Petition Evaluation for Alkali-Sink Goldfields (*Lasthenia chrysantha*)

Report to the Fish and Game Commission
June 2026

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LIST OF ABBREVIATIONS, ACRONYMS, AND TERMS

CESA – California Endangered Species Act
CNDDB – California Natural Diversity Database
CNPS – California Native Plant Society
Commission – California Fish and Game Commission
CRPR – California Rare Plant Rank
Department – California Department of Fish and Wildlife

EXECUTIVE SUMMARY

This petition evaluation for alkali-sink goldfields (*Lasthenia chrysantha*) has been prepared by the California Department of Fish and Wildlife (Department) in response to the petition to list alkali-sink goldfields as threatened under the California Endangered Species Act (CESA). The purpose of this petition evaluation is to provide a recommendation to the Fish and Game Commission (Commission) on whether the petition provides sufficient information to indicate the petitioned action may be warranted.

Alkali-sink goldfields is an annual plant in the sunflower family (Asteraceae) that blooms February through April. The petition describes alkali-sink goldfields as being known from 55 occurrences encompassing much of the San Joaquin Valley and extending into the southern Sacramento Valley and occurring in vernal pools on alkaline substrates. The petition notes that only three occurrences have population estimates reported for them and 12 occurrences have percent cover data within vegetation survey plots reported for them. The petition provides information to suggest a declining population trend. The petition lists agricultural and developed land uses and climate change as prominent range-wide threats to alkali-sink goldfields. The petition mentions that extirpation from much of its range or extinction of the species may occur because: ongoing threats have impacted or eliminated some occurrences and the severity of some threats is increasing, many occurrences are small or fragmented, and many sites occupied by the species are unprotected and not managed for the conservation of the species. Existing management efforts were reviewed and suggestions for future management actions were discussed in the petition. Information sources and a distribution map were also provided in the petition.

The Department has determined that the petition does not sufficiently address each of the required petition components listed in Fish and Game Code section 2072.3 and California Code of Regulations, title 14, section 670.1, subdivision (d)(1):

- Life history
- Range
- Distribution
- Detailed distribution map
- Kind of habitat necessary for survival
- Abundance
- Population trend
- Factors affecting the ability to survive and reproduce
- Degree and immediacy of threat
- Impact of existing management efforts

- Suggestions for future management
- Availability and sources of information

In completing its petition evaluation, the Department considered the information in the petition and other relevant information the Department possesses. The Department has determined that there is not sufficient scientific information to indicate that the petitioned action to list alkali-sink goldfields as threatened under CESA may be warranted. Therefore, the Department recommends that the Commission reject the petition for further consideration pursuant to CESA.

1 INTRODUCTION

1.1 Petition Evaluation Overview

This petition evaluation serves as the basis for the California Department of Fish and Wildlife's (Department) recommendation to the California Fish and Game Commission (Commission) on whether the petition to list alkali-sink goldfields (*Lasthenia chrysantha*) as threatened under the California Endangered Species Act (CESA) should be accepted and considered. The recommendation is based on the sufficiency of scientific information in the petition, as well as other relevant information that was reviewed by the Department during the evaluation period.

A petition to list a species under CESA must include "information regarding the population trend, range, distribution, abundance, and life history of a species, the factors affecting the ability of the population to survive and reproduce, the degree and immediacy of the threat, the impact of existing management efforts, suggestions for future management, and the availability and sources of information. The petition shall also include information regarding the kind of habitat necessary for species survival, a detailed distribution map, and any other factors that the petitioner deems relevant" (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)).

Once a petition is submitted to the Commission, the Department has 90 days (120 days with extension) to prepare a petition evaluation that assesses each of the petition components and makes a recommendation to the Commission as to whether there is sufficient scientific information to indicate that the petitioned action to list the species under CESA may be warranted (Fish & G. Code, § 2073.5, subds. (a)-(b)). Once completed by the Department, the petition evaluation is delivered to the Commission and placed on the agenda for receipt at the next available meeting of the Commission. At that time, the petition evaluation will be made available to the public for a 30-day public comment period prior to the Commission taking any action on the petition. The Commission then considers the petition, the Department's petition evaluation and recommendation, written comments received, and oral testimony, and will then make a finding at the next available meeting of the Commission as to whether the petition provides "sufficient information to indicate that the petitioned action may be warranted" (Fish & G. Code, § 2074.2, subd. (e)(2)). The standard for accepting a petition for consideration and assessing sufficiency of information is addressed in *Center for Biological Diversity v. California Fish and Game Commission* (2008) 166 Cal.App.4th 597.

If the Commission determines that the petitioned action may be warranted, the species becomes a candidate for CESA listing and proceeds to the status review stage of the CESA listing process. The Department then prepares a peer-reviewed report that advises

the Commission on whether the petitioned action is warranted, based upon the best scientific information available (Fish & G. Code, § 2074.6). Finally, the Commission determines whether the petitioned action to list the species as threatened or endangered is warranted, based on the Department's status review and other information in the administrative record (Fish & G. Code, § 2075.5).

1.2 CESA Petition History

On August 29, 2025, Dr. John C. Hunter submitted a petition to the Commission to list alkali-sink goldfields as threatened under CESA. On September 8, 2025, the Commission referred the petition to the Department for evaluation. At its meeting on October 8, 2025, the Commission officially acknowledged receipt of the petition. At its meeting on December 10, 2025, the Commission granted the Department's request for a 30-day extension of the period to review the petition and prepare this petition evaluation.

1.3 Federal Status

Alkali-sink goldfields has no status under the Federal Endangered Species Act (16 U.S.C. § 1531 et seq.).

1.4 Additional Species Status Designations

1.4.1 NatureServe Conservation Status Ranks

NatureServe's conservation status ranks consist of a global conservation status rank (global rank, G rank) describing the status of a given species over its entire distribution, and a subnational conservation status rank (subnational rank, S rank) describing the status of a given subspecies or variety over its state distribution (Master et al. 2012). NatureServe has assigned alkali-sink goldfields a global rank of G2 and a subnational rank of S2, indicating that the species is imperiled both globally and within California with a high risk of extinction due to one or more of the following: restricted range, few populations or occurrences, steep declines, severe threats, or other factors (CNDDB 2020, 2025).

1.4.2 California Rare Plant Rank

The California Native Plant Society (CNPS) works in collaboration with botanical experts throughout the state, including Department biologists, to assign rare plants a California Rare Plant Rank (CRPR) reflective of their rarity status (CNDDB and CNPS 2020). CNPS has assigned alkali-sink goldfields a CRPR of 1B.1 (CNPS 2025). Plants with a CRPR of 1B are considered rare, threatened, or endangered throughout their

range with the majority endemic to California (CNDDB and CNPS 2020). The threat code extension of ".1" indicates that the species is seriously threatened in California with over 80% of occurrences threatened and a high degree and immediacy of threat (CNDDB and CNPS 2020).

2 SPECIES DESCRIPTION AND TAXONOMY

2.1 Species Description

Alkali-sink goldfields is a member of the sunflower family (Asteraceae). It is an annual plant that is less than 28 cm (11 in) tall (Chan and Ornduff 2006). Leaves are linear, entire, and less than 8 cm (3 in) long (Chan and Ornduff 2006). Alkali-sink goldfields, like most members of the sunflower family, has numerous small flowers clustered into an inflorescence (a grouping of flowers) to give the appearance of a single flower. Inflorescences are held together by an involucre that is 5 to 7 mm (0.2 to 0.3 in) and hemispheric (half of a sphere) in shape (Chan and Ornduff 2006). The involucre is composed of 8 to 14 phyllaries (small leaf-like structures) and the phyllaries are fused more than two-thirds of the length with hairs at the tips (Chan and Ornduff 2006). Like many members of the sunflower family, each inflorescence of alkali-sink goldfields has two types of flowers, ray flowers and disk flowers. Alkali-sink goldfields has 6 to 10 ray flowers that are yellow with a strap-shaped outer petal (often with three lobes) and are located on the outer ring of the inflorescence (Chan and Ornduff 2006). Alkali-sink goldfields has many disk flowers that are yellow with generally five lobes and are located in the center of the inflorescence (Chan and Ornduff 2006). Fruits are 2 to 3 mm (0.08 to 0.1 in), black, and flattened with margins that are fringed with white or straw-like, blunt, generally curved hairs (Chan and Ornduff 2006). Alkali-sink goldfields' fruits are lacking a pappus which is a group of structures such as awns, bristles, or scales that are attached to single-seeded fruits in plants of the sunflower family and often aid in seed dispersal, especially by wind (Chan and Ornduff 2006; Jepson Flora Project 2026).

2.2 Species Taxonomy

Alkali-sink goldfields was first collected as *Hologymne marginata* by Edward Lee Greene in April 1884 from alkaline soil near Lake Tulare in California (CCH 2025). The species was formally described by Asa Gray as *Crockeria chrysantha* in July 1884 before being moved to the genus *Lasthenia* by Edward Lee Greene in 1894 (Gray 1884; Greene 1894). The currently accepted name for alkali-sink goldfields is *Lasthenia chrysantha* (Chan and Ornduff 2012).

3 SUMMARY OF PETITION COMPONENTS

Pursuant to Fish and Game Code section 2072.3 and California Code of Regulations, title 14, section 670.1, subdivision (d)(1), the Department evaluated whether the petition contained information on each of the following petition components:

- Life history
- Range
- Distribution
- Detailed distribution map
- Kind of habitat necessary for survival
- Abundance
- Population trend
- Factors affecting the ability to survive and reproduce
- Degree and immediacy of threat
- Impact of existing management efforts
- Suggestions for future management
- Availability and sources of information

The Department did not receive new information from the public during the petition evaluation period (Fish & G. Code, § 2073.4). Pursuant to Fish and Game Code section 2073.5, the Department evaluated the petition to determine whether there is, or is not, sufficient information to indicate that the petitioned action may be warranted. A summary of the relevant information from the petition for each of the petition components is presented below. For each petition component, the Department has also presented an assessment of the information provided in the petition and a summary of any relevant information in the Department's possession. Overall sufficiency of the petition is determined by looking at the information in the petition as a whole and is further discussed in the "Sufficiency of Scientific Information and Recommendation to the Commission" section of this petition evaluation. In this petition evaluation, the Department has grouped similar petition components together and renamed components to create a more cohesive and readable document.

3.1 Life History

This section summarizes the information in the petition regarding the species' life history (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section E on pages 6 and 7 of the petition provides information on the life history of alkali-sink goldfields.

The petition provides a physical description of alkali-sink goldfields, with descriptions of its habit, stems, leaves, flowers, and fruits. The petition contrasts alkali-sink goldfields with the physical properties of similar species. The petition describes alkali-sink goldfields as an annual plant that blooms February through April and is pollinated by generalist bees and specialist bees of the family Andrenidae. The petition also states that the dispersal vectors, seed dormancy and germination, and growth of the species have not been studied.

3.1.1 Department Assessment

The Department considers the information provided in the petition on the life history of alkali-sink goldfields to be adequate for assessing this petition component.

3.2 Range and Distribution

This section summarizes the information in the petition regarding the species' range and distribution and provides a detailed distribution map (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). A species' range for the purposes of CESA and this petition evaluation is the species' range within California (Cal. Forestry Assn. v. Cal. Fish and Game Com. (2007) 156 Cal.App.4th 1535, 1551). Range describes the general geographical area in which a species occurs. Distribution describes the actual sites where individuals and populations of the species occur within the species' range. Section B on page 4 of the petition provides information on the range of alkali-sink goldfields. Section C on page 4 of the petition provides information on its distribution. Section L, Figure 2 on page 21 of the petition provides a distribution map, which has been provided as Figure 1 of this petition evaluation.

The petition describes alkali-sink goldfields as a California endemic encompassing much of the San Joaquin Valley and extending into the southern Sacramento Valley. The petition states that alkali-sink goldfields' range comprises approximately 26,028 square kilometers (10,050 square miles), and that it occurs in Fresno, Kings, Kern, Madera, Merced, Sacramento, Solano, Stanislaus, and Tulare counties at elevations of 0 to 200 meters (0 to 655 feet). The petition states that alkali-sink goldfields is known from 55 occurrences that were documented between 1884 and 2019. Thirty-nine occurrences (71%) are noted in the petition as being nonspecific occurrences in which the precise location and boundaries of the species have not been documented. The petition notes that alkali-sink goldfields range includes large areas of inaccessible privately-owned land and therefore the species likely grows at additional, undocumented sites.

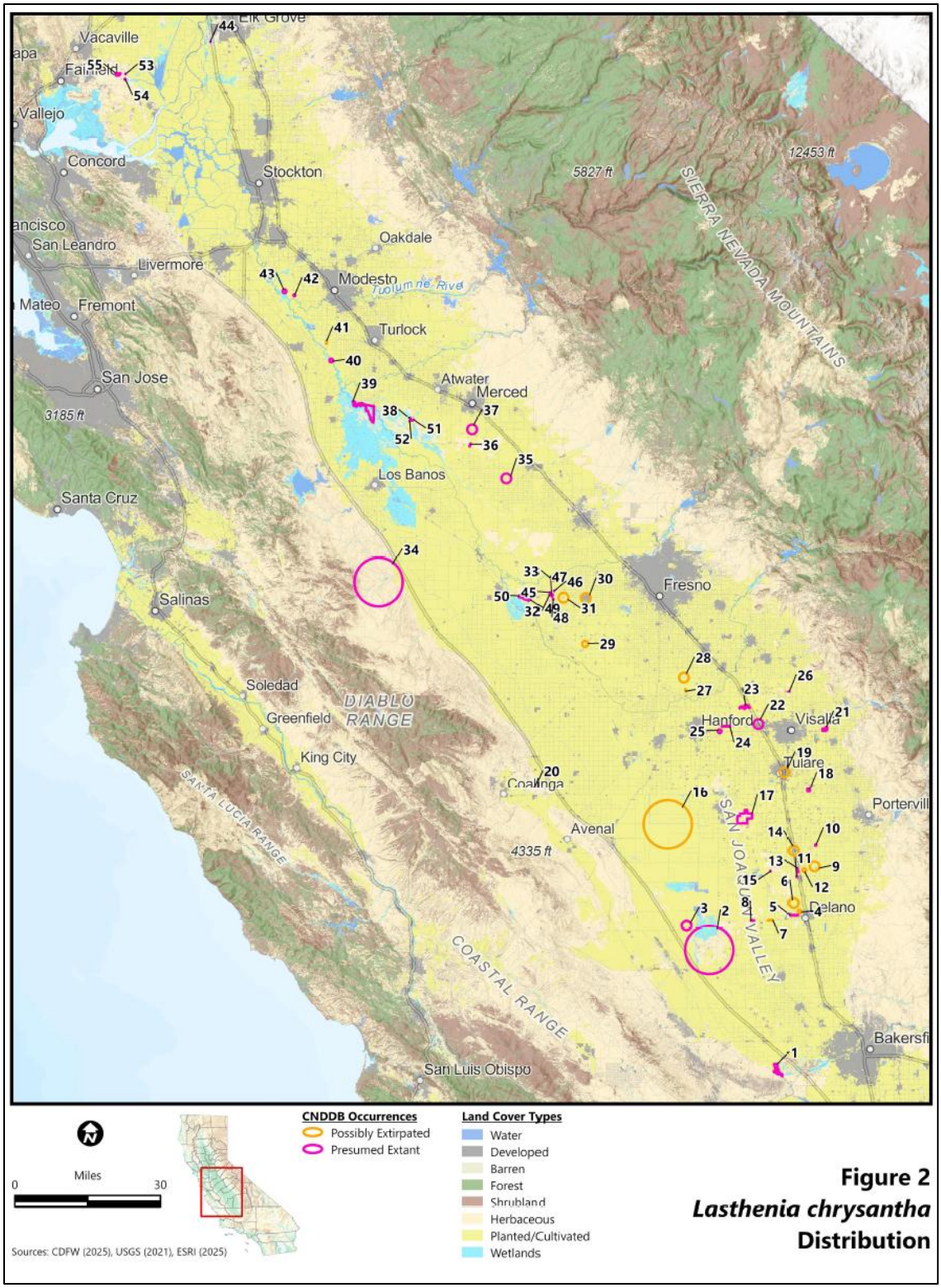

Figure 1. Map of the range and distribution of alkali-sink goldfields as provided in Figure 2 of the petition. Occurrences from the California Natural Diversity Database (CNDDB) are labeled with CNDDB occurrence numbers. Some occurrences consist of multiple polygons.

3.2.1 Department Assessment

Range and distribution of alkali-sink goldfields are presented in the petition based primarily on data from the California Natural Diversity Database (CNDDB); however, no discussion is provided on the completeness of the information presented including whether the CNDDB data represents the complete range and distribution of the species, whether additional information on range and distribution is available for the species that is not reflected in the CNDDB data, or whether any survey efforts have been made to confirm or ascertain the full range and distribution of the species. Without further discussion explaining why the information provided in the petition is a scientifically defensible assessment of the range and distribution of the species, the Department is unable to properly determine whether the petition provides a reasonable explanation of the range and distribution of the species, or whether other petition components that rely on knowing the range and distribution of the species have been properly assessed.

The Department has some additional, readily available information from the CNDDB not presented in the petition. The CNDDB has an unprocessed online field survey form for the species which may be a new occurrence or an update to an existing occurrence. While this additional, readily available information contributes to our current knowledge on the range and distribution of alkali-sink goldfields, this information does not compensate for deficiencies in data in the petition for these topics. The information presented in the petition, considered alongside readily available information from the Department, is not adequate for assessing the range and distribution of alkali-sink goldfields.

3.3 Habitat

This section summarizes the information in the petition regarding the kind of habitat necessary for species survival (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section F on page 7 of the petition provides information on the kind of habitat necessary for alkali-sink goldfields survival.

The petition states that alkali-sink goldfields occurs in vernal pools on alkaline substrates. The petition notes that these alkaline pools have sparse vegetation concentrated around the margins of the pools and the vegetation is characteristic of alkali scrub.

3.3.1 Department Assessment

The Department considers the information provided in the petition on the kind of habitat necessary for alkali-sink goldfields survival to be adequate for assessing this petition component.

3.4 Abundance and Population Trend

This section summarizes the information in the petition regarding the species' abundance and population trend (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section D on pages 5 and 6 of the petition provides information on the abundance of alkali-sink goldfields. Section A on pages 3 and 4 of the petition provides information on the population trend of alkali-sink goldfields.

The petition summarizes information on the abundance of alkali-sink goldfields, noting that only three CNDDB occurrences have population estimates and 12 occurrences have percent cover data within vegetation survey plots reported for them. The petition states that no occurrences have had surveys conducted for more than one year. The petition estimates the area of occupied habitat to be less than 307 hectares (758 acres) based on CNDDB polygon data.

The petition states that, based on information from the CNDDB and land cover mapping from the U.S. Geological Survey, alkali-sink goldfields has had a decreasing population trend because of loss and degradation of occupied habitat at 30 or more occurrences where the species has been observed. The petition states that the species may have had additional, undocumented habitat losses, population reductions, or both that occurred before the distribution of alkali-sink goldfields was well documented.

3.4.1 Department Assessment

Abundance of alkali-sink goldfields is provided in the petition based primarily on population estimates reported in the CNDDB; however, no discussion is provided on the completeness of the information including whether there have been efforts to estimate population sizes at all occurrences, whether the population estimates are historical or recent, and whether the population estimates are based on complete or partial surveys of the occurrences. The petition also mentions percent cover data within vegetation survey plots collected at several sites; however, percent cover data is difficult for the Department to assess in relation to sufficiency of information for overall species abundance. Area of occupied habitat is estimated in the petition as an indicator of abundance using CNDDB polygon data which the Department considers to be an inappropriate use of CNDDB data. CNDDB polygons are typically mapped to include a buffer that represents the locational accuracy of the data and therefore should not be used to determine area occupied by the species.

Population trend of alkali-sink goldfields is determined in the petition to be declining based on: 1) the number of CNDDB occurrences that are designated as possibly extirpated, 2) the use of CNDDB polygon data overlayed on land cover mapping to report the extent of any overlap between the CNDDB polygon data with development or

agriculture, and 3) the historical and ongoing changes to vernal pool landscapes. No discussion is provided in the petition on the completeness of the information, including whether any recent efforts have been made to update information on the presence and condition of alkali-sink goldfields occurrences or whether population declines at some occurrences have resulted in a decline throughout the species range. The petition uses CNDDB polygon data overlayed on land cover mapping to report on the extent of overlap between CNDDB polygons with development or agriculture to determine additional occurrences that may be experiencing a declining population trend. CNDDB polygons are typically mapped to include a buffer that represents the locational accuracy of the data, and the petition does not indicate if development or agriculture shown on aerial imagery overlapped with the portion of the CNDDB polygon that was previously occupied by the species or within areas that were once appropriate habitat for the species. In addition, the statements in the petition about changes to vernal pool landscapes likely causing additional, undocumented habitat losses, population reductions, or both to alkali-sink goldfields are too general and do not specifically identify impacts to habitat likely to have contained alkali-sink goldfields.

The Department has some additional, readily available information from the CNDDB not presented in the petition. The CNDDB has an unprocessed online field survey form for the species which appears to be an update to an existing occurrence; this form also includes abundance information. While this additional, readily available information contributes to our current knowledge on the abundance of alkali-sink goldfields, this information does not compensate for deficiencies in data in the petition for these topics. The information presented in the petition is not adequate for evaluating the abundance and population trend of alkali-sink goldfields.

3.5 Threats

This section summarizes the information in the petition regarding the factors affecting the ability of the species to survive and reproduce, and the degree and immediacy of threats (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section G on pages 7 through 11 of the petition provides information on factors affecting the ability of alkali-sink goldfields to survive and reproduce (threats). Section H on pages 11 through 13 of the petition provides information on the degree and immediacy of threats to alkali-sink goldfields.

The petition lists agricultural and developed land uses and climate change as prominent range-wide threats to alkali-sink goldfields. The petition also mentions that grazing and non-native plant impacts have been observed by botanists as additional threats affecting occurrences based on CNDDB data. The petition describes agricultural and developed land uses as major threats to alkali-sink goldfields because these land uses have been directly eliminating and fragmenting habitat. The petition notes that according to the

CNDDB, 15 occurrences have been possibly extirpated by agriculture and development with an additional seven occurrences having agricultural or developed land uses within their CNDDB mapped boundaries. The petition states that climate change directly and indirectly threatens alkali-sink goldfields by altering growing conditions, water availability, and frequency and intensity of disturbances. The petition also notes that climate change can alter interactions of the plant with pollinators, dispersers, fungal symbionts, seed predators, herbivores, and competitors. The petition states that the magnitude of climate change impacts on alkali-sink goldfields is uncertain but may be substantial, particularly because of the species' limited range, rarity, habitat specificity, and distribution in relatively small and isolated areas.

The petition states that without additional management actions, there is a moderate to high likelihood that alkali-sink goldfields will be extirpated from much of its range or become extinct. The petition mentions that this may occur because: ongoing threats have impacted or eliminated some occurrences and the severity of some threats is increasing, many occurrences are small or fragmented, and many sites occupied by the species are unprotected and not managed for the conservation of the species.

3.5.1 Department Assessment

Factors affecting the ability of alkali-sink goldfields to survive and reproduce, and the degree and immediacy of threats, are presented in the petition based mainly on threat data reported in the CNDDB. Threats listed in the CNDDB can be representative of various types of threat data, including current threats, future threats, past threats, threats affecting a small portion of the site, threats in one year but not another, etc. The petition also presents climate change as a threat to alkali-sink goldfields that is not listed in the CNDDB. None of these threats are described in adequate detail in relation to alkali-sink goldfields and the petition does not provide information on the degree and immediacy of these threats for the species.

The petition uses CNDDB polygon data overlayed on land cover mapping to see if there is any overlap between the CNDDB polygon data with development or agriculture to determine additional occurrences that may be experiencing threats. CNDDB polygons are typically mapped to include a buffer that represents the locational accuracy of the data, and the petition does not indicate if development or agriculture shown on aerial imagery overlapped with the portion of the CNDDB polygon that was previously occupied by the species or within areas that were once appropriate habitat for the species. Further discussion is needed on the use of aerial imagery to provide an accurate reflection of the degree of threat that development and agriculture are currently having on alkali-sink goldfields.

The petition also mentions small number and size of occupied sites, and lack of protection and management, as additional reasons why alkali-sink goldfields is likely to be extirpated from much of its range or become extinct. The petition has not shown that alkali-sink goldfields' distribution and number of sites have been fully assessed and has not accurately represented the size of the occupied sites. The petition also does not discuss what the unprotected lands with alkali-sink goldfields are being used for and how that land use is threatening, or potentially threatening, the species.

The Department does not have additional, readily available information in its possession that compensates for deficiencies in data for these topics. The information presented in the petition is not adequate for assessing the factors affecting the ability of alkali-sink goldfields to survive and reproduce, and the degree and immediacy of threats to alkali-sink goldfields.

3.6 Existing Management

This section summarizes the information in the petition regarding the impact of existing management efforts on the species (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section I on pages 14 and 15 of the petition provides information on the impact of existing management efforts on alkali-sink goldfields.

The petition states that management of alkali-sink goldfields has been very limited, has not sufficiently addressed threats to the species, and consequently has not resulted in significant conservation of the species. The petition describes the impact of several management categories including legal protection, preservation and seed banking, management and monitoring, restoration, and surveys and research.

The petition describes alkali-sink goldfields as having no legal protections but notes that the species has a CRPR of 1B.1 and should be treated as a special-status species during environmental review under the California Environmental Quality Act.

The petition states that 39% of occurrences of alkali-sink goldfields are on land managed for biodiversity. The petition also states that seeds of alkali-sink goldfields have not been collected and placed in long-term storage.

The petition states that 15 occurrences of alkali-sink goldfields are at least partially on lands that are managed to maintain habitats, and that land managers routinely implement avoidance and minimization measures for the habitats. The petition notes that none of the alkali-sink goldfields occurrences are the subject of systematic, formal monitoring.

The petition states that no efforts have been made to restore or create habitat for the expansion or re-establishment of alkali-sink goldfields. The petition discusses how

surveys have not been conducted to confirm the continued existence of alkali-sink goldfields occurrences or to more precisely map alkali-sink goldfields occurrences. The petition also notes that no range-wide surveys have been conducted to determine if additional undocumented populations exist. The petition states that research has not been conducted on the species' genetic diversity, dispersal, establishment, growth, mortality, interactions with other species, population dynamics, habitat requirements, or other aspects of its ecology, and therefore understanding of the species' ecology is based primarily on observations by botanists and understanding of the ecology of related and similar species.

3.6.1 Department Assessment

The Department considers the information provided in the petition on impact of existing management efforts on alkali-sink goldfields to be adequate for assessing this petition component.

3.7 Future Management

This section summarizes the information in the petition regarding suggestions for future management (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section J on pages 16 and 17 of the petition provides suggestions for future management of alkali-sink goldfields.

The petition provides a list of suggestions for future management including:

- list the species under CESA and prepare a recovery plan for it,
- include the species as a focal species in regional conservation investment strategies and as a covered species in natural community conservation plans,
- preserve occupied sites in perpetuity,
- collect seed and place it in long-term storage at a seed-banking facility,
- monitor population sizes and site conditions using a standardized protocol,
- develop and implement site-specific monitoring and management plans,
- implement compatible grazing practices,
- coordinate and share information among organizations working to conserve the species,
- coordinate with and support private landowners implementing conservation practices in occupied habitat,
- restore degraded, occupied habitat,
- establish additional populations,
- conduct surveys to improve data on distribution and abundance, and

- investigate the species' population ecology to inform conservation and management.

3.7.1 Department Assessment

The Department considers the information provided in the petition on suggestions for future management of alkali-sink goldfields to be adequate for assessing this petition component.

3.8 Availability and Sources of Information

This section summarizes the information in the petition regarding availability and sources of information (Fish & G. Code, § 2072.3; Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1)). Section J on pages 17 through 20 of the petition provides the sources of information used in the alkali-sink goldfields petition. Digital copies of references cited were also provided to the Commission and Department.

3.8.1 Department Assessment

The Department received digital copies of references cited in the petition and considers this to be adequate to address the availability and source of information mentioned in the petition for alkali-sink goldfields.

4 OTHER RELEVANT INFORMATION AVAILABLE TO THE DEPARTMENT

Pursuant to Fish and Game Code section 2073.5, the Department also evaluates petitions in relation to other relevant information the Department possesses or receives. The Department evaluated readily available information relating to alkali-sink goldfields that is available from the Department's document library and the CNDDB, including data housed in the CNDDB's unprocessed data layer. Regional Department staff were contacted to determine if additional information on the species was readily available and in the possession of Department staff. Any relevant information from these sources is mentioned within the "Department Assessment" section for each petition component.

To the extent the Department was able to review other relevant information in its possession as it relates to the petition, the Department concluded that none of the additional information compensates for data deficiencies in the petition. If the Commission accepts the petition for consideration, regardless of the Department's recommendation, all reasonable attempts will be made by the Department to notify affected and interested parties and to solicit data and comments on the petitioned action (Fish & G. Code, § 2074.4). At that time, the Department will commence a review of the status of the species and produce a written peer-reviewed report, based upon the best scientific information available to the Department, which indicates whether the petitioned action is warranted (Fish & G. Code, § 2074.6).

5 SUFFICIENCY OF SCIENTIFIC INFORMATION AND RECOMMENDATION TO THE COMMISSION

The Department evaluated the petition components set forth in Fish and Game Code section 2072.3 and California Code of Regulations, title 14, section 670.1, subdivision (d)(1) for sufficiency of information pursuant to Fish and Game Code section 2073.5. Based upon the information contained in the petition and other relevant information, the Department determined there is not sufficient information to indicate that the petitioned action may be warranted (Fish & G. Code § 2073.5).

In this petition evaluation, the Department has assessed the information in the petition for each petition component individually; however, sufficiency of the petition as a whole is ultimately determined by looking at all petition components taken together. The Department considers scientifically defensible information on range and distribution to be critical for determining sufficiency of the petition. For alkali-sink goldfields, the Department has determined that information is lacking for the following petition components: range, distribution, abundance, factors affecting the ability of the species to survive and reproduce (threats), and the degree and immediacy of threats. Due to the lack of adequate information on these petition components, the Department does not consider the information in the petition to be sufficient as a whole for assessing whether listing alkali-sink goldfields under CESA may be warranted and recommends the Commission reject the petition and not consider it further under CESA.

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