

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

California Endangered Species Act



Petition Evaluation for Lesser Saltscale (*Atriplex minuscula*)

Report to the Fish and Game Commission
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LIST OF ABBREVIATIONS, ACRONYMS, AND TERMS

CESA – California Endangered Species Act
 CNDDDB – 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
 HCP – Habitat Conservation Plan
 NCCP – Natural Community Conservation Plan
 subsp. – subspecies
 var. – variety

EXECUTIVE SUMMARY

This petition evaluation for lesser saltscare (*Atriplex minuscula*) has been prepared by the California Department of Fish and Wildlife (Department) in response to the petition to list lesser saltscare 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.

Lesser saltscare is an annual plant in the goosefoot family (Chenopodiaceae) that blooms May through October. The petition describes lesser saltscare as being known from 52 occurrences primarily in the San Joaquin Valley, Livermore area, and Fremont area and occurring in chenopod scrub, playas, and grasslands on alkaline substrates. The petition summarizes information on the abundance of lesser saltscare at 28 occurrences with population sizes ranging from 35 to 10,000 plants and provides information to suggest a declining population trend. The petition lists several threats to lesser saltscare including agricultural and developed land uses, climate change, and invasive species. The petition mentions that extirpation from much of its range or extinction of the species may occur because: most occurrences are threatened and the severity of some threats is increasing, the species has been documented at sites that are small in area with relatively few individuals, and most 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 lesser saltscare 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 lesser saltscale (*Atriplex minuscula*) 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 lesser saltscale 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

Lesser saltscale 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 lesser saltscale 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 (CNDDDB 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 (CNDDDB and CNPS 2020). CNPS has assigned lesser saltscale 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 (CNDDDB 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

Lesser saltscale is a member of the goosefoot family (Chenopodiaceae). It is an annual plant that is less than 40 cm (16 in) tall (Zacharias and Keil 2023). The species has many stems that arise ascending to erect from the base of the plant (Zacharias and Keil 2023). Branches are spreading, brittle, peeling, and often reddish in color (Standley 1916; Zacharias and Keil 2023). Leaves are generally alternate, white-scaly with egg to heart-shaped leaf blades that are 4 to 10 mm (0.16 to 0.4 in) long (Zacharias and Keil 2023). Flowers are either male or female with flowers of both sexes occurring on the same plant (Standley 1916). Fruits have leaf-like structures called bracts that are 2 to 3 mm (0.08 to 0.1 in) long, fused to near the tip, egg to diamond-shaped, smooth, and with sharp to round teeth near the base (Zacharias and Keil 2023). Seeds are 0.8 to 0.9 mm and red to brown in color (Zacharias and Keil 2023).

2.2 Species Taxonomy

Lesser saltscale was first collected by Edward Palmer in 1892 from “between Tulare and Tulare Lake, Tulare County, California” (Standley 1916; CCH 2025). Lesser saltscale was formally described as *Atriplex minuscula* by Paul Standley in 1916 (Standley 1916). In 2000, Stanley Welsh considered lesser saltscale to be a variety of Parish’s brittle scale (*A. parishii* var. *minuscula*) and that taxonomy was maintained in the Flora of North America treatment from 2003 (Welsh 2000, 2003). In 2023, Elizabeth Zacharias and David Keil elevated lesser saltscale back to a full species in the Jepson eFlora (Zacharias and Keil 2023). The currently accepted name for lesser saltscale is *Atriplex minuscula* (Zacharias and Keil 2023).

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 lesser saltscare.

The petition provides a physical description of lesser saltscare, with descriptions of its habit, stems, leaves, flowers, fruits, and seeds. The petition lists two similar species and says that lesser saltscare most visibly differs from those species in its generally alternate leaves. The petition describes lesser saltscare as an annual plant that blooms May through October and is wind pollinated. The petition also states that its dispersal has not been documented but the species may disperse by water based on its morphology.

3.1.1 Department Assessment

The Department considers the information provided in the petition on the life history of lesser saltscare 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 lesser saltscale. Section C on page 4 of the petition provides information on its distribution. Section L, Figure 2 on page 22 of the petition provides a distribution map, which has been provided as Figure 1 of this petition evaluation.

The petition describes lesser saltscale as a California endemic primarily of the San Joaquin Valley but also includes the Sacramento Valley, Livermore area, and Fremont area. The petition states that lesser saltscale's range comprises approximately 40,784 square kilometers (15,747 square miles), and that it occurs in Alameda, Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, and Tulare counties at elevations of 15 to 200 meters (50 to 655 feet). The petition states that lesser saltscale is known from 52 sites that were documented between 1921 and 2018. Twenty-one occurrences 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 also mentions that lesser saltscale may occupy some additional, undocumented sites.

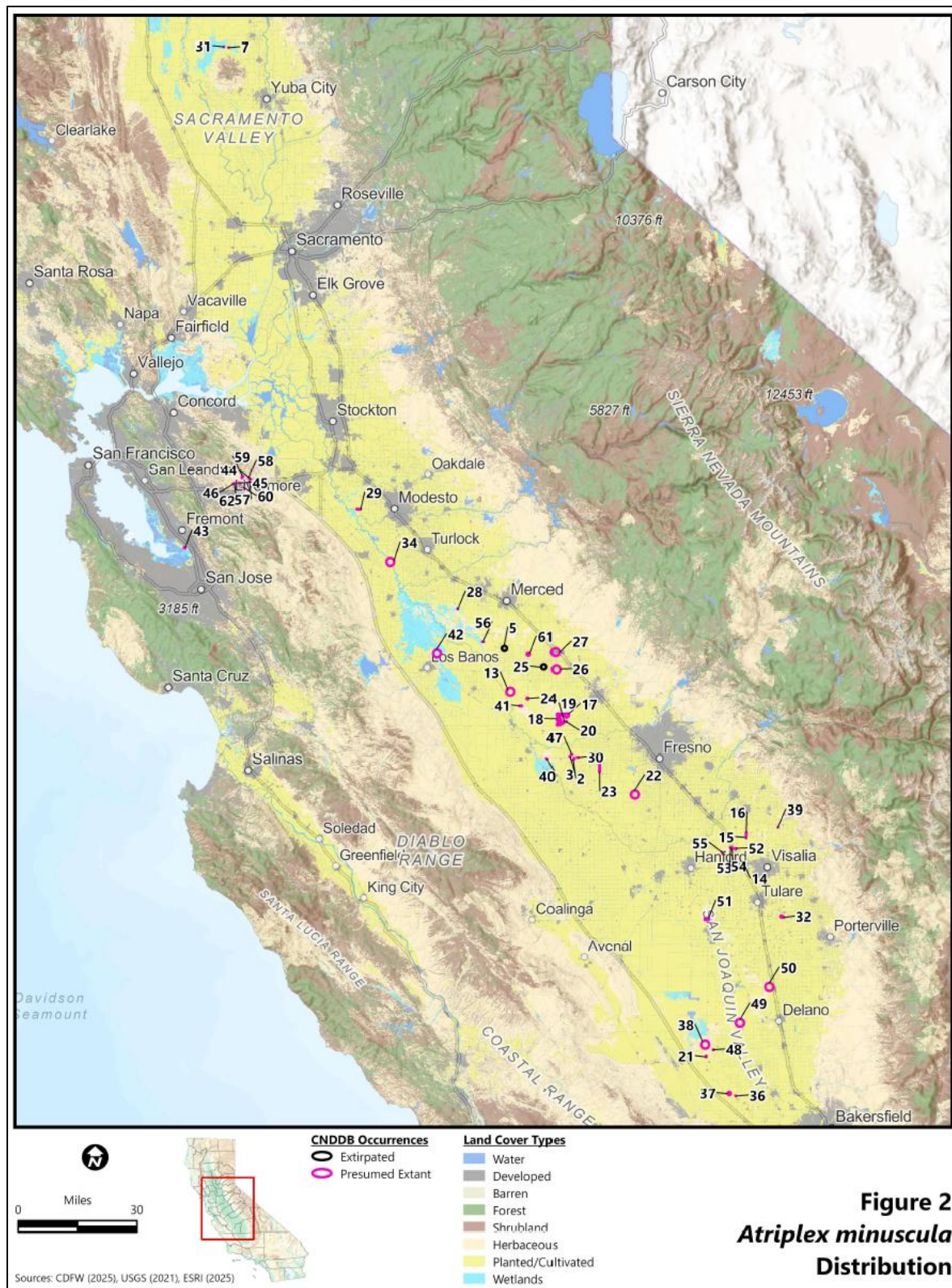


Figure 1. Map of the range and distribution of lesser saltscare as provided in Figure 2 of the petition. Occurrences from the California Natural Diversity Database (CNDDDB) are labeled with CNDDDB occurrence numbers. Some occurrences consist of multiple polygons.

3.2.1 Department Assessment

Range and distribution of lesser saltscare are presented in the petition based primarily on data from the California Natural Diversity Database (CNDDDB); however, no discussion is provided on the completeness of the information presented including whether the CNDDDB 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 CNDDDB 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 CNDDDB not presented in the petition. The CNDDDB has four unprocessed online field survey forms for the species which may represent new occurrences or updates to existing occurrences. While this additional, readily available information contributes to our current knowledge on the range and distribution of lesser saltscare, 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 lesser saltscare.

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 lesser saltscare survival.

The petition states that lesser saltscare occurs in chenopod scrub, playas, and grasslands and grows on alkaline substrates, frequently in seasonally inundated depressions or swales that are sparsely vegetated. The petition also mentions that lesser saltscare is associated with species characteristic of alkaline or saline areas and can grow with other saltscare species, saltgrass (*Distichlis spicata*), and bush seepweed (*Sueda nigra*).

3.3.1 Department Assessment

The Department considers the information provided in the petition on the kind of habitat necessary for lesser saltscale 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 page 5 of the petition provides information on the abundance of lesser saltscale. Section A on page 3 and 4 of the petition provides information on the population trend of lesser saltscale.

The petition summarizes information on the abundance of lesser saltscale at 28 CNDDDB occurrences with population sizes ranging from 35 to 10,000 plants at each occurrence. The petition states that range-wide, multi-year monitoring of lesser saltscale has not been conducted. The petition estimates the area of occupied habitat to be less than 1,248 hectares (3,084 acres) based on CNDDDB polygon data.

The petition states that, based on information from the CNDDDB and land cover mapping from the U.S. Geological Survey, lesser saltscale has had a decreasing population trend because of loss and degradation of occupied habitat at 40 or more of the 52 sites where the species has been observed. The petition lists seven occurrences that are either extirpated, have a declining population trend, or have a poor or fair population viability in the CNDDDB and reports 38 occurrences that are either likely extirpated or to have likely experienced degradation or loss of habitat based on land cover mapping. The petition states that the species may have had additional, undocumented habitat losses, population reductions, or both that occurred before the distribution of lesser saltscale was well documented.

3.4.1 Department Assessment

Abundance of lesser saltscale is provided in the petition based primarily on population estimates reported in the CNDDDB; 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. Area of occupied habitat is estimated in the petition as an indicator of abundance using CNDDDB polygon data which the Department considers to be an inappropriate use of CNDDDB data. CNDDDB 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 lesser saltscare is determined in the petition to be declining based on: 1) the number of CNDDDB occurrences that are designated as extirpated, have a declining population trend, or have a poor or fair population viability, 2) the use of CNDDDB polygon data overlayed on land cover mapping to report the extent of any overlap between the CNDDDB polygon data with development or agriculture and 3) the historical and ongoing changes to alkaline scrub and grassland habitats. 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 lesser saltscare occurrences or whether population declines at some occurrences have resulted in a decline throughout the species' range.

The petition uses CNDDDB polygon data overlayed on land cover mapping to report on the extent of overlap between CNDDDB polygons with development or agriculture to determine additional occurrences that may be experiencing a declining population trend. CNDDDB 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 CNDDDB 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 alkaline scrub and grassland habitats likely causing additional, undocumented habitat losses, population reductions, or both to lesser saltscare are too general and do not specifically identify impacts to habitat likely to have contained lesser saltscare.

The Department has some additional, readily available information from the CNDDDB not presented in the petition. The CNDDDB has four unprocessed online field survey forms for the species which may represent new occurrences or updates to existing occurrences; two of these forms include abundance information. While this additional, readily available information contributes to our current knowledge on the abundance of lesser saltscare, 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 abundance and population trend of lesser saltscare.

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 12 of the petition provides information on factors affecting the

ability of lesser saltscare to survive and reproduce (threats). Section H on pages 12 through 14 of the petition provides information on the degree and immediacy of threats to lesser saltscare.

The petition lists several prominent range-wide threats to lesser saltscare: agricultural and developed land uses, climate change, and invasive species. The petition also mentions that altered flood/tidal/hydrological regime, dam/inundation, disking, erosion/runoff, grazing, improper burning regime, landfills, and road/trail construction/maintenance have been observed by botanists as additional threats affecting occurrences based on CNDDDB data.

The petition describes agricultural and developed land uses as major threats to lesser saltscare because these land uses have been directly eliminating, fragmenting, and increasing threats to the remaining habitat. The petition notes that according to the CNDDDB and the interpretation of land cover mapping in the petition showing agriculture and development in relation to CNDDDB occurrences of lesser saltscare, 97% of specifically mapped occurrences and 79% of nonspecifically mapped occurrences have experienced loss or degradation of habitat due to agriculture and development.

The petition states that climate change directly and indirectly threatens lesser saltscare 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 lesser saltscare is uncertain but may be substantial, particularly because of the species' limited range, rarity, habitat specificity, and distribution in relatively small and isolated areas that will be exposed to dramatic changes.

The petition states that invasive species have been identified as a threat to lesser saltscare at just one CNDDDB occurrence, but invasive species are likely a significant threat at multiple occurrences. The petition notes that the invasive grass, Mediterranean barley (*Hordeum marinum* subsp. *gussoneanum*), co-occurs with lesser saltscare at multiple occurrences and several dozen highly or moderately invasive species are spreading in the species' range. The petition states that infestations of invasive species can directly affect the conditions or resources lesser saltscare relies on, thereby reducing abundance and making the species more vulnerable to extirpation from other causes.

The petition states that without additional management actions, there is a moderate to high likelihood that lesser saltscare will be extirpated from much of its range or become extinct. The petition mentions that this may occur because: most occurrences are threatened and the severity of some threats is increasing, the species has been documented at sites that are small in area with relatively few individuals, and most 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 lesser saltscare to survive and reproduce, and the degree and immediacy of threats, are presented in the petition based primarily on threat data reported in the CNDDDB. Threats listed in the CNDDDB 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 although this is not listed in the CNDDDB as a threat. None of these threats are described in adequate detail in relation to lesser saltscare and the petition does not provide information on the degree and immediacy of these threats for the species.

The petition uses CNDDDB polygon data overlaid on land cover mapping to see if there is any overlap between the CNDDDB polygon data with development or agriculture to determine additional occurrences that may be experiencing threats. CNDDDB 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 CNDDDB 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 lesser saltscare.

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

The Department has some additional, readily available information not presented in the petition. Regional Department staff mention that all occurrences of lesser saltscare in the Department's Region 2 (North Central region), including those at Gray Lodge Wildlife Area, are believed to be extirpated due to habitat conversion. While this additional, readily available information contributes to our current knowledge on threats of lesser saltscare, this information does not compensate for deficiencies in data for these topics. The information presented in the petition, considered alongside readily available information from the Department, is not adequate for assessing the factors

affecting the ability of lesser saltscale to survive and reproduce, or the degree and immediacy of threats to lesser saltscale.

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 through 16 of the petition provides information on the impact of existing management efforts on lesser saltscale.

The petition states that management of lesser saltscale 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 lesser saltscale as having almost no legal protections but notes that the species is covered by the Kern Water Bank Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP). This HCP/NCCP requires the preserved land to be managed to provide habitat for lesser saltscale, but the species has not been documented from this area. The petition also notes that lesser saltscale 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 40% of occurrences of lesser saltscale are on land managed for biodiversity. The petition mentions that seeds of lesser saltscale have been collected and placed in long-term storage at California/Rancho Santa Ana Botanic Garden.

The petition notes that 16 occurrences of lesser saltscale are at least partially on lands that are managed to maintain habitats, and that land managers routinely implement avoidance and minimization measures for habitats. The petition mentions that none of the lesser saltscale occurrences are the subject of systematic, formal monitoring.

The petition states that no efforts have been made to restore or create habitat occupied by lesser saltscale. The petition discusses how surveys have not been conducted recently to confirm the continued existence of lesser saltscale at all occurrences, surveys have not been conducted to more precisely map nonspecific occurrences of lesser saltscale, and range-wide surveys of potential habitat have not been conducted to search for additional, undocumented populations. The petition states that research has not been conducted on the species' genetic diversity, dispersal, soil seed bank dynamics, establishment, growth, interactions with other species, 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 lesser saltscale 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 through 18 of the petition provides suggestions for future management of lesser saltscale.

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 NCCPs,
- preserve occupied sites in perpetuity,
- develop and implement site-specific monitoring and management plans,
- manage extant populations to prevent the spread of invasive species and eradicate existing infestations,
- implement compatible grazing practices,
- implement compatible fuel reduction treatments,
- establish a memorandum of understanding with transportation agencies involved with maintenance activities that have the potential to affect occupied habitat,
- 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' 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 lesser saltscale 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 K on pages 18 through 21 of the petition provides the sources of information used in the lesser saltscale 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 sources of information mentioned in the petition for lesser saltscale.

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 lesser saltscale that is available from the Department's document library and the CNDDDB, including data housed in the CNDDDB'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 lesser saltscale, the Department has determined that information is lacking for the following petition components: range, distribution, abundance, population trend, 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 lesser saltscale under CESA may be warranted and recommends the Commission reject the petition and not consider it further under CESA.

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