fields	394	524	--
Stabilized or stabilized shielded sand fields	2,971	364	--
Other habitat types	2,799	--	291

*Conservation acreages are calculated assuming the stated maximum impacts. Sand field acquisition would need to comprise a minimum of 80 percent (1,164 acres) of the total acquisition.

The proposed mitigation is considered biologically appropriate for the reasons described above. In addition to biological considerations, the proposed mitigation is considered to be in accordance with the "mitigation to the maximum extent practicable" threshold due to the following considerations: (1) to meet the identified mitigation need, the mitigation fee for development within the valley floor has already been increased with the Tribe-adopted version of the Tribe's HCP from $600 to $2,371 (a 295 percent increase); (2) the Tribe has committed to collecting fees for mitigation of all Covered Projects under this Plan ("THCP Mitigation Fee") at an amount equal to the per-acre amount adopted by CVAG within its MSHCP; (3) the Tribe will collect fees, acquire, or cause the dedication of a minimum acreage of lands (at a ratio to impacts from Covered Activities) within the approved acquisition areas, and legally protect and manage these lands; (4) if the "VFPA Rough Proportionality Commitment" (see section 4.15.4.4) is not met, the Tribe will halt Covered Activity approvals in the VFPA until conserved/protected lands acreages are increased to proportional amounts, evaluate the amount of the fee, and consider further increasing the fee to meet the commitment; and (5) the Tribe cannot place itself or its members at an economic disadvantage with competing interests or obligate itself or its members to a disproportionate share of the conservation requirements of any species. Accordingly, the Tribe will review acquisitions and acquisition progress in the Indian Canyons and Target Acquisition Areas with USFWS to achieve the above-specified acquisition goals and the factors described below within their obligation to acquire up to 1,455 acres of lands for the Valley Floor Habitat Preserve but in no event shall the Tribe be obligated to exceed a total acquisition of 1,455 acres for the benefit of VFPA Covered Species. As part of this review process, the Tribe and USFWS may mutually agree to alter the percentages of each habitat type to be acquired that are specified above.

The Target Acquisition Areas, both within and outside the Reservation, have been identified by the Tribe, in consultation with USFWS and CVAG, as core habitat for the Valley Floor Covered Species

(e.g., desert sand field habitats), areas that support ecological processes necessary to sustain these areas (i.e., sand source areas), or areas that provide linkage between core habitat areas (Appendix F). In addition to the lands identified by CVAG as conservation areas, the Tribe has, at the request of USFWS, included additional properties in the Target Acquisition Areas that are considered to have high habitat value and a relatively high degree of potential threat. Conservation of lands within the Target Acquisition Areas will complement other existing and proposed public and private conservation efforts described in Chapter 2 above and depicted on Figure 6. On the Reservation, the portion of Township 4 South, Range 5 East, Section 6 located north of the southern bank of the levee is valuable both as core active and ephemeral desert sand field habitat, and as a habitat linkage. The Tribe may acquire habitat in Indian Canyons in partial satisfaction of the VFPA Rough Proportionality Commitment, provided that such lands also provide potential habitat for other VFPA Covered Species, and that the maximum limit for "other" habitat types described above is not exceeded.

In addition to Target Acquisition Areas in the Plan Area, areas north and east of the Reservation (within the Action Area) have been identified for potential acquisition. Figures F-1 through F-5 in Appendix F show the location of active sand field habitat and ephemeral sand field habitat within each of the Target Acquisition Areas and the relationship of these habitat areas to existing preserves. Additionally, lands within Indian Canyons provide suitable habitat for several active and stabilized sand-dependent species, and may contribute to their conservation, as well as providing a critical linkage for Peninsular bighorn sheep. Other areas could be acquired for mitigation purposes with USFWS pre-authorization.

Indian Canyons Heritage Park and Tribal Reserve lands addressed by the Indian Canyons Master Plan are owned by or held in trust for the Tribe, and may be dedicated to the Habitat Preserve at a time to be determined by the Tribe, as partial fulfillment of overall conservation acreage requirements for the Plan.

Specifically with respect to the Target Acquisition Areas, the Tribe and USFWS have agreed upon prioritization of these areas for acquisition, based on regional conservation needs. The Target Acquisition Area priorities are as follows:

1. Section 6 Target Acquisition Area located in the north-central area of the Reservation south of I-10;
2. Target Acquisition Areas in Desert Hot Springs, in CVAG Special Provisions Areas;
3. Target Acquisition Areas in the County, in CVAG Conservation Areas; and
4. Target Acquisition Areas in Palm Springs or Cathedral City, in CVAG Conservation Areas.

Table 4-6 summarizes the types of habitat, potentially associated Covered Species, and undeveloped acres found in each Target Acquisition Area, by priority.

Table 4-6
Target Acquisition Areas

Target Acquisition Area Priority	Habitat Description	Potential Species Present*	Total Undeveloped Acres	Total Active/ Ephemeral Desert Sand Fields
1	Active and ephemeral desert sand fields	CVMV, CVFTL, CGSC, CVJC, FTHL, PSGS, PSPM, LCT	521	521
2	Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, desert dry wash woodland	CVMV, CVJC, FTHL, BO, PSGS, PSPM, DT, LCT, LSBG	1,756	0
3	Active and ephemeral sand fields, stabilized and partially stabilized shielded sand fields, Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub, desert saltbush scrub, desert dry wash woodland, mesquite hummocks, desert fan palm oasis woodland, Sonoran cottonwood-willow riparian forest, southern sycamore-alder riparian woodland.	CVMV, CVFTL, CGSC, FTHL, BO, PSGS, PSPM, DT, CT, LCT, LSBG, SYB	35,258	5,044
4	Active and ephemeral sand fields, stabilized and partially stabilized sand fields, Sonoran creosote bush scrub, Sonoran mixed woody and succulent scrub.	CVMV, CVFTL, CGSC, CVJC, FTHL, BO, PSGS, PSPM, DT, LCT	8,510	3,623

*Species: CVMV=Coachella Valley milk-vetch, CVFTL=Coachella Valley fringe-toed lizard, CGSC=Coachella giant sand-treader cricket, CVJC=Coachella Valley Jerusalem cricket, FTHL=flat-tailed horned lizard; BO=burrowing owl, PSGS=Palm Springs ground squirrel, PSPM=Palm Springs pocket mouse, DT=desert tortoise, CT=Crissal thrasher; LCT=Le Conte's thrasher, LSBG=Little San Bernardino Mountains gilia, SYB=southern yellow bat.

Also with respect to the Target Acquisition Areas, in concert with the geographic prioritization described above, the Tribe shall consider the factors listed below in determining which properties to acquire or accept for mitigation credit. Each of the first four factors must be met with respect to any given property; the fifth may be a consideration, but is not a required element for the property to be acceptable.

- *Habitat value for Covered Species*
  Habitats conserved would be appropriate to mitigate for the habitat types impacted by development (see above with regard to required percentages for the various habitat types of concern). In addition to habitat type, the Tribe will consider habitat quality (e.g., constituent species, amount of non-native vegetation) and presence of Covered Species (if survey information is available).

- *Proximity to other habitat preserves existing at the time of the acquisition or considered likely to exist in the near future*

  Lands that are adjacent to or in close proximity to other habitat preserves provide enhanced long-term viability through greater opportunity for gene flow, colonization, and rescue effect. Edge effects to the reserve system as a whole are reduced as well. This is also biologically superior for land management and land management costs are optimized. Ideally, lands conserved by the Tribe would be immediately adjacent to other habitat preserves, which also would increase habitat patch size.

- *Habitat patch size, including adjacent conserved habitats*

  Island biogeography design principles indicate that larger preserves result in greater species richness, greater long-term population viability due to an increased number of individuals, and reduced edge effect (i.e., larger ratio of reserve area to reserve perimeter). It should be noted, however, that ecotonal situations often result in a higher number of species in a smaller area. Larger reserves also result in economies of scale in management costs, which allow for more intensive management within the available budget. To the extent practicable, therefore, the Tribe will target acquisition of large parcels and/or parcels that increase the size of an existing reserve.

- *Amount of edge effect*

  Many sensitive species tend to be less abundant (or absent) in areas that are subject to edge effects from human activities. Examples of human-related intrusions that could result in edge effects include lighting, noise, invasive species, exotic predators, and dumping. Edge effects typically occur adjacent to existing development, along roadways, and in and adjacent to areas valued as recreational resources. In acquiring land, preference will be given to areas that are not adjacent to areas that currently, or are likely in the future to, support such uses.

- *Threat to the habitat in the absence of Tribal acquisition*

  The Tribe has an interest in protecting imperiled habitats. Habitats likely to be threatened by development include areas adjacent to existing development and/or proximate to existing infrastructure such as roads and waterlines. To the extent that it does not conflict with other factors listed above or the Tribe's concerns regarding cost, areas that would be threatened in the absence of Tribal acquisition will be prioritized for preservation.

The Tribe is open to working with the Coachella Valley Conservation Commission and would coordinate as appropriate on land acquisitions in portions of the Valley Floor outside the Plan Area. Prior to the Tribe acquiring or accepting such property for mitigation purposes, the Department shall prepare written findings documenting how the property is consistent with the priorities described above. If properties are acquired from Target Acquisition Areas in an order other than the identified geographic priorities, the Department shall provide an explanation of why that is appropriate. Considerations may include factors such as, but not limited to, a lack of willing sellers, substantially higher cost, or lower biological value

(including lack of habitat types needed to meet the above-noted target percentages) in the higher priority areas, relative to the lands proposed for acquisition. Cost shall not be the sole factor in determining selection of a property for acquisition. Such findings shall be provided in annual reports to the USFWS (refer to section 4.15.5.2). In cases that the property is being dedicated as mitigation for a specific Covered Activity, such findings also shall be included in the project's environmental documentation and/or resolutions of approval (as applicable).

4.9.2 Permitting Process for Covered Activities in the VFPA

Covered Activities within the VFPA shall require a Conditional Use Permit only if they are located in the Section 6 Target Acquisition Area or Peninsular bighorn sheep-Sensitive VFPA Area. Covered Activities subject to the Conditional Use Permit process must comply with the design and mitigation standards set forth in section 4.9.3.1, 4.9.3.2, or 4.9.3.3, as applicable. All other Covered Activities shall be required to satisfy the standards set forth in section 4.9.3.4, but will not be required to obtain a Conditional Use Permit. Take shall be extended to projects via a letter from the Tribe to the issuing agency specifying the conditions of approval required to qualify for take. Covered Activities within Indian Canyons Heritage Park (Figure 7) would consist only of park-related uses. All Covered Activities in Indian Canyons Heritage Park and Tribal Reserve portions of the Indian Canyons Master Plan area would be limited to a cumulative maximum total disturbance of five percent of the area.

The Conditional Use Permit process for applicable Covered Activities within the VFPA is as follows:

4.9.2.1 Pre-application

1. Prior to submitting a Conditional Use Permit application, a Covered Activity Proponent may submit a letter of intent to seek an agreement with the Tribe to conserve property through acquisition by the Tribe, density transfer or other means.
2. Prior to submitting a Conditional Use Permit application, a proposed activity plan shall be transmitted to the Department. The activity plan shall delineate the extent of the proposed activity, topography, and presence of sensitive biological resources (including habitat types and known sightings or observations of any Covered Species) and shall illustrate any applicable compliance issues under the Tribal HCP. The Department shall meet and confer with the Covered Activity Proponent to comment on the activity plan; make recommendations as to the project's Tribal HCP compliance requirements and location of the least sensitive Development Envelope (as applicable); and identify information requirements that must be satisfied in order for Conditional Use Permit processing to proceed. The Department will make its best effort to prepare this initial response within 30 days of receipt of the application. The intent will be to develop an activity plan that focuses on avoidance of the most sensitive biological resources to the extent feasible. Priorities shall be placed on avoiding and/or minimizing impacts to active and ephemeral sand field habitat (with attention paid to sand source and

corridor values) and Peninsular bighorn sheep. The Tribe also encourages the use of smart growth and low-impact development design features.

4.9.2.2 Application

1. A biological assessment of the site may, at the Tribe's discretion based on Pre-Application Item 2, be required of the Covered Activity Proponent when sufficient information does not exist or the information is more than one year old. This assessment will be used for the Covered Activity Proponent and the Tribe to agree upon the Tribal HCP requirements for the proposed Covered Activity. In the Tribe's discretion, the assessment shall include but not be limited to any or all of the following information: topography; habitat types; vegetation maps; drainage areas (including any USACE jurisdictional areas); the results of presence-absence studies for Covered Species the habitat characteristics of which exist on the property; location of observed Covered Species; and evaluation of the site for its significance for Covered Species and their habitat.
2. In accordance with TEPA (and/or other applicable environmental law), a document shall be prepared to assess the proposed Covered Activity's environmental impacts, including those on biological resources, and identify appropriate mitigation measures as required in this Plan.

4.9.2.3 Conditional Use Permit Conditions

If the Conditional Use Permit is approved, it shall be conditioned to ensure that the implementation of the Covered Activity is consistent with the Tribal HCP, including the VFPA development standards and applicable avoidance and minimization measures described in section 4.9.3.

4.9.3 VFPA Covered Activity Design and Mitigation Standards

Covered Activities within the VFPA shall comply with the design and mitigation standards specified in the following subsections.

4.9.3.1 Covered Activities within or adjacent to Section 6 Target Acquisition Area

Covered Activities within the Section 6 Target Acquisition Area shall be required to comply with impact avoidance and minimization measures as follows:

1. Night lighting shall be prohibited, unless absolutely necessary for safety and protection of property. Lighting shall be selectively placed, shielded, and directed away from conserved habitats to avoid impacts to Covered Species.
2. Invasive plant species shall not be used (see Table 4-4).

3. Prior to commencement of clearing, grading, or excavation activities, areas proposed for conservation shall be flagged by a biologist. The Covered Activity Proponent shall be responsible for installation and maintenance of any security fences necessary for the purpose of controlling human and pet access into conserved habitat. All movement of personnel, including ingress and egress of equipment and personnel, shall be limited to designated disturbance zones. The Covered Activity Proponent and its contractor(s)/subcontractor(s) shall be responsible for restoring sensitive habitat outside of the approved limits of disturbance as staked and monitored by the project biologist and compensating such impact at a ratio of 5:1 (acre restoration/acre impact) within one year of the unauthorized disturbance.. Any restoration mandated for infringements outside the project footprint shall require a restoration plan approved by the Tribe.
4. The proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be required so as to avoid and minimize impacts to Covered Species and their habitat.
5. Equipment to extinguish small brush fires (e.g., from trucks or vehicles) shall be present on site during disturbance activities, along with personnel trained in the use of such equipment. Smoking shall be prohibited within and adjacent to flammable vegetation.
6. Active disturbance areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially adjacent conserved habitat. If at any time, significant amounts of dust or material are determined by the Tribe to be affecting conserved habitat, then corrective measures must be taken immediately. For projects that involve dust control watering for a period of 12 months or more, the monitoring biologist shall report to the Tribe any observation that watering activities are encouraging encroachment by non-native species. The Tribe shall determine any appropriate corrective measures to be implemented by the Covered Activity Proponent (e.g., application of chemical stabilizers instead of water, removal of non-native species), as necessary to protect the Habitat Preserve.
7. All Covered Activities proposed in portions of the Section 6 Target Acquisition Area having potential habitat for burrowing owl and/or desert tortoise shall be required to ensure that surveys for these species are conducted by a Qualified Biologist at the appropriate time of year and in appropriate conditions, and report the results of those surveys to the Tribe. If habitat occupied by either species is identified in this area, it shall be avoided to the Maximum Extent Practicable. If avoidance is determined by the Tribe not to be practicable, any individuals shall be relocated in accordance with the protocols described in section 4.8.4.2(f) and/or (g) above, as appropriate.

4.9.3.1(a) Covered Activities within Fluvial Sand Transport Process Area

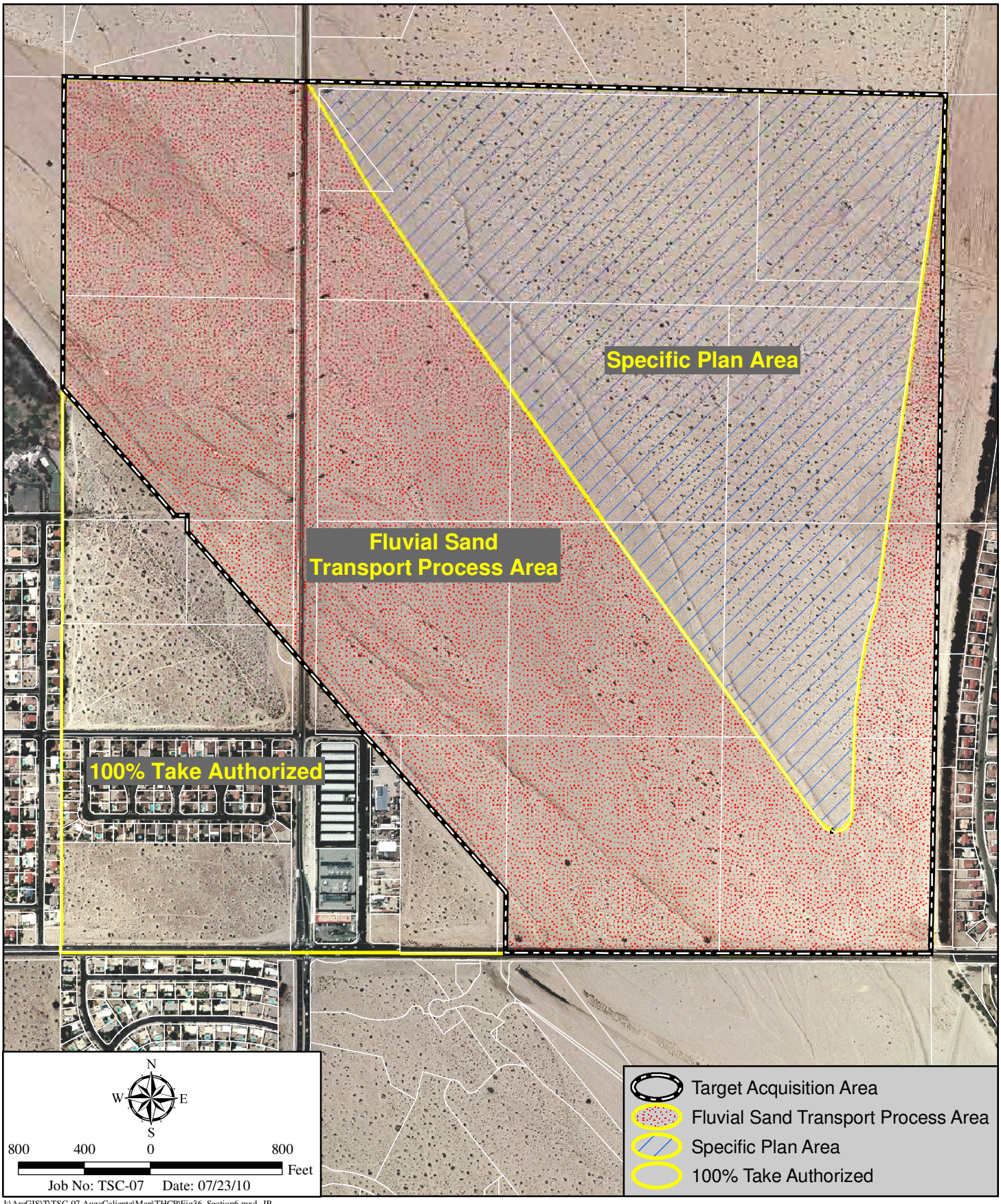
The Whitewater River channel, which runs northwest-southeast through the center of Section 6, and the associated Mission Creek drainage channel, which runs along the eastern edge of the section, would be designated as a Fluvial Sand Transport Process Area (totaling 315 acres, Figure 36). Within the Fluvial Sand Transport Process Area, activities that would not disrupt sand transport (e.g., sand mining) would be authorized provided they comply with the following design and mitigation standards, as applicable:

1. Impact areas associated with Covered Projects and Covered Maintenance Activities shall be limited to the Development Envelope. The Development Envelope shall include all areas of contiguous land upon which structures shall be located and shall include all areas of ground disturbance, including any access roads or driveways. Allowable uses will be limited to such uses as sand mining; no construction of structures other than those ancillary to the operation will be allowed.
2. Covered Activities shall be allowed only to the extent that they would not impact natural fluvial sand transport processes. All natural flows onto the parcel must be conveyed off site in the natural pre-disturbance direction of flow. This will ensure that disturbance on the property will not impede water-borne sand transport across the parcel. In addition, water-borne sediments and flood waters will not be allowed to be artificially retained on site. Concentration of flows and increase in flow velocity off site must be minimized to the extent feasible to avoid downstream erosion and scour.
3. Covered Activities shall be subject to any necessary Clean Water Act permits.
4. Covered Activities shall not include walls, wind breaks, hedges, and other barriers to sand movement.
5. Covered Projects within the Fluvial Sand Transport Process Area would be exempt from payment of the THCP Mitigation Fee. Sand mining permits could be issued for a maximum duration of 20 years. The Covered Activity Proponent shall be responsible for preparation of a reclamation plan that provides habitat values for Covered Species, subject to review and approval by the Tribe. Upon completion of any authorized sand mining or similar activities, the site must be reclaimed pursuant to the approved reclamation plan and dedicated to the Habitat Preserve (at no cost to the Tribe) in partial fulfillment of the required Target Acquisition Area conservation.

4.9.3.1(b) Covered Activities Within Section 6 Specific Plan Area

The 209-acre portion of the Section 6 Target Acquisition Area outside of the Fluvial Sand Transport Process Area shall be considered the Section 6 Specific Plan Area. Development in this area may be authorized only with the preparation of a Specific Plan, which must meet the following requirements:

1. Impacts associated with Covered Activities shall be limited to the Development Envelope. The Development Envelope shall include all areas of contiguous land upon which structures shall be located and shall include all areas of ground disturbance, including any access roads or driveways, fuel modification zones, non-native landscaping, and domestic animal use areas.



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Section 6 Target Acquisition Area

AGUA CALIENTE THCP

Figure 36

2. The Development Envelope shall consist of a maximum of 32 acres of the Section 6 Specific Plan Area and shall be sited to minimize impacts to sand transport processes. It is, therefore, anticipated (subject to revision based upon detailed sand transport modeling) that the Development Envelope (with the exception of the potential widening of Gene Autry Trail) would be sited within 1,000 feet of the eastern boundary of the Section 6 Target Acquisition Area.
3. Covered Activities shall be subject to any necessary Clean Water Act permits.
4. Areas outside of the Development Envelope shall be conserved through dedication to the Tribe by the Covered Activity Proponent through appropriate legal authorities for inclusion in the Habitat Preserve.
5. The Covered Activity Proponent shall be responsible for acquiring and dedicating to the Tribe for inclusion in the Habitat Preserve, through appropriate legal authorities, habitat within off-Reservation Target Acquisition Areas within 3 miles of the project site at a 1:1 ratio to any authorized impacts. The Covered Activity Proponent shall not be responsible for funding management of any lands dedicated to the Habitat Preserve; such management shall be funded by the Tribe in perpetuity.
6. The value of on- and off-site lands dedicated to the Habitat Preserve may, at the Tribe's discretion, be credited against the THCP Mitigation Fee.
7. The Department shall ensure that the following adjacency measures are addressed in the Specific Plan, included as conditions of approval for applicable proposed Covered Activities and, if applicable, included in the project's CC&Rs. If a development would establish an HOA, the HOA shall be responsible for enforcing the CC&Rs addressing these and all other standards required by this Plan. The Tribe shall have oversight authority to ensure that this enforcement occurs, and shall be directly responsible for ensuring that the standards are followed on lands without CC&Rs and/or HOAs.
    a. If Gene Autry Trail is proposed to be widened to six lanes, undercrossings of sufficient size to allow for movement of reptiles and small mammals shall be installed to allow for movement of Coachella Valley round-tailed ground squirrel, Palm Springs pocket mouse, and Coachella Valley fringe-toed lizard.
    b. Surveys of the portions of the Specific Plan Area proposed for disturbance shall be conducted by a Qualified Biologist during the appropriate season and conditions to identify Coachella Valley milk-vetch, desert tortoise, and burrowing owl. Identified populations shall be avoided to the Maximum Extent Practicable, while also considering the sand transport objectives of the Target Acquisition Area. Avoidance of such populations shall not cause the allowable development area to be reduced below 32 acres.
    c. To minimize the potential spread of non-native insect species such as the Argentine ant, either (1) no irrigation shall be allowed along the western boundary of the Development Envelope; or (2) a moisture barrier shall be provided to ensure that excess irrigation does not seep into the adjacent native habitats.
    d. Lighting shall be selectively placed, shielded, and directed away from conserved habitats. In addition, lighting from homes abutting conserved habitat shall be screened by planting non-

invasive vegetation, and large spotlight-type backyard lighting directed into habitat shall be prohibited.

e. Invasive plant species shall not be used in landscaping. A list of prohibited landscaping vegetation shall be provided to each Covered Activity Proponent for planning purposes (Table 4-4). This list will periodically be updated by the Tribe based on the California Invasive Plant Council's list of invasive species and/or other applicable sources. Covered Project Proponents shall provide information in the CC&Rs that explains the importance and requirements of avoiding landscaping with invasive species.

f. Fuel management zones separating native habitat from the location of the activity shall be developed, designed, and managed to minimize impacts to native vegetation. Fuel management activities shall be conducted in accordance with the Tribe's Fire Management Plan. The Covered Activity shall have adequate fuel modification zones designed within its Development Envelope, with appropriate impacts quantified and mitigated per the Plan.

g. The Covered Project Proponent shall be responsible for installation of barriers for the purpose of controlling human and pet access into lands where the Covered Project abuts natural habitats to be preserved. Prior to construction of any foundations or structures, the Tribe shall approve the final design of these barriers. Signs shall be posted at potential access points into the Habitat Preserve informing residents of the wildlife habitat value of the open space and to minimize intrusions. Maintenance of access controls shall be the responsibility of the HOA or, if no HOA is formed, the individual landowner. Signs shall be maintained by the HOA or, if no HOA is formed, the Tribe. If any unauthorized pedestrian or pet access results in any degradation of habitat, the HOA, or individual landowner as applicable, shall take extra steps to control access by additional signage, fencing, or other steps as necessary, to the satisfaction of the Tribe.

4.9.3.2 Covered Activities within Peninsular Bighorn Sheep-Sensitive VFPA Areas

VFPA Covered Activities located within 500 feet of Peninsular bighorn sheep habitat (Peninsular bighorn sheep-Sensitive VFPA Areas) must comply with all applicable impact avoidance and mitigation measures for Peninsular bighorn sheep set forth in section 4.8.4.2(a) as well as all applicable mitigation and avoidance measures set forth in sections 4.8.4.3 and 4.8.4.4.

4.9.3.3 Covered Activities within Indian Canyons Heritage Park and Tribal Reserve

Covered Activities within the Indian Canyons Heritage Park and the Tribal Reserve portions of the Indian Canyons Master Plan Area (refer to Figure 7) shall comply with the following design and mitigation standards:

1. Covered Activities' impact on property shall be limited to the Development Envelope. The Development Envelope shall include all areas of contiguous land upon which structures shall be

located, and shall include any access roads or driveways, fuel modification zones, non-native landscaping, necessary maintenance areas, and domestic animal use areas.

2. The Development Envelope shall be sited to avoid impacts to the parcel's most sensitive biological resources and the most sensitive portions of the site to the extent feasible. Priorities shall be placed on avoiding, to the Maximum Extent Practicable, riparian habitats and mesquite hummocks and thickets, especially those occupied by Covered Species; maximizing buffer areas adjacent to conserved habitat and riparian areas; minimizing edge effects; and using sound conservation planning principles.
3. The Covered Project's impacts, reflected in the siting of the Development Envelope, shall not exceed a cumulative total of five percent of the area. Covered Projects must be sited to avoid, to the Maximum Extent Practicable, impacts to riparian areas and to mesquite hummocks and thickets associated with riparian habitat; must comply with the conditions of any required Clean Water Act permits; and must provide compensatory mitigation through restoration/creation at a minimum 1:1 ratio, such that no net loss of habitats suitable to support riparian Covered Species occurs within the Plan Area. Such compensatory mitigation would be designed on a project-specific basis, taking into account the functions for Covered Species of the habitat to be impacted. It may include enhancement of existing habitats that currently are not suitable to support riparian Covered Species through activities such as tamarisk removal, revegetation with native plant species, and cowbird removal activities. Such activities would result in a net gain in functions of the riparian habitat.
4. The Covered Activity shall be conditioned to comply with applicable impact avoidance and minimization measures set forth in section 4.8.4.3 and 4.8.4.4.

4.9.3.4 All VFPA Covered Activities

The presence of riparian habitat on lands proposed to be subject to a Covered Activity must be reported to the Tribe. The Covered Activity must be sited to avoid, to the Maximum Extent Practicable, impacts to riparian areas; must comply with the conditions of any Clean Water Act permits; and must provide compensatory mitigation such that no net loss of habitats suitable to support riparian Covered Species occurs within the Plan Area.

The presence of mesquite hummocks and thickets associated with riparian habitat on lands proposed to be subject to a Covered Activity must be reported to the Tribe. The Covered Activity must be designed to avoid them to the Maximum Extent Practicable. As mitigation for any unavoidable impacts, the Covered Activity Proponent must conserve, create, or restore mesquite hummock and thicket habitats at a minimum ratio of 2:1.

All Covered Activities having potential habitat for burrowing owl and/or desert tortoise as described in this Plan shall be required to conduct pre-disturbance surveys for such species prior to engaging in any

ground or habitat disturbing activities, and to relocate any individuals found pursuant to the provisions of sections 4.8.4.2(f) and/or (g) above, as appropriate.

Any Covered Activities having potential habitat for Little San Bernardino Mountains gilia (as determined by the Tribal Biologist) shall be required to ensure that surveys for this species are conducted by a Qualified Biologist at the appropriate time of year and in appropriate conditions, and report the results of those surveys to the Tribe. Identified populations shall be avoided to the Maximum Extent Practicable. As mitigation for any unavoidable impacts, the Covered Activity Proponent shall conserve or transplant populations at a minimum ratio of 3:1 in a location appropriate for the species, regardless of whether it is within the Action Area. Transplant activities would require a USFWS-approved restoration plan.

Prior to authorized ground disturbing activities, the Tribe shall provide information to affected landowners regarding their responsibilities under the MBTA.

Tribal staff encourages the use of smart growth and low impact design features. These will be incorporated into Covered Projects by the planning and environmental staff of the Tribe's land use agents, working in cooperation with Tribal staff, as appropriate based on each project's location, use, and zoning. Where feasible, undergrounding of utilities would be required in accordance with the ordinances and policies of the Tribe's land use agents.

VFPA Covered Activity Proponents will not be required to conduct biological surveys for Covered Species or perform any further mitigation beyond that described above. Any environmental documentation required by applicable law other than the provisions of this Plan for a Covered Activity within the VFPA may utilize information from the Tribal HCP and its supporting environmental documentation to identify potential impacts and mitigation for biological resources, including Covered Species and Natural Plant Communities.

4.10 MITIGATION THROUGH ENHANCEMENT OR RESTORATION

The Tribe may increase the habitat values for Covered Species by enhancing riparian and other sensitive habitats and/or restoring disturbed areas to natural conditions and dedicating such areas to the Habitat Preserve. Such activities may be conducted by the Tribe, or by third parties as authorized by the Tribe. These activities may be used to offset mitigation obligations set forth in this Tribal HCP, if the enhancement provides a net conservation benefit to the Covered Species. The Tribe shall provide a description of the proposed enhancement or restoration activity to the USFWS for review and approval prior to implementation. The USFWS may submit comments on such proposal. If such comments are received within 30 days, the Tribe will confer with the USFWS to resolve issues associated with the proposal. If the USFWS does not respond within 30 days after receipt of mailed notice, the Tribe shall deem the proposal acceptable for mitigation credit.

In the event such enhancement or restoration occurs, the incremental net conservation value of every acre (or portion of an acre) provided to Covered Species or their habitats shall become Mitigation Credits and may be used, as authorized by the Tribe, to offset mitigation requirements for Covered Activities. Mitigation Credits may become available as follows:

1. For upland habitats restored in disturbed areas, criteria for determining successful restoration will be established in coordination with USFWS. The restored habitat will be counted as mitigation acreage and may be used to offset acreage dedication requirements in the MCCA. Similarly, restored upland habitat in biologically appropriate areas of the VFPA will reduce the VFPA acreage requirement for habitat acquisition within Target Acquisition Areas. Mitigation Credits will become available as provided for in the mitigation banking agreement.
2. For enhanced or restored riparian habitats, criteria for determining successful enhancement or restoration will be established in coordination with the USFWS. The enhanced or restored habitat will be counted as acreage for wetland mitigation within the Plan Area. Mitigation Credits will become available as provided for in the mitigation banking agreement.

4.11 MANAGEMENT OF THE HABITAT PRESERVE

This Tribal HCP is designed to function as an adaptive tool, allowing the Tribe to update and revise baseline information, to refine its conservation goals and priorities, and to complement other existing and planned conservation programs in the region. The overall management goal of the Tribal HCP is to establish and maintain the Habitat Preserve, focusing on conserving Covered Species and Natural Plant Communities, consistent with the conservation objectives for those species. Under the direction of the Tribal Council, the Department will manage the Existing Tribal Conservation Programs and the newly created Habitat Preserve. Management programs and conservation measures will be conducted in accordance with Annual Work Plans prepared by the Department and approved by the Tribal Council. The Tribe will provide, or will ensure the provision of, funding for all conservation management efforts, as described in section 4.15.

Management and monitoring activities will be conducted cooperatively with the managers of adjacent lands. It is anticipated that the Tribe will directly manage the portions of the Habitat Preserve in the Plan Area, but that day-to-day management of Habitat Preserve lands in the off-Reservation Valley Floor Target Acquisition Areas will be carried out by others (such as the Coachella Valley Conservation Commission or Center for Natural Lands Management), with funding and oversight provided by and under the responsibility of the Tribe through a contractual arrangement. The Tribe will develop a detailed framework management plan with the review and approval of the USFWS within one year of the initial dedication of lands to the Habitat Preserve. This framework plan would be applied to all lands that are ultimately dedicated to the Habitat Preserve. With regard to Valley Floor areas of the Habitat Preserve, the initial framework management plan will be considered interim, with management measures to be updated once baseline monitoring data from these areas is available. Alternatively, lands within the off-

Reservation Target Acquisition Areas could be managed consistent with the science, monitoring, and management efforts on surrounding lands in accordance with an Adaptive Management Plan as may be developed for the Coachella Valley MSHCP, provided such management plan becomes approved by the USFWS.

The detailed framework management plan to be prepared by the Tribe will include general ongoing management, monitoring, and adaptive management measures, and will reflect an adaptive management approach. The framework for adaptive management programs can be found in section 3.B.3.g of the USFWS/National Marine Fisheries Service *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* (1996) and in the final 5 Point Policy Guidance added to the Handbook in 2000 (USFWS 2000b). The *Federal Register* notice contains the following guidance regarding adaptive management programs:

- An adaptive management approach allows for up-front mutually agreed-upon changes in an HCP's operating conservation plan that may be necessary for the species in light of new information. In order to be successfully implemented, adaptive management provisions must be linked to measurable biological goals and monitoring.
- Not all HCPs or all species covered in a Section 10(a) Permit need an adaptive management strategy. However, an adaptive management strategy is essential for permits that cover species that have biological data or information gaps *that incur a significant risk to that species*. Possible significant data gaps that could lead to the development of an adaptive management strategy include, but are not limited to, significant biological uncertainty about specific information about the ecology of the species or its habitat (e.g., food preferences, relative importance of predators, territory size), habitat or species management techniques, or the degree of potential effects of the activity on the species covered in the Section 10(a) Permit.

In addition to the above-listed considerations, adaptive management is useful in addressing the effects of outside influences on the Habitat Preserve. For example, it provides a framework for addressing potential effects of global climate change, if and when such effects occur and necessitate adjustments to the Tribal HCP.

Consistent with the 5 Point Policy Guidance and No Surprises Assurances, the range of adjustments that require additional resource commitments by the Tribe or a Third Party Participant is limited and is set forth in Sections 4.11.2, 4.13.2, and 4.14 below.

4.11.1 Goals and Approaches

Biological goals and objectives for the Plan are identified in Section 4.3. In addition, the Tribe has the following goals and objectives for management and monitoring:

1. Provide for the long-term protection and contribute to the recovery of Covered Species within the Action Area by protecting Covered Species and existing Natural Plant Communities within the Habitat Preserve as and after Habitat Preserve lands are acquired;
2. Improve degraded habitat conditions by enhancing or restoring suitable habitats for Covered Species within the Habitat Preserve;
3. Manage the ecosystems of the Habitat Preserve lands for biological integrity as it relates to maintaining self-sustaining populations or numbers of Covered Species where self-sustaining populations occur within the Habitat Preserve, incorporating actions designed to improve or maintain the components of systems (i.e., species) and system processes (i.e., predator-prey dynamics, succession, dynamic physical processes, etc.); and
4. Provide adequate biological monitoring of Covered Species and/or their habitats so as to ascertain the effectiveness of management strategies and programs and to identify and respond to likely threats to each species or its habitat. Certain Covered Species do not occur in sufficient numbers within the Action Area to allow for monitoring of individual species, and will be monitored through assessment of habitat quality instead.

4.11.2 Proposed Management Activities

Management activities will be implemented commensurate with the priorities identified by the Tribe, in consultation with the USFWS, to meet species objectives and provide for the biological values identified in this Plan. Specifically, priorities will be placed upon those species for which a decline within the Action Area would represent the most significant threat to the species (i.e., those species federally listed and for which the Action Area represents an important portion of the occupied range). Emphasis will be given to maintaining and/or improving habitat conditions and ecosystem functions within the Habitat Preserve.

Management activities will occur at two levels: habitat- or landscape-based management activities, and where appropriate, species-specific management activities. The habitat- or landscape-based management activities will allow for management and monitoring at a broader scale and will allow the Tribe to focus management efforts at a habitat-based scale. The species-specific management activities for species of particular concern will ensure that management needs of those individual species are met in consideration of known information for the species related to core locations, primary habitats, and known threats.

4.11.2.1 General Management Measures

General management measures will address the processes, threats, and disturbances that affect the habitat and natural community, with the intention of sustaining sufficient species diversity to maintain the health of the particular ecosystem. Disturbance regimes include illegal trespass (e.g., dumping, vandalism, and off-road vehicle use); altering the natural fire regime (fires too frequent or too infrequent); habitat disturbance; invasion by exotic plant and animal species; and erosion and sedimentation. The specific effects of global climate change in the Action Area cannot currently be accurately predicted (e.g., Lenhian

et al. 2005; United Nations Intergovernmental Panel on Climate Change 2007). As one recent California Energy Commission Staff Paper on global climate change impacts in California stated, "there is a very high level of uncertainty in any regional projection" (Franco 2005). Nevertheless, global climate change does have the *potential* (especially when considering a 75-year permit term) to affect natural processes such as the frequency and intensity of precipitation, fire, and flood; the spread of exotic species and diseases; and the distribution of vegetation communities and associated species.

Typical responses to these disturbance regimes may include controlling public access through appropriate fencing, gates, and signage; trash removal; maintaining the natural fire regime by maintaining fuel breaks, rapid responses to suppression, and controlled burns; control of exotic species; seeding or planting with native species; and soil amendment. These general management measures will be undertaken to benefit all Covered Species within the Habitat Preserve. Furthermore, it is anticipated that these general measures will be sufficient to ensure that appropriate habitat conditions for the majority of the Covered Species are maintained.

The following general management measures will be undertaken:

1. Control of unauthorized public access to the Habitat Preserve using appropriate fencing, gates, and signage; trash removal; and trespass control in response to illegal dumping, off-road vehicle use, and vandalism.
2. Habitats within the Habitat Preserve will be maintained and managed to the extent feasible (e.g., to the extent that such potential is not constrained through the occurrence of Changed or Unforeseen Circumstances) in a condition similar to or better than the habitat's conditions at the time lands are conveyed to the Habitat Preserve.
3. General management efforts will target disturbance regimes that may be causing ecosystem state transition (conversion of one habitat type to another) or otherwise pose a threat to the conservation values of the Habitat Preserve. Table 4-7 identifies a common list of considerations and examples of potential actions for Reserve Managers to evaluate, but is not intended to prescribe specific management activities. Pre-existing and post-disturbance conditions (e.g., habitat type, slope aspect, anticipated seed bank, accessibility, surrounding habitat types, etc.) and special considerations (e.g., soil type, acreage of disturbance, proximity to undisturbed habitat, proximity to sensitive wildlife habitat, etc.) will contribute to determining the appropriate management activities in response to disturbance regimes. The Habitat Manager will determine whether to take any or all of the actions considering, for example, whether doing so is necessary, appropriate, and cost-effective.
4. In larger blocks within the Habitat Preserve, fire management activities such as prescribed burning may be determined to be desirable to achieve biological goals. Such activities will be considered in the detailed framework management plan to be prepared for the Habitat Preserve. Such fire management activities, if undertaken, must consider both biological resource needs and public health and safety considerations. The risks of uncontrolled wildfire in proximity to structures must be a primary consideration when evaluating these types of fire management practices.

Table 4-7
Factors to be Considered in Management Responses to Disturbance Regimes

Disturbance Source	Pre-Existing/Post-Disturbance Conditions	Special Considerations	Potential Responses and Management Actions
Fire	Native vegetation type Native vs. non-native cover Anticipated seed bank: native vs. non-native, annual vs. perennial Slope gradient Slope aspect (solar orientation) Topography/erosion potential Soil type Fire temperature Accessibility Surrounding habitat types Nearby and adjacent exotic species populations	Presence of sensitive plant or animal species Presence of fire-following native species Hydrophobic soil conditions Fire frequency Climactic considerations Acreage of disturbance Proximity to undisturbed habitat Potential for resprouting Proximity to sensitive wildlife habitat Determine target vegetation to reestablish: pioneer, seral, climax community	Establish erosion control where runoff is likely to concentrate Exotic species control only Establish weed control buffer area around burn site Reseed with appropriate native species w/exotic control, if necessary Install selected native species container plants that don't establish from seed w/ exotic species control, if necessary
Disturbed habitat	Presence of erosion Soil compaction Soil structure damage Access points Slope gradient Native vegetation type Native vs. non-native cover Anticipated seed bank: native vs. non-native, annual vs. perennial Slope aspect (solar orientation) Topography/erosion potential Soil type Equipment accessibility Surrounding habitat types Nearby and adjacent exotic species populations	Presence of sensitive plant and animal species Acreage of disturbance Proximity to undisturbed habitat Proximity to sensitive wildlife habitat Potential for resprouting Determine target vegetation to reestablish: pioneer, seral, climax community	Erect appropriate fence Post signage (No trespassing, Preserve information) Establish erosion control where runoff is likely to concentrate Backfill eroded or soil-damaged areas with appropriate local native soil Establish weed control buffer area around disturbance area Reseed with appropriate native species w/ exotic control Install selected native species container plants that don't establish from seed w/ exotic species control
Exotic plant invasion	Exotic species present Native vegetation type Native vs. non-native cover Anticipated seed bank (if any): native vs. non-native, annual vs. perennial	Presence of sensitive plant and animal species Species reproductive biology (i.e., sexual vs. vegetative) Dispersal method, i.e., wind, animal, birds, etc. Timing of flowering/seed set Timing of control measures Potential sources of re-introduction of non-native species	Removal with hand equipment Chemical treatment Soil solarization Direct removal/replace technique Controlled burn

Table 4-7 (cont.)
Factors to be Considered in Management Responses to Disturbance Regimes

Disturbance Source	Pre-Existing/Post-Disturbance Conditions	Special Considerations	Potential Responses and Management Actions
Sedimentation	Native vegetation type Native vs. non-native cover Anticipated seed bank (if any): native vs. non-native, annual vs. perennial Type of Flow: perennial, ephemeral or intermittent Channel cross section: incisement, etc. Underfit/overfit stream Cutbank vs. slip face Streambed particle size: clay, silt, sand, gravel Normal character of flow Adjacent structures to be protected	Source of sedimentation Presence of sensitive plant or animal species Stable streambed gradient Existing non-native wetland species propagules upstream Existing native wetland species propagules upstream Flooding likely to recur Upstream flood control structures	Establish erosion control where erosion is likely Exotic species control Establish weed control buffer area around site Install appropriate wattled native plant materials for stream bank stabilization Install geotextile fabric where unstable soil will limit plant reestablishment Install grade stabilizing structures/ vegetation Reseed with appropriate native understory species Install selected native species container plants that don't establish from seed
Erosion	Native vegetation type Native vs. non-native cover Anticipated seed bank: native vs. non-native, annual vs. perennial Slope gradient Slope aspect (solar orientation) Topography Soil type Equipment accessibility Surrounding habitat types Nearby and adjacent exotic species populations	Presence of sensitive plant and animal species Water source Single or recurring event Extent of erosion feature: rivulets, gullies, etc.	Establish erosion control where erosion is likely Install appropriate wattled native plant materials for stream bank stabilization Install geotextile fabric where unstable soil will limit plant reestablishment Install grade stabilizing structures/ vegetation Reseed with appropriate native understory species Install selected native species container plants that don't establish from seed
Non-native animal species	Non-native animal species present Native vegetation type Native vs. non-native cover	Presence of sensitive plant and animal species Potential source of non-native species Species reproductive biology/life history considerations Timing of control measures Habitat considerations	Implement cowbird control program Implement non-native amphibian control program Implement non-native fish control program

Adapted from Dudek 2003

5. Tamarisk stands and fountain grass will be slated for removal as funding levels permit. It is currently estimated that there are approximately 82 acres of tamarisk in Indian Canyons and Tahquitz Canyon. Noxious weed species will be removed a minimum of 10 acres per year within the Indian Canyons and other accessible areas of the MCCA for a total of at least 80 acres, which is anticipated to benefit all applicable Covered Species. This commitment is based on the following known limitations: (1) removal is limited to those areas that are accessible to workers with hand tools and (2) removal activities may occur only between September 16 and March 15 to avoid sensitive species impacts, unless a qualified biologist determines that no nesting activity is occurring at that time. As an exception, hand crew activities, such as trail maintenance and non-native invasive species control efforts, would be permitted provided that a qualified biologist conducts a pre-disturbance survey to identify any active nests, mark their locations, and monitors activities to ensure that they are avoided. Removal at this rate will continue until noxious weed populations in accessible areas fall below the acreage threshold. These acres would be maintained free of target weed species in perpetuity. Peninsular bighorn sheep will be benefited by increasing surface water availability through the removal of the high water-use tamarisk, and potentially increasing access to open water because tamarisk can result in impenetrable stands. It is well documented that tamarisk is far less desirable as an avian nesting habitat (Anderson and Ohmart) and, as a result, removal of tamarisk will benefit bird species including the least Bell's vireo, southwestern willow flycatcher, yellow warbler, yellow-breasted chat, and summer tanager. The southern yellow bat would benefit from an anticipated increase in palms within areas cleared of invasive species. Similarly, should the mountain yellow-legged frog occur within the Plan Area, the removal of tamarisk and fountain grass would increase water availability, reduce potential for high salt accumulation, and increase native vegetation for this species.

4.11.2.2 Trails Management

Management of trails throughout the MCCA for hiking and equestrian use (no OHV use or biking is allowed) is a vital part of focusing/minimizing human use impacts to sensitive biological resources, including Peninsular bighorn sheep, throughout the MCCA. Riparian habitats and Peninsular bighorn sheep use areas and habitat linkages are extremely sensitive areas that must be protected. Tribal staff, under the guidance of the Department, inventoried existing trails using topographic maps, aerial photos, and photo documentation to record existing conditions from 1999 to 2003. Refinements to these data are made incrementally on an annual basis as maintenance crews identify problems. Future trail re-routing or temporary closures would be considered if research conducted as part of the Coachella Valley MSHCP Trails Management Program indicates there are negative effects on the Peninsular bighorn sheep. The Coachella Valley MSHCP proposes the following program (which the Tribe intends to implement, which includes trails that cross into the Tribal HCP Plan Area:

A focused research program to evaluate the effects of recreational trail use on Peninsular bighorn sheep within Essential bighorn sheep Habitat in the Santa Rosa and San Jacinto mountains will be initiated during Plan implementation in Year 1, if this program has not already been initiated. This

> research will address the proximate response of bighorn sheep to recreation disturbance as well as broader questions about the population-level effects and impacts to long-term persistence of bighorn sheep. An element of the research program focusing on the effects of recreational trail use on captive bighorn sheep is also proposed to be initiated in Plan implementation Year 1. (p. 7-58)

The results of the program would be evaluated as part of the Tribe's Adaptive Management Program and appropriate actions would be considered for implementation as appropriate.

In addition, if it is determined that equestrian uses are causing appreciable increases in cowbirds, this situation will be addressed through the Tribe's adaptive management program. This information will continue to be gathered and used to adaptively modify management actions in the future so as to best to minimize potential impacts on existing sensitive biological resources, including riparian areas and Peninsular bighorn sheep. Initially, trails management will at minimum include the measures described in section 2.1.1 to minimize impacts to Peninsular bighorn sheep and Covered Species that utilize riparian areas.

4.11.2.3 Species-specific Management Measures

As summarized in Table 4-3, the Covered Species are anticipated to benefit from the general habitat management measures described above. In addition, the following measures are intended to specifically benefit identified Covered Species.

<u>Peninsular Bighorn Sheep</u>

The Plan Area (with adjacent/interspersed lands) supports the San Jacinto ewe group of Peninsular bighorn sheep, which represents the northernmost extent of the distribution of this species. Based on the status of this species and the importance of habitat within the Plan Area to its survival and recovery, the Tribe considers this a high priority species for management and monitoring efforts.

Activities that degrade Peninsular bighorn sheep habitat within the Habitat Preserve will be controlled and managed. In particular, access to the Habitat Preserve will continue to be controlled as described earlier in this section. The Tribe will identify actions to reduce impacts from, and control where feasible, invasive and toxic species. In particular, the Tribe will continue to remove tamarisk (an identified threat to this species' habitat) and other exotic species within a 10-foot minimum radius around springs and 50 feet from streams. The Tribe's Fire Management Plan will be amended within one year of permit issuance to include guidelines to protect populations of Peninsular bighorn sheep from fires and disturbances associated with fire protection. Finally, the Tribe will continue to cooperate with the applicable agencies/organizations regarding reintroduction of captive-bred Peninsular bighorn sheep onto Tribal Lands for population augmentation.

Avian Riparian Species

Least Bell's vireo occurs in low numbers in the Plan Area, and extensive knowledge is available about the species across its range. The Plan Area lacks suitable breeding habitat for southwestern willow flycatcher, and this species has only been documented on one occasion in the Plan Area. The other three riparian bird species are of relatively low sensitivity. The vast majority of the range of each of the avian riparian species is outside of the Plan Area. As a result of these considerations, it currently is not anticipated that these species will represent a focus of monitoring and management efforts.

It is anticipated that exotic plant (especially tamarisk) removal and cowbird control will be the most effective management tools available for these species. If least Bell's vireos are observed, and cowbirds are determined to be occupying the riparian habitat, the Tribe will assess the most appropriate measure(s) for minimizing cowbird impacts on the vireo. Options could include but are not limited to cowbird control, least Bell's vireo nest monitoring, and removal of cowbird eggs from vireo nests. This removal program would also benefit other avian riparian Covered Species occupying the same or adjacent drainages, although given their lower overall sensitivity, absent the least Bell's vireo, cowbird control would not be required for these species.

Mountain Yellow-legged Frog

Based on the negative surveys for these species conducted to date within the Plan Area, it currently is not anticipated that this species will represent a focus of monitoring and management efforts. However, management and monitoring may occur by partner agencies (e.g., USGS, Forest Service) for reintroduced populations that may occur on lands in the Action Area or in the Plan Area (upon access approval by the Tribe) if populations disperse onto Tribal lands. In the event that this species is observed incidentally or during periodic surveys of the Habitat Preserve, its prioritization will be reconsidered. Should non-native fish, bullfrogs, or exotic vegetation be encountered in mountain yellow-legged frog habitat, the Tribe will determine if removal or eradication efforts are appropriate based on whether the mountain yellow-legged frog is present. No stocking of fish species that could adversely affect this species would be authorized by the Tribe. Upon receipt from the USFWS and/or other applicable agency, the Tribe will evaluate proposals for re-establishment of this species within drainages where it is apparently extirpated. If the Tribe allows reintroduction of this species, it will not be obligated to remove predators in areas of reintroduction, but will work with the applicable agencies/organizations to facilitate their removal.

Southern Yellow Bat

Based on the presumed importance of the Coachella Valley to this species and the presence of important naturally occurring palm oases within the Existing Tribal Conservation Areas, this species will be prioritized for management (primarily exotic plant species control) and monitoring activities. The Tribe's

Fire Management Plan will be amended within one year of permit issuance to include policies for reducing or avoiding the impact of fire on southern yellow bat. This must be balanced against the fact that fire may be part of the ecology of the *Washingtonia* palm. Trimming of naturally occurring fan palms within the Habitat Preserve in Indian Canyons is prohibited unless it is determined that such activities do not pose a threat to this species. The Tribe would continue to work with local residents to educate them regarding the conservation needs of the southern yellow bat, including by promoting appropriate trimming of palm trees.

Blow Sand-dependent Species

It is anticipated that the Coachella Valley fringe-toed lizard and Coachella giant sand-treader cricket have the potential to occur within Target Acquisition Areas that support blow sand habitats. As part of the acquisition of these lands, an initial clean-up of the site (including removal of highly invasive weedy species) will be conducted to a level acceptable to the land manager. This will enable the site to be turned over for long-term management in a condition that will maximize its value to blow sand-dependent species.

Active and Stabilized Sand-dependent Species

Active and stabilized sand-dependent species include the flat-tailed horned lizard, Palm Springs pocket mouse, Palm Springs ground squirrel, Coachella Valley Jerusalem cricket, and Coachella Valley milk-vetch. Similar to blow sand-dependent species, Target Acquisition Areas dedicated to the Habitat Preserve will be cleaned up prior to turning over for long-term management to a level acceptable to the land manager. If surface debris is removed from within the Habitat Preserve, alternate sources of cover will be provided for Coachella Valley Jerusalem cricket. Special consideration will be given to edge conditions that could affect the ability to maintain healthy ant populations for the flat-tailed horned lizard.

4.11.3 Annual Work Plans

Each year the Tribal Council will adopt an annual work plan and budget that specifies the Habitat Preserve management and other Tribal conservation activities for the ensuing year. These annual work plans would describe specific plans for implementation of the framework management plan, incorporating any appropriate revisions pursuant to the monitoring and adaptive management program. The Tribe will submit this plan and budget to the USFWS at the time it submits its annual report for the past year (on or before December 31). Funding assurances are discussed in section 4.15.4.

Within the constraints of available funding, such activities typically could include:

1. Fencing, other barriers, and security patrols to control the access of people, vehicles, livestock (including horses), and domestic pets;
2. Assessments, surveys, and monitoring of habitat and/or Covered Species (see below);
3. Weed abatement and monitoring and removal of invasive plant species;
4. Monitoring and removal of non-native animal species that threaten Covered Species (e.g., cowbird and bullfrog);
5. Habitat restoration and enhancement of disturbed areas; and
6. Operation and management of trails.

4.12 BIOLOGICAL MONITORING PROGRAM

This section describes the framework for monitoring, types of data to be gathered, and how the results of the monitoring will be used to guide long-term management of the Habitat Preserve. This integration of monitoring results and management actions is an essential element of adaptive management. Because of the small population size of many of the Covered Species, monitoring will focus on habitat-based assessments, and measuring broader population trends where feasible. The goal is to collect data that is of sufficient quality and quantity to allow for an accurate assessment of the health of the Covered Species and the ecosystems in which they occur.

Biological monitoring is needed to strategically inventory the Habitat Preserve and to provide data that will help the Tribe to assess the Tribal HCP's effectiveness at meeting resource objectives and help achieve or maintain a healthy Habitat Preserve in perpetuity. Data from biological monitoring will provide a framework upon which detailed and specific inventory and monitoring activities can be developed and implemented to address biological questions arising regarding the ecological viability of a species and/or habitat. This information will also be used to examine/demonstrate compliance with meeting the conservation needs and biological objectives for each Covered Species.

The "Five Point Policy Guidance" (65 FR 35242, June 1, 2000; USFWS 2000a) states: "In order to obtain meaningful information, the applicant and the Services should structure the monitoring and standards so that we can compare the results from one reporting period to another period or compare different areas, and the monitoring protocol responds to the question(s) asked." In addition, it states that "[t]he monitoring program will be based on sound science."

The goals of the Monitoring Program are to meet monitoring requirements necessary for the successful implementation of the Tribal HCP and to provide data upon which future management decisions can be made. The Monitoring Program must provide information that will allow the Tribe to confirm that Covered Species objectives are met or to guide the Tribe in providing adaptive management strategies as may be necessary.

The Monitoring Program will be implemented in two phases. The initial phase of the Monitoring Program focuses on compiling existing data, collecting supplemental data on Covered Species abundance, and assessing habitat quality within preserved habitats. Once these data have been compiled, long-term surveys and data collection can be implemented for long-term monitoring of Covered Species.

4.12.1 Initial Assessment, Inventory, and Monitoring

As part of the implementation of this Plan, the Tribe has embarked upon a biological monitoring/inventory program designed to assess existing biological conditions for Covered Species and their habitats within the Tribe's lands in the MCCA. This information, along with information available from other survey efforts (e.g., CVAG, proposed private developments) has been used to establish a baseline documenting the presence or absence of Covered Species. During the first three years following issuance of the Section 10(a) Permit, the Tribe will continue to conduct initial phase monitoring to update available data on vegetation communities/habitats and applicable Covered Species within the Habitat Preserve.

The Tribe proposes to use this information to provide documentation of species and vegetation community/habitat associations, the status of conditions within Covered Species' respective habitats, identification of any potential threats to the Covered Species that should be monitored, response to management actions, and any other environmental issues or concerns that are encountered. Due to the low numbers in which many of the Covered Species occur within the Action Area, monitoring cannot produce statistically meaningful results with regard to the status of the species or allow for testable management hypotheses. In addition, given that a relatively small proportion of the occupied habitat for a majority of the Covered Species occurs within the Action Area, monitoring of the Action Area (by itself) is not necessary to determine the survival and recovery of these species in the wild. Therefore, as described in detail in section 4.12, the intent of the monitoring program is to use vegetation community/habitat monitoring as an indicator of overall ecosystem health and function within the Habitat Preserve, use a combination of specific Covered Species as well as surrogate species as indicators for particular suites of species (e.g., riparian bird species), and focus monitoring and management efforts on those species for which unsuccessful conservation/management within the Action Area could pose a significant risk. This monitoring data will provide information sufficient to determine whether the Covered Species are being sustained by management practices.

Species-level monitoring that is conducted will provide data on the extent to which conservation goals for species are being met. Species monitoring will involve tracking Covered Species and invasive species that may pose a threat to Covered Species. It also will involve collecting information on the ecology of the species to better manage them and increase the probability of conservation. The monitoring will sample in both space and time, to address distribution and trends in Covered Species, to the extent applicable. It also will track species responses to resource fluctuations and the level at which threats are affecting the relevant species.

This initial monitoring program, which will be integrated as an element of the Tribe's adaptive management program, is conceptually described below, with additional details to be provided in the detailed framework management plan to be prepared by the Tribe and approved by the USFWS within one year of the initial dedication of lands to the Habitat Preserve. The information gathered will be made available in an Existing Conditions Report, which will be submitted to USFWS when baseline information is completed, analyzed, and compiled into a report format by the Tribe, but no later than three years after permit issuance. The following subsections describe inventory efforts and results to date, along with the inventory and monitoring efforts that will be conducted in the initial phase for Covered Species and/or sensitive habitats.

It should be noted that field survey efforts can only be conducted on those lands over which the Tribe has control. Initially, this will be limited to the Existing Tribal Conservation Areas. Additional lands will be added to the monitoring program within one year of their dedication to the Habitat Preserve. Once baseline data is collected regarding areas of the Valley Floor dedicated to the Habitat Preserve, the management measures contained in the framework management plan will be updated as necessary.

4.12.1.1 Vegetation Communities/Habitats

The presence and condition of habitats will influence Covered Species distributions and population trends in the Habitat Preserve. Consequently, as part of the comprehensive strategy that will aid the understanding of Covered Species trends over time, information regarding the distribution, abundance, and health of Natural Plant Communities and habitats is important.

Habitat designations initially proposed in the Tribal HCP were modeled in the Coachella Valley MSHCP. These hypotheses of current species distribution from the Coachella Valley MSHCP, existing wildlife species information, the results of the biological baseline assessments (section 4.12), and subsequent monitoring efforts will be used to refine information linking species and habitats. The refinement of the linkage of species with habitat types will contribute to predicting species distributions within the Habitat Preserve in the absence of inventory data, and may result in the designation of more meaningful boundaries of potential habitat and more efficient long-term sampling protocols.

The vegetation communities and habitat inventory and mapping will be accomplished through both qualitative and quantitative efforts. Qualitative mapping will identify stands, or polygons, of vegetation using aerial photographs and/or satellite images. Quantitative efforts include collecting the environmental, biological, and vegetative attributes or measures of the stand. The quantitative assessment will use the California Native Plant Society (CNPS) "Vegetation Rapid Assessment Protocol" (CNPS 2004b) and "Releve Protocol" (CNPS 2004a). Use of this methodology to map vegetation types is consistent with techniques proposed to be used by the Coachella Valley MSHCP and currently used throughout California.

Use of this standardized approach will contribute to the desired large-scale and coordinated approach to inventory and monitoring.

Rapid assessment plots will be permanently located within the stand polygons using GPS coordinates in Existing Tribal Conservation Areas within two years of permit issuance, and on additional lands as they are incorporated into the Habitat Preserve over time. Plots will be randomly located within the Habitat Preserve such that they will reflect the range of conditions throughout the Preserve and contribute to the identification of potential effects of global climate change. For example, they will be located to collect data across environmental gradients (e.g., elevation, latitude, slope aspect). Information such as fire history, flooding, erosion, and other natural or human-made disturbances also will be collected, mapped, and used to assess condition of the vegetation communities/habitats. Where particular threats (e.g., bullfrogs, brown-headed cowbirds, invasive exotic plant species, Argentine ants, imported fire ants, etc.) are observed, they also will be recorded.

4.12.1.2 Peninsular Bighorn Sheep

Annual surveys and research programs are conducted on Peninsular bighorn sheep in and adjacent to the Action Area. Because of the nomadic nature of Peninsular bighorn sheep and the lack of any defined boundaries between the Action Area and adjacent lands outside of the Action Area, these surveys and research programs also document the biological and ecological conditions of the Peninsular bighorn sheep San Jacinto Ewe Group and its habitat occurring in the Action Area. The Tribe will coordinate with these ongoing efforts as follows:

1. It is the Tribe's intent to work closely with cooperating federal and state agencies (e.g., USFWS, BLM and CDFG) to address survey and research needs each year for Peninsular bighorn sheep.
2. Funding commitments will be made each year as part of the implementation of the Tribal HCP. The Tribe reserves the option to use the committed funding to either support the ongoing efforts by others or finance its own research programs in lieu of participating with the above organizations and agencies.

As a condition of permission for research on Tribal Lands, all researchers must possess the appropriate qualifications, expertise, and authorization from the USFWS to complete the necessary work. In addition, the following will be required for each observation (including those obtained by GPS radio collars): Universal Transverse Mercator coordinate; date; time; sex; age; identification number (or name); the sex, age, and identification number of other individuals observed; how the data were obtained (e.g., GPS collar; VHS collar tracked from helicopter, plane, or ground; or visual observation), and copies of all original supporting field notes and photographs. The raw data may be presented in a spreadsheet. Accession numbers will be used to provide a cross reference to supporting documentation or specimens. For animals released or sampled on Tribal Lands, data also will be collected and provided to the Tribe regarding disease,

physiological profiles, and genetics. Any necropsy reports also will be provided to the Tribe. Raw data will be archived at Tribal offices. The researcher will archive any tissue and blood samples at a suitable public tissue archive, and will notify the Tribe of the archive location. The above information will be provided to the Tribe on at least a biannual basis. A summary of the data collected on Peninsular bighorn sheep in the Plan Area will be provided by the Tribe to the USFWS in an annual report.

4.12.1.3 Riparian Areas

Habitat Inventory

The Tribe continued its efforts to inventory riparian habitats within the Existing Tribal Conservation Areas in Tahquitz Canyon and Indian Canyons Heritage Park during 2004 through 2006. Each riparian habitat inventory site identified for long-term monitoring within riparian communities will be photographed and documented within two years of permit issuance either on topographic maps or using GPS for entry into the Tribe's GIS system. Vegetation transects using the Vegetation Rapid Assessment Protocol and Releve Protocol noted above will be established for long-term study. An analysis of all data gathered will be used to systematically determine what riparian areas are appropriate for avian and amphibian surveys and monitoring in subsequent years, and these areas will be mapped and reported within annual reports to Tribal Council and annual reports to the USFWS. Those canyons where tamarisk or other invasive plants are discovered will be carefully documented and incorporated into the Tribal GIS and reported in annual reports to the USFWS.

Species Monitoring

During monitoring activities for the below-noted species, observations of other Covered Species also will be recorded in field notes and reported in annual reports to the USFWS.

Least Bell's Vireo

This species is expected to be a scattered resident of riparian habitats occurring along the eastern slopes of Tahquitz Canyon and in Indian Canyons. The following monitoring measures have been or will be implemented for this species:

1. Surveys for riparian bird species, including least Bell's vireo, were conducted in the Plan Area on behalf of the Tribe and CVAG annually from 2002 to 2005. Least Bell's vireo is known to breed in low numbers in Chino, Palm, Murray, and Andreas canyons. In 2005, for example, two vireo pairs bred in Andreas Canyon and one pair bred at Pelton Crossing along the west fork of Palm Canyon (Varanus Monitoring/Tierra Environmental 2006).

2. This species is subject to project-related surveys. Surveys will be conducted by a Qualified Biologist in accordance with the then-current protocols, and will be coordinated to the extent feasible with southwestern willow flycatcher surveys, should they also be required. The biologist will record all observations on an aerial photograph and/or use GPS for downloading into the Tribe's database. During these surveys, the biologist also will make note of any cowbird observations.
3. Point count sampling stations will be established for riparian habitat within the Habitat Preserve within two years of permit issuance. As described in section 4.12.1.1 with regard to vegetation communities, the riparian point count sampling stations will be specifically located (albeit randomly) across environmental gradients to ensure that species distribution throughout the Habitat Preserve is adequately represented, and to detect the potential effects of global climate change. Surveys will systematically assess all bird use within riparian habitat, and will be used as the basis for monitoring long-term trends of riparian bird species, including the least Bell's vireo.
4. A summary of the data collected on least Bell's vireo and general riparian bird use in the Plan Area will be provided by the Tribe to the USFWS in an annual report.

Based on the species' limited numbers within the Plan Area, and the extensive knowledge base for the vireo, data collected as part of the general riparian bird data collection is considered adequate monitoring for this species.

Southwestern Willow Flycatcher

Some of the riparian habitats within Tahquitz Canyon and Indian Canyons have the potential to support southwestern willow flycatcher foraging; however, is the Tribe does not expect it to breed in the Plan Area. The following monitoring measures have been or will be implemented for this species:

1. As part of the 2003 assessment by a Qualified Biologist of riparian habitat within Tahquitz Canyon and Indian Canyons Heritage Park, certain riparian zones were identified as potentially providing habitat for southwestern willow flycatcher and were included in the initial three years of monitoring surveys. Southwestern willow flycatcher was observed in Palm Canyon in 2003 (Jones & Stokes 2003). However, Qualified Biologists conducting habitat assessments in Indian Canyons in 2005 found no suitable breeding habitat for this species (Varanus Monitoring/Tierra Environmental 2006).
2. This species is subject to project-related protocol surveys, and surveys for this species will be conducted by a Qualified Biologist. Surveys will follow established protocol techniques for southwestern willow flycatcher, and the biologist will record all observations on an aerial photograph and/or use GPS for downloading into the Tribe's GIS database. These surveys will be coordinated to the extent feasible with least Bell's vireo surveys conducted for the project.
3. Point count sampling stations will be randomly established for riparian habitat within the Habitat Preserve within two years of permit issuance. Surveys will systematically assess all bird use within riparian habitat, and will be used as the basis for monitoring long-term trends of riparian bird species,

including the southwestern willow flycatcher. If a southwestern willow flycatcher is observed during a point count, focused surveys will be conducted to determine its breeding status. This methodology, rather than full protocol surveys, is considered adequate because of the low existing/potential population of this species within the Plan Area.

4. A summary of the data collected on southwestern willow flycatcher in the Plan Area will be provided by the Tribe to the USFWS in an annual report.

Other Riparian Bird Species

Other avian riparian Covered Species are summer tanager, yellow-breasted chat, and yellow warbler. The following monitoring measures have been or will be implemented for these species:

1. Surveys for riparian bird species were conducted in the Plan Area on behalf of the Tribe and CVAG annually from 2002 to 2005. Summer tanager has been observed by biologists from UCR in Andreas (2002), Palm (2002 and 2005), and Tahquitz (2003 and 2005) canyons on the Reservation; it also was observed on private land in Chino Canyon. Yellow-breasted chat has been observed in Murray Canyon on the Reservation (Tierra Environmental Consultants 2003; Haas and Nordby 2006). Yellow warbler has been observed in Palm and Tahquitz canyons on the Reservation (Haas and Nordby 2006), and on private property in Chino Canyon (UCR 2003).
2. Surveys for these species will be conducted concurrent with least Bell's vireo surveys. The biologist will record all observations on an aerial photograph and/or use GPS for downloading into the Tribe's GIS database.
3. Survey stations will be established for riparian habitat within the Habitat Preserve within two years of permit issuance. Surveys will systematically assess all bird use within riparian habitat and will be used as the basis for monitoring long-term trends of riparian bird species, including the summer tanager, yellow-breasted chat, and yellow warbler.
4. A summary of the data collected will be provided by the Tribe to the USFWS in an annual report.

Mountain Yellow-legged Frog

Surface waters associated with the riparian habitats along the eastern slopes of the Plan Area (Indian Canyons Heritage Park, Tahquitz Canyon, and Chino Canyon) have the potential to support populations of mountain yellow-legged frog. To assess the potential for this species to occur in the Plan Area, the following monitoring measures have been or will be implemented:

1. Qualified Biologists conducted surveys of streams within Chino, Tahquitz, Murray, Andreas, and Palm canyons annually from 2002 to 2005 to determine the presence or absence of suitable habitat for, and individuals of, the mountain yellow-legged frog (Gallegos et al. 2005). While some suitable habitat was identified, no individuals were observed.

2. Qualified Biologists will conduct both diurnal and nocturnal surveys of these streams for mountain yellow-legged frog once a month between April and August. These surveys will be repeated for a period of two years upon Plan approval by USFWS. Surveys will be timed to take advantage of optimal water levels and temperature conditions. Additionally, surveys will be conducted to avoid surveys during the full moon phase.
3. Each survey will carefully note the sampling conditions (e.g., flow rates, temperatures, etc.) and the presence of larvae, juveniles, and/or adults.
4. Subsequent monitoring of streams with known populations of these amphibian species (if any) will focus on the identification of population concentrations or nodes and the identification and management of potential threats (e.g., introduced species).
5. Should non-native fish, bullfrogs, or exotic vegetation be encountered in frog habitat, their locations will be carefully documented using GPS.
6. A summary of the data collected on mountain yellow-legged frog in the Plan Area will be provided by the Tribe to the USFWS in an annual report.

4.12.1.4 Southern Yellow Bat

Southern yellow bats inhabit riparian forests and occur in palm oases with open water within Indian Canyons. The following biological monitoring measures have been or will be implemented by the Tribe:

1. All stands of *Washingtonia* palms will be identified and mapped upon approval of the Plan.
2. Long-term echolocation monitoring stations, which record echolocation data every night year-round, were installed in 2005 in Palm, Andreas, and Murray Canyons. The Tribe will maintain these stations. The data collected will be analyzed with a translation that has been developed on behalf of the Tribe to analyze long-term population-level monitoring data (Rahn 2006b).

A summary of the data collected on southern yellow bats in the Plan Area will be provided by the Tribe to the USFWS in an annual report.

4.12.1.5 Triple-ribbed Milk-vetch

Triple-ribbed milk-vetch has not been the subject of extensive surveys within the Plan Area, and has not been observed there. Modeling for this species also does not indicate any potential habitat within the Plan Area. Consequently, it is not anticipated that this species will represent a focus of monitoring and management efforts. As part of the Covered Activity approval process described in section 4.8, however, surveys for this species would be required on sites supporting appropriate habitat. Should the species be identified within the Plan Area as a result of these surveys or incidental observations, surveys will be conducted on nearby lands within the Habitat Preserve and the prioritization of the species for future monitoring and management efforts will be reconsidered, with management and monitoring plans

developed in cooperation with the USFWS. Special focus will be on maintaining appropriate hydrological processes within drainages where the species is found.

4.12.1.6 Desert Tortoise

The Plan Area supports low numbers of desert tortoise, and is outside of the Critical Habitat and Recovery Units for this species. As a result, it is not anticipated that this species will represent a focus of monitoring and management efforts. Rather, this species will benefit from habitat-based monitoring and management measures as described in sections 4.11.2.1, 4.12.1.1, and 4.12.2.1.

4.12.1.7 Burrowing Owl

The Plan Area supports relatively low numbers of this unlisted species, and does not represent a critical portion of its extensive range. As a result, it is not anticipated that this species will represent a focus of monitoring and management efforts. Rather, this species will benefit from habitat-based monitoring and management measures as described in sections 4.11.2.1, 4.12.1.1, and 4.12.2.1.

4.12.1.8 Valley Floor Species

No portion of the Valley Floor would be dedicated to the Tribe's Habitat Preserve upon adoption of the Plan. As a result, lands are not initially available for monitoring of these species. Long-term monitoring requirements (to be applied if and when lands are dedicated to the Habitat Preserve in the future) are described in section 4.12.2.

4.12.2 Long-term Monitoring in Habitat Preserve

Long-term monitoring will be based on data collected during the initial implementation of the monitoring program noted in section 4.12.1. Both vegetation sampling and wildlife monitoring will be conducted.

The monitoring intervals described below are considered to represent a reasonable time period to detect broad-scale change. Because the time required to initiate, conduct, and report on such inventories may take two or more years, a more frequent interval might result in a short useful life of any such inventory. On the other hand, a longer interval may miss changes that occur more frequently. Potentially problematic in this schedule is the uncertainty of factors such as extreme drought conditions that would greatly influence some species, most notably plants. Should this occur, the Tribal Biologist and outside experts will be consulted to determine whether to proceed with, or delay, all or part of a re-sample.

Some subjective flexibility for monitoring is needed. Geographic areas considered most potentially affected (e.g., areas nearest to the urban influence or Natural Plant Communities at high risk to fire) may

need to be monitored on a more frequent basis than those areas less anticipated to be affected. The monitoring schedule must be flexible enough to adapt to unanticipated events or opportunities. If and when large acreages (i.e., 5,000 or more acres), rare Natural Plant Communities, or key Linkages are added to the Habitat Preserve, then rapid assessment of these areas would be implemented the following field season. Similarly, events such as wildfire, flood, or rapid species invasions would also prompt re-consideration of the monitoring schedule, with adjustments as necessary.

The rate of change will vary based on numerous natural and human-induced factors. If, during the initial years of the Tribal HCP implementation, indications suggest that the currently contemplated interval between sampling periods may be too long or too short, then a more or less frequent sampling interval will be considered for the entire area, or for the particular Natural Plant Communities undergoing rapid change. As a start, any change greater than 10 percent that occurs between sampling periods in acreage/distribution of a Natural Plant Community or distribution/abundance of a Covered Species, will be evaluated to assess whether the next round of assessment needs to be more frequent for that type, or for the entire Action Area. The need for modifications to the monitoring schedule will be assessed within the context of the Plan's overall conservation goals and funding availability.

4.12.2.1 Vegetation Communities/Habitats

Vegetation assessments for both riparian and upland habitats using the Vegetation Rapid Assessment Protocol and Releve Protocol will be conducted every eight years.

4.12.2.2 Species-specific Monitoring

Peninsular Bighorn Sheep

As noted in Section 4.12.1.2, the Tribe will coordinate with ongoing monitoring efforts as follows:

1. It is the Tribe's intent to work closely with the cooperating federal and state agencies (e.g., USFWS, BLM and CDFG) to address survey and research needs each year for Peninsular bighorn sheep.
2. Funding commitments will be made each year as part of the implementation of the Tribal HCP. The Tribe reserves the option to use the committed funding to either support the ongoing efforts by others or finance its own research programs in lieu of participating with the above organizations and agencies.

Riparian Bird Species

Point count sampling stations established for riparian habitat within the Habitat Preserve during the initial two-year implementation phase will be used to track long-term population trends of riparian bird species.

Surveys will systematically assess all bird use within riparian habitat, and will be used as the basis for monitoring long-term trends of riparian bird species, including the least Bell's vireo, southwestern willow flycatcher, summer tanager, yellow-breasted chat, and yellow warbler. Surveys will be conducted every five years.

Upland Bird Species

Point count sampling stations will be established for upland habitat within the Habitat Preserve during the initiation of the long-term monitoring phase. As described in section 4.12.1.3 for riparian bird species, sample stations would be specifically (but randomly) located across environmental gradients to detect the potential effects of global climate change. Surveys will systematically assess all bird use within upland habitat, and will be used as the basis for monitoring long-term trends of upland bird species, including the gray vireo, should they occur. Surveys will be conducted every five years.

Valley Floor Species

Avian survey stations will be established for habitat within the Valley Floor Habitat Preserve during the initiation of the long-term monitoring phase following dedication of land to the Habitat Preserve in the Target Acquisition Areas. These survey stations will be located across environmental gradients. Surveys will systematically assess all bird use within upland habitat, and will be used as the basis for monitoring long-term trends of upland bird species, including the crissal and LeConte's thrasher, should they occur within the Target Acquisition Areas. Surveys will be conducted every five years.

Trap arrays will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas to monitor population trends for VFPA reptile Covered Species, including Coachella Valley fringe-toed lizard and flat-tailed horned lizard, as well as more common species. Trap arrays will be randomly located across environmental gradients. Specific sampling protocols, monitoring strategies, and placement of the trapping grids will be determined during the initial phase of the monitoring program. Surveys will be conducted every five years.

Small mammal trapping grids will be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas to monitor population trends for VFPA Covered Species, including Palm Springs pocket mouse and Palm Springs ground squirrel, as well as more common species. Trapping grids will be randomly located across environmental gradients. Specific sampling protocols, monitoring strategies, and placement of the trapping grids will be determined during the initial phase of the monitoring program. Surveys will be conducted every five years.

Insect monitoring stations may be established within lands dedicated to the Habitat Preserve in the Target Acquisition Areas, if it is determined by the Tribe and USFWS that such monitoring is warranted. Species that could be targeted include Coachella giant sand-treader cricket and Coachella Valley Jerusalem cricket.

Populations of Coachella Valley milk-vetch identified during the Conditional Use Permit process that are conserved will be monitored during vegetation monitoring conducted every eight years.

4.13 ADAPTIVE MANAGEMENT PROGRAM

4.13.1 Approach

The overriding biological goal of the Tribal HCP is to contribute to the conservation of Covered Species and their habitats, which the Tribe will accomplish by establishing and maintaining a Habitat Preserve with the focus on conserving these biological resources. The results of the above-described monitoring program will be integrated with the management of the Habitat Preserve through an Adaptive Management Program to ensure the accomplishment of this goal.

Adaptive management relies on monitoring efforts such as those outlined in Section 4.12 above to detect changes in species, habitats, and/or threats. Linking the monitoring program with Adaptive Management actions will inform reserve managers of the status of Covered Species, Natural Plant Communities, and essential ecological processes, as well as the effectiveness of management actions, in a manner that provides data to allow informed management actions and decisions. When change is detected, reserve managers assess the information and respond by initiating, modifying, or even ending a particular management strategy if necessary. An important component of implementation of management measures described above includes evaluating data from monitoring activities to determine whether trends in threats are part of a natural cycle of fluctuation or are anthropogenic. If there is a substantial decline in native species compared to the baseline (e.g., greater presence of exotics) or other apparent threats to habitat conditions are observed, remedial measures will be evaluated with the USFWS and implemented on an as-needed basis.

Direct Tribal management activities are anticipated to focus on the MCCA. The Tribe, through biological monitoring as described above and its management program provided in this Tribal HCP, will provide adaptive management for MCCA species. Adaptive management of the Tribe's Valley Floor Habitat Preserve will be assured by the Tribe and will be coordinated with adaptive management strategies implemented by other conserved properties in the area to the extent practical and within the funding limits as specified in section 4.15.1.

As noted above, the Tribe will prepare a detailed framework management plan with the review and approval of the USFWS within one year of any lands being dedicated to the Habitat Preserve. This detailed management plan will also include Valley Floor Covered Species, but will be regarded as interim with regard to those species, with management measures to be updated once baseline biological data for those areas are available. Alternatively, the Tribe may contract with another entity to manage its Habitat Preserve on the Valley Floor consistent with a management plan approved in conjunction with the Coachella Valley MSHCP once completed and approved by the USFWS. In either case, the Tribe will fully fund and implement monitoring and adaptive management for all Covered Species in a manner consistent with a management plan approved by USFWS.

Adaptive management was pioneered by Holling (1978). In its simplest form, Adaptive Management is "learning by doing" (Walters and Holling 1990). More specifically, Adaptive Management is the application of the scientific method to management strategies. It requires the development of management objectives and a formal recognition of uncertainties surrounding management decisions. A key element of Adaptive Management is the establishment of testable hypotheses linked to the conservation strategies and their biological objectives (USFWS and National Marine Fisheries Service 1996). The hypotheses are tested with the commencement of the management options, results are quantified and analyzed, and uncertainty reduced. Hypotheses are restated, and the process repeated until goals are met or uncertainty is reduced sufficiently. The Tribal HCP will utilize Adaptive Management strategies as applicable throughout the Habitat Preserve within funding limits identified in Section 4.15.1.

An adaptive management approach is important because ecosystems and individual species' life histories are complex, we have only a limited understanding of their functioning, and anthropogenic changes are disturbing natural ecosystem functions. As described by Field et al. (1999), "earth's ecosystems are never static, even in the absence of human influences. They are dynamic, shifting, and reorganizing on a variety of time scales in response to diverse external and internal forces [such as] seasonal changes in plant or animal populations [or] the recolonization of an area scorched by fire. . . . Future climate change will almost certainly lead to alterations of in the earth's ecosystems, but those will be superimposed onto a complex tapestry of ongoing changes."

The Management Program will address management uncertainty, including the following issues:

1. Management action as indicated by the results of the monitoring program in regard to unanticipated changes in the needs of individual species or groups of species, or natural communities, or processes including fluvial and aeolian transport and sorting of sand.
2. Reserve and species management techniques and actions.
3. Management actions to address Changed Circumstances as described in Section 4.14.
4. Management actions to address the currently uncertain potential effects of global climate change.

Management activities about which there is uncertainty regarding application or outcomes should be designed as experiments to increase understanding of the system and the effectiveness of management (Atkinson et al. 2004). In this scenario, clear hypotheses are developed and tested to determine if the null hypothesis should be rejected. When the viability of natural communities and Covered Species are threatened, Adaptive Management actions must be implemented to eliminate or control those perturbations.

The monitoring program and the adaptive management component of the management program must be integrally linked. The analyses of species and natural community monitoring data (and information regarding on-going preserve management issues) will be used to identify if and where adaptive management actions should be considered. When adaptive management actions are implemented, the monitoring program will need to evaluate the species and/or natural community's response.

Linking the monitoring program with the implementation of adaptive management actions will require:

1. The use of data from the monitoring program to update adaptive management models and the implementation of actions suggested by the monitoring data; and use of available data to structure a range of alternative response models to address a given threat or stressor affecting a Covered Species or Natural Plant Community and evaluation of the models.
2. The implementation of actions suggested by the monitoring program data and adaptive management models.
3. Development of cost estimates and schedules for implementation of adaptive management actions and monitoring results.
4. A program implementation structure, which helps identify potential adaptive management options and associated monitoring to determine their effectiveness, and evaluates the adaptive management action for further use or modification.

4.13.2 Management Responsibilities

Responsibility for managing the Habitat Preserve will be undertaken pursuant to the sovereign authority of the Tribe as directed by the Tribal Council in consultation with USFWS and as defined by the IA. The Department will be the implementing authority. Duties/responsibilities will be as follows:

The **Tribal Council** will:

1. Set the overall policies and goals for developing the annual work plans consistent with the Plan.
2. Review and approve the annual work plans.
3. Fully fund (from Tribal funds, funds provided by Covered Project Proponents, or by obtaining funding from other sources, such as grants) acquisition, protection, and management of the Habitat Preserve in perpetuity, including biological monitoring and an adaptive management program, and other activities to be performed in conjunction with managing the Habitat Preserve (see section 4.15 below).
4. Coordinate the ongoing management of Existing Tribal Conservation Programs with management of the Habitat Preserve.
5. Review and approve, as appropriate, research and study proposals for individual species and/or Habitat Preserve areas.
6. Adopt and implement Overlay Zone regulations, including required impact avoidance, minimization, and mitigation measures for Covered Activities.

The **Tribal Planning and Development Department**, as directed by the Tribal Council, will:

1. Coordinate implementation of the Tribal HCP with the short-term and long-term land use management goals of the Tribe.
2. Prepare the necessary annual work plans and reports, maintain records, and provide administrative support for Habitat Preserve activities.
3. Coordinate the management of the Habitat Preserve with the overall land use management program for the Reservation.
4. Submit annual funding requests to the Tribal Council for the continued management of the Habitat Preserve.
5. Provide day-to-day management of those portions of the Habitat Preserve managed directly by the Tribe (see section 4.11). Management may include the delegation of duties to full-time and part-time staff and consultants as needed to monitor and manage the biological resources and properties within the Habitat Preserve. The tasks and responsibilities of the Department and supporting staff/consultants (if needed) will be identified in annual work plans. These tasks will, at a minimum, include initial site cleanup, signage, access controls (as applicable), weeding/exotics control, trash pickup, and patrolling.
6. Coordinate with the land manager regarding management and monitoring of any lands for which the Tribe does not assume day-to-day management responsibilities.
7. Review, as appropriate, and forward any research or study proposals for individual species and/or the Habitat Preserve to the Tribal Council for final approval.

The **Tribe understands that the USFWS** will:

1. Provide technical biological assistance as requested by the Tribe for developing the Annual Work Plans.
2. Provide expeditious review of Annual Work Plans.
3. Review and recommend approval or denial of research and study proposals that could affect Covered Species or their habitats occurring within the Action Area.
4. Request funding for acquisition and management of Habitat Preserve lands for complementary conservation activities, above and beyond those required for mitigation of impacts associated with the Tribal HCP through federal avenues. Federal acquisition funding may be directed to the MCCA or Section 6 Target Acquisition Area. Federal funds may be used for other components of Plan implementation, such as management, monitoring, and habitat enhancement. Federal funding will not reduce the mitigation requirements of any proposed Covered Activities.

4.14 RESPONSES TO CHANGED CIRCUMSTANCES

Changed Circumstances are defined under the federal No Surprises Rule as changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the USFWS and that can be planned for. Changed Circumstances potentially affecting the Tribe's Habitat Preserve are defined as future events reasonably foreseeable to occur during the life of the Plan and that may negatively affect Covered Species and/or their preserved habitat.

Changed Circumstances[7] addressed by this Plan include the following:

- wildland fire;
- flood;
- drought;
- lowering of the water table;
- invasion by new exotic species; and
- new listings of species not covered by the Tribal HCP.

These represent all of the Changed Circumstances to be addressed by the Tribe. The Tribe intends that other changes in the circumstances of a Covered Species or in the Habitat Preserve will be treated by the USFWS as Unforeseen Circumstances (see section 4.16.4). These Changed Circumstances provisions reflect the reasonably foreseeable changes in circumstances that could occur within the Habitat Preserve; they apply to all lands within the Habitat Preserve at the time the Changed Circumstance occurs (i.e., they do not apply to lands outside of or not yet dedicated to the Habitat Preserve at that point in time).

Because this Plan includes an adaptive approach to habitat management, changes over time and adaptive responses are already contemplated. In the event that a Changed Circumstance occurs, however, additional remedial measures may be required. As the entity responsible for management of the Habitat Preserve, the Tribe will have primary responsibility for notifying USFWS of any Changed Circumstances; if the USFWS becomes aware of a potential Changed Circumstance, however, it may notify the Tribe that such an event has occurred. Funding to address actions identified in this section as potentially necessary in response to Changed Circumstances is included in the line item amounts provided in the budget. In general, the goal of the planned response will be to return the habitat to a minimum of 80 percent, based on measurable components of biological integrity (specifically focusing on native species percent cover that includes a diversity of native species) of the site or appropriate reference site within 5 to 10 years. The reference site would be of the same habitat type and of the same or higher quality to the disturbed area prior to the Changed Circumstances.

[7]Although climate change is not specifically addressed as one of the bulleted "Changed Circumstances," the Tribe recognizes the importance of including this circumstance in a long-term (75-year) HCP. Therefore, the Tribe has elected to include climate change under each of the associated changed circumstance categories within this Plan.

The following text describes each of the identified Changed Circumstances, an assessment of risk, description of preventive measures, and the approach the Tribe will use to respond to these circumstances if they occur. The Tribe may implement alternative preventive measures or responses in the event it is determined by the Tribe that such alternatives result in biologically superior management and conservation of the Habitat Preserve, based on the results of previous monitoring and adaptive management efforts by the Tribe and other organized monitoring efforts in the region. The Tribe will notify and coordinate with the USFWS regarding the proposed alternative response(s) prior to implementation. If the USFWS does not respond within 60 days, the alternative response will be deemed to be acceptable. In the event that there is a disagreement regarding the appropriate alternative response, the parties will meet and confer. The management obligations of the Tribe shall not exceed the funding limitations set forth in section 4.15.1 of this Plan.

4.14.1 Wildland Fire

Frequent fires can cause the conversion of one biotic community to another. Many desert ecosystems have no adaptation to fire. Increases in non-native plant cover can cause or contribute to fires occurring in habitats that historically never had fires, resulting in significant modification or elimination of these habitats. For the purpose of defining Changed Circumstances, short-interval return wildland fire is defined as fire occurring within an overlapping footprint with a previous fire within five years subsequent to an initial fire. The Tribe reviewed fire history data maintained by the California Department of Forestry and Fire Protection for the period from 1900 through 2003 for the vicinity of the Action Area. Because approximately 75 percent of the short-interval return fires in that time period were less than 375 acres, that will be used as the lower threshold for defining a Changed Circumstance. A Changed Circumstance will include short-interval return fires damaging up to 4,700 acres of potential habitats of Covered Species within the MCCA Habitat Preserve. Only twice in the fire history data has an area exceeding 2,500 acres burned twice within five years (6,111-acre overlap in 1980/1985 and 9,358-acre overlap in 1967/1968). As the Tribe's Reservation is (and therefore, the Habitat Preserve would be) a checkerboard, it is anticipated that no more than half of the overall area burned would be within the Habitat Preserve. The threshold for an Unforeseen Circumstance was therefore determined to be half of the largest overlap in available fire history records. During approximately the same period of time as the available fire history data, one report on global climate change indicates that average surface temperatures have increased due to human activity (California Climate Change Center 2006). For this reason the existing fire history data may be expected to inform our understanding of the likelihood of wildland fire in the future.

The increase of exotic species such as grasses and mustard in the Action Area may result in an increased fire danger, especially following substantial rainfall events. In addition, global climate change has the potential to affect future wildfire size and/or intensity. The actual effects will depend heavily upon local

precipitation, wind conditions, and vegetation composition, which are not accurately reflected in currently available models (California Climate Change Center 2006; Cayan et al. 2006). According to one report, global climate change may actually decrease fire risk in southern California (Westerling and Bryant 2006) but there is substantial uncertainty at this juncture. As a result, the effects of global climate change on fire in the Action Area cannot be predicted based on the best scientific and commercial data currently available except to the extent that fire history data provides an accurate predictor of those effects.

As described below, the Tribe is continuing to improve its fire prevention and interagency fire response process. As a result, the Tribe believes that the likelihood of a fire of this size returning to the same area within a short interval during the life of the Plan is unlikely; therefore, a short return interval fire greater than 4,700 acres in size within potential habitats of Covered Species within the MCCA Habitat Preserve is considered an Unforeseen Circumstance.

4.14.1.1 Risk Assessment

According to the Safety Element of the County General Plan, the VFPA is considered to have low or very low risk of wildfire. However, the MCCA is considered to have a high to very high risk for potential wildland fire. Much of the MCCA is characterized by steep terrain with highly flammable native vegetation. Fire potential is typically greatest in the months of August, September, and October when dry vegetation co-occurs with hot, dry Santa Ana winds. Fire protection services in this area are provided by the USFS through an agreement with the BIA.

Because fire is a natural ecological process in the Action Area and surrounding areas for chaparral and scrub habitats (especially the MCCA), under normal circumstances natural re-growth of habitat is expected. Certain repetitive fires within the same location may, however, adversely affect Covered Species as a result of habitat type conversion from existing habitat(s) to habitats dominated by non-native species.

As noted in the previous section, the increase of exotic species such as grasses and mustard in the VFPA portion of the Action Area may result in an increased fire danger in desert ecosystems that have no adaptation to fire. These increases in non-native weedy species and resulting fires in habitats that historically never had fires, may result in modification or elimination of these habitats.

4.14.1.2 Preventive Measures

The Tribe has developed a Fire Management Plan for the Reservation (Appendix G). The Fire Management Plan provides a process that will allow the Tribe to utilize a variety of fuel management techniques to protect the Tribe's natural and cultural resources as fire preventative measures, manage wildland fires that may occur on the Reservation, and address rehabilitation efforts necessary after wildfire. It includes the following objectives relevant to this Tribal HCP: use vegetation management

techniques to reduce wildfire risk and maintain vegetation; assure that agreements are in place that will provide adequate wildland fire protection; and protect wildlife, fish, and related resource values. It also includes a policy that natural resource values will be evaluated on an equal basis with property and not automatically relegated to a lower priority. Implementation of the plan is intended to be proactive and collaborative, and would include the following measures:

- Installation of a Remote Automated Weather Station on the Reservation that will collect, store, and forward data to the National Interagency Fire Center in Boise, Idaho, and the Weather Information Management System in Reno, Nevada;
- Build a database of assessment criteria that can be managed through the Tribe's GIS Group to aid in fire prevention, and shared with collaborative agencies;
- Provide emergency wildland response support facilities in the case of active wildfire;
- Provide two trained employees to participate on the Fire Response Management Team in the event of a fire within the Traditional Use Area of the Tribe;
- Continue hazardous fuel removal programs on the Reservation through a variety of methods; and
- Continue to enter into cooperative protection agreements and memorandums of understanding as necessary with collaborative agencies for wildland fire preparedness.

4.14.1.3 Planned Responses

Upon the occurrence of a short-interval return wildland fire, the Department shall notify USFWS of this Changed Circumstance. The Department shall assess the damage caused by the short-interval return fire within the Habitat Preserve. Depending on the extent and severity of the fire damage, as determined by the Department in consultation with USFWS, the Tribe will take one or more of the following actions:

- Should revegetation for erosion control be determined necessary, such revegetation will be completed with native species.
- Develop and implement a monitoring program to monitor natural re-growth (compared to conditions observed through the regular monitoring program described in section 4.12) within the damaged area for a period of up to two years. The monitoring program will provide for site visits on a regular basis, as determined by the Department to be appropriate to the scope and severity of the burn.
- Should monitoring observations indicate that allowing habitat to re-grow without interference is resulting in insufficient growth of native habitat, increased opportunity for invasion by exotic plant species, and/or increased potential for type conversion, and that this is likely to adversely affect Covered Species, the habitat management program in effect at the time will be modified to include a specific action plan. The action plan shall involve efforts to improve habitat conditions.
- The response measures will be implemented through the Tribe's adaptive management program. Potential responses include establishing erosion control, controlling exotic species, reseeding with

appropriate native species, and installing from containers selected native species that do not establish well from seed.

- The response of Covered Species and their habitats to the action(s) taken will be monitored for a period of at least two years to evaluate the re-establishment of native components of the burned habitat.

4.14.2 Flood

For the purpose of defining Changed Circumstances, flood is defined as flood events occurring at greater than 50-year and up to and including 100-year level, as classified by the Federal Emergency Management Agency (FEMA). The Tribe considers flood events at greater than 100-year levels within the Permit term to be Unforeseen Circumstances.

4.14.2.1 Risk Assessment

FEMA provides local jurisdictions with mapping that defines the areas that may be affected, or inundated, by flood. A 100-year flood, as defined by FEMA, produces a magnitude of inundation that has a one percent chance of occurring in any given year. The 100-year flood has a 64 percent chance of occurring in any given 100-year period (Rogers 2003) within the drainages of the Action Area, and thus is reasonably foreseeable during the life of the Plan.

More severe flooding is frequently mentioned as a potential outcome of global climate change. However, at least in California, most predictions of flooding are associated with more precipitation falling in the form of rain rather than snow, and with earlier melting of the snowpack (California Climate Change Center 2006), neither of which is expected to significantly affect the Coachella Valley. In addition, predicting the future trend of floods is particularly difficult because it depends on very local conditions and on extreme weather events, both of which are poorly addressed through current climate models (Field et al. 1999). Therefore, the effects of global climate change on flooding in the Action Area cannot be predicted based on the best scientific and commercial data currently available.

Alluvial fan vegetation communities along the canyon bottom of the San Jacinto Mountains and the desert wash communities along the valley floor are influenced by seasonal flooding. This is a natural event and is generally not expected to cause damage sufficiently severe to prevent natural regeneration of existing habitats within the Habitat Preserve. Severe floods can, however, have impacts on Covered Species and their habitats.

4.14.2.2 Preventive Measures

As part of the typical project review process, the Tribe and/or applicable land use jurisdiction will review development projects to ensure that (1) post-development peak storm water runoff discharge rates and

velocities are functionally the same as pre-development levels and (2) flow through the designated floodplain is not impeded. These measures will minimize the impacts of development on natural flood flows.

4.14.2.3 Planned Responses

If a flood as defined in this section occurs, the Department will notify the USFWS of this Changed Circumstance. The Department shall assess the damage caused by the inundation within the Habitat Preserve. Depending on the extent and severity of the damage, as determined by the Department in consultation with USFWS, the Tribe will take one or more of the following actions:

- Recommend actions to repair the damage if necessary; such recommendations may be limited to natural regeneration.
- Should revegetation for erosion control be determined necessary, such revegetation will be completed with native species.
- Should the extent and severity of flood damage indicate a need for monitoring, the Department will develop and implement a monitoring program for a period of two to five years, to monitor natural re-growth within the damaged area. The monitoring program will provide for site visits on a regular basis, as determined by the Department to be appropriate to the scope and severity of the damage.
- Should monitoring observations indicate that allowing habitat to re-grow without interference is resulting in increased opportunity for invasion by exotic species and/or increased potential for type conversion, and that this is likely to adversely affect Covered Species, the habitat management program in effect at that time will be modified to include a specific action plan. The action plan shall involve efforts to improve habitat conditions.
- The response measures will be implemented through the Tribe's adaptive management program. Potential responses include removal of sediment and/or debris, and controlling species considered inappropriate to the desired habitat type.
- The response of Covered Species and their habitats to the action(s) taken will be monitored for a period of at least two years to evaluate the re-establishment of native components of the burned habitat.

4.14.3 Drought

A climatic drought three years in length is considered a Changed Circumstance; a climatic drought of four or more years is considered an Unforeseen Circumstance.

4.14.3.1 Risk Assessment

Drought is a cyclical weather phenomenon that is beyond human control. Drought is not uncommon in southern California, and it is a phenomenon to which local habitats and species have adapted over time.

Drought occurs over a multi-year period, differing from the catastrophic events of fire and flood, which occur rapidly and afford little time for preparing disaster response. Drought conditions may adversely affect Covered Species if the species and/or their habitats are unable to adapt to the conditions. The potential for drought to impact the Habitat Preserve increases with the length of a drought.

Rainfall data assembled by the County over the past 120 years indicate a general eight-year periodicity in wet and dry conditions with more infrequent occurrences of dry years extending for more than a one- to two-year period. Specifically, according to the Western Regional Climate Center Archives, periods of three consecutive years with rainfall below 75 percent of the mean annual precipitation have occurred only three times in Palm Springs since 1927; this has not occurred for four or more consecutive years in the available records. Based on these data, and the fact that drought is an expected occurrence in Southern California, a drought significantly affecting Covered Species is possible (but unlikely) during the life of the Permit.

Although global precipitation is forecast to increase with global climate change, uncertainties regarding the location of future stormtracks that separate the wet Northwest from the dry Southwest make regional precipitation patterns especially difficult to forecast for California (Lenihan et al. 2006). As a result, there is no clear trend in precipitation projections for California over the next century (Cayan et al. 2006; Franco 2005). Some show more rainfall, while others show less, with the average being relatively little change relative to current rainfall (Cayan et al. 2006). Therefore, the effects of global climate change on drought in the Action Area cannot be predicted based on the best scientific and commercial data currently available. There is no evidence that the Mediterranean seasonal precipitation pattern will change, and the projected frequency of El Niños remains about the same (Cayan et al. 2006).

4.14.3.2 Preventive Measures

No measures are available to prevent climatic drought within the Habitat Preserve. The Tribe relies primarily on ground water for its water supply, which is not typically affected by a drought. To the extent that it can be accommodated by existing infrastructure, the Tribe will attempt to minimize adverse impacts from a drought event by ensuring that water is available for (1) Habitat Preserve areas undergoing active restoration where water is needed and (2) artificial water sources for Covered Species (particularly Peninsular bighorn sheep).

4.14.3.3 Planned Responses

If a climatic drought occurs, the Department shall notify the USFWS of this Changed Circumstance. Depending on the extent and severity of the damage within the Habitat Preserve, as determined by the Department in consultation with USFWS, the Tribe will take one or more of the following actions:

- Prepare a damage assessment report describing the condition of the Habitat Preserve (relative to previously monitored conditions), which will be used to determine if a monitoring program in addition to typical monitoring as described in section 4.12 is required for all or portions of the Habitat Preserve.
- Recommend actions to ameliorate the effects of the climatic drought on Covered Species; such actions may include provision of temporary artificial water sources for the benefit of Covered Species adversely affected by drought.
- Develop and implement a program to monitor conditions of Covered Species and their habitat in the area for a period of two to five years. The monitoring program will provide for site visits on a regular basis, as determined by the Department to be appropriate to the scope and severity of the damage.
- Should monitoring observations indicate that allowing habitat to re-grow without interference is resulting in increased opportunity for invasion by exotic species and/or increased potential for type conversion and that this is likely to affect Covered Species, the habitat management program in effect at that time will be modified to include a specific action plan.
- Response measures will be implemented through the Tribe's adaptive management program. Potential responses include providing temporary irrigation to strategic areas of the Habitat Preserve and controlling exotic species.
- The response of Covered Species and their habitats to the action(s) taken will be monitored for a period of at least two years.

4.14.4 Lowering of the Water Table

For the purpose of defining Changed Circumstances, lowering of the water table is defined as an increase in the depth to groundwater that significantly affects water availability to mesquite plants within portions of the off-Reservation Target Acquisition Areas that have been acquired and dedicated to the Tribe's Habitat Preserve.

4.14.4.1 Risk Assessment

Substantial lowering of the water table in areas that could significantly affect mesquite hummocks and associated Covered Species in the off-Reservation Target Acquisition Areas could result from groundwater withdrawals.

4.14.4.2 Preventive Measures

The Tribe would not engage in groundwater withdrawals on lands acquired in the Target Acquisition Areas for dedication to the Habitat Preserve. The lands adjacent to the off-Reservation Target Acquisition Areas are outside of the control of the Tribe. As a result, the Tribe does not have the ability to prevent lowering of the water table. The Tribe will, however, keep itself apprised of regional groundwater monitoring efforts, as early detection is expected to improve the chances of successfully addressing any threat posed by a substantial lowering of the water table. Should monitoring detect such a substantial lowering, adaptive management actions will be taken.

4.14.4.3 Planned Responses

As noted above, the Tribe will keep apprised of the results of a regional groundwater monitoring effort anticipated to be conducted under the auspices of CVAG with relation to the Coachella Valley MSHCP. If such monitoring does not occur and the Tribe has acquired mesquite hummocks within the off-Reservation Target Acquisition Areas for dedication to the Habitat Preserve, the Tribe will initiate its own monitoring program, which will include the use of appropriate methods and technology (which may change over time) to monitor groundwater levels in these areas. Should monitoring detect a substantial lowering of the water table or a decline in mesquite health, the Department shall notify the USFWS of this Changed Circumstance. Lowering of the groundwater table would be a regional issue, which would require a regional solution. Depending on the extent and severity of the damage within the Habitat Preserve, as determined by the Department in consultation with USFWS, the Tribe will take one or more of the following actions:

- Prepare a damage assessment report describing the condition of the Habitat Preserve (relative to previously monitored conditions).
- Develop feasible measures to ameliorate the effects of substantial lowering of the water table on mesquite hummocks and associated Covered Species.
- Response measures will be implemented through the Tribe's adaptive management program.

4.14.5 Invasion by New Exotic Species

For the purpose of defining Changed Circumstances, an invasion by exotic species is defined as an unanticipated occurrence of a new exotic plant or animal species within the Habitat Preserve.

4.14.5.1 Risk Assessment

With habitat disturbance often comes the introduction of non-native species. Non-native plant species known to occur on or near the Reservation include Saharan mustard, foxtail chess (*Bromus madritensis*), cheatgrass (*Bromus tectorum*), red brome (*Bromus rubens*), Bermuda grass (*Cynodon dactylon*), rabbitfoot grass (*Polypogon monspeliensis*), Russian thistle (*Salsola tragus*), Mediterranean schismus (*Schismus barbatus*), African fountain grass, and tamarisk. Brown-headed cowbirds and European starlings (*Sturnus vulgarus*) are two non-native bird species that occur throughout the Action Area. The Tribe is actively eradicating the last two plant species in this list. Although invasive and exotic species are currently present within areas identified for potential inclusion in the Habitat Preserve, new exotic species could disrupt normal ecological processes and pose a threat to the continued existence of one or more Covered Species within the Habitat Preserve. The spread of exotic species has the potential to increase as a result of the effects of global climate change (Lenihan et al. 2006). However, there is no empirical evidence available regarding the extent that this might occur in the Plan Area.

As called for in the Tribe's adaptive management program, assessment of the presence of non-native species will be made at the time lands are conveyed into the Habitat Preserve. Measures are incorporated into the adaptive management program to identify and control the effects of the expected presence of invasive species on Covered Species. Opportunities for introduction of new non-native species could occur as development occurs adjacent to the Habitat Preserve. To minimize this potential, as described in sections 4.8.4.3 (b) and (c) and 4.9.3.1(b), invasive plant species would not be permitted for use in landscaping and appropriate measures would be applied to discourage exotic plant and animal species invasion resulting from dust control or fuel modification activities. Monitoring will be used to identify existing exotic species in the Habitat Preserve so that new exotic species can be identified if they occur.

4.14.5.2 Preventive Measures

As part of documenting baseline conditions, the Tribe will identify existing exotic species. A tracking, assessment, and response program has been incorporated into the biological monitoring components of the Tribe's overall adaptive management program (section 4.13) to prevent non-native species from threatening the Habitat Preserve. This monitoring program increases the probability of detection of a new exotic species, which in turn improves the chances of successfully addressing any threat posed by the species. The monitoring program also will enable managers to evaluate the efficacy of whatever control tools are employed. Through implementation of these measures, non-native species will, under normal circumstances, be discovered and addressed prior to becoming a threat to Covered Species.

4.14.5.3 Planned Responses

If, as determined by the Department, an unanticipated invasion by a new species has occurred within the Habitat Preserve, the Department will notify USFWS. The Department shall assess the damage caused by the unanticipated invasion by the new exotic species and initiate the following actions:

- Prepare a damage assessment report.
- Should the damage assessment report indicate that the extent of the new exotic species invasion is likely (based on a conservative assessment) to adversely affect Covered Species, the habitat management program in effect at that time will be modified to include a specific action plan.
- The response measures will be implemented through the Tribe's adaptive management program. Potential responses with regard to exotic plant species include controlled burns, mowing, removal with hand equipment, chemical treatment, soil solarization, and replacement (through seeding and/or container planting) with native species. Potential responses with regard to exotic animal species include active removal and control of populations through management of habitat requirements. Chemical treatment is not a covered activity under the Tribal HCP, but is an allowable use.

- Develop and implement a monitoring program to monitor the response of Covered Species and their habitats to the actions taken for however long is required to establish a long-term trend towards recovery of the Covered Species in the affected area. The monitoring program will provide for site visits on a regular basis, as determined by the Department to be appropriate to the situation.

4.14.6 New Listings of Species not Covered by the Tribal HCP

The USFWS may list additional species as threatened or endangered under ESA, delist species that are currently listed, or declare listed species extinct. In the event of a new listing of one or more species that occurs or has the potential to occur within the Plan Area but is not covered by the Tribal HCP, the Tribe (subject to verification by USFWS) will identify actions that may cause take, adverse effects, jeopardy, or impacts to such species' habitat. If it is determined that Covered Activities would affect the species proposed for listing, USFWS and the Tribe may (at the Tribe's discretion) meet and confer regarding necessary modifications (if any) to the Tribal HCP required to amend the permit to cover the non-Covered Species. If the permit has not been amended to include the non-Covered Species at the time of its listing, the Tribe will implement the measures necessary in order to avoid take, jeopardy, or adverse modification of designated critical habitat until (1) the permit is amended to include the non-Covered Species; (2) the USFWS notifies the Tribe that such measures are no longer necessary; or (3) the Tribe has otherwise complied with the ESA requirements. If the USFWS determines that feasible modifications in the Tribe's adaptive management program or minor adjustments in the Covered Activities can be used to ensure that impacts are avoided, the Tribe shall implement those changes and no amendment will be necessary. If the USFWS determines that more substantial modifications are necessary, such modifications may be made through approval of an amendment to the Tribal HCP in accordance with the amendment procedures described in section 4.17. If incidental take of a wildlife species not currently covered by the Plan is to be permitted under the USFWS' permit and authorized under the Plan, then the major amendment procedures in section 4.17.4 shall be implemented and the necessary decision documents shall be revised or modified.

4.14.7 Changed Circumstances Not Provided for in the Tribal HCP

Pursuant to the No Surprises Rule, the USFWS may not require (1) any conservation or mitigation measures in addition to those provided for under section 4.14 in response to a Changed Circumstance or (2) additional conservation or mitigation measures for any Changed Circumstance that is not identified in section 4.14 without the consent of the Tribe, provided the Tribe is properly implementing the Tribal HCP. The USFWS, any federal, state or local agency, or private entity may take additional actions at their own expense to protect or conserve a Covered Species within the Habitat Preserve, provided that the Tribe first be consulted and consent to any such proposed action.

4.15 TRIBAL FUNDING AND ASSURANCES FOR PLAN IMPLEMENTATION

The Tribe is providing assurances that adequate funding will be made available for implementation of the Tribal HCP and that the conservation, mitigation, and management measures will be carried out as proposed. This section specifies the funding that will be made available to adequately implement the Tribal HCP, including funding for the measures to monitor, minimize, and mitigate impacts likely to result from the proposed taking of the Covered Species.

The Tribe will provide or cause to be provided, funding and/or funding mechanisms as set forth in this section of the Tribal HCP. The Tribe's obligations for funding this Tribal HCP are limited to the commitments described within this Plan or IA, or the measures described within the Section 10(a) Permit, unless otherwise approved by the Tribal Council at its sole discretion.

In committing to these funding obligations as described below, the Tribe has sought to balance competing interests, and to be consistent with policies and limitations on conservation, especially as they relate to the unique relationship between the Tribe and the USFWS.

The Tribe understands that the USFWS will:

1. Provide appropriate technical assistance to the Tribe, including providing assistance in identifying and securing outside sources of funding and/or necessary funding mechanisms to help in acquiring and managing Habitat Preserve lands.
2. Carry out its responsibilities under ESA in a manner that strives to ensure that neither the Tribe nor any Tribal member bears a disproportionate burden for the conservation of Covered Species.
3. Cooperate with the Tribe in the implementation of conservation measures within this Tribal HCP in a manner that minimizes the social, cultural, and economic impacts on the Tribe.
4. Apply for funding for complementary conservation to Habitat Preserve lands, to the extent that funds are available under the various programs the USFWS administers. Such complementary conservation may provide funding which may benefit the overall conservation goals and objectives of the Tribal HCP but shall not fund any mitigation requirements for Covered Activities.

The Tribal HCP and the funding obligations set forth herein have been designed to be consistent with the mandates and policies referenced above and to ensure that neither the Tribe nor any of its members is placed at an economic disadvantage with competing interests, particularly with respect to fees or costs associated with measures to avoid, minimize, or mitigate for impacts to Covered Species resulting from Covered Activities.

The Tribe anticipates that the USFWS and other federal agencies will provide to the Tribe, to the extent supported by the appropriations process, a proportionate share of any federal funds made available for conservation within the Coachella Valley; however, the Tribe's assurances to adequately fund the Tribal

HCP are established without reliance upon any federal funding. The Tribe recognizes that, consistent with the requirements of the Anti-Deficiency Act, any commitment of Federal funding is always subject to the availability of appropriated funds. As they are available, Federal funds will be used to acquire Habitat Preserve lands and/or engage in additional management activities that complement the strategies of this Plan, but shall not fund any mitigation requirements for Covered Activities.

The measures to be funded by, or under the direction of, the Tribe include:

- Administration of the Tribal HCP to implement avoidance, minimization, mitigation, management, and monitoring measures;
- Assembly of the Habitat Preserve including Land Acquisition and Land Improvements; and
- Adaptive Management of the Habitat Preserve including Adaptive Management, Monitoring, and Contingency/Changed Circumstances.

These funding elements are presented in Table 4-8 and are described in more detail below as obligations (section 4.15.1), costs (section 4.15.2), funding sources (section 4.15.3), and funding assurances (section 4.15.4). All costs and funding sources are presented in current dollars. Cash flow projections are detailed in Appendices H and I, and summarized in Table 4-8.

Table 4-8
Tribal HCP Costs

Tribal HCP Costs	
Administration/Plan Implementation	$21,277,266
Habitat Preserve Assembly	
Land Acquisition	$6,713,817
Land Improvement	667,936
Total Habitat Preserve Assembly Costs	$ 7,381,753
Habitat Preserve Adaptive Management	
Adaptive Management Personnel & Outside Services	$39,514,849
Monitoring	4,267,500
Contingency Fund Deposits	1,050,000
Total Habitat Preserve Adaptive Management	44,832,349
Subtotal Costs	**$73,491,328**
Endowment Deposits Required	$12,833,333
Total Tribal HCP Costs & Obligations	**$86,324,661**

4.15.1 Tribal HCP Obligations

Implementation of the Tribal HCP carries certain funding obligations of the Tribe and Covered Activities. Such obligations include:

4.15.1.1 Administration/Plan Implementation Obligations

The Tribe has obligations to fund the administration of the Tribal HCP. The Tribe shall administer the Tribal HCP as necessary to implement the Plan, including those items as required for establishment and assembly of the Habitat Preserve (section 4.5), creation of conservation areas (section 4.6), application of land use controls including general design and mitigation requirements (section 4.7), initial assessment, inventory, and monitoring efforts (section 4.12), and Plan implementation requirements (section 4.15.5). These administration obligations include collection and administration of fees, as well as processing of Covered Activities to assure compliance with the Tribal HCP, including implementation of land use authority for Section 6 (Township 4 South, Range 5 East 9), Peninsular bighorn sheep-Sensitive VFPA Areas, and the MCCA Overlay Zone. This includes review and administration of biological surveys and implementation of species-specific avoidance, minimization, and mitigation measures. Administration obligations also include Tribal requirements as necessary to address record keeping and reporting requirements of the Tribal HCP, including Plan implementation, Existing Conditions Report, Annual Work Plans and reports, rough proportionality, monitoring, responses to Changed Circumstances, and other such reporting as specified in this Tribal HCP. All of these requirements will be tracked to ensure compliance since tracking and reporting are required for the life of the permit.

4.15.1.2 Habitat Preserve Assembly Obligations

The Tribe shall assemble the Habitat Preserve through acquisition and/or dedications as specified in the Tribal HCP including establishment and assembly of the Habitat Preserve (section 4.5), Creation of Conservation Areas (section 4.6), General Design and Mitigation Requirements for Covered Activities (section 4.7), and obligations specific to the MCCA and VFPA, including the MCCA Overlay Zone (section 4.8) and VFPA (section 4.9). The Tribe shall be obligated to assemble the Habitat Preserve through implementation of its land use authority and acquisitions as described in these sections. An additional obligation is the requirement for initial improvements of the Habitat Preserve (section 4.11.2.1, Item 1). The projected costs for Habitat Preserve assembly are anticipated to be lower than administration/plan implementation costs in part because approximately 63 percent of the Habitat Preserve (under the expected buildout scenario) would be dedicated and not purchased.

4.15.1.3 Habitat Preserve Adaptive Management Obligations

Once lands are assembled for the Habitat Preserve, Tribal staff shall be responsible to manage, or cause to have managed, the Habitat Preserve lands in perpetuity. These obligations include (a) Management (section 4.11), (b) Monitoring (section 4.12), (c) Adaptive management (section 4.13), and (d) Responses to Changed Circumstances (section 4.14).

4.15.1.4 No Further Obligations

The Tribe shall have no other obligations related to the Habitat Preserve.

4.15.2 Tribal HCP Costs

The costs to meet Tribal HCP obligations as set forth in section 4.15.1 (Tribal HCP Obligations) are described in detail below. All costs are presented in current dollars.

Two implementation scenarios were evaluated to assess the THCP adequacy of funding. Each scenario is a projection of future events; the actual costs and revenues will vary. The first scenario, Expected Buildout (Exhibit H), was based on development projected to occur within the MCCA over the 75-year life of the Plan, while the second scenario, Full Buildout (Exhibit I), is based on the maximum allowed development within the MCCA over the 75-year life of the Plan. The first scenario assumes that 3.75 acres of MCCA development would occur per year, while the second scenario assumes approximately 230 acres of MCCA development would occur per year. The first scenario is the one discussed throughout the text, because based on past development trends and development constraints within the MCCA, this is considered the more likely development scenario. Under either scenario (as demonstrated in Appendices H and I), funding would be adequate to fulfill the Tribe's funding obligations.

4.15.2.1 Cost Background

The Tribe currently administers land use controls, and manages Reservation lands for their cultural and conservation value. Existing Tribal Conservation Programs (described in section 2.1) and other current Tribal activities include access control, patrols, invasive species eradication, cooperative efforts to monitor Peninsular bighorn sheep, release of captive-bred Peninsular bighorn sheep, trails management, administration of land use controls, and consultation with the USFWS with respect to protected species. The Tribe's current efforts effectively manage MCCA lands south and west of Tahquitz Canyon. Access is controlled at Palm Canyon and Tahquitz Canyon thereby limiting human intrusion into the largest extent of the MCCA (approximately 20,000 acres of Reservation and non-Reservation lands). The Tribe also implemented several of the initial assessment, inventory, and monitoring efforts (section 4.12) upon adoption of the 2002-adopted Tribal HCP. These activities are related to, or are the same as, activities the Tribe will perform in implementation of the Tribal HCP including their obligations for administration, Habitat Preserve assembly and Adaptive Management. The projected costs to meet the Tribal HCP obligations are based upon the Tribe's historical costs to conduct these activities with consideration of the additional obligations set forth in the Plan.

The Tribe's current staff and administration costs to conduct these conservation activities are estimated at $559,461 per year and comprise expenses for managers, administrative coordinators, rangers, maintenance crews, supplies and equipment, and other support staff. Other current activities include costs for contract biologists for habitat assessment and monitoring, which are estimated at $100,000 per year.

To fulfill Tribal HCP requirements, the Tribe expects to utilize existing staff positions, add additional staff and to continue to contract with qualified consulting biologists. To meet staff responsibilities, it is estimated that additional staff will include a Tribal HCP Manager, a Staff Biologist, and support from an Administrative Coordinator. These additional costs are estimated at $208,000 per year.

The costs, priorities and responsibilities of the staff and consulting biologists will change over time as the Tribal HCP is implemented. Initial activities will be directed to Tribal HCP administration and implementation of Initial Assessment, Inventory and Monitoring (section 4.12). As Covered Projects are proposed and THCP Mitigation Fees are collected, responsibilities are expected to shift more towards Habitat Preserve assembly. As the Habitat Preserve becomes more established, responsibilities are expected to shift more toward Adaptive Management. Cost projections and allocations of costs for staff and consulting biologists are estimated for administration and Adaptive Management based upon an average annual year. As the Tribal HCP is implemented, actual allocations of costs are expected to vary based upon priorities of the Plan requirements and responses to the Adaptive Management program.

4.15.2.2 Administration/Plan Implementation Costs

Administration is estimated to cost $283,696 per year for a 75-year term of the THCP for a total of $21,277,226 (Table 4-9). This includes the cost of administration, personnel, supplies and equipment, and outside services including biologist as may be needed to support administrative functions.

Table 4-9
Administration/Plan Implementation Costs

Position	Administration/ Plan Implementation*	Adaptive Management*	Total
Tribal HCP Manager	$ 38,675	$ 71,825	$ 110,500
Staff Biologist	23,660	43,940	67,600
Admin Coordinator (FTE† 0.25)	4,550	8,450	13,000
Tribal Rangers	74,067	137,552	211,619
Maintenance	77,050	143,092	220,142
Supplies and Equipment	1,120	2,080	3,200
Other Personnel	43,575	80,925	124,500
Total Personnel	**$ 262,697**	**$ 487,865**	**$ 750,562**
Outside Services	$ 21,000	$ 39,000	$ 60,000
Total	**$ 283,697**	**$ 526,865**	**$ 810,562**

*Actual allocation will vary over the life of the Plan
†FTE represents full time equivalents
Rounding variations occur in projection estimates

This calculation of personnel costs includes staff currently assigned to Existing Tribal Conservation Programs, additional staff, and outside services as may be required to facilitate the Tribe's administration obligations of the Plan.

4.15.2.3 Habitat Preserve Assembly Costs

The assembly of the Habitat Preserve is estimated to cost a total of $6,713,817 over the 75-year term of the Plan (Table 4-11). This includes costs for acquisition of lands in the Valley Floor; other lands would be dedicated to the Habitat Preserve by Covered Project Proponents as part of the Conditional Use Permit process.

The acquisition acres are based upon the Tribe assembling 3,340 acres for the Habitat Preserve of which 1,222 VFPA acres shall be purchased and the remainder shall be dedicated as a result of compliance with Sections 4.8 (describing MCCA dedication requirements) and 4.9 (describing VFPA dedication requirements) of the Plan. No acquisitions are required for MCCA Habitat Preserve assembly. The figure of 1,222 VFPA acquisition acres was reached by determining that 5,818 acres in the VFPA would be subject to the 1:4 conservation ratio required for conservation in fulfillment of the VFPA Rough Proportionality Commitment. At this ratio, 1,455 acres of VFPA habitat are required to mitigate for VFPA impacts. VFPA development dedications total 524 acres, resulting in 931 acres needed to fulfill the Rough Proportionality Commitment. An additional 20 percent of the 1,455 acres, or 291 acres, is applied in the projections as an estimate for contingencies to calculate the total acquisitions of 1,222 acres (Table 4-10).

Table 4-10
Total VFPA Acquisition Requirements

	Acquired	**Dedicated**	**Total**
Stabilized or stabilized shielded sand fields minimum	364		364
Other sand field to meet 80% minimum	276		276
Section 6 on-site dedications		492	492
Section 6 off-site dedications (acquired by others)		32	32
Subtotal			1,164
Remaining Minimum VFPA Acquisitions	291		291
Total Minimum VFPA Acquisitions	**931**	**524**	**1,455**
Estimated Contingency Acreage (20%)	291		291
Total Estimated VFPA Acquisitions	1,222	**524**	1,746

Table 4-11
Acquisition Cost Estimate for VFPA Land Acquisition

HABITAT	Target Acquisition Area	Acres projected for Conservation	% of acquisitions required of Plan	Costs* (in dollars)			
				Low-Range	Mid-Range	High-Range	Total
Active/ephemeral sand fields	Whitewater Floodplain	276	22.6	69,018	434,810	552,140	1,055,968
Stabilized/shielded sand fields	Whitewater Floodplain	364	29.8	91,000	573,300	728,000	1,392,300
Mesquite Hummocks	Willow Hole	20	1.6	5,000	297,500	160,000	462,500
Desert scrub	Edom Hill	20	1.6	85,000	25,000	20,000	130,000
Sonoran creosote bush scrub	Thousand Palms	20	1.6	50,000	337,500	70,000	457,500
Sonoran mixed woody/succulent scrub	Thousand Palms	20	1.6	50,000	337,500	70,000	457,500
Balance of Other Habitat		211	22.7			1,159,260	1,159,260
Contingency Acreage		291				1,598,789	1,598,789
TOTAL		**1,746**	--	--	--	--	**6,713,817**

*Costs are based on a Market Study of Land Values, Related to Areas of Prospective Acquisition, associated with the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007)

The costs of the acquisitions are based upon the total number of acres to be purchased and multiplied by an estimated cost per acre. Preserve acquisition costs are based on a Market Study of Land Values, Related to Areas of Prospective Acquisition, associated with the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007). To arrive at a total acquisition cost, the above table was used, in which a range of costs per acre was applied to the habitat types within each Target Acquisition Area. An average cost per acre of $5,494 was used to estimate acquisition costs for all other habitat acquisitions including contingency acres. The total projected acquisition cost is $6,713,817.

The second part of the habitat preserve acquisition costs is the cost to improve acquired land (referred to as Land Improvements). The cost to improve the acquired land will include materials and labor. Labor costs are identified in the management responsibilities section (section 4.11), and are identified within the Adaptive Management Habitat Preserve Management Costs below. Materials and supplies for initial land improvements, including signage and access controls, are estimated to be $200 per acre. Given that the Tribe will acquire 3,340 acres for the Habitat Preserve over the term of the Section 10(a) Permit, the land improvement cost of materials will be $667,936.

4.15.2.4 Habitat Preserve Adaptive Management Costs

Habitat Preserve Adaptive Management is estimated to cost a total of $44,832,349, including $39, 514,849 for Management Personnel and Outside Services, $4,267,500 for Monitoring, and $1,050,000 for a Contingency Fund. The annual Habitat Preserve Adaptive Management costs will be $671,265 for

Years 1 through 12 of the Plan (which includes funding to establish a contingency fund of $1,050,000) and $583,765 for the rest of the life of the Plan.

4.15.2.5 Endowment Fund Deposits

The cost to establish the endowment fund balance necessary for the Habitat Preserve is estimated at $14,392,523. This provides funding for the Tribe's ongoing costs to administer, manage, and monitor the Habitat Preserve lands in perpetuity at an annual net earnings rate on the funds at 2.4 percent. The cash flow projects an equal annual deposit into the endowment account to achieve this fund balance in Years 1 through 40 as necessary to fund annual costs in excess of annual Tribal Funding. This amount is $359,813 per year. This amount may vary from year to year based on funding priorities. For example, the Tribe may have priorities to fund a significant land acquisition in any one year and the endowment may be a lower priority in that year. Any net cash flow left over at the end of each year will be invested back into the Endowment Fund so as to further increase the endowment earnings (see section 4.15.3.3, Endowment Earnings, for more details regarding the endowment fund). While the endowment deposit may fluctuate from year to year, the Tribe's commitment is to fund the endowment such that its balance will be sufficient to fund the post-permit management obligations in perpetuity.

4.15.3 Habitat Preserve Funding

Sources of funding for the above costs include the Tribe, THCP Mitigation Fees, endowment earnings, and Covered Project administration reimbursements. All funding revenues are presented in current dollars. Please see Table 4-12 for a summary of all funding sources.

Table 4-12
Summary of Funding Sources

Mitigation Fee Revenue	$33,337,140
Tribal Funding	41,400,114
Proposed Project Administration Reimbursements	28,125
Endowment Earnings	44,844,820
Total Revenue	**119,610,199**
THCP Net Cash Flow	**33,285,538**

4.15.3.1 THCP Mitigation Fee

The primary funding source for acquisition and a portion of other obligations of the Tribe under the Tribal HCP is the THCP Mitigation Fee. The mitigation fee will initially be $5,730 for each developed acre, collected prior to issuance of any permits allowing ground disturbance (typically grading permits or building permits). The Tribe has committed to requiring the THCP Mitigation Fee of $5,730 per acre upon initial implementation of the Plan following issuance of the Section 10(a) Permit, which is equal to those fees currently proposed by CVAG, and it shall be adopted by the Tribe independent of the CVAG fee. The fee is

a continuation of the fees collected from the Tribe's already adopted Interim HCP, which has resulted in revenue utilized for conservation of valley floor Covered Species. For the purposes of cash-flow analysis, it is assumed that the land developed over the life of the Plan would include 5,818 acres in the VFPA and 281 acres developed in the MCCA at a rate of 233 acres and 3.75 acres per year, respectively (Table 4-13). The THCP Mitigation Fee may apply to all developed land in the Plan Area. However, at the Tribe's discretion, Habitat Preserve land dedications may be credited against the mitigation fee. Because of this potential credit, the cash-flow projections do not calculate the mitigation fee where habitat dedications are required in the MCCA, or in the Section 6 Target Acquisition Area or Indian Canyons portions of the VFPA.

Table 4-13
Mitigation Fee Revenue

Total Developable Acres subject to VFPA Mitigation Fee	5,818
THCP Mitigation Fee per Acre	$5,730
Total THCP Mitigation Fee Revenue	$33,337,140*

*Due to a rounding for the Total Developable Acres, the Mitigation Fee Revenue figure may be slightly different.

The proposed THCP Mitigation Fee is intended to provide adequate funding for the required mitigation, while ensuring that it would not result in a disproportionate burden to the Tribe and its members. Because it would (at the outset) be equal to what parties outside of the Tribal HCP Plan Area would be required to pay, the Tribe considers this fee to be the maximum amount practicable. Increasing the mitigation fee beyond what is being assessed in a similar HCP in adjacent areas would result in a disproportionate burden to the Tribe and its members.

The Tribe would periodically adjust the amount of the THCP Mitigation Fee as necessary to ensure that it fulfills the funding obligations described in section 4.15.1. For example, land acquisition costs over the life of the Plan could be different from those currently projected. If the Tribe determines in the future that it is necessary to increase the THCP Mitigation Fee in order to meet its funding obligations, it will consider the index used by the Coachella Valley MSHCP as one factor in determining the appropriate fee amount. It is possible that the Tribe's costs associated with administration, Habitat Preserve assembly, and adaptive management may be somewhat different from those incurred by CVAG due to differences between the two organizations and differences in the land within their respective Action Areas. Additionally, the other revenue sources that the two organizations have available are different. As a result, the fees applied under the two plans may be disparate over time. Due to the similarity of the two plans, it is not anticipated that the difference in fees would be substantial. Regardless, each plan (assuming the Tribal HCP is approved) would be responsible for ensuring that its permit obligations are met; therefore, any difference in the fees would not result in a change in the level of impacts or conservation that would occur under either plan.

4.15.3.2 Tribal Funding

The Tribe will fund personnel administration and Habitat Preserve Adaptive Management consistent with their historical funding. Accordingly, the Tribe is projected to fund $559,461 annually for these costs for Years 1 through 74 of the Plan. In Year 75 of the Plan, the Tribe will no longer fund the $559,461 as the endowment earnings will be sufficient to fund such an amount.

4.15.3.3 Endowment Earnings

As further explained in section 4.15.2.5, regular annual deposits will be made to a non-wasting endowment sufficient in size at the end of Year 75 to fund the ongoing administration and Adaptive Management obligations of the Plan in perpetuity with interest earnings from the endowment principal. The amount funded is based upon the net revenue after considering the continued funding obligations of the Tribe as described above. Annual endowment earnings are combined with other revenues to meet cash flow requirements. In Year 26, when it is assumed that development on the Valley Floor will be completed and therefore Mitigation Fees are significantly reduced, the projections result in a negative cash flow. In such case, the negative cash flow would be funded from endowment earnings (in Year 26 the projected invested principal balance of the endowment account is $23,284,899) to meet management obligations. Sufficient cash flow is projected to continue annual contributions to the endowment account until fully funded in Year 40.

Once the endowment account is fully funded, positive cash flow would be obtained each year thereafter and net revenues would be contributed to the endowment balance. Since a total of $12,833,333 will be deposited into the endowment (in annual deposits for the first 40 years) along with net cash flow at the end of each year the 2.4 percent of the interest from the endowment is expected to generate $44,844,820 in revenue over the life of the Plan, with estimated yearly revenue in Year 75 of $1,101,333, which is well in excess of the projected annual cost requirement of $867,461. At the end of the permit term all costs, including those hitherto paid for by Tribal Funding, would be funded from endowment earnings.

4.15.3.4 Covered Project Administration Reimbursements

Reimbursements for Covered Project administration are expected to provide an additional $375 in annual revenue for the MCCA. These funds are to be derived from processing fees charged to Covered Activities as a reimbursement to the Tribe for administration of the Tribal HCP. This revenue totals $28,125 for the life of the Plan.

4.15.4 Tribal HCP Funding Assurances

Below are the funding related assurances that the Tribe is providing in regards to the Tribal HCP.

4.15.4.1 General Funding Assurances

The Tribe is providing assurances that adequate funding will be made available for implementation of the Tribal HCP and that the conservation, mitigation, and management measures will be carried out as proposed. To support these assurances, the Tribe is including a cash flow projection for the 75-year term of the Plan (Appendix H, based on projected levels of development within the MCCA). Additionally, a cash flow projection for the second scenario discussed earlier, full allowable development within the MCCA, is provided in Appendix I.

Cash flow projections show that the THCP Mitigation Fee, combined with Tribal funding, endowment fund revenue, and Covered Project administration reimbursements, will be adequate to fund the endowment necessary to provide management funding from investment earnings as necessary for obligations in perpetuity (those obligations that extend beyond the term of the permit) and all costs associated with the Habitat Preserve (see section 4.15.3 and relevant subsections). The Tribe has committed to (1) funding administration costs in the amount of $559,461 per year for a total of $41,400,114 and (2) collecting a THCP Mitigation Fee, which is projected to fund $33,337,140. These funding sources are intended to provide adequate funding for the required mitigation, while ensuring that the Tribal HCP would not result in a disproportionate burden to the Tribe and its members.

4.15.4.2 Habitat Preserve Funding Assurances

The Tribe will ensure that the Habitat Preserve lands will be acquired and legally protected in perpetuity as specified, and will ensure that necessary funding for these acquisitions will be provided in perpetuity as specified in section 4.15.4. Assembly of the Habitat Preserve shall be from land dedications and acquisitions. Acquisitions of the Habitat Preserve shall be funded primarily through the THCP Mitigation Fee. Land use designations, restrictions on development, the implementation of enforcement of development standards, requirements for dedication to the Habitat Preserve, and assessment of development mitigation fees provide assurances that approval of Covered Activities by the Tribe will result in assembly of the Habitat Preserve including dedications and acquisitions. The Tribe has committed to funding of conservation at the levels defined in this Plan to achieve the conservation goals of the Plan. Federal funding may also be used to complement Tribal actions in achieving the conservation goals of the Plan, although the Plan is not dependent upon such funding and such funds would not be used to reduce the mitigation requirements of any Covered Activity. In addition to Habitat Preserve lands acquired from Covered Projects and acquisitions funded by mitigation fees, lands may also be acquired

from willing sellers by the Tribe or through government or private partnerships and may be obtained in advance of development mitigation requirements as described in section 4.5.2.2.

The Tribe's assurances that there is adequate funding to assemble and manage the Habitat Preserve are as follows:

1. The Tribe shall collect and administer the THCP Mitigation Fee consistent with the Plan.
2. Tribal HCP funds including mitigation fees collected from Covered Projects or other assured funds available to the Tribe will be used in accordance with the Plan to administer the Tribal HCP, assemble the Habitat Preserve, manage and monitor Habitat Preserve lands, and shall be deposited in a non-wasting endowment account (described in detail in sections 4.15.2.5 and 4.15.3.3) that will track inflation and will be sufficient to fund monitoring and management of the Habitat Preserve lands in perpetuity.
3. The Tribe shall use its land use authority to assemble the Habitat Preserve as set forth in this section 4.15.
4. Dedication of mitigation lands to the Habitat Preserve shall be conditions of approval for MCCA Covered Projects as well as for VFPA Covered Projects within the Section 6 Target Acquisition Area and Indian Canyons. Such dedications shall be completed prior to habitat disturbance.

4.15.4.3 MCCA Specific Funding Assurances

The Tribe shall provide the following additional funding assurances specific to the MCCA that the funding provided by the Plan will be adequate to assemble Habitat Preserve from within the MCCA lands as specified in section 4.8:

1. The Tribe shall implement the planning requirements for avoidance, minimization, and mitigation of impacts as described in section 4.8.
2. The per-acre land contribution requirements shall be dedicated by Covered Projects in accordance with section 4.8.
3. Prior to any ground disturbance by a Covered Project, all land contribution requirements shall be dedicated to the Habitat Preserve as described in section 4.5.1.
4. The Tribe shall account for each acre of the land contribution requirements (a minimum 5.67:1 ratio) and shall be in conformance with these requirements of section 4.8. This is referred to as the "MCCA Acreage Dedication Commitment."

4.15.4.4 VFPA Specific Funding Assurances

Specific to the VFPA, the Tribe is providing assurances that the funding provided by the Plan will be adequate to assemble up to 1,455 acres of Habitat Preserve from within the VFPA Target Acquisition Areas and Indian Canyons. Roughly one acre from within the approved acquisition areas shall be

preserved and managed in perpetuity for every four acres impacted and not restored in the VFPA (with a 10 percent allowance). This is referred to as the "VFPA Rough Proportionality Commitment." Verification that this commitment is being met will be provided annually following adoption of the Tribal HCP, or before disturbance of each 1,000 acres of the estimated 6,025 acres of undeveloped VFPA lands available for development, whichever occurs first.

If this Rough Proportionality Commitment is not achieved, then:

1. The Tribe shall evaluate the amount of the THCP Mitigation Fee (as described above) and will consider increasing the fee amount so long as this action is consistent with other Tribal policies, commitments, and restrictions, including the policies that the Tribe will not obligate itself or its members to a disproportionate share of the conservation requirements of any species, and will not disadvantage Tribal activities; or
2. The Tribe will dedicate additional funds following evaluation as necessary to meet the VFPA Rough Proportionality Commitment of the Plan; or
3. If, six months after determining that the VFPA Rough Proportionality Commitment is not achieved, and the above steps to rectify the imbalance have not been successful, the Tribe shall suspend incidental take authorizations for the VFPA (excluding Peninsular bighorn sheep-sensitive VFPA Areas) until such time as adequate funding (including but not limited to funding that may be provided by partnerships with private parties, or local, state, and/or federal agencies) can be provided to accomplish the VFPA Rough Proportionality Commitment.

4.15.5 Plan Implementation

To provide and receive assurances of compliance with the provisions of the Tribal HCP, the Tribe will enter into an IA with USFWS regarding implementation of the Tribal HCP and the authorizations and assurances being sought by the Tribe from the USFWS described in section 4.16 below. In addition, the Tribe will institute the following record-keeping and monitoring, annual reporting, and program review process.

4.15.5.1 Record-keeping and Monitoring

The Tribe will maintain written and/or electronic records as follows:

1. Files of surveys conducted in connection with Covered Activities;
2. Records of any habitat disturbance by acre, type, and location that occurs as a result of a Covered Activity, with the necessary information required to ensure that the maximum authorized acreage of disturbance is not exceeded;
3. Records of any habitat conserved or enhanced/restored by acre and type that occurs as a result of a Covered Activity or otherwise to ensure that the minimum percentages and acreage of conservation of

each habitat type required by the VFPA Rough Proportionality Commitment and MCCA Acreage Dedication Commitment is achieved;

4. Records on fees collected, monies spent (on acquisition, management, administration, etc.) including from what funding source/account, and interest earned in each fund;
5. Records documenting management actions and monitoring activities that occurred within the Habitat Preserve;
6. Records from periodic internal compliance audits; and
7. Use of any mitigation credits.

Map-based data will be tracked with the Tribe's GIS software. Mitigation fees will be collected and tracked using MAS 200 (or similar) accounting software. The Tribe has an Accounting Department that manages its financial records as part of the Tribe's larger Accounting Department. The Tribe is subject to, and will continue to be subject to, annual financial audits in accordance with generally accepted accounting standards.

4.15.5.2 Annual Reports

Twelve months following approval of the Tribal HCP and every 12 months thereafter, the Tribe will prepare a report on implementation of the Tribal HCP for review by USFWS. The report will be prepared in the same time frame as the Annual Work Plan for the upcoming year and be completed by December 31 of each year. The report shall include the following:

1. A summary of Covered Activities that were initiated, continued, or completed in the year past;
2. Documentation of habitat loss that occurred and Habitat Preserve lands that were conserved during the previous 12 months in connection with Covered Activities, along with a cumulative total since Plan approval;
3. An accounting of each of the seven record-keeping and monitoring items listed above, including an accounting of expended and available mitigation credits, if any;
4. A report of any measurable difference (compared with the previous year) in conditions in the Habitat Preserve, including the addition of new lands and/or programs or changes in the status of Covered Species, habitats, and/or invasive species;
5. Any minor/administrative amendments made to the Plan during the preceding year;
6. Species-specific information (e.g., status, survey results, etc.); and
7. A summary of management and monitoring activities, including a comparison of the measured results to the Tribal HCP's overall conservation goals and objectives; species-specific conservation goals and objectives; and the specific conditions or conservation measures that are outlined for specific areas, Covered Species, and/or their habitats.

4.15.5.3 Periodic Comprehensive Reviews

At the end of the fifth year of implementation of the Tribal HCP and every five years thereafter, the Tribe, in cooperation with USFWS, will undertake a comprehensive review of the success of Plan implementation.

4.16 USFWS AUTHORIZATIONS AND ASSURANCES

Implementation of this Tribal HCP is predicated on USFWS approval of the Plan, execution of an IA, and issuance of a Section 10(a) Permit for a term of 75 years authorizing the Tribe to permit or implement Covered Activities that may result in incidental take of covered wildlife species. The Tribe intends such approval to include the following authorizations and assurances, consistent with ESA.

4.16.1 Incidental Take of Covered Wildlife Species

The Tribe is seeking a federal permit for incidental take of covered wildlife species by Covered Activities, conditioned on proper implementation of the conservation and impact mitigation, avoidance, and minimization measures set forth in the Tribal HCP. Consistent with the USFWS' No Surprises Final Rule, no additional mitigation will be necessary for ESA incidental take permitting related to the covered wildlife species. Further, the Tribe seeks assurances that if a covered wildlife species that is not currently listed under ESA becomes listed in the future, incidental take will be authorized provided the impact minimization, mitigation, and conservation management measures identified in the Tribal HCP are being properly implemented. Additional assurances are sought that the provisions of the Tribal HCP meet the standards set forth in Sections 10(a)(2)(A) and (B) and that no additional mitigation will be necessary for the proposed Covered Species.

4.16.2 Critical Habitat Designations

The USFWS acknowledges and agrees that the Tribal HCP provides a comprehensive approach to the conservation of Covered Species. This approach is consistent with the overall purposes of the ESA (see 16 USC 1531(b)). Provided the Tribe is properly implementing its obligations under the Tribal HCP, Implementing Agreement, and Section 10(a) permit, USFWS will ensure that, to the maximum extent allowable after public review and comment, lands within the Tribal HCP Plan Area will not be designated as critical habitat for any Covered Species that is federally listed.

4.16.3 Annexations, Land Exchanges, and Changed Boundaries

The Tribe anticipates that, over the life of this Plan, the boundaries of the Plan Area may change through purchases, land exchanges, and/or other acquisitions. It is the Tribe's intent that, although such actions may not necessarily result in changes to the boundary of the Reservation, lands acquired by the Tribe through land exchange or otherwise be subject to the provisions, agreements, permits, and authorizations of the Tribal HCP.

As described in Section 2.2.1.1, an exchange of lands with the BLM currently is contemplated. If and when this land exchange is completed, the Tribe will coordinate with the Coachella Valley Conservation Commission and the USFWS regarding preparation of a Minor Amendment to adjust land ownership and conservation acreages in the Plan Area. USFWS concurrence will not be required for the Minor Amendment (see section 4.17.3.1).

If the Tribe acquires land outside of the Action Area, the Tribe could seek to extend appropriate conservation program components to such land and have it covered by the Plan and Section 10(a) Permit through the appropriate amendment process, as identified in section 4.17. If such land is acquired solely for conservation purposes, it is anticipated that a minor amendment process as described in section 4.17.3 would be appropriate. However, if an increase in incidental take or decrease in conservation would occur as a result of the revision, a major amendment as described in section 4.17.4 would be required. Additionally, if such land is found to contain listed or other sensitive species not at the time covered by this Plan, or their habitat, and the Tribe chooses to have such species covered by the Plan and Section 10(a) Permit, the Tribe shall consult with USFWS to determine appropriate additional conservation measures and shall utilize the major amendment process set forth in section 4.17.4. Regardless, should any proposed changes or modifications potentially result in (1) an increase in incidental take; (2) a decrease in conservation; or, (3) a change to any of the decision documents of the USFWS (e.g., permit, findings, biological opinion, NEPA document, etc.), then a major amendment is warranted.

4.16.4 Changed and Unforeseen Circumstances

The No Surprises Rule generally provides that as long as an HCP is being properly implemented, USFWS will not require additional land or money from the permittee in the event of Changed or Unforeseen Circumstances. The Final Rule effective March 25, 1998, added descriptions of *Changed Circumstances* and *Unforeseen Circumstances* that define potential future responsibilities based on whether future impacts to Covered Species could reasonably be foreseen.

Changed Circumstances are those events that may affect a Covered Species or geographic area that can reasonably be anticipated and planned for during development of an HCP, such as reasonably foreseeable flood or fire events. Such occurrences are anticipated by the Tribal HCP and are mitigated by the

ongoing monitoring and specific responsive measures outlined and planned for in section 4.14, the Adaptive Management Program set forth in section 4.13, and in the IA. The costs associated with such remedial measures are the obligation of the Tribe and will be funded as necessary. In accordance with the Habitat Conservation Plan ("No Surprises") Assurances Rule (63 Federal Register 8859, as codified in 50 CFR Sections 17.3, 17.22[b] and 17.32[b]), it is acknowledged that the purpose of this Tribal HCP is to provide for the conservation of Covered Species and the mitigation, minimization, and compensatory measures required in connection with incidental impacts to the Covered Species in the course of otherwise lawful and permitted activities within the Action Area. Accordingly, no further mitigation or compensation shall be required by USFWS to address impacts of Covered Activities undertaken by or under the direct authority of the Tribe, pursuant to the ESA. Pursuant to 50 CFR sections 17.22(b)(5) and 17.32(b)(5), USFWS shall not require from the Tribe, or other individuals or entities receiving take authorization under the Section 10(a) Permit, the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources with regard to Covered Activities and their impact on Covered Species beyond that provided pursuant to the Tribal HCP, provided that the Tribe is properly implementing the Plan, the IA, and the Section 10(a) Permit.

Unforeseen Circumstances are events affecting a Covered Species or geographic area covered by the Plan that could not reasonably have been anticipated during planning, and that result in a substantial and adverse change in the status of a Covered Species. USFWS bears the burden of demonstrating that Unforeseen Circumstances exist, using the best available scientific and commercial data available and considering certain specific factors. The findings must be clearly documented and based upon reliable technical information regarding the status and habitat requirements for the affected species. In the event that USFWS makes a finding of Unforeseen Circumstances and such Unforeseen Circumstances warrant the requirement of additional mitigation, enhancement, or compensation measures, any such additional measures shall be restricted to modification of the management of the Habitat Preserve, and shall be the least burdensome measures available to address the Unforeseen Circumstances, maintaining the original terms of the conservation plan to the maximum extent possible.

Nothing in this section is intended to preclude USFWS or any federal, state, or local agency or private entity from taking additional actions at their own expense to protect or conserve a Covered Species within the Action Area, provided that the Tribe first be consulted and consent to any such proposed action within the Reservation or on Tribal Lands.

4.17 PLAN AMENDMENT PROCESS

The Tribe anticipates that modifications, refinements, and amendments to the Tribal HCP and accompanying agreements may be necessary over time, although they are not anticipated on a regular basis. Such changes may be initiated only by the Tribe; the USFWS may suggest changes for the Tribe's

consideration. A written record of all such revisions, modifications, or amendments shall be maintained and included in the annual reporting documentation prepared by the Tribe and provided to the USFWS.

4.17.1 Modifications

4.17.1.1 Clerical Changes

Clerical changes to this Tribal HCP shall be made by the Tribe on its own initiative, or in response to a written request submitted by another party, which includes documentation supporting the proposed clerical change. Clerical changes shall not require any amendment to the Tribal HCP, the Section 10(a) Permit, or the IA. Clerical changes include corrections of typographical, grammatical, and similar editing errors that do not change the intended meaning, and corrections of any maps or figures to correct insignificant errors in mapping or to reflect previously approved changes in the Section 10(a) Permit and/or the Tribal HCP. Annual reports shall include a summary of clerical changes made to the Tribal HCP in the preceding year.

4.17.1.2 Adaptive Management Changes

Changes to avoidance, minimization, conservation, and Reserve management strategies developed through and consistent with the Adaptive Management Plan described in Section 4.13 of this Tribal HCP shall not require any amendment to the Tribal HCP, the IA, or the Section 10(a) Permit.

4.17.2 Minor Amendments

Minor Amendments are considered to be administrative changes to the Tribal HCP where the effect on Covered Species, the level of take, and the Tribe's ability to implement the Tribal HCP are not significantly different than those described in the Tribal HCP as adopted. Minor Amendments shall not require a publicly noticed application, review, and approval process, and shall not require amendments to the IA or the Section 10(a) Permit. Minor Amendments to the Tribal HCP that are associated with a specific public or private activity for which there is an individual review process shall be disclosed in the environmental documentation for that specific activity. No other environmental documentation shall be required for Minor Amendments. A written record of all approved Minor Amendments shall be maintained and shall be included in the annual reporting documentation prepared by the Tribe and submitted to the USFWS.

4.17.2.1 Minor Amendments Not Requiring USFWS Concurrence

The following Minor Amendments may be approved by the Tribe with notice to the USFWS:

- Corrections to land ownership;
- Adjustment of land ownership, Plan Area, and conservation acreages upon completion of the proposed BLM Land Exchange (refer to Section 2.2.1.1);
- Adjustment of land ownership and Plan Area acreages upon acquisition within the Target Acquisition Areas;
- Updates/corrections to the vegetation map and species occurrence data;
- Minor revisions to survey, monitoring, reporting, and/or management protocols that do not affect Covered Species or overall Habitat Preserve functions and values; and
- Minor revisions to Habitat Preserve assembly or funding strategies and schedules that do not result in effects that are more than minimal and could result in a reduction in the overall population and distribution of Covered Species, or overall reduction in functions and values of the Habitat Preserve.

4.17.2.2 Minor Amendments Requiring USFWS Concurrence

For Plan Refinements, the Tribe shall provide to the USFWS a request for concurrence including a statement for the reason for the proposed amendment and an analysis of its environmental effects.
The Plan Refinement Process described in this section may be used to amend the Tribal HCP provided that the modification would result in equivalent or biologically superior conservation of Covered Species, that all effects of such actions have been fully analyzed, and that there would be no increase in the level of anticipated incidental take; proposed modifications not determined to result in equivalent or superior conservation would require a Major Amendment to the Tribal HCP, as described in Section 4.17.3.

Plan Refinements may be initiated by the Tribe or, if applicable, private landowner or leaseholder. The initiating party shall provide a complete description and rationale for the Plan Refinement, including an equivalency analysis. The equivalency analysis shall draw conclusions regarding the degree to which the proposed Plan Refinement is considered to be biologically equivalent or superior to the Plan without the refinement. Specifically, the following information shall be assembled by the Covered Activity Proponent for review by the Tribe for projects requesting refinements to the Plan:

1. Definition of the planning area for the Covered Activity;
2. Narrative and graphic description of the Covered Activity;
3. Narrative and graphic description of biological information available for the Covered Activity site including current project-specific vegetation mapping and appropriate species surveys;
4. Narrative and graphic description of the project's efforts to be consistent with the Tribal HCP and explanation of the rationale why consistency has been determined to be infeasible;

5. Quantification and characterization of effects/benefits of the proposed Covered Activity (incorporating Plan refinements) on habitats, species and overall Habitat Preserve design and function; and
6. Any other information deemed necessary by the Tribe to make the appropriate findings.

Based on the assembled project information, an equivalency analysis shall be provided by the Covered Activity Proponent for review by the Tribe in narrative and graphic form comparing the effects/benefits of the proposed Covered Activity (incorporating Plan refinements) and a project on the same site not deviating from the Plan. The analysis may include site-specific project design features as well as on-site and/or off-site mitigation offered by the Covered Activity Proponent. The equivalency analysis shall address the following categories:

1. Effects on Habitats;
2. Effects on Covered Species;
3. Effects on Habitat Preserve configuration and management (such as connectivity and increases or decreases in edge);
4. Effects on ecotones (defined as areas of adjoining Natural Plant Communities, generally characterized by greater biological diversity) and other conditions affecting species diversity (such as invasion by exotics);
5. Equivalent or greater acreage contributed to the Habitat Preserve;
6. The Covered Activity Proponent must demonstrate agreements or control over mitigation property being offered under the equivalency analysis; and
7. Conservation objectives and species-specific conservation objectives.

Prior to approving a Plan Refinement, the Tribe shall notify the USFWS. Such written notice shall include the project description, appropriate maps, and findings as noted above. A 60-day review and response period shall be provided. In the event there is disagreement regarding a proposed Plan Refinement, the Tribe shall meet with the USFWS in an attempt to resolve the disagreement. If the disagreement cannot be resolved, a Major Amendment shall be required as described in the following subsection.

If the USFWS does not respond within 60 days of receipt of the request for concurrence, the Minor Amendment shall be deemed approved.

4.17.3 Major Amendments

Changes to the Tribal HCP not identified as minor/administrative amendments as noted above shall be regarded as Major Amendments. A Major Amendment requires the USFWS to modify at least one of the following decision documents: Biological Opinion, Findings, EIS, IA, or Incidental Take Permit. Such amendments may involve items such as the following:

- Changes to the boundary of the Plan Area that involve impacts not previously anticipated and therefore necessitate the imposition of additional conservation measures not currently set forth in the Plan (see section 4.16.4 above);
- Increases in the acreage of the Plan Area that would not result in a net increase in conservation values relative to that contemplated in the Section 10(a) Permit;
- Changes to the boundary between the MCCA and the VFPA;
- Addition of species to the Covered Species list; and
- Any other changes that do not meet the definitions for minor/administrative amendments.

In general, the Major Amendment process shall be initiated by the Tribe via written notification and request for concurrence from the USFWS. The request for concurrence shall include a description of the proposed amendment, including a statement of the purpose and need for the proposed amendment and an analysis of potential environmental effects (including its effects on operations under the Tribal HCP and on Covered Species). The Tribe and USFWS shall jointly determine the appropriate approval process including the need for any environmental compliance documentation. Except as otherwise described in the preceding sections, any proposed changes or modifications that would potentially (1) result in an increase in incidental take; (2) result in a decrease in conservation; or (3) require changes to any of the decision documents of the USFWS (permit, findings, biological opinion, NEPA document, etc.) will warrant a Major Amendment.