CANDIDATE ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Hazardia orcuttii* (A. Gray) E. Greene

COMMON NAME: Orcutt=s Hazardia, Orcutt=s brittleweed, Orcutt=s goldenbush

LEAD REGION: R1

INFORMATION CURRENT AS OF: March 8, 2004

STATUS/ACTION (Check all that apply):
_X__ New candidate
___ Continuing candidate
___ Non-petitioned
_X_ Petitioned - Date petition received: March 13, 2001___
__ 90-day positive - FR date: _____
__ 12-month warranted but precluded - FR date: _____
__ Is the petition requesting a reclassification of a listed species?
___ Listing priority change
Former LP: ___
New LP: ___
Latest Date species became a Candidate: _____
___ Candidate removal: Former LP: ___ (Check only one reason)
___ A - Taxon more abundant or widespread than previously believed or not subject to a degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.
___ F - Range is no longer a U.S. territory.
___ I - Insufficient information on biological vulnerability and threats to support listing.
___ M - Taxon mistakenly included in past notice of review.
___ N - Taxon may not meet the Act=s definition of Aspecies.@
___ X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Asteraceae

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: California, U.S.A. and Estado de Baja California, Mexico

CURRENT STATES/ COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE: California, U.S.A. and Estado de Baja California, Mexico

LEAD REGION CONTACT (Name, phone number): Diane Elam, CNO, Sacramento, CA 916/414-6464

LEAD FIELD OFFICE CONTACT (Office, name, phone number): Carlsbad Fish and Wildlife Office, Gary D. Wallace 760-431-9440

BIOLOGICAL INFORMATION (Briefly describe habitat, historic vs. current range, historic vs. current population estimates (# populations, #individuals/population), etc.):

Species Description

Hazardia orcuttii is an evergreen shrubby species in the Asteraceae (sunflower family). The resinous shrubs are 5-10 decimeters (20-40 inches (in)) high the relatively few branches are erect. The sessile leaves are spathulate to lanceolate with entire margins, and up to 50 millimeters (2 in) long. The leaf surfaces have resinous surface glands and are glabrous. The flower heads have involucre bracts with entire margins and fertile disk flowers. The ray flowers are conspicuous. This species flowers from August to October (Burrascano 2001). This species is easily distinguished from the other, the only other species in the area, *Hazardia squarrosa* which lacks conspicuous ray flowers and has toothed leaf margins.

Taxonomy

Hazardia orcuttii was first described as *Haplopappus orcuttii* by Asa Gray (1885) based on material collected by Charles R. Orcutt in September 1884 at Todos Santos Bay in Baja California, Mexico. Subsequently Edward L. Greene (1894), in recognition of the significant differences among several groups of *Haplopappus*, published the currently accepted combination *Hazardia orcuttii* (A. Gray) E. Greene. However, for many years the treatment of Hall (1928) was followed and this species was included in section Hazardia of the genus *Haplopappus*. Clark (1979) published a taxonomic treatment of the genus *Hazardia* in which he recognized the combination originally proposed by Greene. This treatment has been followed in floristic treatments for over 20 years.

Habitat

The only known extant occurrence of this species in the U.S. is in the Manchester Conservation Area, previously known as the Manchester Mitigation Bank, managed by The Center for Natural Lands Management (CNLM). The area is about 53 hectares (ha) (130 acres (ac)) and includes Diegan coastal sage scrub, southern maritime chaparral, and willow scrub (CNLM, in litt. 2000, 2003b; Burrascano 2001). Within the conservation area, the natural population of *Hazardia orcuttii* occupies only 2 ha (5 ac). The Manchester Conservation Area also supports populations of federally-listed California gnatcatcher (*Polioptila californica californica*), *Arctostaphylos glandulosa* ssp. *crassifolia*, and *Acanthomintha ilicifolia*. The general substrate for the *Hazardia orcuttii* is sandstone. Historically in Baja California, Mexico, the species has been collected from about 10 scattered localities near the coast extending from the border south to Colonet Mesa. Only one of these, near Colonet, has been documented in the last 20 years. This area has undergone significant development and associated habitat degradation in that time.

Historical Range/Distribution

In August 1979, 95 years after the species was first described from specimens from Mexico, Tom Oberbauer discovered the only occurrence of this species that has ever been found in the United States. Oberbauer (1981) published his discovery, estimating that there were several

hundred individuals at the site. Oberbauer (1981) also pointed out that this distinctive species had not been included in the environmental impact report for the area which was subsequently approved for development. According to our records, the site also supported a large population of the federally threatened species, *Acanthomintha ilicifolia*. About 300 plants were seen in 1988 (California Natural Diversity Data Base (CNDDB) 1997).

Current Range/Distribution

The only known extant U.S. occurrence of this species is in the Manchester Conservation Area, previously known as the Manchester Mitigation Bank, managed by CNLM. This area is in northwestern San Diego County, California. Records note also that the site was graded as of December 1984 and one half of the *Hazardia* was eliminated, so an estimated 700 plants may have been present originally (Burrascano 2001).

Population Estimates/Status

The site supports an estimated 350 individuals, including those that survived a transplantation (CNLM, in litt. 2000). More recently, CNLM (2003b) estimated that 598 individuals were present in 2001, although no figures were given for 2002 or 2003.

THREATS (Describe threats in terms of the five factors in section 4 of the ESA providing specific, substantive information. **If this is a removal of a species from candidate status or a change in listing priority, explain reasons for change**):

The Multiple Habitat Conservation Plan (MHCP) for northern areas of San Diego County includes species covered by the City of Encinitas (AMEC 2003). According to this document, the MHCP will adequately protect this species by conserving over 97 percent of known location points, major populations, and critical locations in the study area, and following the narrow endemics policy which requires that impacts be avoided to narrow endemic species to the maximum extent practicable. A city will not allow more than a 5 percent loss of populations or occupied acreage with the Focused Planning Area (AMEC 2003).

A. The present or threatened destruction, modification, or curtailment of its habitat or range

The reference to *Hazardia orcuttii* being locally common in open habitats along the coastal plains and hills from Colonet to Tijuana in Baja California Mexico is based on a systematic treatment of the genus published over 20 years ago (Clark 1979). During a conversation with John Rebman, Curator of the Herbarium, San Diego Natural History Museum (pers. comm. 2000), he stated as have others, that the entire region of coastal plains and chaparral from Tijuana to Ensenada is being developed at a rapid pace. He knew of no extant occurrences of this species in the area. *Hazardia orcuttii* has no conservation standing in Mexico (J. Rebman, pers. comm. 2000). It is significant that there is only one occurrence of *Hazardia orcuttii* in the U.S. at the Manchester Conservation Area in Encinitas, and has been confirmed by herbarium voucher.

The majority of the Encinitas occurrence was included in the Manchester Mitigation Bank in the

mid 1990s. This 53 ha (130 ac) site is now called the Manchester Conservation Area and is managed by CNLM. However, there have been more or less continuous impacts from people in the adjacent housing area who use the open space as a recreation area. Impacts include pedestrian trespass and creation of bicycle trails hear *Hazardia orcuttii* plants. In addition, impacts to the site, as well as potential impacts to the *Hazardia* population, were incurred when specimens of this species were apparently transplanted onto the site from an adjacent parcel that supported a portion of this occurrence. There was no involvement by the Service or the California Department of Fish and Game (CDFG) in the planning or approval of this transplantation. The long-term impacts to the portion of the occurrence in the Manchester Mitigation Bank are unknown at this time. Recently, contrary to the management guidelines, the Encinitas Fire Department conducted training on how to clear fire breaks on the site. It is not known how many plants were impacted. These continuing direct impacts are compounded by the indirect effects of increased erosion, introduction of more competitive exotic species, and the disruption of the ecosystem that supports pollinators among other things.

B. Overutilization for commercial, recreational, scientific, or educational purposes.

Not known to be a factor at this time.

C. Disease or predation.

Not known to be a factor at this time.

D. The inadequacy of existing regulatory mechanisms.

Hazardia orcuttii is included as a List 1B plant (rare, threatened, or endangered in California and elsewhere) in the most recent edition of the California Native Plant Society=s (CNPS) Inventory but is not listed by the State as endangered or threatened (CNPS. 2001). Thus, the California Endangered Species Act (CESA) and the Native Plant Protection Act (NPPA) provide no protection for this species. CDFG recognizes that the majority of the plants on List 1A, 1B, and 2 of the CNPS Inventory would normally qualify for listing under CESA. Under the California Environmental Quality Act (CEQA), impacts to List 1B plants are considered significant and must be addressed. CEQA obligates disclosure of environmental resources within proposed project areas and may enhance opportunities for conservation efforts. However, CEQA does not guarantee that such conservation efforts will be implemented. Protection of listed species through CEQA is dependent upon the discretion of the lead agency involved.

The Manchester Mitigation Bank was set aside for the preservation of maritime chaparral, coastal sage scrub as well as California coastal gnatcatchers. The site is currently managed by the CNLM. Even with the protection afforded the site, there continues to be persistent incursions of residents for recreational activities not compatible with habitat preservation. The Encinitas Fire Department did not consult with appropriate authorities, nor obtain permission from the land owners or the CNLM before they cleared a practice fire break on the site. Last year, the owner of an adjacent parcel moved about 200 plants of *Hazardia orcuttii* off his property, and onto lands of the Manchester Conservation Area without permission or regulatory review. According to Marcus Spiegelberg, Manager of the Conservation Area, about 80 of these were still alive months later. Under the MHCP agreement (AMEC 2003), 97 percent of the

known location points, major populations, and critical locations for this species were to be conserved. It is evident that there were 200 plants outside of that area on unprotected lands. The Manchester Conservation Area reportedly currently supports about 300 plants (CNDDB 1997) (this figure does not include the estimated 50 surviving plants from the unauthorized transplantation (CNLM 2000). It appears, then, that only 60 percent of the known plants were actually within the protected area now called the Manchester Conservation Area. The petitioner (Burrascano 2001) cites a communication from the City of Encinitas stating that they could do nothing about the plant removal [transplantation] because the species was not listed.

The level of protection and application and enforcement of existing protection for this single occurrence is inadequate. Because of the surrounding development, there will always be a need for active management of the site. Existing regulatory mechanisms do not provide an adequate mechanism for the assessment and establishment of an adequate number of additional reserve sites to ensure the persistence and recovery of this species. By giving it Federal candidate status, it is expected that the species and its habitat will receive more focus and support for their protection.

E. Other natural or manmade factors affecting its continued existence.

Introduced invasive exotic plants pose a significant threat to the reproductive potential of this species. The unauthorized transplantation of 200 plants onto the Manchester Conservation Area and subsequent death of about 130 plants in less that 1 year represents a loss of over 25 percent of the only known population. This represents an incalculable depletion of the genetic diversity of the species. Those that persist may now contribute to an altered pattern of breeding interactions among the plants and homogenization of the population. Concern about the effects of asphalt dumped near the *Hazardia* sites was raised by the petition (Burrascano 2001). In addition, the same petition cites a source referring to low seed viability found among field collected material and speculates on the causes. This species is likely threatened by low numbers, apparently low seed viability, and an unknown response to fires.

BRIEF SUMMARY OF REASONS FOR ADDITION, REMOVAL OR LISTING PRIORITY CHANGE:

FOR PETITIONED SPECIES:

a. Is listing warranted? Yes
b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? Yes
c. Is a proposal to list the species as threatened or endangered in preparation? No
d. If the answer to c. above is no, provide an explanation of why the action is precluded. Higher priority critical habitat rules, shortage of staff, and additional court ordered activities have precluded us from taking action on this petition.

In March 2001, the Service received a petition to list this species under the Endangered Species Act (Burrascano 2001). We considered the petition in this assessment and incorporated information from the petition where appropriate. Since publication of the 2002 CNOR, the publication of a proposed rule to list this species has been precluded by

other higher priority listing actions, and based on work scheduled we expect that will remain the case for the remainder of Fiscal Year 2004. Almost the entire national listing budget has been consumed by work on various listing actions taken to comply with court orders and court-approved settlement agreements, emergency listing, and essential litigation-related, administrative, and program management functions. We will continue to monitor the status of *Hazardia orcuttii* as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

LAND OWNERSHIP (Estimate proportion Federal/state/local government/private, identify non-private owners): Private; Center for Natural Lands Management

PRELISTING (Describe status of conservation agreements or other conservation activities):

The conservation measures intended for this species are outlined in the MHCP (AMEC 2003). Under the MHCP, all major populations and critical locations of *Hazardia orcuttii*, along with enough suitable habitat to sustain pollen and seed vectors, would be conserved and managed (AMEC 2003). The MHCP states that the plan will adequately preserve the species by conserving 97 percent of the known location points and critical locations, and by application of the narrow endemic policy for any newly found occurrences (AMEC 2003). However, the conservation provisions of the MHCP for the known *Hazardia orcuttii* occurrence will not take effect until the Service issues a permit to the City of Encinitas, based on their MHCP subarea Plan.

The Manchester Conservation Area is managed by the CNLM, and management at the site includes signage, fence maintenance, surveys and habitat restoration, and public services. There is no provision for enforcement of protection for State non-listed plants nor are there specific remediation measures in place for impacts to such taxa. The area is patrolled two to four times each month (CNLM 2003a), CNLM maintains an active monitoring program, and is increasing fencing protection of the *Hazardia orcuttii* on the property (CNLM 2003b). The CNLM has also received a grant from the City of Encinitas for trail maintenance, signage, fencing, and erosion control. The state of these activities is not currently known, but would likely contribute to reducing impacts to *Hazardia*. We have also just learned of additional that outplantings of this species. A total of 456 plants were planted at these three sites: Kelly Ranch Habitat Conservation Area, Rancho La Costa, and San Elijo Lagoon (CNLM 2004). CNLM and CDFG will monitor the success of these plantings.

REFERENCES (Identify primary sources of information (e.g., status reports, petitions, journal publications, unpublished data from species experts) using formal citation format):

AMEC. 2003. Final MHCP Plan prepared for the Multiple Habitat Conservation Plan administered by SANDAG. Vol. 1 and 2.

Burrascano, C. 2001. Petition to list *Hazardia orcuttii* (Gray) Greene (Orcutt=s hazardia) as an endangered species.

Center for Natural Lands Management. 2000. Multiple habitat conservation program, public review draft MHCP Plan. Prepared for SANDAG and MHCP Advisory Committee.

Center for Natural Lands Management. 2003a. Manchester Habitat Conservation Area. Annual Work Plan October 2002 B September 2003.

Center for Natural Lands Management. 2003b. Manchester Habitat Conservation Area. Annual Report October 2002 B September 2003.

Center for Natural Lands Management. 2004. February 2004 planting of Orcutt's hazardia at Kelly Ranch, Rancho La Costa, and San Elijo Lagoon. Carlsbad and Encinitas, California. Unpublished Report.

Clark, W. D. 1979. The taxonomy of *Hazardia* (Compositae: Asteraceae). Madrono 26(3): 105-127.

California Native Plant Socieety. 2001. Inventory of rare and endangered plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society, CA x + 388pp.

Gray, A. 1885. Contributions to the botany of North America, 4. Gamopetalae miscellaneae. Proc. American Acad. Arts 20:297.

Greene, E. L. 1894. Erythea 2:112.

Hall, H. M. 1928. The genus *Haplopappus* a phylogenetic study in the Compositae. Publ. Carnegie Inst. Wash. 389.

Oberbauer, T. 1981. *Hazardia orcuttii* (Gray) Greene (Compositae). Madrono 28(1):38

LISTING PRIORITY (place * after number)

THREAT

Magnitude	Immediacy	Taxonomy	Priority
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3
	Non-imminent	Monotypic genus	4
		Species	5*
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/population	9
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

Rationale for listing priority number: 5

Magnitude: Hazardia orcuttii faces a high magnitude of threat because of the relatively low numbers of plants present on the only known site, and their presence in a fire prone habitat that has not burned for some time.

Imminence: However, because the species occurs in a protected and managed area, threats to the species are non-imminent.

1APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes to the candidate list, including listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all additions of species to the candidate list, annual retentions of candidates, removal of candidates, and listing priority changes.

Approve: Kenneth McDermond March 11, 2004
Acting Manager, Date
California/Nevada Operations
Fish and Wildlife Service

Concur: Steve Williams April 5, 2004
Director, Fish and Wildlife Service Date

Do not concur:_____
Director, Fish and Wildlife Service Date

Director's Remarks: _____

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_____
_____
_____

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Date of annual review:_____

Conducted by:_____

_____

Comments:_____
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(rev. 8/02)