







# Eastern Sierra Council of Governments (ESCOG) Joint Powers Authority Agenda

# Wednesday, February 28, 2024, 8:30 a.m. 437 Old Mammoth Road, Suite Z, Mammoth Lakes

Members of the Board

Inyo County Supervisor Jeff Griffiths - Chair, Mono County Supervisor Bob Gardner - Vice Chair,
Inyo County Supervisor Trina Orrill, Mono County Supervisor Lynda Salcido,
Town of Mammoth Lakes Mayor John Wentworth,
Town of Mammoth Lakes Councilmember Chris Bubser,
City of Bishop Councilmember Karen Schwartz, City of Bishop Councilmember Stephen Muchovej

**NOTE:** In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Assistant Clerk at (760) 965-3615. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 13.102-35.104 ADA Title II)

**NOTE:** Materials related to an item on this agenda submitted after distribution of the agenda packet are available for public inspection in the Town Offices located at 437 Old Mammoth Road, Suite 230 during normal business hours. Such documents are also available on the ESCOG website at www.escog.ca.gov subject to staff's ability to post the documents before the meeting.

**NOTE:** You may watch this meeting on the Town of Mammoth Lakes' (TOML) website at https://pubtownofmammothlakes.escribemeetings.com/?Year=2023, via Zoom or on TOML's local government cable channel 18.

Public comments may be submitted to the ESCOG Clerk at <a href="clerk@townofmammothlakes.ca.gov">clerk@townofmammothlakes.ca.gov</a> before and during the meeting or may be made via Zoom or in person.

### **ZOOM INFORMATION**

Join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to join. https://monocounty.zoom.us/s/92421427651

### Or join by phone:

Dial (for higher quality, dial a number based on your current location):

US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 646 876 9923 or +1 301 715 8592 or +1 312 626 6799

\*To raise your hand press \*9, To Unmute/Mute press \*6 Webinar ID: 924 2142 7651

International numbers available: https://monocounty.zoom.us/u/achYvzWR9t

### 1. CALL TO ORDER AND ROLL CALL

### 2. PLEDGE OF ALLEGIANCE

### 3. PUBLIC COMMENTS

Notice to the Public: This time is set aside to receive public comment on matters not calendared on the agenda. When recognized by the Chair, please state your name and address for the record and please limit your comments to three minutes. Under California law the Eastern Sierra Council of Governments Board is prohibited from generally discussing or taking action on items not included in the agenda; however, the Eastern Sierra Council of Governments Board may briefly respond to comments or questions from members of the public. Therefore, the Eastern Sierra Council of Governments Board will listen to all public comment but will not generally discuss the matter or take action on it.

### 4. CONSENT AGENDA

- 4.1 Approve the minutes of the Regular Meeting of December 14, 2023
- 4.2 Adopt a Resolution of the Board of Directors of the Eastern Sierra Council of Governments Adopting Modifications to the Conflicts of Interest Code as Proposed by the Fair Political Practices Commission
- 4.3 Adopt 2024 ESCOG Meeting Calendar
- 4.4 Correspondence: Golden State Finance Authority Grant Advance Repayment Letter

### 5. POLICY MATTERS

- 5.1 Introduce Tyrone Grandstrand, Mono County Housing Opportunities Manager
- 5.2 Receive an Update from Rob Patterson, Mammoth Lakes Admin Services/Finance Director, on the Eastern Sierra Air Alliance
- 5.3 Approve the incorporation of the Town of Mammoth Lakes Project List as an Appendix to the Comprehensive Economic Development Strategy (CEDS) and provide direction to determine appropriate process to incorporate specific projects within the CEDS.
- 5.4 Receive an Update Regarding the California Jobs First from Stacy Corless, Sierra Business Council Government and Community Affairs Director and Discuss ESCOG Project Priorities for Submission for Catalyst Funding
- 5.5 Accept and File Final Buttermilk Infrastructure and Recreation Initiative Document and Discuss Future ESCOG Engagement
- 5.6 Approve Contract Amendment No. 2 to the Agreement between the Eastern Sierra Council of Governments and the Whitebark Institute of Interdisciplinary Environmental Services for the Provision of National Environmental Policy Act Services for the Eastern Sierra Pace and Scale Accelerator and Discuss and Discuss Reallocation of CDFW Proposition 1 Grant Funds
- 5.7 Inyo Mono Broadband Consortium Activities Report Provided by Eastern Sierra Regional Broadband Coordinator Scott Armstrong
- 5.8 Executive Director Update Report

### 5.9 Call for the Selection of Chair and Vice Chair

### 6. BOARD MEMBER/AGENCY REPORTS

Informational reports from Member Agency representatives on committees, commissions, and organizations; general reports on Board Member activities

### 7. REQUEST FOR FUTURE AGENDA ITEMS

### 8. ADJOURNMENT

The ESCOG will adjourn to the next regular meeting scheduled to be held on April 24, 2024.









# Eastern Sierra Council of Governments (ESCOG) - Joint Powers Authority (JPA) Minutes of Regular Meeting

December 14, 2023, 8:30 a.m.

Dual Locations: Bishop Council Chambers and Mammoth Lakes Council Chambers

Bishop Council Chambers 377 West Line Street, Bishop, CA 93514

Mammoth Lakes Council Chambers 437 Old Mammoth Rd., Ste Z Mammoth

Lakes, CA 93546

Members Present: Chair Jeff Griffiths, Vice Chair Bob Gardner, Board Member

Trina Orrill, Board Member Lynda Salcido, Board Member John Wentworth, Board Member Chris Bubser, Board Member Karen

Schwartz, Board Member Stephen Muchovej

### 1. CALL TO ORDER AND ROLL CALL

The Chair called the meeting to order at 8:35 a.m. in the Bishop Council Chambers, 377 West Line Street, Bishop, CA.

### 2. PLEDGE OF ALLEGIANCE

Board Member Karen Schwartz led the Pledge of Allegiance.

### 3. PUBLIC COMMENTS

There were no comments given at this time.

### 4. CONSENT AGENDA

Chair Jeff Griffiths requested that Items 4.1 and 4.2 be taken separately.

### 4.1 Approve the minutes of the Regular Meeting of October 19, 2023.

Moved by Board Member Stephen Muchovej Seconded by Board Member Lynda Salcido

Approve the minutes of the regular meeting of October 19, 2023.

For (7): Chair Jeff Griffiths, Vice Chair Bob Gardner, Board Member Trina Orrill, Board Member Lynda Salcido, Board Member John Wentworth, Board Member Karen Schwartz, and Board Member Stephen Muchovej

Absent (1): Board Member Chris Bubser

Carried (7 to 0)

### 4.2 Adopt a Resolution for an Updated Conflict of Interest Code

Legal Counsel Grace Weitz requested that this item be pulled from the agenda due to communications with the Fair Political Practices Commission (FPPC) which resulted in the need for a 45 day public comment period prior to approving the Resolution to Adopt an Updated Conflict of Interest Code.

### 5. POLICY MATTERS

# 5.1 <u>Introduce Aaron Wilcher, UC Extension Economic and Community</u> <u>Development Coordinator</u>

University of California (UC) Cooperative Extension Economic and Community Development Coordinator Aaron Wilcher spoke about his position with the Cooperative Extension program under the UC Agriculture and Natural Resources and reported that he would be working with both Inyo and Mono Counties on educational programs related to community and economic development, grant support, and planning.

Board Member Chris Bubser joined the meeting at 8:37 a.m.

There was discussion between Mr. Wilcher and members of the Board.

# 5.2 Receive a Presentation on the Buttermilk Infrastructure and Recreation Initiative Final Deliverable

Executive Director Elaine Kabala provided an overview of the Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI) and introduced Alta Planning + Design Senior Associate Landscape Architect Tim Bevins and Principal James Powell.

Mr. Bevins and Mr. Powell outlined the information in the BIRPI PowerPoint presentation.

There was discussion between Alta Planning + Design staff, Ms. Kabala, and members of the Board.

# 5.3 Receive an Update Regarding the Community Economic Resiliency Fund (CERF) from Stacy Corless, Sierra Business Council Government and Community Affairs Director

Sierra Business Council (SBC) Government and Community Affairs Director Stacy Corless announced that SBC would be officially rebranded to California Jobs First (CERF) in January. Ms. Corless outlined the information in the Eastern Sierra CA Jobs First Region ESCOG Update PowerPoint presentation.

### PUBLIC COMMENT:

UC Extension Economic and Community Development Coordinator Aaron Wilcher asked Ms. Corless to speak about the sector trainings that California Jobs First (CERF) would provide in the future.

There was discussion between Ms. Corless, Executive Director Elaine Kabala, and members of the Board.

### 5.4 Adopt 2024 ESCOG Meeting Calendar

Executive Director Elaine Kabala outlined the information in the staff report.

There was discussion between Ms. Kabala and members of the Board.

Staff was given direction to work on securing a location to allow for future meetings of the ESCOG to be held on the second Wednesday of the month at 8:30 a.m., with the next meeting scheduled to be held in the City of Bishop Council Chambers on February 14, 2024.

### 5.5 <u>Discuss ESCOG JPA Core Competencies and Strategic Priorities</u>

Executive Director Elaine Kabala outlined the information in the staff report.

Board Member Muchovej left the meeting at 10:23 a.m.

There was discussion between Ms. Kabala and members of the Board.

## 5.6 <u>Inyo Mono Broadband Consortium Activities Report Provided by</u> Eastern Sierra Regional Broadband Coordinator Scott Armstrong

Eastern Sierra Regional Broadband Coordinator Scott Armstrong outlined the information in the Broadband Update PowerPoint presentation.

There was discussion between Mr. Armstrong and members of the Board.

### 5.7 <u>Executive Director Update Report</u>

Executive Director Elaine Kabala provided updates on the following projects: The Eastern Sierra Climate & Communities Resilience Project (ESCCRP) a.k.a. The Donut Project, the Comprehensive Economic Development Strategy (CEDS), the Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI), the Towns 2 Trails Project, and the Caltrans Highways to Boulevard Grant.

There was discussion between Ms. Kabala and members of the Board.

### 6. BOARD MEMBER/AGENCY REPORTS

Chair Jeff Griffiths requested that future meetings have twenty minutes set aside for Board Member/Agency Reports.

Board Member John Wentworth reported that the Town of Mammoth Lakes (TOML) had a Short Term Rental (STR) Moratorium on Transient Occupancy Tax (TOT) Certificates in place, and announced that TOML was in the process of hiring a new Town Manager.

Board Member Chris Bubser announced that TOML expected to receive a letter from the State for the major portion of the funding for Phase 2B, the King Fisher, at The Parcel in Mammoth which would provide seventy-six additional units, bringing the total new affordable housing units in Mammoth to over one hundred and sixty upon completion.

Board Member Karen Schwartz announced that the City of Bishop's newly appointed Mayor was Jose Garcia and their new Mayor Pro Tem was Karen Kong. Ms. Schwartz reported that the Bishop Christmas Parade and business event was a success, said that the Friends of the Fair hosted an Academy Street party, and said there were several other successful parties the same night. She announced that the City of Bishop had won an award from American Planning Association for their Downtown Specific Plan, and said that they had authorized a contract to start working with a lobbyist.

Mr. Wentworth announced that TOML's new Mayor was Bill Sauser and their new Mayor Pro Tem was Chris Bubser.

Vice Chair Bob Gardner reported that Mono County Chief Administrative Officer Sandra Moberly was doing a great job.

Board Member Lynda Salcido spoke about the current issues at the Bridgeport Post Office and the possibility of moving the office to a new location. Ms. Salcido

reported that she had attended the County's Christmas Party yesterday, and said the County did not advance the moratorium on multi-family short term rentals.

Chair Jeff Griffiths announced that Inyo County Assistant County Administrator Sue Dishion was retiring and the County's other Assistant County Administrator Meaghan McCamman was going out on maternity leave for six months. He said that the County would be hiring another assistant.

There was discussion among members of the Board.

### 7. REQUEST FOR FUTURE AGENDA ITEMS

This item was taken out of order.

There was discussion among members of the Board, no items for future agendas were requested.

### 8. ADJOURNMENT

The meeting was adjourned at 10:58 a.m. to the Buttermilk Restroom Ribbon Cutting at noon, following which the ESCOG would adjourn to the next regular meeting scheduled to be held on February 14, 2024.

Angela Plaisted, Assistant Clerk	









### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Grace Chuchla, ESCOG Counsel

**Subject:** Resolution Adopting an Updated Conflict of Interest Code

Meeting date: February 28, 2024

Prepared on: February 19, 2024

Attachments: A) A Resolution of the Board of Directors of the Eastern Sierra Council

of Governments Adopting Modifications to the Conflict of Interest Code as Proposed by the Fair Political Practices Commission

B) Redline version of current conflict of interest code

### **BACKGROUND/HISTORY**:

In July 2020, the ESCOG adopted a proposed conflict of interest code and forwarded it to the Fair Political Practices Commission for review. Per 2 Cal. Code Regs. § 18750, the FPPC serves as the code reviewing body for multi-county agencies, like ESCOG. In October 2022, the ESCOG adopted an amended conflict of interest code that contained edits requested by FPPC and forwarded that amended code to the FPPC for review.

The FPPC has now requested a second round of edits to the ESCOG's conflict of interest code. This modification requires a two-part process to implement it. The first part of that process is public noticing. Specifically, per 2 Cal. Code Regs. § 18750, ESCOG must provide public notice of the intent to adopt a new conflict of interest code. ESCOG staff met this requirement by posting a notice on ESCOG's website for 45 days (December 21, 2023 to February 5, 2024), posting notices at all member agencies' regular meeting locations, and emailing the notice to the mailing list that has signed up to receive ESCOG meeting agendas. No comments were received on the proposed conflict of interest code, nor did anyone request a public hearing on the proposed code.

Given the lack of response to the proposed code, your board can adopt the new proposed conflict of interest code by resolution. Staff recommends adopting the resolution and modifying the conflict of interest code as requested by the FPPC. A redline version of the current conflict of interest code is included to show the changes, but generally speaking, the only modification is to remove the fiscal services position from the conflict of interest code.

As an important note, the adoption of this conflict of interest code does not impact the filing of Form 700s for Board members. Both before and after the adoption of any conflict of interest code, Board members must file Form 700s per Government Code § 87302.6. The only individuals whose Form 700s will be impacted by the adoption of the Conflict of Interest Code are staff members, such as the Executive Director or Legal Counsel.

### **BUDGET IMPACTS:**

None.

### **LEGAL REVIEW:**

ESCOG Counsel Grace Chuchla has reviewed this item and found that it complies with the law.

### **RECOMMENDATION:**

Staff requests the ESCOG Board adopt the attached resolution entitled "A Resolution of the Board of Directors of the Eastern Sierra Council of Governments Adopting Modifications to the Conflict of Interest Code as Proposed by the Fair Political Practices Commission."

### **EASTERN SIERRA COUNCIL OF GOVERNMENTS**

### **CONFLICT-OF-INTEREST CODE**

The Political Reform Act (Government Code Section 81000, et seq.) requires state and local government agencies to adopt and promulgate conflict-of-interest codes. The Fair Political Practices Commission has adopted a regulation (2 California Code of Regulations Section 18730) that contains the terms of a standard conflict-of-interest code, which can be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendix (or Appendices), designating positions and establishing disclosure categories, shall constitute the conflict-of-interest code of the Eastern Sierra Council of Governments (ESCOG).

Board Members and Alternates must file their statements of economic interests electronically with the Fair Political Practices Commission. All other individuals holding designated positions must file their statements of economic interests with the ESCOG, which will make the statements available for public inspection and reproduction. (Gov. Code Sec. 81008.)

### EASTERN SIERRA COUNCIL OF GOVERNMENTS CONFLICT-OF-INTEREST CODE

#### **APPENDIX A**

DESIGNATED POSITION	DISCLOSURE CATEGORY
Director	1
Board Members (and Alternates)	1
Executive Manager	1
Legal Counsel**	1
Staff Advisor – Fiscal Services***	<del>2</del>
Consultants & New Positions	*

<sup>\*\*</sup>Note: The position of Legal Counsel is filled by outside consultants but acts in a staff capacity.

The Legal Counsel may determine in writing that a particular consultant or new position, although a "designated position," is hired to perform a range of duties that is limited in scope and thus is not required to comply fully with the disclosure requirements described in this section. Such determination shall include a description of the consultant's or new position's duties and based upon that description, a statement of the extent of disclosure requirements. The Legal Counsel's determination is a public record and shall be retained for public inspection in the same manner and location as this conflict-of-interest code (Gov. Code Sec. 81008).

<sup>\*\*\*</sup>Note: The position of Staff Advisor – Fiscal Services is an employee of a member agency of ESCOG.

<sup>\*</sup>Consultants/new positions shall be included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code subject to the following limitation:

### EASTERN SIERRA COUNCIL OF GOVERNMENTS CONFLICT-OF-INTEREST CODE

### **APPENDIX B**

### **DISCLOSURE CATEGORIES**

- Designated employees in this category must report all investments, business positions in business entities and sources of income (including receipt of gifts, loans, and travel payments), and real property located within the jurisdiction as well as real property within two miles of the real property used or the potential site.
- 2. Designated positions assigned to this category must report investments and business positions in business entities and sources of income (including receipt of gifts, loans, and travel payments) if the business entity or source provides leased facilities, products, equipment, vehicles, machinery, or services (including training or consulting services) of the type utilized by ESCOG.

### RESOLUTION NO. 2024-\_\_\_\_

# A RESOLUTION OF THE BOARD OF DIRECTORS OF THE EASTERN SIERRA COUNCIL OF GOVERNMENTS ADOPTING MODIFICATIONS TO THE CONFLICT OF INTEREST CODE AS PROPOSED BY THE FAIR POLITICAL PRACTICES COMMISSION

**WHEREAS**, on July 1, 2020, the Board of Directors of the Eastern Sierra Council of Governments ("ESCOG") adopted Resolution No. 2020-01, in which the Board adopted a proposed Conflict of Interest Code for the ESCOG; and

**WHEREAS**, pursuant to 2 Cal. Code Regs § 18750, following the required 45 day public comment period, ESCOG staff forwarded the adopted Conflict of Interest Code to the Fair Political Practices Commission ("FPPC") for review and comment; and

**WHEREAS**, on October 14, 2022, ESCOG adopted Resolution No. 2022-16 amending the Conflict of Interest Code per feedback from the Fair Political Practices Commission ("FPPC"); and

**WHEREAS**, the FPPC provided further feedback and edits to the Conflict of Interest Code that was adopted on October 14, 2022; and

**WHEREAS**, the ESCOG posted the revisions to the Conflict of Interest Code for public comment for 45 days commencing on December 22, 2024; and

**WHEREAS**, ESCOG staff received no comments on the proposed Conflict of Interest Code or request for public hearings during the comment period;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of ESCOG that the Conflict of Interest Code attached hereto as Exhibit A and incorporated herein by this reference is hereby adopted as the Conflict of Interest Code of the ESCOG. This version of the Conflict of Interest Code shall supersede any prior versions of the Conflict of Interest Code adopted by the ESCOG.

PASSED AND ADOPTED this 28th day of February, 2024 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Secretary

Jeff Griffiths

### Chairperson

# Exhibit A

### **EASTERN SIERRA COUNCIL OF GOVERNMENTS**

### **CONFLICT-OF-INTEREST CODE**

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Board Members and Alternates must file their statements of economic interests electronically with the **Fair Political Practices Commission**. All other individuals holding designated positions must file their statements of economic interests with the **ESCOG**, which will make the statements available for public inspection and reproduction. (Gov. Code Sec. 81008.)

### EASTERN SIERRA COUNCIL OF GOVERNMENTS CONFLICT-OF-INTEREST CODE

#### APPENDIX A

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Director	1
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<sup>\*\*</sup>Note: The position of Legal Counsel is filled by outside consultants but acts in a staff capacity.

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<sup>\*</sup>Consultants/new positions shall be included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code subject to the following limitation:

### EASTERN SIERRA COUNCIL OF GOVERNMENTS CONFLICT-OF-INTEREST CODE

### **APPENDIX B**

### **DISCLOSURE CATEGORIES**

1. Designated employees in this category must report all investments, business positions in business entities and sources of income (including receipt of gifts, loans, and travel payments), and real property located within the jurisdiction as well as real property within two miles of the real property used or the potential site.









# Eastern Sierra Council of Governments (ESCOG) Joint Powers Authority Agenda

### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Elaine Kabala, Executive Director

**Subject:** Discussion and approval of 2024 ESCOG JPA Meeting Schedule

Meeting date: February 28, 2024

Prepared on: February 19, 2024

Attachments: A) None

### **BACKGROUND/HISTORY:**

Staff recommends the Board adopt the 2024 calendar as included below. Meetings are proposed to be held the fourth Wednesday of every other month, except December, which is proposed to be the third Wednesday to avoid Christmas.

The proposed meeting schedule for 2024 is included below.

Wednesday, February 28	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, April 24	8:30 AM	Bishop City Council Chamber
Wednesday, June 26	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, August 28	8:30 AM	Bishop City Council Chamber
Wednesday, October 23	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, December 18	8:30 AM	Mammoth Lakes Town Council Chamber

### **BUDGET IMPACTS:**

None.

### **LEGAL REVIEW:**

ESCOG Counsel Grace Chuchla has reviewed this item and found that it complies with the law.

### **RECOMMENDATION:**

Staff recommends the ESCOG Board discuss the proposed 2024 meeting schedule, make modifications as needed, and approve.









### EASTERN SIERRA COUNCIL OF GOVERNMENTS JPA MEETING SCHEDULE – 2024

Wednesday, February 28	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, April 24	8:30 AM	Bishop City Council Chamber
Wednesday, June 26	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, August 28	8:30 AM	Bishop City Council Chamber
Wednesday, October 23	8:30 AM	Mammoth Lakes Town Council Chamber
Wednesday, December 18	8:30 AM	Mammoth Lakes Town Council Chamber



Golden State Finance Authority (GSFA)

1215 K Street, Suite 1650 · Sacramento, California 95814

Phone: (855) 740-8422 · Fax: (916) 444-3219 · www.gsfahome.org

February 8, 2024

Elaine Kabala, Executive Director Eastern Sierra Council of Governments PO Box 1609 Mammoth Lakes, CA 93546

Dear Elaine,

Congratulations!

We recently received the loan repayment completing our grant advance loan between Golden State Finance Authority (GSFA) and the Eastern Sierra Council of Governments (ESCOG). We enjoyed assisting on this project, and hope that the loan made a true difference in implementing the "Eastern Sierra Pace and Scale Accelerator" grant received from the California Department of Fish and Wildlife. We are proud to have been a part of this important project effort!

We welcome ESCOG's application for another grant advance loan when the need arises again. This link provides the most recent guidelines and loan process information: Grant Advance Line of Credit | Program Overview | GSFA (gsfahome.org). We are always accepting applications, and loans can be provided when funding is available.

If you have any feedback about your experience, or have questions about requesting another grant advance loan, please feel free to reach out to me or our program lead, Bob Burris at (916) 837-9525, or bburris@rcrcnet.org.

Sincerely,

Patrick Blacklock Executive Director

Cc: Craig Ferguson, Deputy Director

Bob Burris, Deputy Chief Economic Development Officer, RCRC

Golden State Finance Authority (GSFA) is a duly constituted public entity and agency.









# EASTERN SIERRA COUNCIL OF GOVERNMENTS (ESCOG) Joint Powers Authority

### STAFF REPORT

To: ESCOG Board

From: Dan Holler, Town of Mammoth Lakes Town Manager

**Subject:** CEDS - Town of Mammoth Lakes Project & Program Specific Action Plan

Prepared on: February 21, 2024

Attachments: A) Appendix D - Town of Mammoth Lakes Project & Program Specific

Action Plan

### **BACKGROUND/HISTORY:**

The Eastern Sierra Council of Governments (ESCOG) engaged with Alpine, Inyo and Mono Counties, The Town of Mammoth Lakes and the City of Bishop, completed a regional economic development strategy required to access federal and other funding opportunities known as a Comprehensive Economic Development Strategy (CEDS). The Mammoth Town Council accepted the CEDS on October 18, 2023 and it was subsequently approved by the ESCOG on October 19, 2023. The CEDS was approved by the US Department of Commerce Economic Development Administration (EDA) on January 5, 2024.

The CEDS sets forth six focus areas with identified goals and objectives. The CEDS takes a higher level planning approach through the Evaluation Framework section of the document in outlining Metrics for Success for each area. The Town of Mammoth Lakes has submitted an Economic Development Administration (EDA) grant relying upon the approved CEDS. The grant includes funding for a regional bioenergy facility, support for expanded childcare, a pedestrian bridge connection in the Village at Mammoth area and support for a preforming arts theater. There was a \$30 million grant request, with over \$21 million for the bioenergy facility. Except for the theater project, the grant was well received by EDA staff. However, they are looking for a specific reference to the proposed projects in the CEDS document. While the projects support the stated goals and outcomes of the CEDS the lack of project reference places the grant funding in jeopardy.

In further review of the CEDS by the Town, we are concerned that the lack of specific projects being identified in the document may result in all partner agencies being limited in accessing certain funding opportunities. To address this need, The Town of Mammoth Lakes is

recommending that the CEDS be amended to include an appendix identifying specific projects by agency, including regional projects and programs which support strategic goals and objectives of the regional CEDS document. Ideally this would be an appendix by reference that may be updated at least annually by the ESCOG members and partners. This process will need to be verified with EDA.

### **ANALYSIS/DISCUSSION:**

We have provided a sample of what may be included in an appendix (see attached). This provides a list of identified projects and programs necessary to meet the strategic goals and objectives of the regional CEDS document. These projects and programs are in various stages of planning and implementation by the Town and represent ongoing and future work efforts being undertaken. We would like to work through the process to incorporate these projects within the CEDS framework to meet the EDA requirement for potential funding. Other funding sources may have similar requirements. The Town envisions this list to be dynamic and to be updated regularly. The Town has evaluated most of the projects through public engagement exercises. Additionally, Town Staff facilitates several meetings and programs that directly support the advancement of the CEDS goals. The Town has organized its projects under the same framework as the CEDS document and associated projects with the goals and objectives outlined in the strategic action plan.

To be eligible for certain funding opportunities the adopted CEDS document will need to include specific projects. The Town seeks to advance several projects that directly support the CEDS and Town priorities and is proactively looking for additional funding opportunities. The attached documentation may also serve as an initial framework for other agencies and regional projects to be incorporated in the future.

### **LEGAL REVIEW:**

Legal or other staff review is required to determine the appropriate process to incorporate specific projects and programs within the CEDS.

### **RECOMMENDATION:**

The Town of Mammoth Lakes is recommending the ESCOG Board take the following actions:

- 1) Provide direction to determine appropriate process to incorporate specific projects within the CEDS
- 2) Approve the incorporation of the attached Town of Mammoth Lakes Project list as an Appendix to the CEDS.

### Eastern Sierra Region - Comprehensive Economic Development Strategy (CEDS)

### Appendix D: Town of Mammoth Lakes Project & Program Specific Action Plan

The Town of Mammoth Lakes has identified the following projects and programs necessary to meet the strategic goals and objectives of the regional CEDS document. These projects and programs are part of the Town's planned and future work programs. This includes Town and regional projects. The following information documents how these projects advance the goals of the CEDS. The Town envisions this list to be dynamic and to be updated at least annually. The Town has evaluated most of the projects through public engagement exercises and through public meetings by the Town Council and/or other public bodies. Additionally, Town Staff facilitates several meetings and programs that directly support the advancement of the CEDS goals. The Town has organized its projects under the same framework as the CEDS document and associated projects with the goals and objectives outlined in the strategic action plan.

### **Access & Connectivity**

Objective: Increase access to digital resources through broadband infrastructure buildout

- 1. The Town of Mammoth Lakes received a Local Agency Technical Assistance Program (LATA) grant for a multi-step network design process. The grant is supporting the town in its effort to expand broadband service to unserved and underserved residents. Established by the CPUC the Town of Mammoth Lakes LATA grant includes three work products, the final product will be a low-level network design developed for the identified priority unserved/underserved areas. The designs will build off the refined high-level design and foundation planning stage, resulting in "Approved for Construction" drawings that can/will be used to award contracts for construction. Low-level design and engineering will also include all required permitting, easements, and rights-of-way processing. The final product could be used to expand broadband service further creating opportunities for other economic development programs. The Town and its partners could seek additional funding to build out these opportunities. The Town is providing broadband connection to our new affordable housing project, adding value and opportunity to local residents.
- 2. The Public Works Department hosts quarterly utility coordination meetings. These meetings serve as a forum for its members to discuss ongoing and developing projects. Opportunities are identified to work together and leverage open ground to install infrastructure at reduced cost.
- 3. Incorporate by reference the projects identified in the Town's Economic Development Strategy for the Town of Mammoth Lakes Technology as adopted by the Town Council 9/13/16.

### Objective: Enhance Regional Transportation Network

- 1. The Town of Mammoth Lakes maintains a database of roadway conditions. The StreetSaver software platform has been used consistently by the Town for nearly 15 years. The Town uses the system to record pavement condition and run analytics. The reports generated aid staff in developing treatment programs and budgeting for rehabilitation and reconstruction. Pavements in the region degrade at a faster rate than in other parts of the state. Asphalt also fails in unforeseen ways due to the stresses and impacts of snow removal. Tracking these changes helps to forecast needs and is a useful tool for the region.
- 2. Transit is a key component of the Towns circulation plan. At least twice a year the Town hosts meetings to discuss transit service. The first occurs at the Planning and Economic

- Development Commission (PEDC) sometime in the early spring. The meeting is specific to unmet needs and informs a larger regional process undertaken by the Local Transportation Commission (LTC). The second meeting later in the fall occurs at Town Council and is intended to address larger transportation needs in the community.
- 3. Regional and local transit service is difficult due to several constraints. The Town is supporting the Eastern Sierra Transit Authority (ESTA) in the acquisition of rolling stock. The Town's commitment of funds will secure a fleet of vehicles for years to come and provide time to transition to a zero emissions fleet.
- 4. Several Town documents outline the need for larger amenity filled transit hubs. The 2022 Mobility Hub Study and Program and Mobility Element of the General Plan are the key documents. The Town would like to incorporate by reference all the projects identified in these documents and potential projects needed to advance the CEDS goals.
- 5. The Town has adopted a feet first policy to encourage a walkable (and bikeable) community. The strategy connects residents and visitors to the local business community, reduces traffic and VMTs, encourages the use of public transit, and improves the health of the community. This includes improved walkable connectivity between parking areas, visitor bed base, and local housing with shopping and dining facilities and portals (gondola, chairlifts, transit stops, etc.) which increases economic vitality, jobs, and long-term success. Connectivity includes sidewalks, bike lanes, paths, and linkage via pedestrian bridges, etc.

### **Community and Culture**

Objective: Improve partnerships and interagency collaboration

- An immediate opportunity to improve and collaborate is in the arena of regional trails. Several efforts are underway led by local agencies and private entities alike. The opportunities and bridge to economic development are significant. The Town recommends that all projects related to regional trails be accepted as key elements and directives of the CEDS.
- 2. The recreation facilities developed by the partner agencies are used by all residents. A key opportunity is in the development of the Whitmore Recreation Area. The Town is currently the lead agency on the development and management of this area. The Town believes that improvements to this facility will have a direct and regional economic impact and improve the quality of life for residents and visitors. The Town invites collaboration and partnership on the planning and implementation of this facility.

Objective: Enhance quality of life with additional amenities

The Town has over the years identified opportunities to construct new infrastructure to better the lives of its residents. These facilities generate local jobs, provide opportunities for new business and expansion of existing ones. The following amenities would improve quality of life and provide economic benefits.

- 1. Community pool and aquatics center.
- 2. Indoor community gym, wellness, gymnastics, and arts studios.
- 3. Facilities to support popular and unique sporting activities in the region climbing, cycling, extreme sports.
- 4. Whitmore Recreation Area improvements Indoor fieldhouse and locker rooms, sports fields (i.e. baseball, softball, soccer, etc.), dugouts, trailheads, outdoor fitness stations, restrooms, support facilities and multi-use trails.
- 5. Community Theater with Arts and Cultural Center.
- 6. Park spaces, playgrounds, outdoor multi-use sport courts, bike parks, climbing parks and dog parks.

7. Trails and MUP's- Incorporate projects identified in the Trails System Master Plan and Mobility Element of the TOML General Plan.

### **Economic Expansion & Diversification**

Goal: Grow and diversify regional economy through support of existing and new businesses.

The Town has identified a few businesses that would help to create jobs, meet community needs, diversify the local economy, and provide new jobs. The following projects are currently being pursued and facilitated by the Town. These projects will generate local and regional jobs, increase economic activity through visitation and support working families.

- 1. Bioenergy/Biomass Facility
- 2. Forest fuels and restoration projects.
- 3. Childcare Centers
- 4. Outdoor Events Venue
- 5. High Altitude Training Facilities
- 6. New and Expanded amenities noted above

Objective: Enhance network of entrepreneurial and small business resources

 Incubator spaces could provide an opportunity for developing businesses to grow by having access to lower cost amenities. The Town sees a need in the areas of retail, restaurant, and hospitality. Facilities such as community kitchen space, pop-up retail, and local market could aid smaller businesses. Such opportunities could be hosted at existing facilities during events that have greater than average visitation.

### **Environmental Resilience & Sustainability**

Objective: Reduce the challenges experienced by residents and visitors during climate events

- 1. An Emergency Operations Center (EOC) would provide a single location for the community to disseminate information, host solutions, and manage emergencies. The Town has developed schematic plans for a facility that would help the Town to manage emergencies directly related to climate change such as extreme weather events and fire. The facility would include a warming / cooling center, bunk rooms, showers, space for emergency operators, a community commercial kitchen, and food storage/pantry.
- 2. The Town encourages the development of a revised Hazard Mitigation Plan (HMP). Recent extreme events have demonstrated that changes need to be made to better serve the community. The Town believes the plan should include specific projects for implementation that would help to mitigate the impacts of future emergencies.
- 3. The Town should consider the development of a 911 dispatch center to support regional operations. The Town is in a unique position to provide these services and should work with regional partners to decide how best to provide these services. A new facility in town could be mutually beneficial to the agencies currently served by the current program.
- 4. Complete high level and quality After Action Reports (AAR) for all disaster and extreme events. Carefully weigh and implement mitigations to better manage future situations. Incorporate recommended mitigation measures into associated documents such as an HMP.
- 5. Expansion of the electric grid and facilities supporting expanded use of electric vehicles.
- 6. Expansion of clean energy generation such as the use of geothermal, bioenergy and solar production facilities.
- 7. The development of drainage/flood control facilities are important safety features that protect life and property.

### **Government Affairs & Advocacy**

Goal: Promote stronger government affairs & advocacy efforts

- 1. Work with lobbyists to champion the ideas and values of CEDS. Promote and support legislative activities to advance projects and legislation that aid in bringing resources to regional partners.
- Enhance the Eastern Sierra regional voice at the State and Federal level supporting policies, programs, services and funding that enhance the economic vitality of the region while respecting the natural environment that is the primary economic driver of the region.

### **Housing Availability & Land Use**

Goal: Increase stock and availability of housing units with a focus on affordability for regional workforce.

The Town's Housing Now! program is a multi-faceted program focused on expanding the availability of affordable workforce housing throughout the community in the near-term to support housing at all economic levels. The Housing Now! initiative aims to leverage Federal and State grant program funds and local funds to achieve affordable new housing development and the creation of affordable housing through the conversion of existing market-rate housing. The program has four key components:

- 1. The Parcel The Parcel development is a 25-acre undeveloped site centrally located in the Town of Mammoth Lakes intended for affordable housing. The Town acquired the site in 2018 and subsequently launched a comprehensive planning procedure to determine how best to develop the site. The Parcel Master Plan allows for up to 580 permanent affordable housing units.
- 2. Small Site Development Town-sponsored affordable housing projects that take advantage of smaller sized lots.
- 3. Bridge Program The Bridge Program is aimed at increasing the number of affordable ownership units within the Town through the purchase of existing market-rate homes that are then deed restricted and sold to qualified households at a subsidized price.
- 4. Partnership Programs Partnership programs are intended to advance housing projects by working with local partners. Partners could include private businesses and local nonprofit organizations. Leveraging opportunities and advantages of various partners helps the region to best use the limited resources available. These partnerships help overcome the challenges with complicated projects such as adaptive reuse and conversion of existing structures to housing.
- 5. Provision of infrastructure improvements to unserved/underserved potential development areas for housing with access, water, sewer, power, broadband, drainage etc. will reduce the cost of housing development assisting us to achieve attainable (affordable) community based workforce housing that supports regional and local jobs.









### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Elaine Kabala, ESCOG Executive Director

**Subject:** Receive an Update Regarding the California Jobs First from Stacy

Corless, Sierra Business Council Government and Community Affairs Director and Discuss ESCOG Project Priorities for Submission for

Catalyst Funding

Meeting date: February 28, 2024

Prepared on: February 19, 2024

Attachments: A) None

### **BACKGROUND/HISTORY:**

The California Jobs First (CaJF, formerly the Community Economic Resilience Fund Program (CERF)) was established by the Governor's Office of Economic Development, Employment Development Department and Office of Planning and Research to support communities and regional groups in producing regional plans for economic recovery and transition that prioritize the creation of accessible, high-quality jobs in sustainable industries.

This program is being administered for the Eastern Sierra region by the Sierra Business Council (SBC) with support from the ESCOG for identifying regional economic development priorities. SBC has created an online submission portal to identify synergies between agencies and project priorities across the Eastern Sierra subregion.

Staff recommends the ESCOG Board identify projects supporting regional economic development partnerships and priorities, and direct staff to submit these regional priorities to the SBC portal including:

 Wildfire mitigation capacity for project planning and development, environmental permitting, workforce development, and biofuels infrastructure

- Investments in sustainable recreation, specifically for projects identified in the Sustainable Recreation and Tourism Initiative, including:
  - Implementation of the Towns-to-Trails Planning Project (wayfinding, website design, environmental permitting, trail construction)
  - Establishing the regional Visitor Connection Package to coordinate regional sustainable recreation communications
  - Modernizing the Eastern Sierra Scenic Byway project, including implementation of a regional, branded wayfinding program
  - Investing in campground improvements by performing necessary technical and financial analysis, stakeholder and public outreach, including visuals, and funder engagement to finance construction
  - Securing funding for additional ESCOG capacity to support regional initiatives
- Support for planning initiatives for downtown revitalization improvement projects, such as land use and environmental planning, revolving loan fund programs, and small business development support.
- Identification of and funding for regional partnerships to establish or expand workforce development opportunities, such as programs for wildfire, sustainable recreation certification, construction trades, and early childhood education.

The ESCOG would not be obligated to implement these projects. This should be considered an opportunity to advocate for and support regional economic development priorities.

### **BUDGET IMPACTS**:

None.

### **LEGAL REVIEW:**

ESCOG Counsel Grace Chuchla has reviewed this item and found that it complies with the law.

### **RECOMMENDATION:**

Staff requests the Board received an update on California Jobs First from Stacy Corless, Sierra Business Council Government and Community Affairs Director, and discuss economic development projects and priorities for submission by ESCOG to inform regional priorities.









### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Elaine Kabala, ESCOG Staff

**Subject:** Accept and File Final Buttermilk Infrastructure and Recreation Initiative

Document and Discuss Future ESCOG Engagement

Meeting date: February 28, 2024

Prepared on: February 19, 2023

Attachments: A) Final Buttermilk Infrastructure and Recreational Planning Initiative

Document

### **BACKGROUND/HISTORY:**

In 2022, the ESCOG was awarded funding from the National Fish and Wildlife Foundation (NFWF) in support of the Buttermilk infrastructure and Recreation Planning Initiative (BIRPI) for infrastructure improvements and recreation planning in the Buttermilk recreation area west of Bishop. The Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI) was implemented in two phases: the first phase installed a double vault toilet replacing the existing vault toilet at the bouldering area and the second phase was to develop a high level recreation plan for the greater Buttermilk area.

Staff is requesting the Board accept and file the final BIRPI conceptual recreation plan and discuss ESCOG's ongoing engagement with the project.

### **ANALYSIS:**

The Buttermilk Planning and Recreation Initiative was a collaborative, stakeholder informed effort to identify the needs and gaps in recreation management and infrastructure in the increasingly popular Buttermilk recreation area. The project team conducted meetings with affected agency partners and key user groups such as the Bishop Area Climbers Coalition and the Bishop Paiute Tribe. Building upon these conversations and insights, the project team hosted three in-person workshops. Each workshop was well attended by a broad spectrum of stakeholders, many of whom participated throughout the entire process. Workshops were iterative, building the resulting document as a group as follows:

- **Workshop 1**: Explore comments received on input map together; breakout session: 3-word vision for the area, common ground challenges, biggest priorities
- Workshop 2: Report back workshop 1 comments, discuss range of potential solutions; breakout session: ranking challenges and potential solutions in terms of both level of effort and priority
- **Workshop 3**: Report back workshop 2 comments, refine goals and range of solutions; breakout session: group discussion regarding roles, implementation, and next steps

The resulting BIRPI document captures a broad range of potential solutions to 12 key challenge areas as identified by workshop participants: Consensus Management, Buttermilk Road, Camping, Climbing Rangers, Education, Habitat Destruction, Maintenance and Staffing, Overcrowding, Parking, Trails, Tribal Involvement, and Wildfires. In order to underscore that this was a community-driven process, the document is rich in direct quotes and comments wherever possible.

The final document recommends several near-term implementation actions that can be taken to begin addressing stakeholder concerns, though many areas of concern will require long-term coordination among agencies, additional stakeholder input and potential environmental review. Near-term recommendations include:

- Establish Consensus-Based Management Body
- Climbing Rangers
- Data Collection/Baselining
- Education
- Signage
- Trail Delineation
- Tribal Consulting
- Welcome Kiosk

Inyo County Supervisor Roeser has taken initiative to organize a consensus-based management body to take action on implementing the recommendations and has invited ESCOG staff to remain engaged to assist with transitioning from the planning phase to an effective implementation strategy, contingent on the ESCOG Board's approval.

### **BUDGET IMPACTS:**

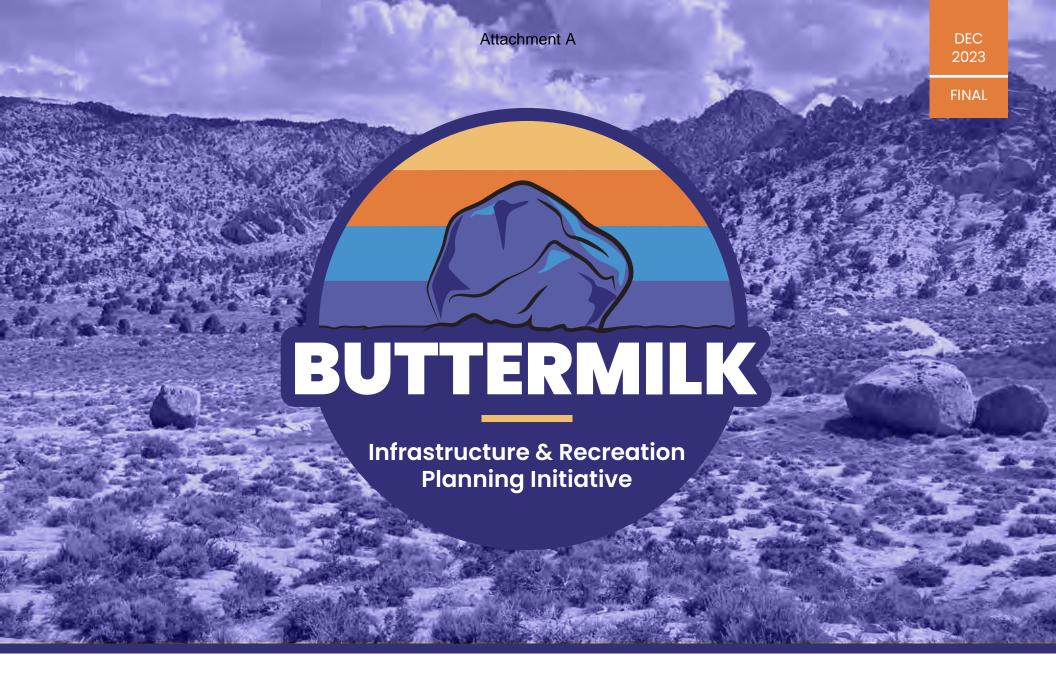
None.

### **LEGAL REVIEW:**

ESCOG Counsel Grace Chuchla has reviewed this item and found that it complies with the law.

### **RECOMMENDATION:**

Staff requests the ESCOG Board accept and file the Final Buttermilk Infrastructure and Recreation Planning Initiative.











### Attachment A

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# **Acknowledgments**

### **FUNDING**

The Buttermilk Infrastructure and Recreation Planning Initiative was supported by a grant from the National Fish and Wildlife Foundation.

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions of the National Fish and Wildlife Foundation or its funding sources. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation or its funding sources.

# UNITED STATES FOREST SERVICE (USFS)

The USFS is an agency within the U.S. Department of Agriculture that is responsible for sustaining the health, diversity and productivity of the nation's forests and grasslands. The USFS provided guidance, support and feedback to the project team in the creation of this document.

The views and conclusions contained in this document are those of the authors and is not a commitment of the Forest Service. The interpreted representation of public comments, and opinions of the author does not constitute endorsement and/or actionable items from the Forest Service.

### **PROJECT TEAM**

## Eastern Sierra Council of Governments (ESCOG)

The ESCOG is a Joint Powers Authority (JPA) agency made up of the following member agencies: City of Bishop, the Town of Mammoth Lakes, Inyo County, and Mono County.

The ESCOG coordinates regional planning and economic development efforts throughout the Eastern Sierra, working cooperatively with local, state and federal partners to support community development, economic diversification, sustainable recreation, ecosystem management and climate resiliency for a more prosperous, sustainable, and resilient region.

The ESCOG managed this planning effort and conducted outreach with the public and with stakeholders. The ESCOG worked closely with the consultant team to develop materials and provide resources for this report. For more information visit essrp.org.

### Alta Planning + Design (Alta)

Alta is an international consulting firm with a mission to create active, healthy communities. Alta works to mitigate climate change and advance safety and social justice through sustainable mobility. Alta connects people to places by providing solutions across the disciplines of planning, design, engineering, education and encouragement programs, and community engagement. For more information, visit altago.com. Alta led the consultant team in the completion of this planning effort including leading community and stakeholder outreach and developing this report.

# Mammoth Lakes Trails & Public Access Foundation (MLTPA)

The Mammoth Lakes Trails and Public Access Foundation, MLTPA, is a 501(c) 3 non-profit organization incorporated in 2007 as a public benefit corporation in the State of California. MLTPA has been engaged with local and regional issues of sustainable recreation and collaboration in California's Eastern Sierra since its inception and provides technical support to a regional public/public recreation-based solution, the Eastern Sierra Sustainable Recreation Partnership.

For this effort, MLTPA provided a variety of services, including grant and project management, meeting content development, research, meeting convening, public and participant communications, and document production. Visit mltpa.org for more information on our work.

# HELIX Environmental Planning (HELIX)

HELIX is a leader in environmental consulting and natural resource sustainability. HELIX has extensive experience helping public and private clients comply with environmental laws and regulations, manage natural

and cultural resources, and design and construct sustainable projects. HELIX Environmental Construction Group, specializes in habitat restoration and the installation and maintenance of native habitat. For more information about HELIX visit helixepi.com.

HELIX led the completion of the biological constraints analysis memo for this planning effort.

# THE EASTERN SIERRA RECREATION PARTNERSHIP

The Eastern Sierra Sustainable Recreation Partnership (ESSRP) is a unique public/public partnership among local Eastern Sierra governments, state agencies, and federal agencies.

In July of 2018, a Non-Funded Challenge Cost-Share Agreement was signed between Mono County; the Town of Mammoth Lakes, California; and the U.S. Department of Agriculture Forest Service Pacific Southwest Region, Inyo National Forest and Intermountain Region, and Humboldt-Toiyabe National Forest memorializing the Eastern Sierra Sustainable Recreation Partnership (ESSRP). For more information, please visit: https://mltpa.org/essrp/sustainable-recreation-and-tourism-project.

# THE SUSTAINABLE RECREATION AND TOURISM INITIATIVE

In spring 2019, the Sierra Nevada
Conservancy's Governing Board
demonstrated a pioneering
commitment to rural California's
outdoor recreation economy and
natural resources by authorizing
Proposition 68 funding for the
"Sustainable Recreation and Tourism
Initiative," a project to benefit the
conservancy's eastern subregion,
including Inyo, Mono, and Alpine
counties.

The initiative supports the ESSRP in its goals to "... design, plan, implement, and report out projects to improve and maintain recreational opportunities as well as restore ecosystems to their natural resiliency and functions." The initiative is composed of four tracks, or areas of focus, with specific deliverables: Regional Recreation Stakeholder Engagement; Climate Adaptation & Resilience Assessment; Connection to the Eastern Sierra Visitor Audience; and Project Development & Prioritization for Funding.

# Land Acknowledgment

Some lands in the United States hold the creation stories, burial grounds, and ceremonies of Indigenous people who were forcibly removed from their ancestral homes during territorial acquisition.

Many tribes, comprised of different bands, live in the Eastern Sierra region, caring for their native lands as they coexist with the ongoing impacts of colonization, in the Buttermilk Project Area predominantly the Nüümü (Paiute) people.

The Nüümü place name for the Owens Valley is Payahuunadü (The Place Where Water Flows). In Buttermilk Country we acknowledge Wünübü (Mt. Tom) and Paunibü (his wife, on his right hand side, Basin Mountain).

This acknowledgment is an invitation to all organizations, residents, and visitors to recognize the way this history has shaped the present as all parties work together in anticipation of a better future.

# Glossary

#### **Bouldering**

A type of climbing involving climbing large boulders using only crash pads placed on the ground.

# Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI)

This document. A planning process to improve existing recreational infrastructure, create a focused recreation plan for the Buttermilk recreation area, and inform a long-term conceptual recreation plan for the Buttermilk Project Area.

#### **Bureau of Land Management (BLM)**

An agency within the U.S. Department of the Interior with land management responsibility for the public domain lands.

#### **Buttermilk Country**

The area of land surrounding and including the Buttermilk Boulders, a famous climbing destination.

#### **Buttermilk Project Area**

The specific area addressed by this document including Buttermilk Road and the main bouldering area.

# California Department of Fish and Wildlife (CDFW)

An agency within the California government managing the state's wildlife and native habitats.

### California Environmental Quality Act (CEQA)

A California statute requiring all public agencies to follow a protocol of analysis and public disclosure of the environmental impacts of a project.

#### **Crash Pad**

A large foam pad placed on the ground used while bouldering as protection when falling.

#### **Cultural Resources**

An object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties.

#### **Dispersed Camping**

Camping outside of designated campgrounds.

# Eastern Sierra Council of Governments (ESCOG)

A joint powers authority agency made up of the City of Bishop, the Town of Mammoth Lakes, and the counties of Inyo and Mono to coordinate regional planning and economic development throughout the Eastern Sierra.

### Eastern Sierra Interpretive Association (ESIA)

A 501(c)3 non-profit and designated interpretive organization for the Inyo National Forest that educates the public about the Sierra Nevada and Great Basin lands through interpretive products, exhibits, and programs.

### Eastern Sierra Sustainable Recreation Partnership (ESSRP)

A public-public partnership comprised of federal, state and local agencies working to improve and plan for recreation in the Eastern Sierra.

### Los Angeles Department of Water and Power (LADWP)

A municipal utility providing water and power to the City of Los Angeles and a primary land owner in the Eastern Sierra, including in the Project Area.

## Mammoth Lakes Trails and Public Access Foundation (MLTPA)

A non-profit that creates sustainable trail and recreation systems to support prosperous economies and healthy communities in Mammoth Lakes and the Eastern Sierra.

## National Environmental Policy Act (NEPA)

A federal law requiring federal agencies to evaluate the environmental impact of a project through Environmental Impact Statements and Environmental Assessments.

#### Nüümü (Owens Valley Paiute)

The native peoples of the Owens Valley, comprised of multiple tribes, including the Bishop Paiute Tribe adjacent to the study area. Tribal coordination and communication is critical to this project and future projects in the area.

#### Off Highway Vehicle (OHV)

Any off road vehicle, especially those designed for trails.

#### **Riparian Area**

An area with distinctive hydric soils and vegetation typically between a stream, spring, seep, or other body of water, and the adjacent upland area consisting of vegetation that requires free, or unbound, water for survival.

#### **Road Maintenance**

The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective.

#### **Social Trails**

Unofficial trails created by the public to access other recreation sites of points of interest.

#### Stakeholder

Person that has an interest in a certain topic. Stakeholders in this document refer to community members and visitors, local businesses and organizations, land managers, native peoples and anyone else with an interest or concern about the BIRPI Project Area.

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#### **United States Forest Service (USFS)**

Federal public lands management agency within the United States Department of Agriculture (USDA). The Forest Service is responsible for sustaining the health, diversity and productivity of 193 acres of forest and grasslands across the nation.

#### Wildfire

An unplanned, unwanted wildland fire, including unauthorized human caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fire where the objective is to put the fire out.

### **Contacts**

#### **BISHOP PAIUTE TRIBE**

#### **Tribal Office**

50 N Tu-Su Ln, Bishop, CA 93514 Phone: (760) 873-3584

#### **BLM**

#### **Bishop Field Office**

351 Pacu Lane Suite 100 Bishop, CA 93514-3101 BLM\_CA\_Web\_Bl@blm.gov Phone: 760-872-5000

#### **CDFW**

#### **Inland Deserts Region Field Offices**

787 North Main Street, Suite 220 Bishop, CA 93514 Phone: (760) 872-1171

#### **ESCOG**

#### **ESCOG Physical Address**

437 Old Mammoth Road Suite #230 Mammoth Lakes, CA 93546 Phone: (760)878-8800 Email: escoginfo@gmail.com

#### **ESIA**

#### **ESIA HOME OFFICE**

190 East Yaney Street Bishop, CA 93514 Phone: (760) 872-1220 Email: admin@esiaonline.org

#### **ESSRP**

Email: info@essrp.org

# INYO COUNTY BOARD OF SUPERVISORS

#### **Physical Address**

224 N. Edwards St. Independence, CA 93526 Phone: (760) 878-0373

#### **INYO COUNTY PUBLIC WORKS**

#### **Inland Deserts Region Field Offices**

168 North Edwards St. Independence, CA93526 Phone: (760) 878-0201

#### **LADWP**

#### **LADWP Eastern Sierra**

300 Mandich Street
Bishop, CA 93514
Phone: (760) 873-0251
Email: owensvalleycommunity@ladwp.com
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#### **MLTPA**

#### **MLTPA Mailing Address**

1934 Meridian Blvd.
Mammoth Lakes, CA 93546-0100
Phone: (760) 934-3154
Email: info@mltpa.org

#### **USFS**

#### Mt. Whitney Ranger Station

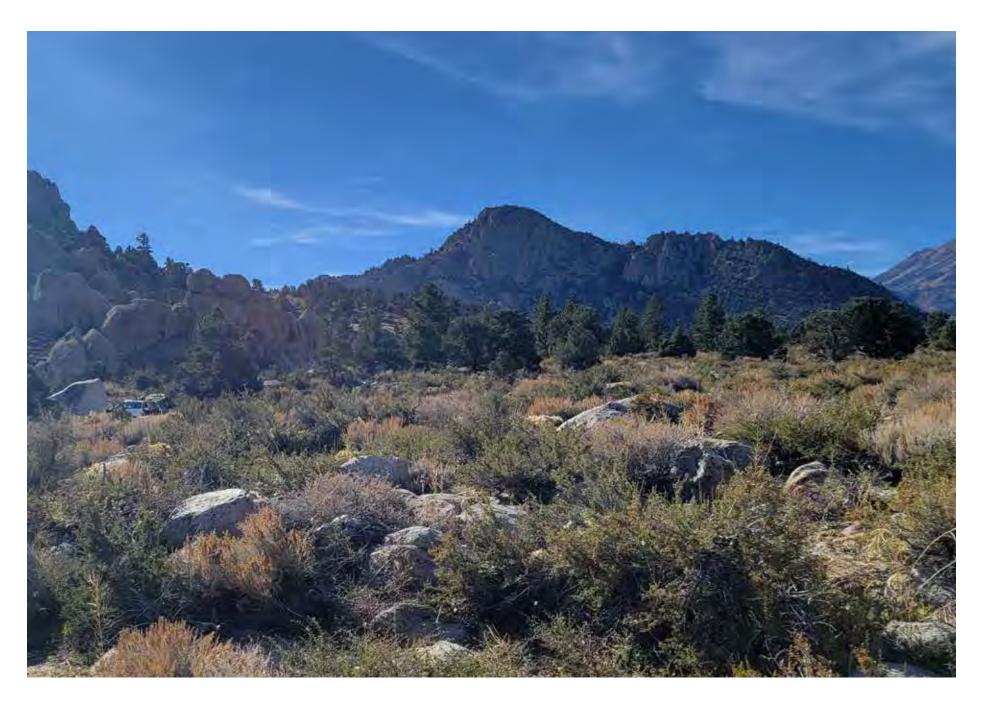
640 South Main Street/ P.O. Box 8 Lone Pine, CA 93545 Phone: (760) 876-6200

#### **White Mountain Ranger Station**

798 North Main Street Bishop, CA 93514 Phone: (760) 873-2500

### Inyo National Forest Supervisor's Office

351 Pacu Lane Suite 200 Bishop, CA 93514-3101 Phone: 760-873-2400



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# Buttermilk Infrastructure & Recreation Planning Initiative (BIRPI) Executive Summary

#### **PROJECT BACKGROUND**

The Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI) aims to improve existing recreational infrastructure, inform a focused recreation plan for the Buttermilk recreation area, and inform a longterm conceptual recreation plan for the Buttermilk Project Area (Figure 1). The Buttermilk Project Area includes the parking and camping areas along Buttermilk Road and the primary climbing area and recreation area in Buttermilk Country. This document represents the first step in capturing public and agency concerns and hopes for the area, and consolidating potential future actions.

#### STAKEHOLDER ENGAGEMENT

This planning effort was a stakeholder driven collaborative process.

Community engagement, including online public input maps, community meetings, and one-on-one meetings, helped the project team discover the most pressing issues in the area and stakeholder's thoughts on potential solutions. During the engagement process it became clear that the area of concern for most stakeholders centered around the Buttermilk Boulders.

#### **COLLABORATION IS KEY**

The more extensive solutions introduced in this document cannot be implemented until an organizational body is formed to manage the area and determine specific projects to advance. This group should be formed in partnership with the managing agencies, stakeholders, and organizations identified in this document. The organization must have decision-making power in the management of the Buttermilk Project Area, Formation of a consensus based management body encompassing all land management authorities will be necessary to identify appropriate implementation actions reflecting the priorities and input captured within this document.

# CHALLENGES AND ALTERNATIVES

Area challenges relayed by the public were organized into twelve categories:

- Management
- Buttermilk Road
- Camping
- Climbing Rangers
- Education
- Habitat Destruction
- Maintenance
- Overcrowding
- Parking
- Trails
- Tribal Involvement
- Wildfires

A range of solutions for the challenges within each category were created through community and agency outreach. This document presents the range of alternative solutions to each challenge, and displays the type of feedback received from the community.

Some alternatives, like constructing paved roads or parking lots, created divided public opinion.
Other alternatives, like creating an educational program for visitors, drew a more unified positive response.

#### **NEXT STEPS**

This document offers suggestions for next steps the USFS and other land managers may be able to take, either before, during, or after the creation of a management body. This includes establishing baseline data, such as carrying capacity, traffic counts and trends, and geolocating dispersed camping sites to establish a process for removing new sites.

Additionally, the alternatives that received high support can be immediately considered for implementation such as wayfinding and regulatory signage, a welcome kiosk, increased volunteer activity, and the decommissioning of unauthorized trails.

This process identified concerns, gaps, and infrastructure needs through public input from a spectrum of user groups and stakeholders. Given the interrelated nature of recreation in the Buttermilk Project Area involving multiple management authorities, this effort represents an initial public process to inform future land management decisions.





**BIRPI PROJECT AREA** 

### Legend

#### Boundaries

Buttermilk Project Area



#### Boundaries

Buttermilk Country

Happy and Sad Boulders

Pine Creek Canyon

#### Primary Land Managers

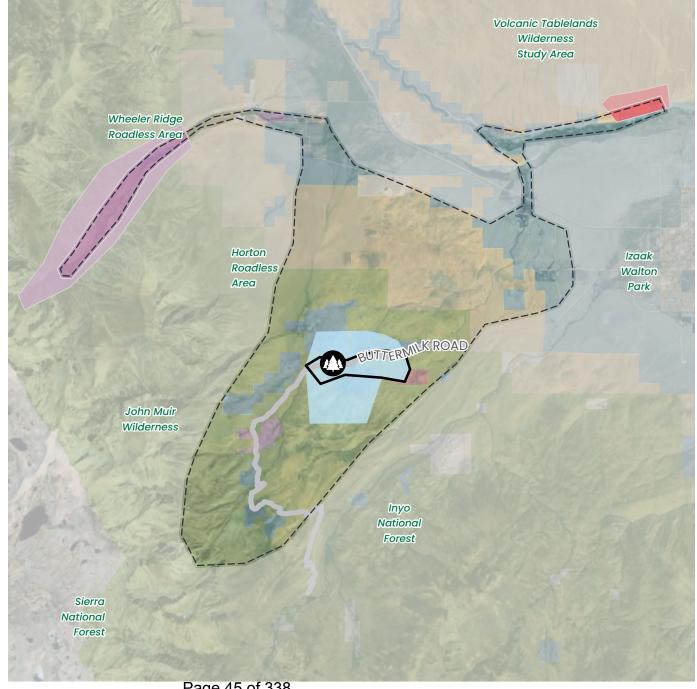
BLM

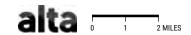
**LADWP** 

USFS

Unincorporated Inyo County Private Land

C.A. Fish and Wildlife







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### **Preamble**

The Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI) was created to improve existing recreational infrastructure, develop a focused conceptual recreation plan for the Buttermilk recreation area, and inform a long-term conceptual recreation plan for the Buttermilk Project Area (Figure 1). This planning effort was a stakeholder driven collaborative process that documented recreation impacts to the land such as on trails, roads, and parking.

In recent years, Eastern Sierra communities and management agencies have established a shared vision for sustainable recreation and tourism through the Eastern Sierra Sustainable Recreation Partnership (ESSRP). The ESSRP sponsored the Eastern Sierra Sustainable Recreation and Tourism Initiative(SRTI) through a grant from the Sierra Nevada Conservancy (SNC) using California Proposition 68 funding.

Over 200 project ideas were submitted to the SRTI by the Eastern Sierra community and ESSRP, which were then graded and weighted in a public process to determine projects with the greatest potential. A total of 26 of those project ideas had a reference to the need for improved sustainable recreation opportunities and management in the larger BIRPI Project Area, which includes Pine Creek Canyon and the Happy/Sad Boulders, and three projects were directly related to the Buttermilk Project Area. These three projects included a request for new infrastructure such as bathrooms, trails, and roads to reduce impacts to the land; a request for a management plan for traffic and dispersed camping in the area; and a request to install a campground to reduce dispersed camping.

The BIRPI planning effort is the first step in developing a management plan for the Buttermilk Project Area. It began in December 2022 and was completed in December 2023.





# **Project Overview**

The Buttermilk Infrastructure and Recreation Planning Initiative (BIRPI) is a collaborative planning process between Alta Planning and Design, the Mammoth Lakes Trails and Public Access Foundation and Helix Environmental Planning to identify and address the opportunities and challenges present in the climbing areas near the City of Bishop, California.

The intent of this project was to convene community discussions about the current and future recreational needs in the BIRPI Project Area, particularly in the Buttermilk Project Area; identify the concerns of stakeholders through facilitated discussions; and report the areas of consensus and need for further action to the land management agencies.

Correlated with the boom in the sport of climbing, especially bouldering, the number of visitors in the Buttermilk Project Area has increased rapidly. However, the area does not have the infrastructure nor management system to handle the current or anticipated increased popularity of recreating in the Project Area. As a result, both natural and cultural resources are threatened by increased visitor volume.

This Initiative document describes the outreach process and discusses the challenges and opportunities identified through that process. This document includes initial solutions for addressing each identified challenge, such as the need to develop a clear process for ongoing management, an increase in education, and tribal inclusion and representation in decision-making. This Initiative document does not make specific action recommendations as it is premature to do so prior to the establishment of a consensus for the area's management by the relevant land management agencies. A biological constraints analysis was also completed as a part of this effort (Appendix C).



### **Project Vision**

Understand the concerns and hear potential solutions from area stakeholders to create a well-maintained, safe, and accessible destination that supports a range of recreation while protecting the sensitive natural ecosystem and cultural resources of the area.

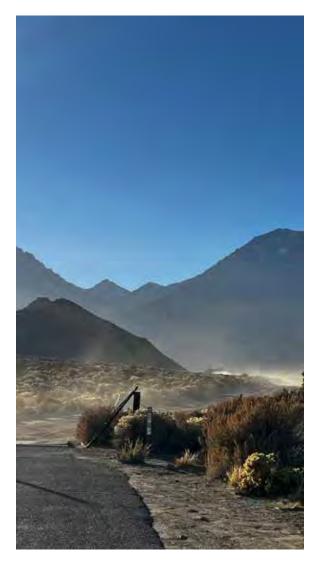
# **Project Area**

The BIRPI Project Area (Figure 2) in the Eastern Sierra includes Buttermilk Country, the Happy and Sad Boulders, and Pine Creek Canyon. During the public engagement process it became clear that the Buttermilk Project Area (Figure 3) was the highest priority for the public rather than other nearby recreational spaces. Due to the density of boulders (Figure 4) this area is the most popular destination for recreation users, particularly climbers, and as a result there have been challenges in protecting the land and maintaining facilities.

Based on input received, the
Buttermilk Project Area has the highest
concentration of infrastructure needs to
address the direct impacts associated
with the population density of use,
such as targeted education, toilet
infrastructure and trail delineation,
as well as adjacent impacts, such as
managing for dispersed camping,
wildfire risk and parking delineation.

Due to the unique conditions in this Project Area, the following Initiative document is not intended to address issues in the entire BIRPI area including the Happy and Sad Boulders and Pine Creek Canyon area. There are still challenges in both of these other areas, and future solutions at the Happy and Sad Boulders and Pine Creek Canyon can be inspired by this document.

The major concerns in the Buttermilk Project Area have to do with accessibility and land degradation surrounding the climbing areas rather than the boulder field itself. These issues include erosion and degradation of vegetation from cars, camping, hiking, climbing and dumping. There are also issues related to graffiti and human and pet waste. These challenges are particularly difficult to address due to the multiple land managers in the area, each of which have their own policies and rules related to recreation. As more people visit the Buttermilk climbing area, it is important for the landowners to identify strategies and infrastructure to accommodate the increasing number of visitors and minimize environmental Page 49 of 338 impact.



During the public engagement process stakeholders brought up the challenges related to Buttermilk Road, including dust.

Figure 2. BIRPI Project Area



**BIRPI PROJECT AREA** 

### Legend

Boundaries

Buttermilk Project Area

Primary Climbing Area

Boundaries

Buttermilk Country

Happy and Sad Boulders

Pine Creek Canyon

Primary Land Managers

BLM

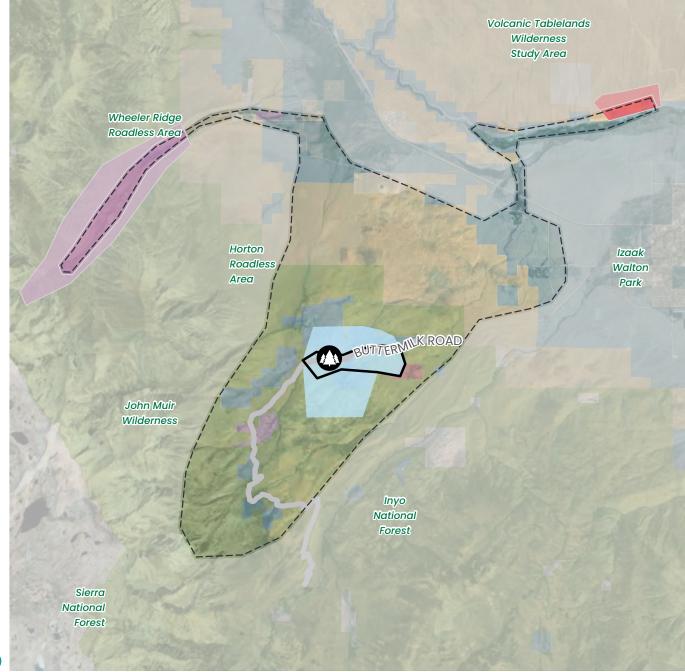
LADWP

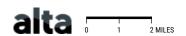
USFS

Unincorporated Inyo County

Private Land

C.A. Fish and Wildlife







Attachment A Figure 3. Buttermilk Project Area



**BUTTERMILK PROJECT AREA** 

### Legend

Boundaries

Buttermilk Project Area

Buttermilk Country

Primary Climbing Area

Primary Land Managers

BLM

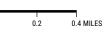
LADWP

USFS

Unincorporated Inyo County
Private Land

Buttermilk Road is currently maintained by Inyo County







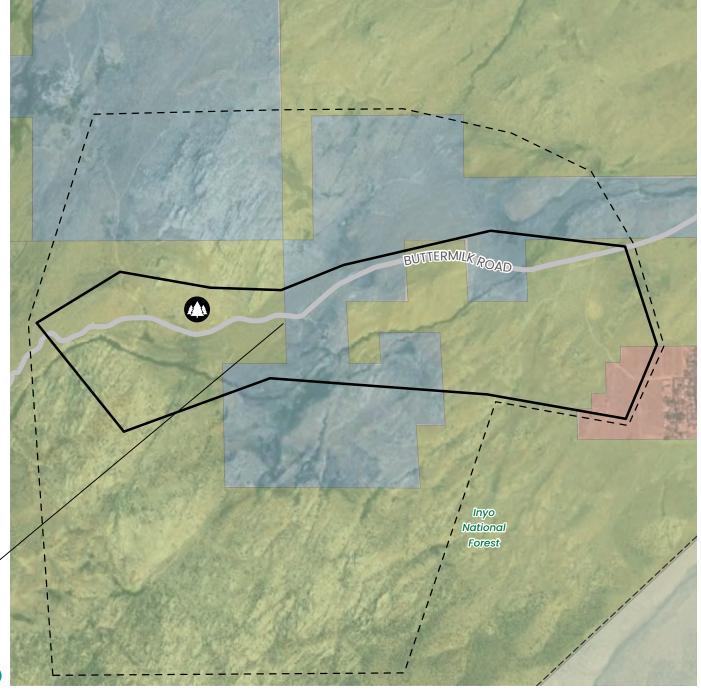


Figure 4. Primary Climbing Area



PRIMARY CLIMBING AREA

### Legend



Boulders

- Social Trails



Climbing Area

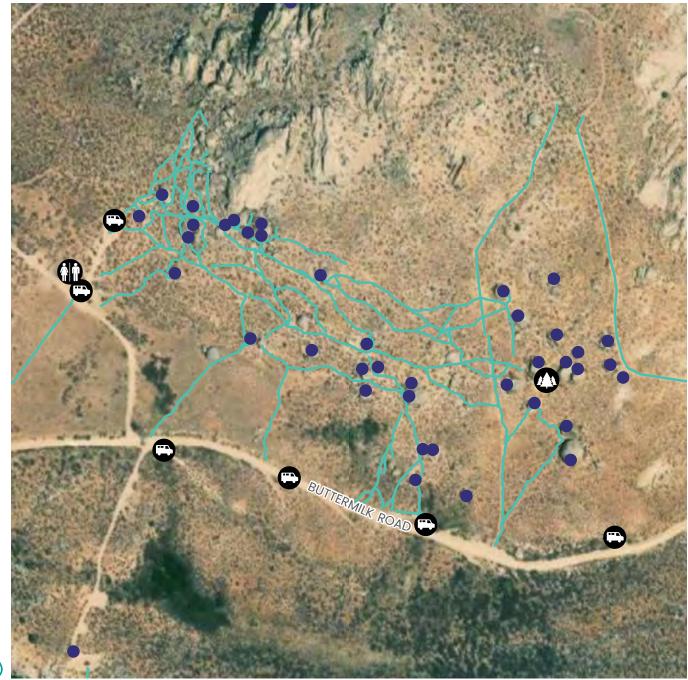


Popular Parking Area



Existing Toilet

All of this land is managed by the USFS. Buttermilk Road is currently maintained by Inyo County.







### **Land Management**

Multiple jurisdictions manage land within the BIRPI Project Area. These jurisdictions have differing policies and restrictions and there is no existing stewardship group that facilitates regular coordination between managers, making continuity of improvements in the area more difficult.

#### **USFS**

The United States Forest Service (USFS) manages the Inyo National Forest. Within the forest most recreational activities like hiking, backpacking, climbing, skiing, and off-roading are allowed. In the Buttermilk Project Area, dispersed camping is allowed on USFS land and campfires are allowed with a free campfire permit. The Buttermilk Project Area is within the USFS White Mountain District and the ranger station is in the City of Bishop.

USFS rangers work to protect the natural environment and those who visit it. Rangers can patrol to prevent fires while forest protection officers (FPO) can cite visitors and address trespassing. Rangers and FPOs cannot engage in conflict or hostile environments; only law enforcement can respond to public safety issues. In addition to paid ranger positions, the USFS also has volunteer ranger positions. Volunteers can serve in a variety of roles, including as wilderness, OHV, and mountain bike trail patrols and visitor and campground hosts. Currently, through a partnership with the Eastern Sierra Interpretive Association (ESIA), there are two full-time climbing rangers that work seasonally throughout the BIRPI Project Area Page 53 of 338

The USFS has concerns about damage to the natural environment and resources, including near popular climbing locations. Crash pads tend to damage vegetation and increase erosion, and large climbing groups increase the potential for larger scale damage. The USFS recognizes the need for improvements in the Buttermilk Project Area, including the need for parking areas, better maintained roadways, and formalized trails. However, implementing these improvements is time and resource intensive and often requires lengthy California National Environmental Policy Act (NEPA) analysis.

# USFS RECREATION OPPORTUNITY SPECTRUM

The USFS uses the recreation opportunity spectrum (ROS) to classify and manage recreation opportunities in different settings.

There are six classes on the spectrum:

**Primitive** 

Semi-Primitive Non-Motorized

Semi-Primitive Motorized

**Roaded Natural** 

Rural

Urban

Buttermilk Country is within the Roaded Natural class, meaning the area is within 1/2 mile or less from roads and trails open to motorized use. On-site controls are noticeable, but harmonious with the natural environment. Any modifications to Buttermilk Country based on this document should follow the quidelines for this class.

#### **BLM**

The Bureau of Land Management (BLM) manages the northern section of the BIRPI Project Area including Tungsten Hills, just outside of the Buttermilk Project Area. Like USFS land, BLM land allows most recreational activities including dispersed camping. Campfires are allowed with a free campfire permit. There is a campground in the BIRPI Project Area on BLM land at Horton Creek Campground. The campground has fire pits and potable water.

Rangers on BLM land educate visitors about the land and recreating responsibly while law enforcement rangers patrol the land and investigate crime.

#### **LADWP**

The Los Angeles Department of Water and Power (LADWP) manages land in pockets of the Inyo National Forest, including much of the Buttermilk Project Area. Low impact recreational day use is allowed on LADWP land. Camping and fires in the Buttermilk Project Area on LADWP land are not allowed. Offroad vehicles may only use existing roads and trails on LADWP land. These regulations demonstrate the differing management requirements between Page 54 of 338

jurisdictions. Additionally, unlike USFS and BLM, LADWP does not have a law enforcement agency to patrol its land.

#### **CDFW**

The California Department of Fish and Wildlife (CDFW) manages 325 acres of land approximately two miles south of the Buttermilk Project Area. This wildlife area is popular for recreating and is an important habitat for the migration of the Round Valley deer herd. Camping is not allowed on this land.

The CDFW manages wildlife officers that provide the public with hunting and fishing information and education.



Signage at the border of LADWP land and USFS land.

#### INYO COUNTY

The Buttermilk Project Area is within Inyo County. The County maintains Buttermilk Road under a 5-year management agreement with the USFS. In the future, there is a possibility this may become a longer term management agreement.

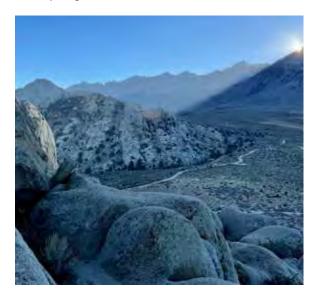
#### **ESIA**

The Eastern Sierra Interpretive Association (ESIA) is a 501(c)3 non-profit foundation and designated interpretive organization for the Inyo National Forest that educates the public about the Sierra Nevada and Great Basin lands through interpretive products, exhibits, and programs.

ESIA has mapped trails and identified challenges and opportunities in the Buttermilk Project Area on behalf of the USFS. ESIA encourages stewardship on public lands, and has funded guides, brochures, signs, and facility improvements for the Inyo National Forest. ESIA also funds the two climbing rangers in the BIRPI Project Area.

#### **Climbing Rangers**

The two climbing rangers are funded and managed through a collaborative agreement between the USFS, LADWP, Inyo County and ESIA. The rangers operate throughout the entire BIRPI Project Area and educate visitors about the Eastern Sierra's unique ecology and how to protect the land while recreating. This education includes coordination with local climbing groups, schools, and gyms to share recreational ethics and plan stewardship events. The climbing rangers also work to restore the land by delineating trails and parking and camping areas.



# CLIMBING RANGER FEEDBACK

As a part of this Initiative, the two climbing rangers, hired through support from ESIA, were consulted and asked to provide their input on the biggest challenges facing the Buttermilk Project Area.

In addition to challenges related to trail delineation and a lack of public education as described later in this document, the climbing rangers also described challenges in coordinating between the land management agencies. The rangers have noted difficulties with obtaining guidance on which trails, camping areas, and parking areas should be delineated depending on the agency. It has also been challenging for the rangers to schedule stewardship events on USFS land and to implement education programming due to the cultural significance of the area.

### **User Groups**

Different user groups have affected the Buttermilk Project Area's landscape in distinct ways. The materials and equipment these groups use have damaged vegetation and affected wildlife habitats. Without policies and infrastructure in place to manage these user groups, the damage to the land will continue as the number of visitors to the area increases.

The Inyo National Forest is a mixeduse forest with multiple recreational opportunities. Despite challenges between user groups, it is important to the USFS that access to the forest remain available for all allowed recreational users.

#### **CLIMBING**

Climbing has become extremely popular in the Buttermilk Project Area, especially at the Buttermilk Boulders. The Buttermilk Boulders attract climbers from all over the world and are famous for their highball boulders and difficult boulder problems. Climbers are typically aware of leave no trace principles, however; even experienced climbers may not be

familiar with the unique and delicate ecosystem of the Eastern Sierra. The number of climbers visiting the space each year has damaged the environment, particularly from creating trails to reach the boulder areas, and crushing vegetation with crash pads. Additionally, bouldering, especially at night, creates noise and light that impacts wildlife. Local organizations work to educate climbers, protect and conserve the land and strengthen bonds between climbers and community members.

#### **OHV USERS**

Off-road vehicles (OHVs), like dirt bikes, are popular to ride in the Buttermilk Project Area. These OHVs leave tracks in the ground, and damage vegetation and soil when driven off established roads and trails. Perhaps due to a lack of education or a lack of enforcement in the area, some OHV users have ridden in sensitive areas destroying wildlife habitats and widening waterways.

# BISHOP AREA CLIMBER'S COALITION

The Bishop Area Climber's Coalition (BACC) goals are to strengthen the bonds between climbers and non-climbers, maintain and conserve Bishop's landscape, and educate climbers on using public spaces. Key feedback received from interviews with the BACC for this Initiative include:

- Accessing the popular climbing locations in Buttermilk Country is even more difficult in the winter, when the area is popular with visitors. The BACC is in support for delineating trails through the Buttermilk Project Area and improving access to it.
- ◆ The Peabody Boulders are some of the most popular in the Buttermilk Country for climbers. The BACC is in support of wayfinding and other strategies to encourage non-climbers to park and camp away from the Peabody Boulders in order spread out the concentration of visitors in one area.

#### **OTHER USERS**

While climbers and OHV users have caused measurable environmental damage, visitors of all types have played a role in affecting the land, and are continually responsible for helping to protect the land.

Other popular recreational opportunities in the Buttermilk Project Area are hiking, fishing, hunting, horseback riding, trail running, photography, painting, and wildlife viewing. South of the Buttermilk Project Area is the Horton Lakes Trailhead which can be used by hikers and leads to Horton Lake which can be used for fishing. Hikers and fishers can also visit the Upper Buttermilk Trail which leads to Longley Lake. Within CDFW's Buttermilk Country Wildlife Area south of the Buttermilk Project Area visitors can hunt deer, quail, and blue grouse. During the winter, back country skiing, snowshoeing and sledding are popular in both the Buttermilk Project Area and the Pine Creek area. There are also ongoing active cattle grazing leases

west of the Buttermilk Project Area. For each of these activities visitors are responsible for following leave no trace principles like staying on trails, keeping dogs on a leash and collecting all trash and waste before leaving. All visitors also need to use Buttermilk Road to access recreational areas beyond the Buttermilk Project Area which contributes to road damage.

While there are many uses in the BIRPI Project Area, it became clear during the public engagement process that the Buttermilk Project Area was the highest priority to the public. While many of the potential alternatives and solutions presented in this Initiative document can affect all visitors, this document is focused on alternatives that will most affect the visitors that visit the primary climbing area and park and camp in the surrounding area.



Climbing festivals like the Craggin' Classic and Flash Foxy can see hundreds of visitors in the Buttermilk Project Area in one weekend.

#### **RATES OF USE**

The use of the Buttermilk Project Area varies widely throughout the year. Peak usage of the climbing area is typically in the winter, with summer months being the off-season. Eastern Kentucky University, in partnership with the Bishop Climbing Coalition, created an average visitation estimate per day throughout the year based on counts done by their project team<sup>1</sup>. As seen in Table 1, the Buttermilk climbing area receives most visitors at the beginning and end of the year. This table also shows the popularity of the Buttermilk Project Area compared to the Happy/ Sad Boulders. This estimate may be used to determine scale and capacity in future planning programs. This estimate can also be used to compare future counts to determine how the number of visitors has changed since 2019, since climbing as a sport has greatly increased in popularity in the years since.

 Maples, James N, Michael J Bradley, Mary Boujaoude, Mora Rehm, and Tim Golden. Economic Impact of Rock Climbers in Bishop, California.

Table 1. Average Number of Cars per day in Parking Areas by Month, January 2019-March 2020

монтн	HAPPY BOULDERS	UPPER SAD BOULDERS	LOWER SAD BOULDERS	BUTTERMILK BOULDERS
JANUARY	70	6	20	90
FEBRUARY	66	6	19	85
MARCH	64	5	18	82
APRIL	23	2	7	29
MAY	11	1	3	15
JUNE	3	0	1	4
JULY	3	0	1	3
AUGUST	3	0	1	3
SEPTEMBER	8	1	2	10
OCTOBER	18	2	5	23
NOVEMBER	49	4	14	63
DECEMBER	61	5	17	78

### Paiute Tribal Involvement

The Owens Valley Paiute are descendants of the Nüümü people, the original people of the Owens Valley. While the Paiute do not directly manage any of the land in the BIRPI Project Area, the area is rich with tribal history, and their cultural perspective is invaluable in developing recreation and management standards. Local tribe representatives were consulted for this Initiative. Detailed feedback can be found in Appendix D.

The site of the Buttermilk Boulders has traditionally been a site for Paiute wedding ceremonies, however the increase in climbers has made it difficult for the Paiute people to find suitable times to visit the boulders for ceremonies. In other places in the Eastern Sierra such as the Tablelands, another popular climbing area, visitors have damaged vegetation and ruined habitats for animals the Paiute tribe have traditionally hunted. Too many visitors also threaten the condition of the thousands year old petroglyphs in the Tablelands.

In additional to causing physical damage to the environment, visitors to the Buttermilk Project Area can also create disruptions through noise.

Many of the recreational activity options in the Buttermilk Project Area require an acceptance of risk.

Climbing in particular can lead to serious injury and death. These types of accidents can affect the spiritual energy of the site. These non-physical influences cause a degradation of the environment for Paiute Tribe members to enjoy the boulders.

Some tribal members are interested in encouraging climbing, particularly for tribal youth, as a way for them to connect to the land. The USFS has expressed interest in partnering with the tribe to add a tribal climbing ranger to the existing climbing ranger program. These rangers could provide context for climbers about respecting cultural areas and only climbing in established areas to not disturb cultural sites.

Future decisions related to changes in this landscape should involve early and frequent communication with tribal representatives.

# RECREATING RESPONSIBLY

The Bishop Paiute Tribe has created a guide for recreating responsibly on the lands of the Nüümü and Newe peoples. The guide encourages visitors to learn about the history of the land, including an understanding of why visitors should not enter or move anything from cultural sites. This guide serves as an example of why tribal collaboration is vital in mitigating visitor impacts to the area.



Signage has been placed at some bouldering areas in the Eastern Sierra prohibiting climbing.

### **Initiative Process**

This document is the beginning of a larger process to identify the most effective solutions to address the challenges in the BIRPI Project Area. This document captures community input and preferences for land management agencies to consider and reference when making improvements and developing a management plan. As shown in Figure 5, this document summarizes feedback from the community, the Paiute Tribe, and stakeholder agencies.

The next step for developing a management plan and implementing changes in the Buttermilk Project Area are for the land owner agencies to collaborate and reach a consensus on the appropriate alternatives for each challenge presented in this document, many of which may be combined together.

Then, the agencies will need to determine the capacity that each agency has in completing necessary studies like CEQA and NEPA for the chosen alternatives. These studies will require further participation from the public and from the Paiute Tribe. Additional studies will likely need to be completed, including for cultural resources, visual impact, noise, hydrology/soils, botany, and biological resources, all of which will influence final decisions and outcomes for the Project Area. Some potential alternatives presented in this document, like developing paved parking lots or developed campsites may be deemed impossible after these environmental studies are complete. A biological constraints analysis has already been completed as a part of this document in the BIRPI Project Area, shown in Appendix C.

Land owner agencies should also collaborate to determine capacity for enforcing regulations for the Buttermilk Project Area. Later, implementation of solutions can be completed with additional studies and the identification of programming the free free?

Figure 5. Initiative Process

#### **BIRPI**

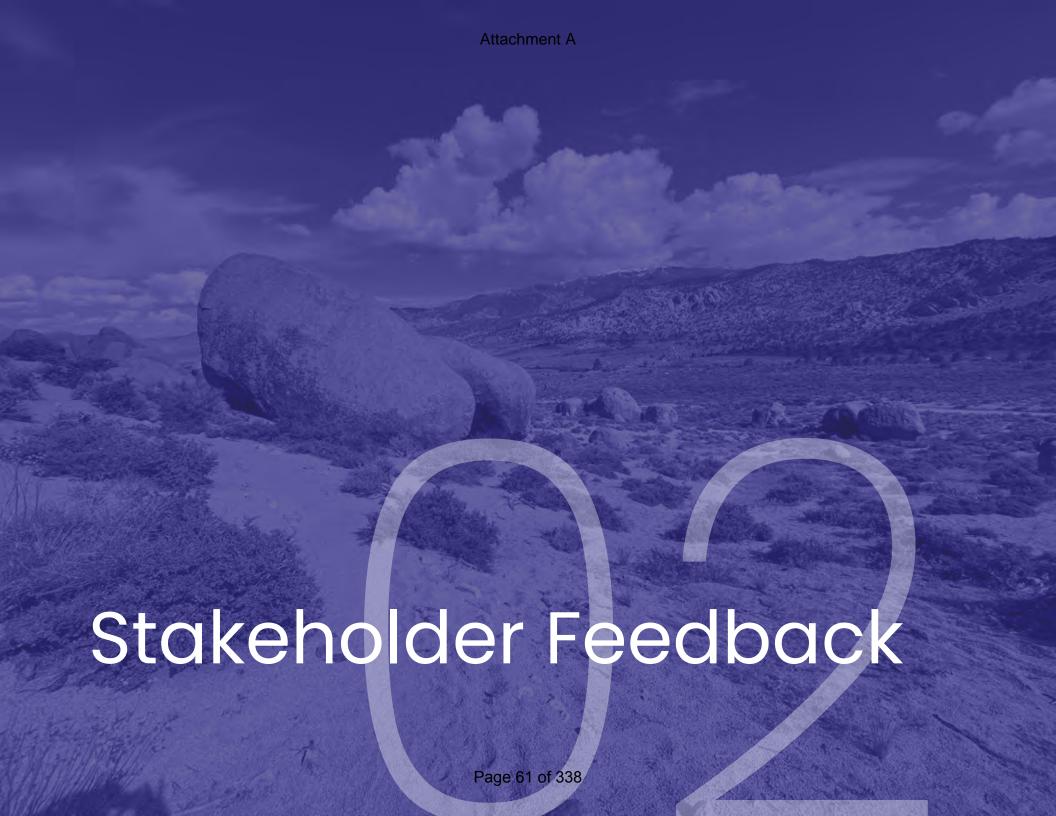
- Community feedback
- Tribal input
- Stakeholder and land owner agency input

#### **AGENCY RESPONSIBILITY**

- Create project alternatives
- NEPA/CEQA
- Identification of cultural and environmental resources
- Identification of agency capacity
- Create partnerships

#### **IMPLEMENTATION**

- Identify potential programs
- Complete additional studies



### Stakeholder Feedback

Stakeholders have different concerns about the impact of the increased recreation in the Buttermilk Project Area and differing opinions on the best way to keep the area protected and usable for future generations. There is a palpable interest in the Buttermilk Project Area from many different stakeholders and groups and there are commonalities regarding challenges and some mitigation strategies. However, there are also a spectrum of opinions on potential solutions. The following section describes how stakeholder feedback was collected and used in this Initiative document.

#### **DIFFERING PRIORITIES**

The three main land managers, USFS, BLM, and LADWP have different regulations for recreation, parking, and camping on their land, although this information is not always clear to visitors. These agencies want to mitigate environmental impacts to the land while offering safe recreational opportunities for all visitors.

Residents of Bishop, including those in the neighborhood of Starlite and the Bishop Paiute Tribe, have concerns about the increased traffic, camping, waste, impacts to vegetation and wildlife, and threats of wildfire that more visitors bring to the Buttermilk Project Area. The Buttermilk Project Area has cultural and historical significance and residents want to preserve the area in its broadest geography for future generations.

Visitors to the Buttermilk Project Area want to experience the well-known recreational opportunities, including world class climbing, trail running and hiking, off-roading, hunting, fishing, and winter sports. Visitors want these recreational areas to remain accessible, though there are differing opinions on the number of amenities that should be available to visitors.



Visitors world-wide come to the Buttermilk Project Area to experience its numerous recreational opportunities.

### **Public Engagement**

Feedback from the community was the primary contributor to the outcomes in this Initiative. Resident and visitor feedback helped in understanding how the Buttermilk Project Area is used and where there are deficiencies in management. Public feedback was used to identify the top concerns regarding the Buttermilk Project Area and to gauge which types of improvements would be most welcomed by the public.

#### **PUBLIC INPUT MAP**

The project team utilized a public input map to solicit feedback from the community to determine where and what the major concerns are within the entire BIRPI Project Area. The input map was available online via the Eastern Sierra Council of Governments website between the end of July to mid-September 2023. Participants could use the public input map to provide feedback on any aspect of the BIRPI Project Area including parking, camping, trails, amenities, and what they would like to see changed or remain the same. Participants also could select the primary reasons why they visit the BIRPI Project Area. The map received 280 comments from 40 community members. Figure 6

shows where each comment was left. Most comments were placed in Buttermilk Country, which shaped the focused Buttermilk Project Area. Overall, comments were less focused on the bouldering area in Buttermilk Country, and mostly related to the state of Buttermilk Road and concerns about fires and impacts associated with dispersed camping, such as vegetation degradation.

#### **PUBLIC WORKSHOPS**

#### Workshop #1

Three public workshops were hosted as a part of this Initiative. The first workshop was hosted online in September 2023 and was open to all interested community members. Approximately 60 community members attended this workshop. The workshop reviewed the project, and engaged participants in collaborative exercises so everyone could understand where there are commonalities and divergences in opinions.

For many stakeholders, sustainable impact to the environment is a crucial issue to address. Participants want

visitors to be educated about using the recreation area, and to see land owner agencies encourage visitor education and stewardship.

There was also a consensus on the need for more accessibility to the Buttermilk Project Area and more amenities for visitors to prevent waste and damage to the natural environment. This could include signage to preferred paths, parking spaces and campgrounds.

Some community members were in favor of stronger enforcement methods to protect the land, such as banning all campfires, banning harmful climbing equipment like liquid chalk, and limiting visitor numbers through a permit or fee entry system. Climbing rangers and tribal rangers could be used to lead the enforcement programs.

Attendees also voiced concerns about a variety of other issues including dogs, night time climbing, liquid chalk, the prevalence of drones, and dust from the road.

Responses from the Public Input Map and Workshop #1 were used to determine the key issues that are

Attachment A Figure 6. BIRPI Public Input Map Themes



#### **BIRPI PROJECT AREA**

Public Input Map Themes

- Camping/Fire Concerns
- Climbing
- Crowding
- Damage to Environment
- Maintenance/Infrastructure
   Improvement
- Parking
- Popular Destination
- Restroom
- Roadways
- Trash

#### Boundaries



Buttermilk Country

Happy and Sad Boulders
Pine Creek Canyon

Primary Land Managers

BLM

LADWP

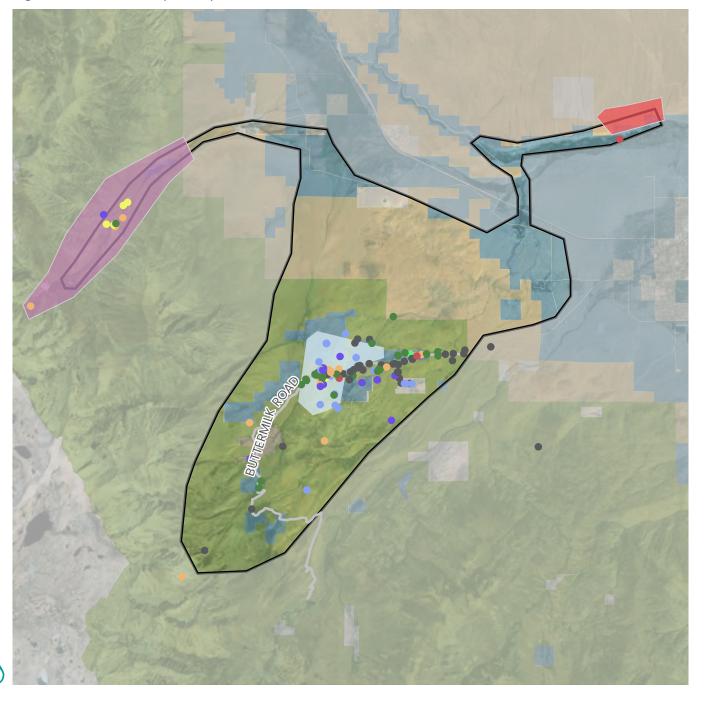
USFS

C.A. Fish and Wildlife









facing the Buttermilk Project Area. While opinions differed on how to solve these issues, there was consensus that these were the most important issues that this Initiative document should address. The team created twelve categories based on the public comments:

- Buttermilk Road
- Camping
- Climbing Rangers
- Management
- Education
- Habitat Destruction
- Maintenance
- Overcrowding
- Parking
- Trails
- Tribal Involvement
- Wildfire

#### Workshop #2

A second workshop was held inperson in the city of Bishop on November 3, 2023. Approximately 60 community members attended this workshop. This workshop presented the twelve categories of key issues and preliminary solutions. Community members were asked to choose which solutions they preferred, and which categories were most important to



During Workshop #1 participants wrote down their vision for improving the Buttermilk Project Area.

them. Community members could also provide general feedback on any element that the project team may have missed.

While not every alternative was mutually exclusive, solutions for each category were presented on a scale of "Quick /Easy" to "Achievable/ Implementable" to "Long Term/Big Vision". However, through the course of the workshop it became clear that these level of effort descriptions were not accurate for each potential solution. These level of effort categories were removed in the final Initiative document.

After the workshop, the project team reviewed the written comments of each workshop participant. Any interested member of the public that was unable to attend the workshop was also encouraged to send in electronic comments, which the project team also reviewed. Based on the sentiment of each potential solution, the project team gave the solution a value of either +1 or -1. This metric provided a quantitative analysis of the input to help judge the popularity of each solution. The results of analysis can be found in Chapter 3, and in more detail in Appendix B. Additionally, this workshop showed that identifying specific recommendations





During Workshop #2 participants provided their feedback on potential solutions.

Recommendation Category	Quick/Easy	Achievable/Implementable	Long Term/Big Vision
Buttermilk Road	Seasonal maintenance plan	Spellis and them setting	Pave Buttermilk Road and crea a northern road route
Camping	Camping permits and comping areas	Himmus compalies	Developed campsites with facilities
2 Climbing Rangers	Organize valunteers to assist rangers	Contraction (alternations)  Contraction and (alternations)	Hire several full-time patrolling rangers
Collaboration	Create on online comment box	with an exting amonimition committee me whip	Create an organizational bod
3 Education	Signage, brochures and online educational campaigns	Required permit and education for all visitors	A more robust signage system and online resources
Habitat Destruction	Ban OHVs in sensitive areas	Use private al invastrue ture tu may increational asses when may social age OHVs, sot up shan pode, comp and pairs	Create an OHV trail network and expand climbing range program to educate visitors
What recreational activity activ	ties other than climbing do you s ities would you like to do in the pr	ee in the BIRPI project area? W roject area that are difficult no	hat other recreational w?
Birding, Wild Flower	cha, running, photogra observation, quiet c	onlemplation of beau	valions Hall spaces
UTTERMILK INFRASTRUCTURE AND			COMMUNITY WORKSHOP 2

During Workshop #2 participants chose their preferred solutions and identified the categories most important to them. The top three categories chosen by the public are shown in Chapter 3.

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for implementation in this Initiative document is premature, as there is not currently a stewardship group that can implement area-wide changes. Instead, as shown in Chapter 3, the potential solutions were refined, and described as alternatives rather than solutions.

#### Workshop #3

Workshop 3 was hosted on December 14 2023. Approximately 50 community members attended this workshop. This final workshop reviewed the twelve categories and summarized the feedback received on each of the alternatives for each category. As described in Chapter 4, certain items can be implemented relatively quickly without the need for a single management body. These items include:

- Expansion of the climbing ranger program
- Install welcome kiosk
- Increased tribal consultation
- Establish and improve baseline data and data management
- Implementation of climbing regulations
- Installation of educational signage
- Delineation and consolidation of social trails

Stakeholders were asked to weigh in on these action items and identify items that were most important to them. Community members were also asked to collaborate to determine a final vision for the Buttermilk Project Area.

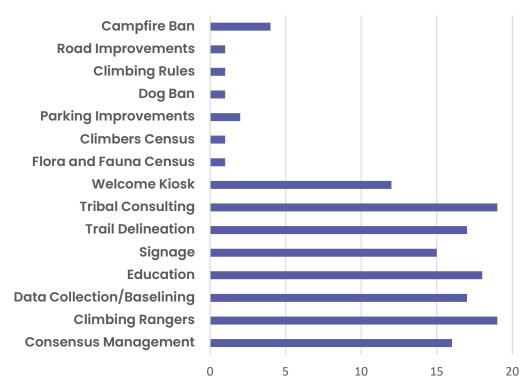
Based on feedback from the workshop, tribal consulting and expansion of the climbing ranger program were the highest priority alternatives.

However, many of the presented alternatives were popular and met

with enthusiasm. There were concerns about the prevalence of a signage campaign and a welcome kiosk on the aesthetics of the landscape, with preference to a more targeted and specific campaign.

There were also suggestions of an immediate moratorium on critical issues, such as campfires, since the planning process and necessary facilities will take some time to be implemented.

#### **Recommended Next Steps**



During Markshop #8 338 munity members chose the recommended next steps that are most important to them.



# **Approaches to Area Challenges**

Through the public engagement process it became clear that there was consensus on what are the biggest challenges in the Buttermilk Project Area. However, there was not consensus on how to address these challenges, nor is there an organizational body in place to make decisions for the entire Buttermilk Project Area. The intent of this chapter is to present a suite of options for each category and to ensure all parties and agencies engaged in this planning process are heard.

#### **CATEGORIES**

The following section has twelve categories that represent the challenges of the Buttermilk Project Area. Each category includes a description of the challenge and the ideal goal in addressing each challenge. Each category also has a no action consequence. These are the consequences that will occur if no decisions are made in the Buttermilk Project Area and if the land owning agencies do not collaborate on solutions.

Many of these categories are interrelated and addressing the challenges in one category may help address another. For example, formalizing camping may also result in better control of campfires. Similarly, implementing strategies to control overcrowding can help prevent further habitat destruction.

In workshop #2 community members were asked to choose the categories that were most important to them.

The top three categories chosen were camping, education, and parking.

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#### **SUITE OF ALTERNATIVES**

Each category includes a suite of alternatives that could be used to reach the goal of the category. These are high-level concepts that were created through collaboration with the community and area stakeholders.

Graphs and quotes describe the community feedback on each alternative, whether positive or negative. While public engagement was key in the formation of these alternatives, so was input from the USFS. As noted throughout the chapter, the USFS deemed some alternatives infeasible or in contrast to agency guidelines.

These alternatives are the starting point for further consultation with the land management agencies in the Buttermilk Project Area, including the USFS. Any decisions and final approvals on these alternatives would be made by these agencies.

In some cases, alternatives have low resistance among stakeholders and can potentially be implemented quickly and cost effectively to help provide immediate solutions to the Project Area.

### Shared Management

The lack of a single oversight committee or decision making body encumbers solution implementation to provide facilities and maintain the area. A body should be created at the level of jurisdictional authorities and be made up of relevant stakeholders and agencies including the Nüümü people/ Owens Valley Paiute, land management agencies such as USFS, LADWP, BLM, and the Inyo County Supervisors. This management body will improve communication channels between the managing agencies and local stakeholders including with groups like the Bishop Climbers Coalition, Valley Outdoors, the Starlite Community Service District, and other local communities. A centralized body will help facilitate decision making, conduct outreach, and manage the land.

The Buttermilk Project Area should be run by an organization with the authority to enforce rules, work with regional stakeholders, administer permits (if appropriate), raise funds, and implement long term planning efforts. For any long term changes to occur within this area, agreements with USFS, LADWP, BLM and CDFW need to be reached to allow for construction of facilities and implementation of services on their land. The construction of facilities and services will invoke the CEQA and NEPA processes, so partners with the authority to evaluate these programs must be involved. Collaboration between these organizations should also include the sharing of resources like vehicles and equipment, staffing capacity and funding. The management body will be able to make decisions moving forward ensuring that all proper parties are represented in the

process, whether this is an existing organization facilitating the planning process or a new organization created out of stakeholder partnerships. Smaller decisions and actions, like those that volunteer groups already perform, will continue, but if a larger body is organized, there will be a stronger ability to receive funding, land manager support, and buy-in from diverse stakeholder and public desires.



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# Management

The Buttermilk Project Area includes multiple jurisdictions with interrelated recreation uses and impacts. However, no single entity or central organization body has responsibility for management or implementation. The Buttermilk Project Area lacks the capacity for the coordinated and consensus management of the landscape by the relevant land management agencies. Instead, the area is managed by multiple agencies with differing capabilities, responsibilities, management policies and organization mandates, currently attempting to manage complex and interrelated recreation uses and impacts.

While the other alternatives in this chapter are early concepts, the creation of an organizational body or stewardship group to take care of the Buttermilk Project Area is strongly recommended. This group should be created by and include the land management agencies (USFS, LADWP, BLM, CDFW), Inyo County Supervisors for constituent representation, and the Nüümü people/ Owens Valley Paiute. Without the creation of this group, it is unlikely that any other challenges in the Buttermilk Project Area can be addressed in the near term.

### **GOAL**

Create a collaborative agreement between land management agencies to discuss challenges and opportunities within the Buttermilk Project Area, implement complimentary practices that are in line with agency existing guidelines, standards, and protocols, and provide opportunities in the Buttermilk Project Area.

### **NO ACTION CONSEQUENCE**

Alternatives or next steps identified in this Initiative are likely contingent on the shared stewardship, continuity, and organization of all landowners and jurisdictions. Without this continuity in management, it is too difficult for several jurisdictions in the Buttermilk Project Area to thoughtfully deal with the issues.

### **ALTERNATIVES**

# Join an existing committee

Land managers join an existing organization's committee meetings, such as the ESSRP, to regularly discuss the Buttermilk Project Area.

### Online comment box

Create an online comment box for all visitors and community members to leave their thoughts on the Buttermilk Project Area.

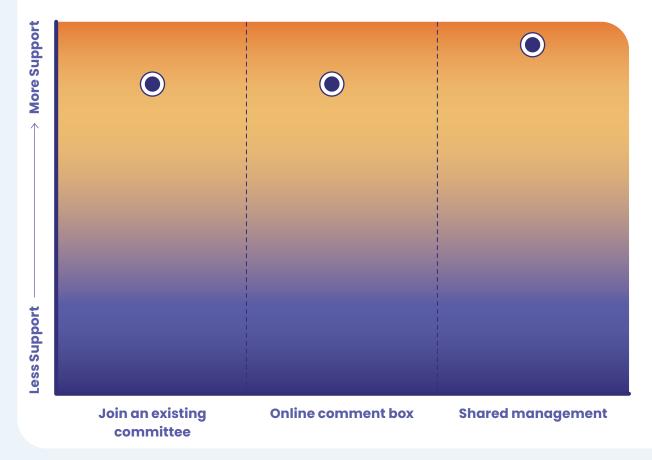
\*Not preferred by USFS

# **Shared management**

Create an organizational body, like a "Friends of" group, to discuss the Buttermilk Project Area and make decisions. This body should include all landowners, jurisdictions and stakeholder organizations, and potentially community representatives and local businesses. This group should be responsible for stewardship and transparency in the area.

"I understand that there are discrepancies between the Forest Service's demands and the county's abilities, but those agencies need to sit down and come up with a solution" - Public comment

Table 2. Management Public Support



### **SUMMARY OF RESULTS**

- Alternatives were presented to participants, but without the creation of an organizational body, few of the other alternatives are feasible. Creating this organizational body will simplify the process of implementing the suggestions in this Initiative and will increase the likelihood of consensus between land managers.
- Although the online comment box and joining an existing committee received fewer total positive comments from participants, none of the presented alternatives received negative comments.

"Consensus is hard when fragmented across multiple independent groups. A single organizational 'board' with participation from all stakeholders speaking as a unified voice would be much more effective in advocacy to USFS."

"[...] an oversight committee must include representatives from all communities, including local Nüümü and Newe and environmental communities, not just from recreational groups and people from extractive industries."

# SPECIAL DESIGNATIONS

• The final chosen collaborative body may choose to pursue special designation for the Buttermilk Project Area. Special designations can help position the Project Area for dedicated funding and resources to protect the natural environment. See the Alabama Hills Management Plan case study on page 95 for an example of a designated National Scenic Area.



Without an organizational body or stewardship network, the existing challenges in the Buttermilk Project Area will continue.

# **Buttermilk Road**

Buttermilk Road is the main road providing access to Buttermilk Country. The road also provides access to Horton Creek. Most traffic occurs from October to April, with less traffic occurring from May to September, when most visitors are accessing the Horton Lakes Trailhead. Visitors traverse the road by car, off-highway vehicle (OHV), foot, bicycle, and horse. Visitors driving to Buttermilk Country mainly park on the shoulder of the road between the Peabody and Birthday Boulders.

The road is unpaved and requires seasonal maintenance due to heavy visitor usage. In the absence of severe weather impacts, the speed and care with which drivers navigate Buttermilk Road is the largest contributor to road degradation. Two wheel drive vehicles driving too fast exacerbate many of the current issues on the road such as creating washboards (perpendicular ridges in the dirt roadbed which can damage cars), kicking up dust, furthering erosion, and redirecting runoff. Precipitation and snow melt from nearby mountains can also cause damage, requiring closures of the road. Due to roadway damage, drivers sometimes choose to take environmentally destructive alternative routes or to cut-through the Starlite neighborhood.

### **GOAL**

Create an improved maintenance plan, implement permanent road improvements and minimize impact to the road by users.

# **NO ACTION CONSEQUENCE**

The maintenance agreement between INF and Inyo County will continue in its current form. Roadway damage will prevent visitors from accessing the space, especially for visitors without 4x4 capabilities. Drivers will drive off-road on sensitive areas to avoid the road damage, and emergency vehicles will be unable to access the boulders.

### **POTENTIAL ALTERNATIVES**

# Consistent grading/drainage/dust management

Regrade the road with appropriate drainage and implement dust suppressant strategies.

# Maintenance plan

Create a maintenance plan to prepare for future funding opportunities, but do not make significant infrastructure improvements. The plan should identify mitigations for dust and road base stability beyond paving and identify key drainage issues.

### **Northern route\***

Implement a northern road route to be used as an alternative to Buttermilk Road.

\*Deemed infeasible by USFS

# Paved road\*

Pave Buttermilk Road.

\*Deemed infeasible by USFS

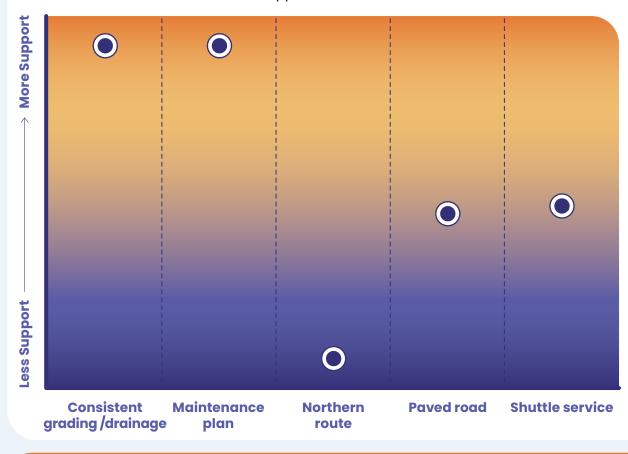
# **Shuttle service\*\***

Implement a regular or seasonal shuttle service from Bishop.

\*\*This is a relatively low resistance alternative that can be quickly implemented.

"Buttermilk Road needs more regular investment to maintain the status of the road to non-4wd vehicles. This road should be paved to the birthday boulders parking lotPage:166of:388ment

Table 3. Buttermilk Road Public Support



# **SUMMARY OF RESULTS**

- Most participants were in favor of the creation of a more robust maintenance plan. This plan can prepare the future stewardship group for the regular maintenance needs of Buttermilk Road.
- Most participants disagreed with the alternative to construct a northern route to the Buttermilk Boulders.
- Although not an initial alternative presented to community members, many people wrote-in their support for Buttermilk Road to be regraded with appropriate culverts and drainage.
- A shuttle service would be ideal for Stewardship Days or high impact weekends. However, it must be run by Eastern Sierra Transit or a licensed guide/ outfitter.

# PROS AND CONS OF PAVING BUTTERMILK ROAD

Paving Buttermilk Road was one of the most commented-on alternatives in this process. 57% of respondents are against the paved road while 43% are in support.

"Please don't pave the road! Environmental impacts to water from asphalt, biological impacts from the road, and other impacts from paving would destroy the habitat value for the area. Plus, paving would only increase speeding and traffic problems by an order of magnitude."

"Paving the road could be the best way to facilitate campgrounds and bathrooms. Also reduces dust."

# MAINTENANCE PLANS

- Road maintenance plans should include maintenance schedules, analyses of different dust suppressants, analyses of draining and hydrology (such as altered ephemeral washes and streambed courses), and studies of where road maintenance would be most impactful.
- Water can act as a temporary dust suppressant, however other materials like water absorbing chemicals, oils, and additives can better bind together surfaces and prevent dust.
- Identifying areas where maintenance would be most impactful can help mitigate future damage to the road.



Because Buttermilk Road has not been regraded, the existing drainage systems have been made ineffective. Page 78 of 338

# Camping

Top 3

Dispersed camping is allowed on USFS and BLM lands and occurs mainly to the west of the cattle guard along Road 7S01 and 7S01E and east of the cattle guard illegally on LADWP land. Camping is not allowed on LADWP land and has been discouraged at the Birthday Boulders.

Visitors camping in dispersed and informal campsites have added debris, erosion, wildfire risk, and damage to cultural sites in the area. While campers are encouraged to use already disturbed land for camping, overcrowding and a lack of education and enforcement has lead to campers setting up in vegetated areas and trampling sensitive plants.

The concentration of dispersed campers along Buttermilk Road impacts available resources and the resulting noise and campfires alarm nearby residents. Campfires are especially a concern during winter months (when camping is very popular) and in spring during high winds.

Future collaboration to manage camping could include development of a formal campground on USFS lands or on LADWP lands managed by Inyo County. In the interim, already disturbed sites can be inventoried and dispersed camping limited to those sites with protocol to restore newly created sites.

### **GOAL**

Reduce impacts to the natural area from camping and plan for the growth of visitors to the area.

# **NO ACTION CONSEQUENCE**

Buttermilk Boulder area campsites will continue to spread and impact culturally sensitive locations and vegetation. As popularity in camping and use rises, areas may see an increase in trash, vehicle debris, human waste, and fires.

### **POTENTIAL ALTERNATIVES**

# Camping ban\*

Do not allow camping near the Buttermilk Boulders.

\*A full camping ban was deemed infeasible by USFS

# **Camping permit**

Require a camping permit to camp near the Buttermilk Boulders.

# **Developed campsites**

Construct developed campsites with amenities like fire pits, toilets, picnic tables, and staff monitoring the sites.

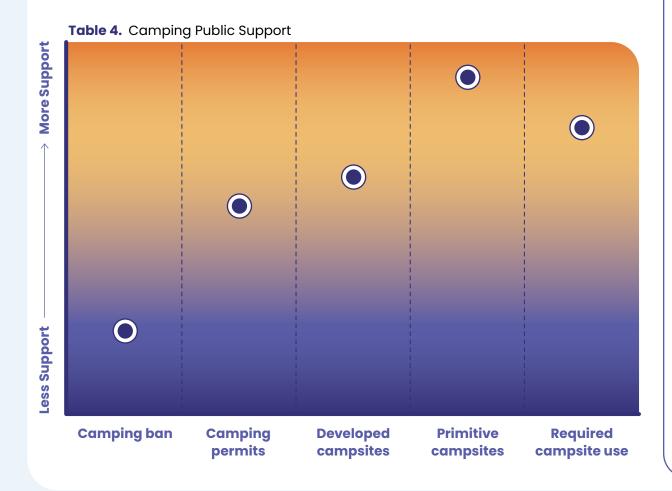
# **Primitive campsites**

Construct primitive campsites clusters with minimal amenities, but do not concentrate sites in one grea.

# Require campsite use

Regardless of the type of campsite provided whether primitive or developed, require the use of a campsite and do not allow dispersed camping.

"I would love to see all dispersed camping in the buttermilks and table lands prohibited. We could use monies from actual campgrounds to fund road maintenance, ranger presence, etc. There are simply too many land users and not enough oversight." - Public comment



# **SUMMARY OF RESULTS**

- Most respondents
   acknowledged the need for
   camping areas and a change
   in the way camping is currently
   handled. Many respondents were
   in favor of primitive designated
   campsites (without facilities).
- A majority of comments were in favor of requiring the use of campsites rather than allowing dispersed camping, and in the long term creating a developed campsite with facilities, which could also be a revenue generator.
- A general camping ban was the most disliked alternative with most respondents against the idea. The USFS has also deemed this alternative infeasible as the agency will not ban any recreational users from enjoying the Inyo National Forest.

"Consensus is hard when fragmented across multiple independent groups. A single organizational 'board' with participation from all stakeholders speaking as a unified voice would be much more effective in advocacy to USFS." "Would like to see a full blown campground in the future. Bring in revenue to help with maintenance and will help with wildlife safety"

"Will need to move towards only designated camping in the future"

"I'd prioritize designated camping areas with permits required."

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Dispersed camping is currently allowed on USFS and BLM in the Buttermilk Project Area.

# **Climbing Rangers**

The USFS, with support from the ESIA, operates a climbing ranger program. There are currently two climbing rangers present in the area from October to June, but these two rangers are not sufficient for the number of visitors in the BIRPI Project Area each year. These climbing rangers were consulted for this Initiative document and provided their feedback about what the improvements they would like to see in the Buttermilk Project Area.

In addition to educating and supporting visitors, climbing rangers conduct climbing patrols to make assessments of climbing routes. Assessments evaluate visitor impacts including soil erosion at the base of routes and along trails; degradation of vegetation from crash pads; garbage, debris and human waste left behind; and fixed anchors and chalk markings on boulders. Rangers report to the appropriate agency regarding the issues and ask for enforcement when necessary. Climbing rangers can also be utilized to assess existing crowd and congestion levels. Monitoring use can subsequently inform improvements most suitable for the area, and can help stakeholders take action as appropriate when too many visitors attempt to set up camp.

#### GOAL

Expand the existing ranger program and identify reliable funding for the program.

# **NO ACTION CONSEQUENCE**

If the ranger program is not expanded, fewer visitors will be able to learn from the rangers, and undesirable impacts will continue.

# **POTENTIAL ALTERNATIVES**

# Hire more rangers\*\*

Hiring additional climbing rangers.

### Kiosk

Construct a small kiosk to answer questions and provide educational materials for visitors entering Buttermilk Country. The kiosk should have a QR code to provide more up to date information.

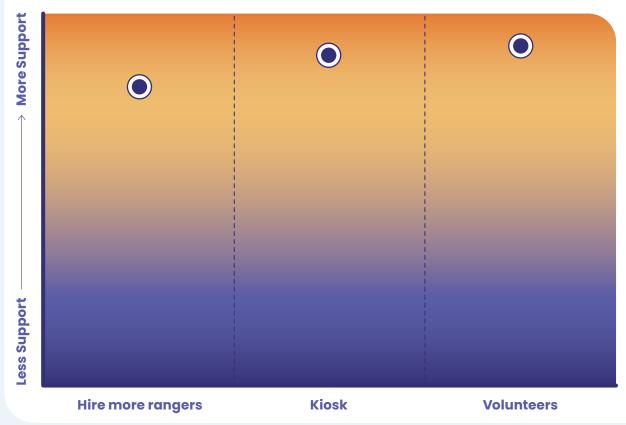
### Volunteers\*\*

Recruit volunteers to help rangers with educational programming, especially on busy weekends.

\*\*These are relatively low resistance alternatives that can be quickly implemented.

"Station someone on busy weekends at the Buttermilk [Road] entrance" - Public comment

Table 5. Climbing Rangers Public Support



# **SUMMARY OF RESULTS**

- An similar number of participants liked the idea of volunteers helping with educational programs and the creation of a small kiosk prior to entering the Buttermilk Boulders area. A kiosk received one negative comment. A welcome kiosk is a fundable next step.
   See page 79 for more information.
- Most respondents that commented on these potential alternatives liked the prospect of hiring at least one more climbing ranger. Approximately 12% of participants do not want to hire more climbing rangers.

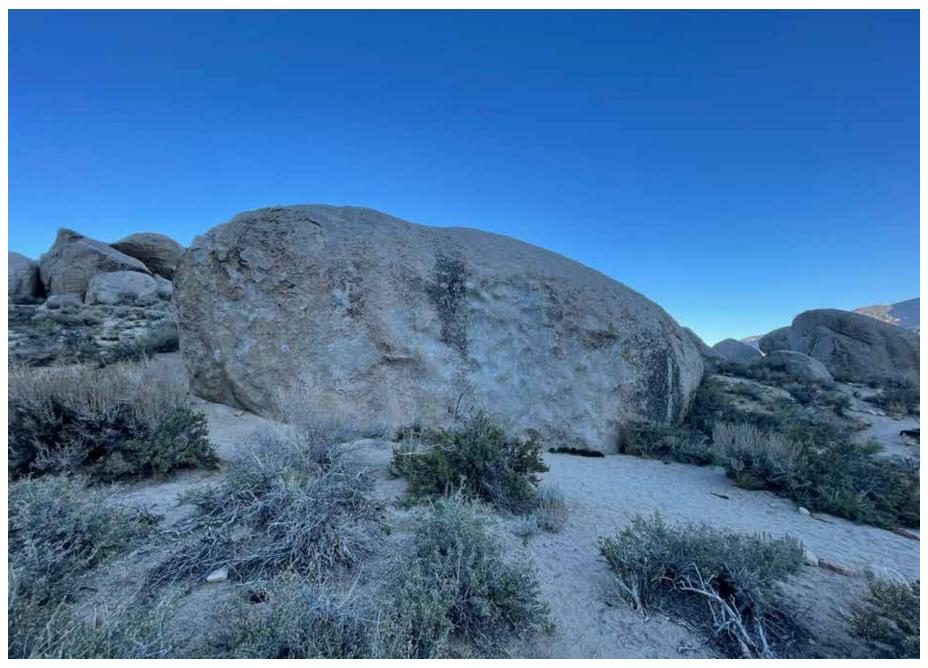
# **FUNDING**

Building from the successful partnership with the ESIA, the USFS can find additional stewardship groups to help fund the expansion of the climbing ranger program. See page 106 for other potential funding options.

"A small welcome center ... with educational displays about local wildlife, cultural resources, and the land's first peoples, and ecological communities, would help remind climbers that the Buttermilks did not come into existence purely to entertain climbers."

"Consensus is hard when fragmented across multiple independent groups. A single organizational 'board' with participation from all stakeholders speaking

Page 83 of 38 unified voice would be much more effective in advocacy to USFS."



Climbing rangers can help mitigate the impact of climbers on the Buttermilk Boulders. Page 84 of 338

# **Education**

Top 3

The Buttermilk Project Area lacks sufficient programming and signage to teach visitors about the land and the effects of irresponsible behavior by visitors. Perhaps as a result, the area has seen increased damage to native wildlife from hikers widening trails, dogs damaging vegetation, people parking in sensitive areas, campers leaving fires unattended, and climbers using undisturbed sites.

Potential educational solutions should be accessible and understandable to reach audiences with differing levels of context and experience recreating near the Buttermilk Boulders. Educational signage and programming should focus on educating visitors about the impact of their activities on the land, such as how long vegetation takes to grow back and about wildfire behavior in the Eastern Sierra. Solutions should work in tandem with tribal management, land stewards and stakeholders, and education and enforcement provided by USFS and BLM rangers and County law enforcement.

#### GOAL

Create an information platform for visitors to learn the rules and regulations of visiting the Buttermilks and how they can help protect the land and access to recreational opportunities.

# **NO ACTION CONSEQUENCE**

Best practices for the Buttermilk Project Area will be up to the visitor to learn on their own. Visitors that are inadvertently damaging the land and cultural areas will continue to do so. Visitors to the area will not be aware of the land's tribal importance.

### **POTENTIAL ALTERNATIVES**

# **Robust educational system**

Implement multiple educational options including wayfinding, interpretive and educational signage and thorough online resources that explain the importance of responsibly visiting the Buttermilk Project Area.

# Simple educational system\*\*

Implement educational systems like simple signage near key areas, printed materials available at local outdoors retailers, and social media campaigns. Signs should reference leave no trace and camp like a proprinciples.

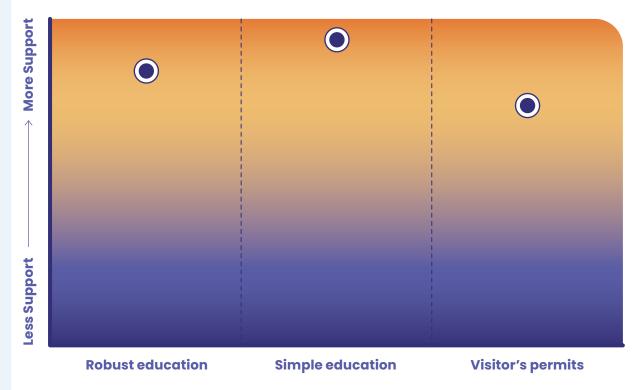
\*\*This is a relatively low resistance alternative that can be quickly implemented.

# Visitor's permits

Require all visitors to obtain a permit to visit the Buttermilk Project Area. The permit should include an educational component.

"Many people have no sense of how sensitive the area is and that trails require ongoing maintenance and education of proper leave-no-trace practices" - Public comment

# **Table 6.** Education Public Support



# **SUMMARY OF RESULTS**

- Simple educational measures were the most popular alternative. Respondents were enthusiastic in their support for online resources and an education campaign facilitated by climbing rangers or through social media channels.
- Respondents had some mixed opinions of a visitor's permit with an educational component.
   Many were in favor, but others had reservations about requiring permits which may limit access.
- The USFS can partner with organizations like the Bishop Chamber of Commerce to help create and promote educational materials.

# **EXAMPLES OF THOROUGH ONLINE EDUCATION**

TakeCareSierra.org

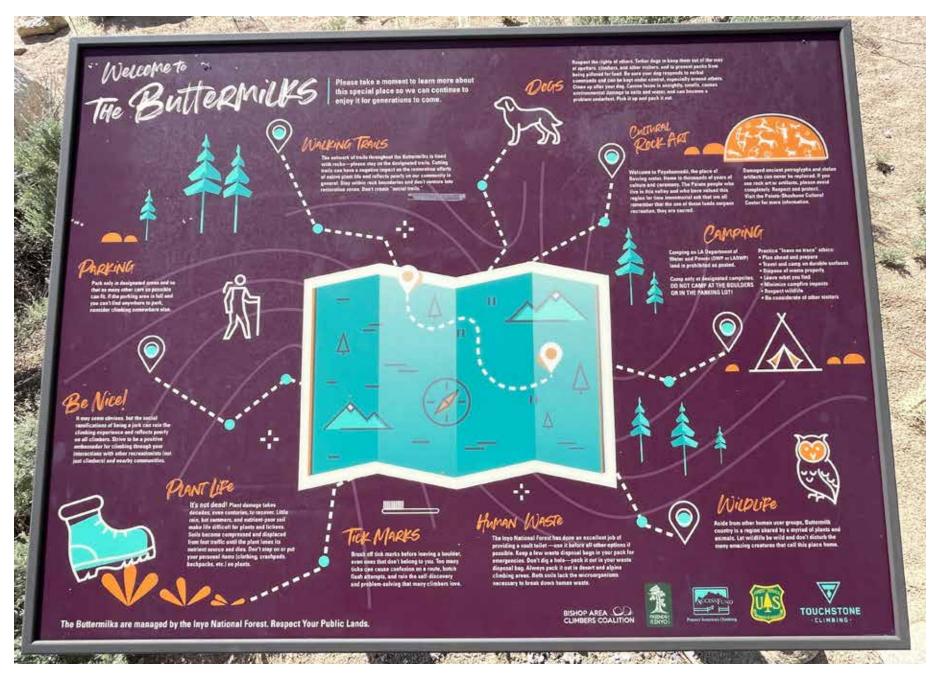
TakeCareTahoe.org

# PROS AND CONS OF SIGNAGE

Most participants that commented on the robust educational campaign were in favor of it. However, some participants have concerns about too much signage in the Buttermilk Project Area. "Climbers especially are out there to climb and are less likely to read interpretive signs. The current signs at the Buttermilks are often overlooked. Signs are also an eyesore. I don't think there should be more signs."

"Education/signage is important but should explain the consequences of not using designated areas or other violations. Signs are useless if people aren't following the rules. Enforcement is also necessary."

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# **Habitat Destruction**

Though most visitors walk along existing formal or informal (social) trails, some visitors do not, or have widened them over time walking side-by-side. The new and widened trails have contributed to erosion and damaged vegetation along the trails. Informal parking and inconsistent maintenance on Buttermilk Road has also contributed to erosion and damage to the land. Dirt bikes, mountain bikes, and off-road vehicles that travel off designated paths have damaged or destroyed many natural areas, including delicate desert plants that take decades to re-establish. Additionally, bouldering pads have crushed native vegetation, and waste left from visitors have harmed plants and wildlife. The potential solutions related to habitat destruction should work in combination with other presented solutions, including camping and parking regulations, educational programming, and increased maintenance and staffing.

According to the environmental assessment (Appendix C), there are 52 special status plant species and 32 special status wildlife species that have the potential to occur in the BIRPI Project Area, some of which are found in the Buttermilk Project Area. This includes endangered plants and animals.

### **GOAL**

Limit and redirect activities that lead to habitat destruction.

# **NO ACTION CONSEQUENCE**

The proliferation of informal trails created by hikers, climbers, bikers, and OHV riders will increase. These new trails will cut through critical habitats, cause changes to surface water flow patterns, and increase erosion.

### **POTENTIAL ALTERNATIVES**

### **Ban OHVs\***

Ban dirt bikes and off-highway vehicles (OHVs) in sensitive areas.

\*Deemed infeasible by USFS

# Improve trail network

Improve the OHV trail network. Expand climbing ranger program to educate visitors.

# Infrastructure and signage\*\*

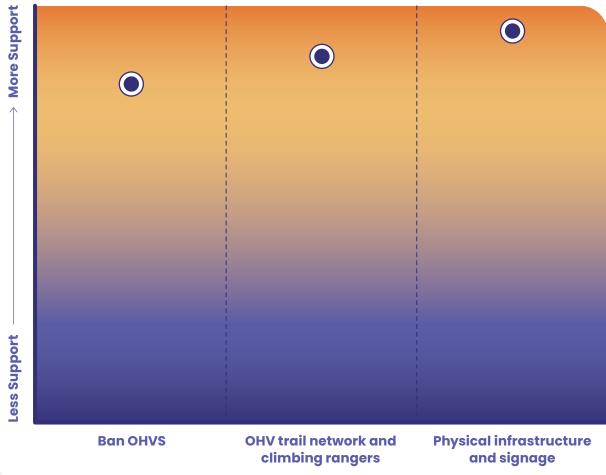
Use physical infrastructure and signage to show recreational users where they should use OHVs, hike, set up crash pads, camp and park.

\*\*These are relatively low resistance alternatives that can be quickly implemented.

"Mountain bicyclists and/or motorcyclists have been developing new trails in springheads, seeps, and ephemeral waterways here. They have torn out vegetation, left permanent scars through mosses, lichens, and boulder surfaces, and sabotaged repeated efforts to re- vegetate and rake out tracks."

-Public Comment

# **Table 7.** Habitat Destruction Public Support



"Create an actual OHV trail system. Tell them where to go,

rather than where not to go"

"Education is important but excluding user groups won't work. They're already there and will continue to use existing trails - accommodate them - don't shut them out. Educate on sensitive areas but allow for other ways to connect with their network of trails"

# **SUMMARY OF RESULTS**

- Respondents strongly preferred physical infrastructure and signage creating rules of use for the area, including OHV regulations, climbing rules, and where to walk and climb.
- There was also high support for the creation of specific OHV trails outside of the Buttermilk Project Area, though this alternative received fewer overall comments than the physical infrastructure alternative.
- 82% of participants that commented on this category were in favor of banning OHVs in the Buttermilk Project Area. Those against this idea had concerns about excluding certain recreational users. The USFS has deemed this alternative infeasible as the agency will not ban any recreational users from enjoying the Inyo National Forest.

"Please identify all environmentally/culturally sensitive areas and close them to OHV traffic."

"Signage and infrastructure may be a good place to start but enforcement will be necessary to prevent new trails/ proliferation across habitat. Back to ranger programs..."

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Netting has been placed around vulnerable vegetation to encourage visitors to stay out of these areas. Page 90 of 338

# Maintenance and Staffing

Most of the BIRPI Project Area is managed by the USFS, BLM, and LADWP, with each agency overseeing different areas. However, the Buttermilk Project Area is not actively managed at a level commensurate with its popularity and usage. Maintenance issues have been observed throughout the area, which include the deterioration of the roadways and parking areas, waste left behind from visitors and wide and informal trails. The area is in need of land stewards and volunteers in addition to agency oversight to address these user-generated impacts on the landscape.

Currently there are no USFS designated trails in the Buttermilk Project Area and maintaining social trails is not a general practice of the USFS. NEPA studies would need to be conducted to formalize trails in the area prior to the establishment of a maintenance schedule.

In addition to the administration of educational materials and the installation of facilities for visitors to learn about protecting the land and recreating responsibly, enforcement is needed to ensure visitors are following Buttermilk Project Area rules and regulations.

### GOAL

Reduce the amount of waste left behind from visitors, maintain infrastructure within the Buttermilk Project Area and regularly groom trails and repair fencing.

### **NO ACTION CONSEQUENCE**

Not keeping up with the maintenance needs in Buttermilk Country may negatively impact the immediate and adjacent environment.

# **POTENTIAL ALTERNATIVES**

# Additional facilities and/or infrastructure

Install additional facilities, like trash receptacles, for visitors to use and hire staff to maintain these facilities. Install infrastructure like trail fencing to protect sensitive areas.

# Signage, programming and law enforcement

Implement educational and regulatory signage and programming about how to help maintain the area. Hire a law enforcement ranger to enforce rules.

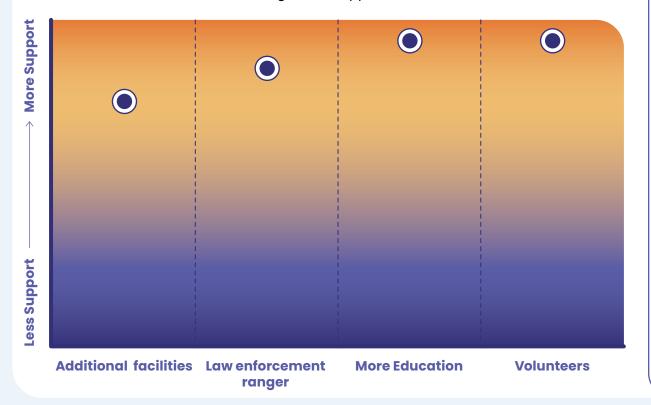
# Volunteer clean up days\*\*

Recruit volunteers to join cleanup and maintenance days in the Buttermilk Project Area.

\*\*This is a relatively low resistance alternative that can be quickly implemented.

"I think all efforts should consider that infrastructure improvements bring more people. While doing nothing is not a good option, future plans should balance keeping the remote character of the area and keeping amenities limited so as to not just add more users that the upgraded infrastructure cannot accommodate." - Public comment

**Table 8.** Maintenance and Staffing Public Support



# **SUMMARY OF RESULTS**

- Respondents overwhelmingly supported volunteer clean up days and additional education about how to maintain the area.
   During Workshop #2 law enforcement was presented as a separate alternative, however, law enforcement should be implemented in tandem with additional education to ensure visitors follow area rules.
- There were fewer overall comments about installing additional facilities in the area. 79% of those that commented on this alternative were in favor of more facilities and staff.

# **TYPES OF ENFORCEMENT**

There was disagreement about law enforcement rangers, but an acknowledgment that enforcement is a necessary part of creating and maintaining a rules based system. 20% of participants that commented on this alternative were not in favor of hiring a law enforcement officer.

"Simple parking restrictions like not clogging the road or parking off road in the brush, should be enforced during peak times of the year. Year-round enforcement resources aren't likely needed. It would only take a few days of ticketing during the most impacted times to dramatically reduce damage and bad behavior."

"Education, not more law enforcement"

"Signage and education but still need some enforcement options volunteers, stewards or paid by grants or local agencies"



Increased maintenance and staffing can help prevent further degradation to the vegetation in the area. Page 93 of 338

# **Overcrowding**

People have been enjoying the Buttermilk Project Area in a variety of ways for generations and this has only grown over time, becoming more acute in the last 20 years. With more advertising from the local business community and an increase in the popularity of climbing, visitor traffic has intensified in the Buttermilk Project Area. Both USFS and BLM have dispersed camping limits of 16 and 14 days in a row, respectively, but do not require permits to camp.

With overcrowding, informal camping and parking sites continue to expand along Buttermilk Road, causing damage to the land. Some visitors then walk over sensitive areas to create social trails to reach climbing areas from new camping and parking sites. Additionally, a lack of restrooms has led to human waste and dumping.

Together with maintenance and staffing solutions, overcrowding solutions can limit the number of people allowed to visit the Buttermilk Project Area each day, and can decrease the further destruction of habitats.

#### GOAL

Address overcrowding challenges and consider options to best mitigate impact during peak seasons.

# **NO ACTION CONSEQUENCE**

The natural landscape will continue to degrade both in quality and experience.

# **POTENTIAL ALTERNATIVES**

# Infrastructure improvements

Implement significant infrastructure improvements to handle expected crowds, such as designated parking areas.

# **Permit system**

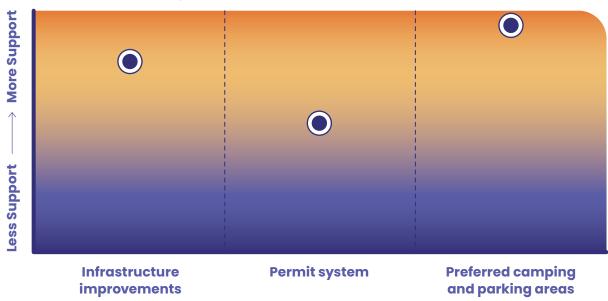
Create a permit system for camping, limiting the number of days a visitor can stay in busy areas

# Preferred parking and camping areas

Identify and promote preferred parking and camping areas.

"Certainly the area is overcrowded and usage should be limited by a daily use permit such as a backcountry permit for backpacking." - Public comment

Table 9. Overcrowding Public Support



# **SUMMARY OF RESULTS**

- Respondents overwhelmingly supported the promotion of preferred camping and parking areas.
- Significant infrastructure improvements received generally positive feedback, as there was an acknowledgment of growing popularity and increasing visitor numbers annually.

# **CLIMBING FESTIVALS**

While not in favor of permits for visitors, the BACC does not think special permits for festivals should be issued on holiday weekends. Festivals on already busy holiday weekends put undue pressure on climbing resources.

# **PROS AND CONS OF PERMITS**

There were disagreements over permits limiting the number of visitors. While half of the responding participants supported permits, others are worried about accessibility, including the BACC and the Access Fund.

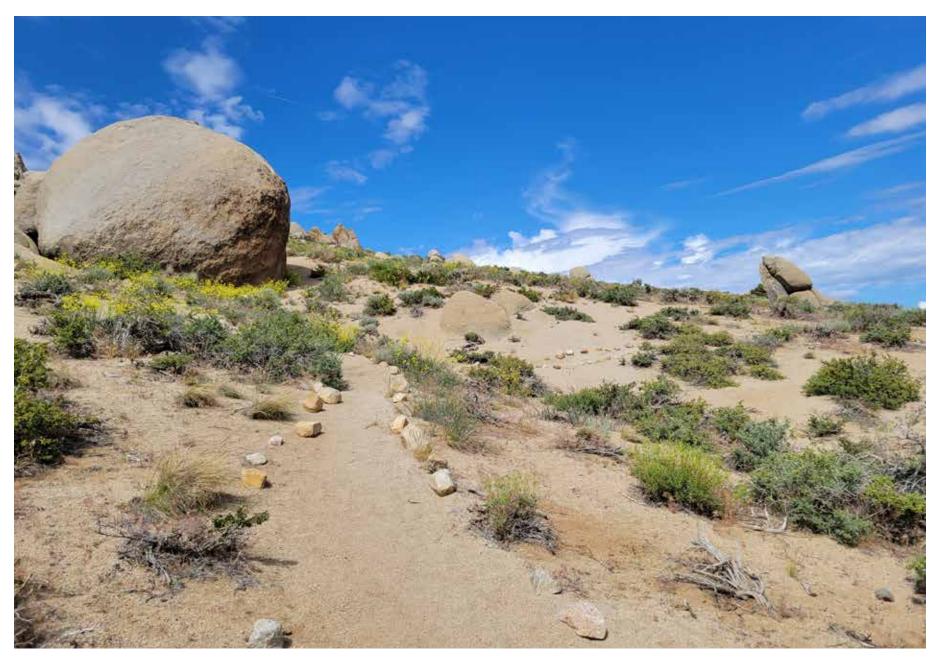
The USFS can consider only permitting certain areas with Buttermilk Country, or limiting permits to certain climbs or specific days. Permits should be available both online and in-person at local pick-up spots.

"A permit system destroys the ability for a quick after work trail run or bouldering session. Permit systems also make areas less accessible to people who don't have reliable internet access or internet skills."

"Require permits to use/camp/park. The amount of traffic to the area needs to be reduced."

"The most important issues to me are controlling the numbers of visitors, developing permitted camping sites and education..."

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An informal trail delineated by rocks leading to a climbing area. When the climbing area becomes too crowded visitors walk outside of the path into the vegetation.

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# **Parking**

Top 3

Buttermilk Road is the only road connecting to Buttermilk Country and other natural areas nearby. Most visitors that arrive by car park on the shoulder of Buttermilk Road. Over time, the creation of informal parking areas has caused destruction to native vegetation, habitats, and wildlife areas, and has contributed to the erosion of Buttermilk Road.

Further, these informal parking areas lack durability and delineation, which has contributed to the growth/incursion and damage of the surrounding landscape, conflicts between recreational users, and traffic jams. The USFS has also expressed concerns related to emergency access in Buttermilk Country due to the consequences of this informal parking on both sides of the road.

### **GOAL**

Reduce informal parking areas and replace with designated parking lots that have barriers to prevent vegetation damage.

# **NO ACTION CONSEQUENCE**

The road will become impassable for emergency vehicles due to parking along each side. Botanical and cultural impacts will increase as people park in new areas and alter hydrology and increase erosion.

### **POTENTIAL ALTERNATIVES**

# Paved parking lots\*

Create paved parking lots.

\*Deemed infeasible by USFS.

# **Permits for parking**

Require the use of parking permits.

# Reduce parking\*\*\*

Close off popular parking areas to limit the number of visitors able to park.

\*\*\*Not recommended by advisory committee

# Signage and delineation\*\*

Install clear parking signage and guidance including lot delineation with low-cost materials. Limited signage is necessary to enforce parking restrictions and rules.

# **Shuttle service\*\***

Create a shuttle service from the City of Bishop, especially during festivals.

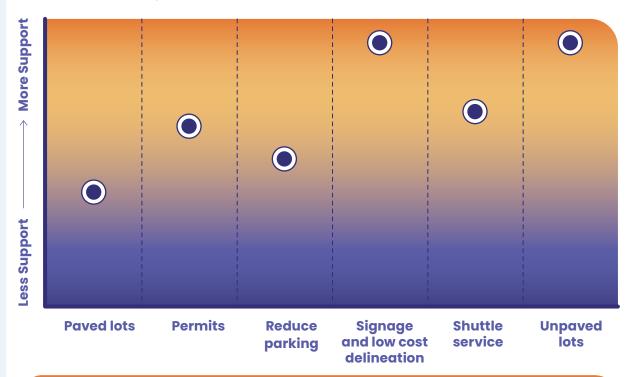
# **Unpaved parking lots**

Create unpaved parking lots.

\*\*These are relatively low resistance alternatives that can be quickly implemented.

"There isn't enough parking during peak season, particularly on weekends and holidays, which leads to people parking in non-designated areas and destroying Rage 17:061338 Public comment

**Table 10.** Parking Public Support



# **PROS AND CONS OF PERMITS**

While parking lots in general are supported, participants left comments on how they think parking should best be distributed in the area.

"Non-paved parking area across road from toilets in previous burned area (build it and they will park there). Parking lot doesn't have to be paved."

"Consider a central parking lot below the Peabody Boulders with trailheads to Main Buttermilks, Dales Camp and the Pollen Grains."

"There should be much more limited parking along the main road at the bouldering area, perhaps just to one side of the road."

### **SUMMARY OF RESULTS**

- Low cost signage and parking delineation was overwhelmingly supported, and one of the most commentedon alternatives in the engagement process.
- Parking lots were supported in general, with unpaved lots being the preference from a majority of respondents.
   Paved lots received more divisive comments. The USFS deemed paved parking lots to be infeasible due to the pavement maintenance requirements on the dynamic soils and terrain in the area.
- A shuttle service is popular, though there are concerns if the service would actually be used. Limiting the service to busy weekends like during festivals may increase ridership.
- There were concerns about limiting access to the boulders if parking permits are required.
- Some participants wrote-in that they would like to reduce available parking. However, this is not recommended as there is a demonstrated need for more parking.









Cars currently park in informal spaces along Buttermilk Road. The lack of designated parking, parking space delineation, and signage is leading to the proliferation of informal parking areas that destroy native plants and contribute to erosion.

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# **Trails**

Most trails in the area are informal. created by the passage of visitors ("social trails") accessing climbing boulders from parking and camping areas. Informal trails are created by trampling vegetation which destroys plants and contributes to erosion. These trails are also continually widened as visitors walk side-byside or in large groups along the trail. Damage from these informal trails has destroyed much of the natural area near climbing destinations, and in some cases this damage is worsened by off-road vehicles and dirt and mountain bikes.

Designating and delineating existing social trails, and/or creating a formal trail network will allow landowners to choose paths with the least potential to further damage the land. These trails should also be chosen with future maintenance considerations in mind, and should be reinforced to accommodate visitor volumes.

#### GOAL

Consolidate and formalize existing trails to alleviate the impact on natural areas and mitigate potential impacts to cultural resources.

# **NO ACTION CONSEQUENCE**

Informal trails will continue to form, leading to increased damage and erosion.

### **POTENTIAL ALTERNATIVES**

### **Create new trails**

Formalize a loop trail network connecting parking to the entire climbing area as well as a network through the Tungsten Hills.

### Delineate with natural materials\*\*

Delineate trails with signage and natural materials. Reinforce heavilyused trails and parking access points with natural materials.

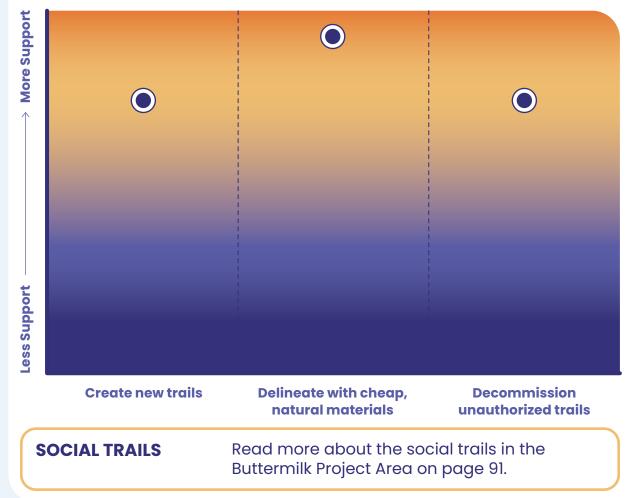
\*\*This is a relatively low resistance alternative that can be quickly implemented.

# **Decommission unauthorized trails**

Delineate and close trails with permanent materials.

"General climbers stick to established trails but sometimes those unfamiliar with the area follow social trails destroying natural area." - Public comment





### **SUMMARY OF RESULTS**

- Most respondents supported delineating trails with cheap materials in the short term.
   This alternative received zero negative responses.
- There was also support for creating new trails, either a formalized trail network through the Tungsten Hills or a loop trail around the bouldering area.
- Respondents also generally supported a permanent closure of some trails and permanent delineation of other trails, though there were concerns that closing trail may limit accessibility to areas beyond the boulders.

"A low wildlife-permeable fence along the road nothing serious, just a low visual border - could reduce trail proliferation that comes directly off the road." "Eliminating access to undesirable trail routes greatly concerns me. Undesirable to who? Determined by who? The climber use is heavily weighted here but off road users and bike riders use this area too and like the loop routes available to them. Horseback riders do too, so considering routes for all these user groups is important."



Using rocks and other natural features is a low-cost way to delineate trails.

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# **Tribal Involvement**

The Buttermilk Project Area is native tribal land for the Bishop Paiute Tribe who have been stewards of the land for generations. The land holds cultural and historical significance for many Paiute Tribes, with sacred sites located throughout the Buttermilk Project Area, including near popular climbing destinations.

The Bishop Tribal Council should be involved in the protection, administration, and long term planning efforts of this area. The Council should be notified of ongoing decision making, and be involved in planning and programming on-site. Educational programming led by the Paiute Tribe can teach visitors about the significance of the land, and why it is important to respect it.

Tribal representation in the Buttermilk Project Area could be manifested by including Paiute names for plants on replanting initiatives, interpretation included in signage, a tribal climbing ranger, cultural training for staff and volunteers, and tribal input of potential infrastructure changes.

#### GOAL

Agencies consult with the Bishop Paiute Tribe regarding management decisions made in the Buttermilk Project Area.

# **NO ACTION CONSEQUENCE**

The local tribes will be uninformed and unengaged regarding decisions affecting the management of their native land.

### **POTENTIAL ALTERNATIVES**

# **Ambassador and ranger program**

Encourage the Paiute Tribe to identify an ambassador that can work with the USFS tribal liaison. Create a tribal climbing ranger program.

# **Educational programs**

Create educational programs led by tribe members and expand tribal involvement in the Buttermilk Project Area.

# Representation\*\*

Request for tribal representation on boards and committees and early notification of planning initiatives.

\*\*This is a relatively low resistance alternative that can be quickly implemented.

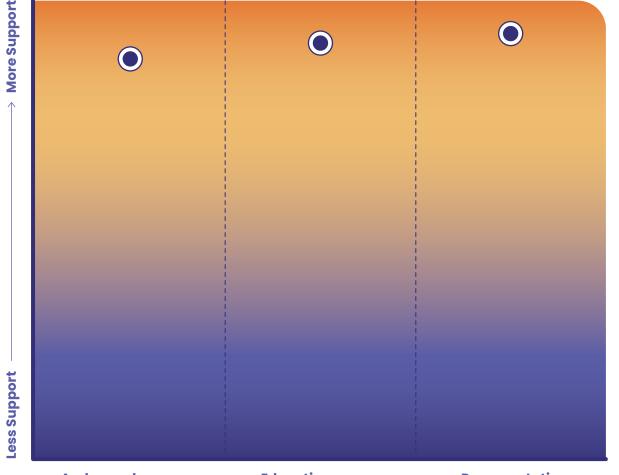
"Information about indigenous tribes would benefit the area by helping inform visitors about the history and cultural value of the land they are enjoying."

- Public comment

# FEEDBACK FROM LOCAL TRIBE REPRESENTATIVES

- Tribes should be involved in the planning process from the start
- The land should be kept as pristine as possible for future generations
- · Education and ambassador programs are vital to the protection of the land
- Rangers and monitors from the tribe should be consulted and utilized to document artifacts and cultural resources throughout the Buttermilk Project Area.
- For more information, on comments from tribal representatives refer to Appendix Page 103 of 338

Table 12. Tribal Involvement Public Support



# **SUMMARY OF RESULTS**

- Tribal involvement was one of the most agreed upon and popular categories among respondents. None of the alternatives received negative comments.
- All solutions were met with enthusiastic support, but there were fewer total comments for educational programs or an ambassador program.
- In addition to public support, the USFS also supports further representation of tribal culture in the Buttermilk Project Area.

Ambassador program

**Education programs** 

Representation

"Please recognize Tribes as first users and highest priority stakeholders. Offer them first and priority engagement opportunity" "This is an awesome and long overdue goal!"

"The tribes should receive priority over recreational groups for use considerations."

"Allow opportunity for all tribal entities to participate in scoping process."

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Sacred sites for the Paiute Tribe are located throughout the Buttermilk Project Area. Page 105 of 338

# Wildfires

Currently, visitors who are camping in the area do so via dispersed and informal campsites. Lacking formal infrastructure for the use of fire, like fire pits, the area is at heightened risk for wildfires. This risk rises as the number of informal campsites increases in the area.

Nearby neighbors are concerned about the risk of wildfire due to unattended campfires. Over the years, campsites and campfires have expanded further east along Buttermilk Road closer to the Starlite neighborhood, including illegally on LADWP land.



Informal camping and fire pits increase wildfire risk throughout the Buttermilks.

#### GOAL

Reduce the risk of fire throughout the area by implementing fire restrictions or providing formal infrastructure for the use of fire. Educate visitors about the danger of wildfire in the Eastern Sierra.

# **NO ACTION CONSEQUENCE**

There will be an increased risk for wildfire.

# **POTENTIAL ALTERNATIVES**

### Fire ban\*\*

Ban fires between specific elevations based on seasonal conditions.

\*\*This is a relatively low resistance alternative that can be quickly implemented.

### Seasonal fire ban

Ban fires during dry seasons with high wildfire risk.

# Fire pits with grills limited to developed campsites

Allow fires only in developed campsites with amenities and staff.

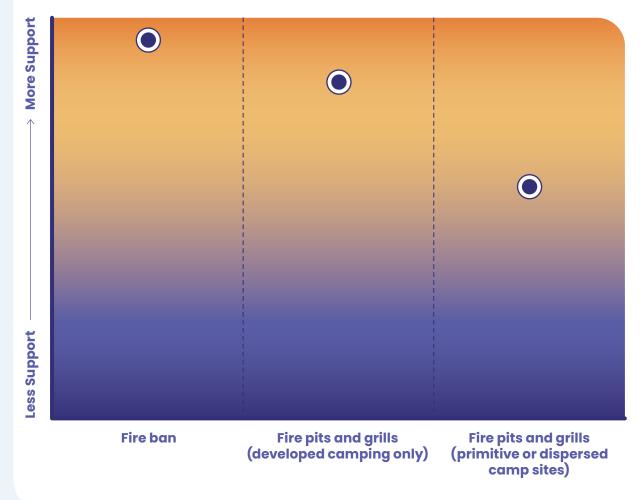
# Fire pits with grills in dispersed campsites

Install fire infrastructure in designated primitive campsites and popular dispersed camping areas.

"Fire restrictions are ever changing and difficult to communicate. I would be in favor of a blanket ban on campfires in the Buttermilks." - Public comment

"Since this process will take years to play out, is there any chance moratoriums could be put in place on critical issues, like fires, in the interim?" - Public comment

# Table 13. Wildfires Public Support



### SUMMARY OF RESULTS

- Respondents generally agreed about the safety and dangers of having fires, especially without proper infrastructure.
- The responses showed that participants want fires to be limited to areas with proper infrastructure, such as formal, developed campsites, or be banned all together. There were fewer positive responses and more negative responses for putting fire pits in primitive campsites or informal campsites.
- While not suggested within the public engagement process, a seasonal fire ban is an additional option the USFS can consider in reducing wildfire risk.
- Fire bans could be a temporary moratorium until more specific parameters and infrastructure for fires is established.

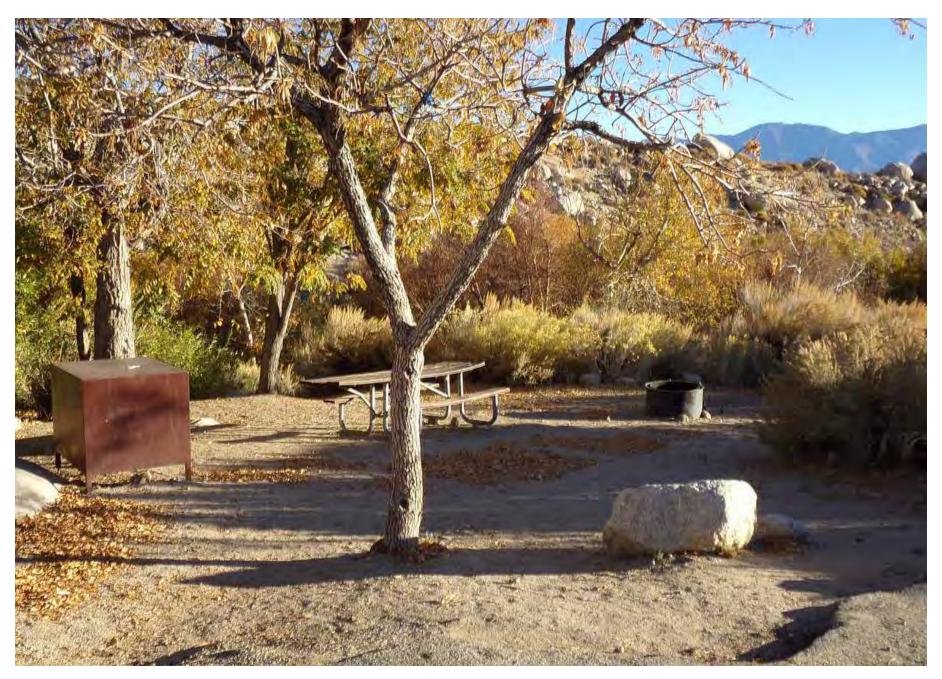
"Easy to limit fires to stoves/portables below a certain altitude. No open pits. No open flames."

"Campfires anywhere in the area are a problem and should not be allowed."

"Banning fires seems like the best possible solution."

"Where would fuel to burn come from? (Right now, people are taking fence posts on their way through Starlite. No, really!) Any plan that allows fires must include a sustainable way for people to buy fuel (which

Page 107/net/388n/t agree to pay for)"



Adding fire pits to camping areas can prevent fires from spreading. (Photo Credit: Lone Pine Campground)
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## **Next Steps and Implementation**

This chapter offers suggestions for quick wins that the land managers can take to make a difference in the Buttermilk Project Area without significant collaboration, time, or cost. This chapter also provides suggestions for implementing certain alternatives discussed in Chapter 3 including climbing policies, trail delineation, and signage considerations. These suggestions are for reference, as the future organizational body, including the key agencies in charge, such as the USFS, Inyo County, LADWP, BLM, Bishop Paiute Tribe, will need to determine which of these suggestions will best meet the needs of the area.



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## **Quick Actions**

Quick wins are recommendations that the USFS can implement with relative ease and without significant coordination required between all jurisdictions. These suggestions can help the USFS determine which other solutions would work best in the Buttermilk Project Area and can prepare visitors for other changes.

## **Data Tracking**

Gathering data on the Buttermilk Project Area and beyond is difficult and diffuse due to a lack of data and differing land management data collection tactics. Establishing baseline data for the area can help create a clear understanding of where there are places that should be prioritized for improvement, and where implementing improvements has made a difference. Higher quality and more data will help also determine the carrying capacity of the land. Capturing consistent and thorough data throughout the year will help identify peaks and off-peak seasons for the area. This data will help decision makers use quantitative data, instead of anecdotal data, in future planning decisions.

Tracking the condition of Buttermilk Road can help the County understand the times of year where damage to the road increases and can help the County implement mitigation measures prior to these seasons. As a part of the Economic Impact of Rock Climbing and Bouldering in Bishop report led by the BACC and the Access Fund, researchers tracked the number of climbers visiting, parking, camping, and spending money in the BIRPI Project Area.<sup>1</sup> Tracking these numbers at regular intervals, such as annually, can help the managing landowners understand how the number of visitors changes over time.

Tracking data can also help in the process of creating policy or infrastructure change. For example, tracking the peak number of vehicles parked near the Buttermilk Boulders can establish a baseline for the number of formalized parking spaces that should be developed to prevent further damage to the land.

Similarly, the ESIA has collected data about the social trails in the BIRPI Project Area which can be useful for landowners to track the creation of new social trails. However, additional use data should be collected for other popular trailheads like the Horton Trailhead and the Upper Buttermilk Loop to better understand destination trends.

BLM has maps of established dispersed camping sites that climbing rangers can use to help prevent the creation of new sites. The USFS should also create maps of their land in the Buttermilk Project Area to establish camping and parking area baseline data.

The USFS can continue to lean on organizations and volunteers like the BACC and ESIA to help collect data, however this data should be available in a central location.

<sup>1</sup> Maples, James N, Michael J Bradley, Mary Boujaoude, Mora Rehm, and Tim Golden. Economic Impact of Rock Climbers in Bishop, California.

#### **Welcome Kiosk**

Within the climbing ranger category (page 49), one of the alternative options is to implement a welcome center prior to entry to the Buttermilk Boulders. This alternative received high support, and due to its relative cost effectiveness and potential for benefits it should be implemented by the USFS. A small welcome center or welcome kiosk could vary in size and scope based on funding availability and USFS priorities. This center could be a staffed building that visitors can enter, or it could be a kiosk where visitors must stop prior to the bouldering area. Staff at the welcome center can ensure visitors are aware of the basic principles of leaving no trace and can point visitors to preferred camping and parking areas. If visitor permits are implemented, this could also be a place where staff can check for the required permits. Additionally, welcome center staff can help in monitoring issues in the Buttermilk Project Area and collecting data.

Rather than a staffed structure, the welcome center could instead be an information kiosk placed near the toilet. This kiosk should provide detailed information about the land and the facilities available, emergency procedures, and maps to popular recreational places in the area. This kiosk should include education about the unique ecology of the land, impacts of incremental vegetation degradation, fire behavior in the Eastern Sierra, respect for cultural resources, and traditional and cultural place names and plant names. The kiosk should also include specific guidance on climbing and information about the history of the land and the ongoing practices of the Paiute Tribe.

There is an existing kiosk at the Buttermilk Road/ Highway 168 intersection. This kiosk is outdated and is a good candidate for renovation. Other potential places for a kiosk could be near the existing toilets or at entrance areas to bouldering sites. More information about content for a kiosk can be found on page 82.



Welcome kiosks do not require staffing, but provide information for visitors like maps, safety information, and area regulations. Photo credit: Mammoth Lakes Trail System

## **Best Practices**

These suggested actions are steps the future Buttermilk Project Area's organizational body can take to implement some of the alternatives introduced in Chapter 3. These actions describe best practices taken from other agencies and recreational areas across the country with similar challenges to the BIRPI Project Area. These actions are intended to be a reference for the land managers rather than a set of specific recommendations.

## **Climbing Etiquette**

The Buttermilk Country climbing area is one of the most popular in the Western United States. To ensure a positive experience for all visitors and to protect the natural landscape climbing etiquette and rules should be followed. These rules should be included in educational materials created for the Buttermilk Project Area, and climbing rangers should encourage visitors to follow them.

#### PRESERVING THE LANDSCAPE

The Buttermilk Boulders are in the Pinyon-Juniper Woodland and Sagebrush Scrub plant community ranges. While the plants in this range are hardy, if they are damaged they can be overtaken by invasive weeds and grasses which will destroy the native landscape and can take decades to re-establish. These invasive species are not drought or fire resistant, and many animals rely on native species as a food source, specifically the migratory Round Valley deer herds. There is a risk for damage to these plant communities from climbers crushing them with crash pads, gathering in large groups, and spreading out materials around the bouldering areas.

The Buttermilk Project Area gets seasonal rainfall and snow melt. Therefore many of the streams and washes are ephemeral. Water flow patterns can be disrupted by carved out trails from OHVS and heavy foot traffic which alters the landscape. Climbers should be mindful of where they walk, and minimize group sizes. Cultural sites should also be preserved

and respected by climbers. There are sites within the BIRPI Project Area that were formerly homes and ceremonial centers, or have petroglyphs that are thousands of years old and are sacred to the Paiute Tribe. These areas should remain undisturbed and avoided by climbers.

Climbing rules help keep climbers safe while respecting the natural environment and creating a pleasant space for the next visitor.

#### **EXAMPLE CLIMBING RULES**

- No liquid chalk
  - Liquid chalk is not easily removable and it solidifies creating a glassy, slick surface
- Brush off excess chalk and tick marks
  - Brush the holds before and after climbing
- Follow leave no trace principles
  - These principles include cleaning up all trash, not taking anything from the land, walking on durable surfaces and respecting wildlife
- Don't crush vegetation

- Stay within designated landing zones. Be careful with pad placement and keep climbing materials contained and organized
- Check pads and clothing for Russian Thistle so seeds are not transported
- · Stay on trails
- Be respectful of other climbers
  - Do not play loud music, keep gear orderly, do not cut in line for attempts on a crowded boulder, and do not offer unsolicited advice (beta)
- Respect cultural areas
  - Do not climb on any closed off boulders and do not enter closed areas
  - Do not climb over or touch petroglyphs
  - · Do not remove any artifacts
- Do not chip or glue rock
- Do not place bolts if the rock does not call for it. Utilize existing bolts.
  - Paint bolts and hangers to match the rock
- Do not top rope directly from fixed hardware
- Leave pets at home if possible

- Pack out pet waste
- Do not tether pets to vegetation
- Keep pets leashed at all times
- Stay on marked trails and limit OHV activity to marked areas
- Clean shoes before climbing to prevent polishing
- Camping
  - · Observe length of stay limits
  - Obtain fire permits and observe restrictions
  - Do not camp on LADWP land
  - Camp 100 ft away from water sources
  - Pack out all human waste if possible. If not, dig a cathole at least 8" deep and 100 ft away from water sources
- Park to one side of the road
- Drive slowly, Buttermilk Road is 25mph
- Be respectful of other users on the road



Following climbing etiquette helps to protect the landscape and creates a better experience for all future visitors.

## Signage

Signage in the Buttermilk Project Area was debated by the community (page 53) with some participants requesting more signage to better educate visitors and other participants requesting no signage for fear that it will ruin the landscape. If done properly, education signage can be effective at providing information while still blending in with the environment and respecting the landscape. There are different styles of signage that are needed in the Buttermilk Project Area including interpretive signage, wayfinding signage, trail signage, and signage prohibiting entry to some areas.

#### **WELCOME KIOSK**

A welcome kiosk is an opportunity to circulate information and educate visitors as they enter the Buttermilk Project Area. This kiosk could potentially be staffed and provide inperson engagement with visitors.

The kiosk should provide information relating to the area and its ethics and rules. Education on vegetation including scientific and Paiute names, uses, background, and how to best protect native plants should be included. Explanations on plant growing cycles and the "don't crush the brush" philosophy can help educate visitors and change behavior.

Wildfire education could also be included, with explanations on wind and riparian corridors in the area increasing fire risk, as well as tutorials on how to minimize fire risk. Climbing and camping rules can also be disseminated, teaching the importance of leave no trace and the camp like a pro programs, the importance of climbing etiquette such as no liquid chalk and the removal of tick marks, and where to camp and hike so as not to disturb native flora and fauna.

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The welcome kiosk is also a key opportunity to teach visitors about the native history of the land and its importance to the Paiute Tribe.

The kiosk could include tribal stories relating to the Buttermilk Project Area, explanations of the entire area's cultural significance, and guidelines for protecting cultural resources, such as not touching artifacts.

The kiosk should utilize a QR code with a web landing page to help provide more timely information to visitors.

#### **WAYFINDING SIGNAGE**

Wayfinding signage helps people orient themselves in a space. Within the Buttermilk Project Area wayfinding may direct to camping and parking areas, or to certain boulders. Wayfinding signage should be presented simply to allow people to quickly process the information. Since the boulders are a world-famous destination, this signage should be interpretable even if a visitor is not proficient in English. Drivers and hikers should not need to stop to read wayfinding signage, and the signage should be placed at predictable intervals such as at turns. In addition to being convenient for visitors, wayfinding signage can also provide points of reference to identify locations that need maintenance or to help with a location description during an emergency.

See more on access and navigational signage on page 85.

#### **REGULATORY SIGNAGE**

Regulatory signage and warning signage should only be installed where necessary. In order for rules to be enforced by law enforcement rangers, regulatory signage has to be present. Regulatory signage can be used in the Buttermilk Project Area to prevent hikers from walking off-trail and to prevent OHV users from riding outside of OHV trails. Regulatory signage may also be needed in LADWP land to prevent camping.

Regulatory signage can also be used near popular parking and camping areas to designate parking on only one side of the road and encourage camping in already disturbed areas.

## INTERPRETIVE AND EDUCATIONAL SIGNAGE

Interpretive signage can educate

visitors about the land and teach them how to protect it. Interpretive signage should be appropriate for different user groups. For example, near the boulders interpretive signage may focus on climber safety. Interpretive signage should be concise and engaging and use colors and text that are clear and visually interesting. Rather than listing prohibited activities on the signage, it may be more effective to describe the consequences of not following the rules. For example, interpretive signage near campgrounds could provide information about the unique fire behavior in the Eastern Sierra such as during the Round Fire in 2015, rather than signage regulating campfires. Fire safety information can be coordinated with other wildfire resiliency campaigns like from the Eastern Sierra Wildfire Alliance (eswildfirealliance. ora) or the Whitebark Institute (whitebarkinstitute.org). Interpretive signage can also help to create a sense of place, which may encourage visitors to take care of the Buttermilk Project Area.

#### CLIMBING RANGER FEEDBACK

The climbing rangers familiar with the entire BIRPI Project Area would like to see more educational signage within the Buttermilk Project Area. The rangers have noticed a positive difference in climber behavior in areas where signage has been placed, like near the Happy and Sad Boulders, compared to climber behavior in the Buttermilk Project Area.

The rangers would like to see educational signage that explains the unique concerns of a high desert environment. Due to the Buttermilk Project Area's popularity, climbers visit from around the world but may not realize how sensitive the ecology of the area is. Signage can inform visitors of basic climbing ethics like not crushing brush, staying on trails, and parking and camping in already disturbed areas.

#### **BRANDING AND COLORS**

The USFS and BLM have national branding and guidelines for signage on their land. This signage helps to reinforce to visitors that they are on federal land. LADWP is not a recreational agency and therefore does not have recreational signage standards. Establishing branding, colors, or naming conventions throughout the Buttermilk Project Area can create a sense of cohesion for visitors and affirm that they have arrived to Buttermilk Country. Techniques should also be considered to prevent vandalism to signage such as using durable and cleanable materials. Anecdotal evidence suggests appealing to patriotism by placing American flag stickers on signage may reduce vandalism.



The USFS has branding and signage standards. Photo credit. National Park Service (NPS)

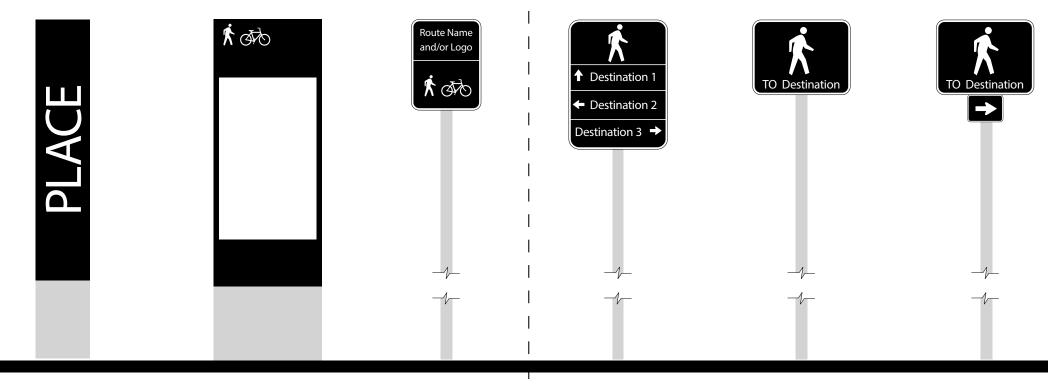


Existing trail signage in the Buttermilk Boulders area.

## ACCESS AND NAVIGATIONAL SIGNAGE

The following pages further describe the different types of signage that could be used throughout the Buttermilk Project Area. Signage works best when implemented in a coordinated and consistent system.

All signage should follow national guidelines from the Manual on Uniform and Traffic Control Devices (MUTCD) and the Americans with Disabilities ACT (ADA) as applicable.



#### **Gateway monument**

Defines entry into a distinct area, or marks trailheads, access points, and landmarks. Opportunity for community-directed placemaking and integrated artwork.

#### **Information Kiosk**

Provides maps and navigational information; most effective when placed in locations where users may congregate, rest, or enter a trail or path.

## Secondary access

Marks entry to trails or paths at locations where limited user traffic may not necessitate as much information as information kiosks.

#### **Decision**

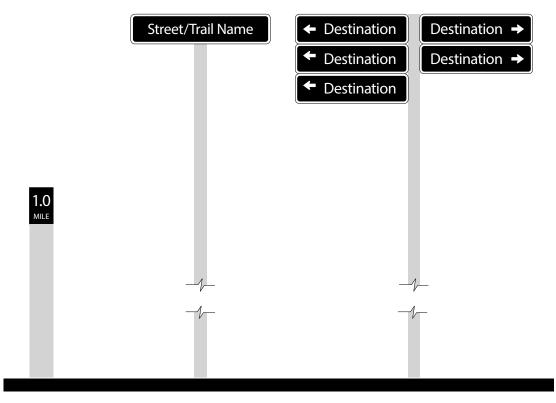
Clarifies route options where two or more routes converge.

#### Confirmation

Placed after a turn or intersection to reassure users that they are on the correct route.

#### Turn

Placed before a turn or intersection to help users stay on the designated route.



#### Mile marker

Reinforces branding and orients users along trails.

#### Intersection

Orients trail users at street crossings and informs vehicular traffic of trail crossings.

#### **Fingerboard**

Clarifies route options where two or more routes converge.

#### **ACCESS ELEMENTS**

Access elements guide users a wayfinding system either by marking physical entry to trails, or other facilities, or by providing information to new or potential users in a clear and understandable way. Access elements can include gateway monuments, information kiosks, and secondary access signage. Note that it may be possible to combine multiple access elements in some cases; or, for instance, kiosks may serve the purpose of gateway monuments, and vice versa.

#### **Gateway Monuments**

Gateways define the entry into a distinct place with a defined identity. They are the first communication and introduction to a physical place, issuing a feeling of arrival. Gateways can be scaled for pedestrian or vehicular experiences.

#### **Information Kiosks**

Kiosks that include area or regional maps provide helpful navigational information, especially where users may be stopping long enough to digest more information such as at trailheads. Kiosks should be located in conspicuous areas along the primary route from parking areas to the trail. Sufficient space should be provided around the kiosk to allow people to observe the information without obstructing adjacent walkways.

#### **Secondary Access Signage**

Secondary access points with limited parking, services, or user traffic may not necessitate the same level of information and signage as formal access points with greater use. Signage at these locations may vary from a simple confirmation sign stating the name of the trail to a scaled down trailhead kiosk complete with user map, rules and regulations, permitted and restricted uses, and destination information.



Information kiosk in Joshua Tree National Park. Photo credit: NPS

## FUNDAMENTAL NAVIGATIONAL ELEMENTS

Fundamental navigational elements guide visitors to their destinations along designated facilities. These fundamental elements include decision signs, confirmation signs, and turn signs.

#### **Decision signs**

Decision signs mark and are placed prior to the junction of two or trails. These signs inform users how to access nearby destinations. These signs include destinations that can be paired with distances in time and/or mileage, and arrows.

#### **Confirmation signs**

Confirmation signs identify designated routes. This builds confidence that the user is on the correct route.

Confirmation signs are an integral component of any trail that crosses roads, changes direction, and has intermediate access points between trail or route beginning or end.

#### **Turn Signs**

Turn signs indicate where a route turns from one trail onto another. Turn signs are at key points of navigation for users, such as trail intersections.



Decision signage in the Auburn State Recreation Area. Photo credit: FoothillHikers, Wikiloc Page 122 of 338

## ENHANCED NAVIGATIONAL ELEMENTS

Enhanced navigational elements provide additional wayfinding assistance beyond fundamental signage, improving the user experience and providing more opportunities for branding and identity. Enhanced navigational elements could include mile markers, intersection signs, and fingerboard signs.

#### Mile markers

Mile markers are a series of numbered markers that may be placed alongside a trail at defined intervals to help users understand how far they have gone, and how far they have to go to their next destination. Furthermore, mile markers provide pathway managers and emergency response personnel points of reference to identify field issues such as maintenance needs or locations of emergency events. Mile marker locations should be geolocated and supplied to emergency responders so that responders can efficiently respond to incidents on the trail. Area branding, path name, and distance information in miles may be included as well as jurisdiction identification. It is important that mile

markers are spaced at consistent intervals, such as every 1/4 to 1/2 mile, along a pathway network. Point zero should begin at the southernmost and/or westernmost terminus points of a route.

#### Intersection signs

Intersection signs orient trail users to which street they are crossing. Signage at intersections facing motorists can bring attention to a trail crossing.

#### Fingerboard signs

Fingerboard signs serve a purpose similar to decision signs in that they provide wayfinding to multiple destinations located in multiple directions from the junction at which the sign is located. They provide an efficient way to give direction at a junction that is approached from multiple angles, and are not as limited in the amount of destinations that can be included.



Mile markers/trail signage in Eldorado National Forest. Photo credit: hikerhustle.com

#### **Trails Delineation**

Trail delineation has been an ongoing problem in the Buttermilk Project Area (page 67). The social trails leading to the Buttermilk Boulders have destroyed vegetation, and without trail delineation these trails continue to widen. Creating policies and regulations to prevent trail widening and trail creation as well as physical infrastructure to close sensitive areas can protect the plants and wildlife near the boulders.

#### **POTENTIAL TRAIL ACTIONS**

- Work with ESIA to encourage continued identification of social trails in the BIRPI Project Area.
- After a formal USFS trail system has been established, create maps to be posted online and placed in future welcome center/kiosk areas which show the preferred trail network and access points to reach popular boulders. Include directions to OHV trails on these maps. Include educational information that shows visitors the damage that walking outside of trails can cause.
- Depending on funding availability, delineate existing trails with various materials. Lower cost materials like large rocks can blend in with

the environment but can be easily moved or stepped over, and require manpower to haul rocks from the road. Materials like fencing can permanently delineate the trail but are higher cost to implement and may affect the natural landscape view of the area. Vegetation can also be used to delineate trails. Only native vegetation should be planted, and considerations for the vegetation's sunlight and water needs should be made before planting.

- Well-used trails should be reinforced with materials like gravel to reduce erosion and route runoff away from the trail.
- Signage should be installed near sensitive areas prohibiting access.
   This action would be most effective with regular monitoring by rangers to cite violators.
- Identify one trail route to each boulder. Consolidate trails that run parallel to each other and eliminate access to duplicate trails that lead to the same destination. For lightly used social trails, techniques like raking the land and scattering rocks and debris can discourage other visitors from following the social trail.

- For more heavily used social trails, access can be eliminated or limited through the use of large rocks or boulders, fencing, or gates. Small objects like rocks should not be used to close trail access, as it can result in visitors walking around the objects, further damaging the area.
- Identify any popular areas that do not currently have trail access and create trails to them. Creation of trails should be as constrained and infrequent as possible to minimize impacts to plants and wildlife.
   Studies should be conducted prior to any trail creation to ensure habitats are not severed and vegetation is not damaged.
- Prepare for maintenance needs. Even with careful trail delineation, trails will need maintenance over time. This maintenance should be considered and scheduled regularly, rather than only conducting maintenance after the trail is already damaged.
- Focus on trails in the primary boulder field and preserve and delineate access to the most popular areas, such as the Pollen Grains and Beehive.

#### **NEW TRAILS**

Formalizing a new trail network may help in encouraging visitors to stay on trails and can help visitors reach recreational destinations without needing to walk through vegetation.

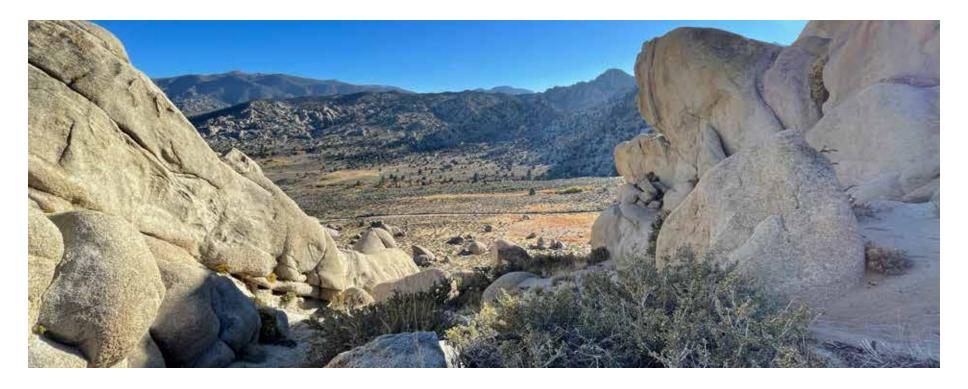
A loop trail can connect visitors to the bouldering area in Buttermilk Country and a Tungsten Hills Trail will connect to existing USFS trails in the area. Figure 7 shows these potential new trails.

## SOCIAL TRAILS AT THE BUTTERMILK BOULDERS

Figure 8 shows the web of well-used existing social trails at the Buttermilk Boulders. Climbing rangers have worked to delineate these trail networks to prevent new trails from being formed. While future studies will need to be completed to determine which of these trail can safely be eliminated or condensed, the figure shows examples of trails that may be redundant and could be candidates for permanent closure.

## TRAIL DELINEATION RESOURCES

Refer to resources such as the <u>American Trails Guidance</u> for Managing Informal Trails report, and the <u>Rails to Trails</u> Conservancy Developing Trails in Sensitive Areas guidance.



Attachment A Figure 7. Buttermilk Project Area



**BUTTERMILK PROJECT AREA** 

## Legend

Boundaries

Buttermilk Project Area

Primary Land Managers

BLM

LADWP

**USFS** 

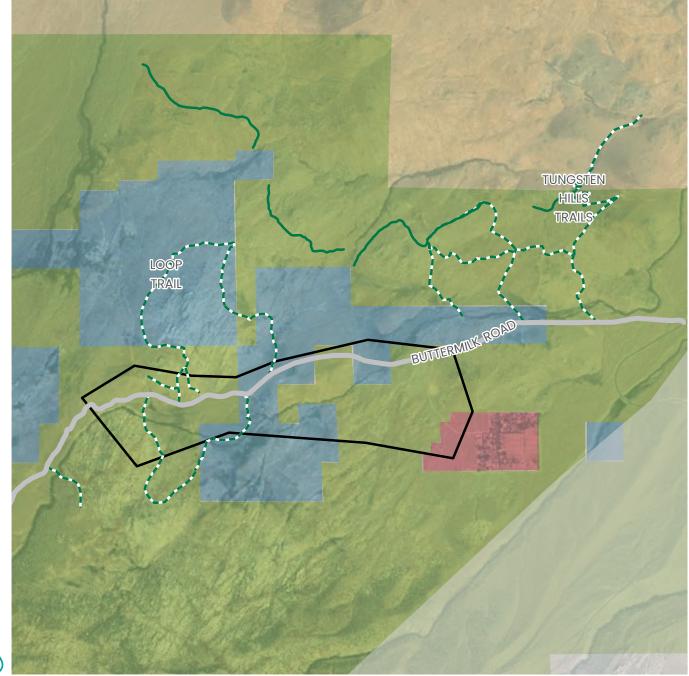
C.A. Fish and Wildlife

Unincorporated Inyo County Private Land

#### Trails

Existing USFS Trails

Suggested Trails









## Attachment A Figure 8. Buttermilk Boulders and Social Trails



**BUTTERMILK PROJECT AREA** 

### Legend

Boulders

Preferred Social Trails

\_\_\_\_ No

Yes

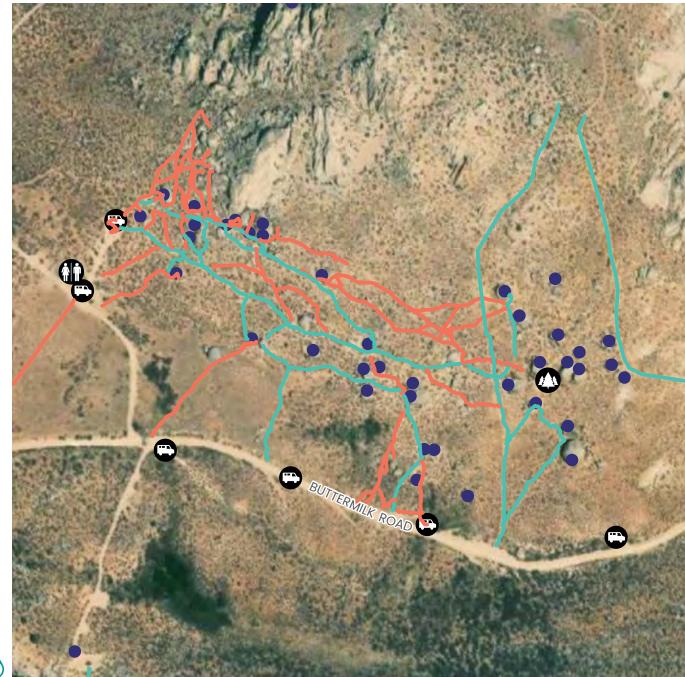
Climbing Area

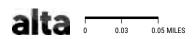


Popular Parking Area



Existing Toilet

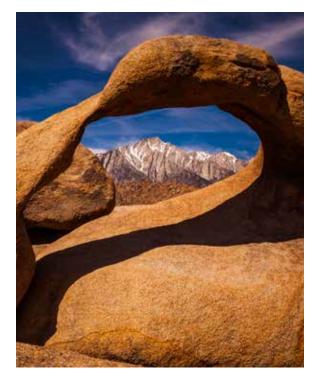






## **Case Studies**

The following case studies provide examples of recreational areas with multiple landowners that have worked to create a collaborative organization. These case studies show different techniques for creating an area management plan and show the effect these collaborate management plans have had on the recreational areas.



Mobius Arch in Alabama Hills. Photo Credit: Jesse Pluim, BLM

## **Alabama Hills** Management Plan<sup>1</sup>

Located at the base of the Sierra Nevada in Owens Valley, the Alabama Hills are a formation of rocks and eroded hills spanning over 29,000 acres of public land. In addition to dispersed camping, rock climbing, horseback riding, and mountain biking, the area is popular for television and movie filming, as well as its natural arches and wildflower fields. The area sees more than 150,000 visitors each year and experienced a record number of visitors in 2021.

In 1969, BLM took over management of the Alabama Hills and in 2019, the area became a National Scenic Area to gain protection of its resources. The BLM adopted the Alabama Hills Management Plan (2021) to gain further protection of the area while providing recreational opportunities, minimizing user conflicts, addressing

health and safety concerns, reducing impacts, and enhancing other resources within the Alabama Hills. The Plan includes standards for uses and camping, outlined objectives for restoring biological resources, and addressed commercial concerns such as livestock grazing. In creating the Plan, the BLM partnered with the Alabama Hills Stewardship Group (AHSG), Lone Pine Paiute-Shoshone Tribe, City of Los Angeles Department of Water and Power, Inyo County, and the Lone Pine community.

Today, the BLM's long-standing partnership with AHSG and Eastern Sierra Interpretive Association regularly conducts activities in pursuit of the Plan's goals, including planting native plants, relocating and removing fire rings, removing graffiti, brushing offroad tire tracks, and picking up trash. The partnership has also resulted in the restoration of over 100 different locations within the Hills and the consolidation of camping into 50 designated campsites.

<sup>1</sup> https://eplanning.blm.gov/public\_ projects/1502669/200347583/20033290/250039489/ Alabama%20Hills%20Management%20Plan%20Final%20 January%202021.pdf

# The Eastern Sierra Recreation Collaborative (ESRC)

The Eastern Sierra Recreation
Collaborative (ESRC), initiated,
convened, and facilitated by MLTPA
from 2014 through 2016, was a grass
roots effort that provided public
outreach and public engagement
opportunities to inform the first
management plan update for the Inyo
National Forest in over 20 years. Its
purpose was to enhance sustainable
and regional recreation opportunities
through focused engagement and
collaboration between recreationists
and the gateway communities of the
Eastern Sierra.

Starting in 2015, the ESRC held a series of public forums to gather community input and guidance on how the Inyo National Forest could best support recreation through its Management Plan. Participants represented interests from nine Inyo National Forest and Eastern Sierra gateway communities along the Highway 395 corridor as well as institutional, government, conservation, and recreation user groups. The resulting document, "The Eastern Sierra Recreation Collaborative Proposed Recreation Strategy", addressed a range of required

management and planning issues for the Inyo National Forest Management Plan Revision process through the "lens" of sustainable recreation. The strategy details desired conditions, objectives, standards, and guidelines as they relate to the ESRC's recreation values as generated by extensive community input.

In 2016, the ESRC received a grant from the National Forest Foundation to refine and develop the initial inventory of desired conditions as part of the Inyo National Forest's Management Plan. Following public meetings to gather input from the Bishop, Lone Pine, and June Lake communities, the "Eastern Sierra Recreation Collaborative: 'Citizen Suggested Desired Conditions'" document provided a framework and specific recommendations for sustainable recreation programs in the Eastern Sierra that would be implementable and encourage stewardship opportunities. The report includes revised management approaches for achieving each desired condition, as well as potential standards for consideration by the Inyo National Forest. Many of the ESRC's recommendations were incorporated into the final Inyo National Forest Management Plan through the final Record of Decision signed by Forest Supervisor Tammy Randall-Parker in October of 2019. Page 129 of 338



The Eastern Sierra from Highway 395. Photo Credit: Sunset Magazine

## The Sherwins Area Recreation Plan (SHARP)<sup>2</sup>

The Sherwins, immediately south of the town of Mammoth Lakes, is a diverse, high-desert landscape featuring the Sherwins Range, Mammoth Rock, Hidden Lake, Panorama Dome, Solitude Canyon, and the Mammoth Meadow, that offers "close in" opportunities to explore native forests, wetlands, bodies of water, and wildlife. Between 2009 and 2010, the Sherwins Working Group developed the **Sherwins** Area Recreation Plan (SHARP) to provide recreation development and management recommendations for the Sherwins in response to increasing user conflicts.

The Sherwins Working Group was a citizen-based collaborative planning effort formed at the invitation of regional partners, including the Inyo National Forest, the Town of Mammoth Lakes, and the Mammoth Lakes Trails and Public Access Foundation, or MLTPA. Participants represented varied recreation interests and activities, along with private property and commercial interests, all sharing a

2 https://www.townofmammothlakes.ca.gov/ DocumentCenter/View/2054/SHARP-Reporti?bidId= common acknowledgment of the increasing and future use of the Sherwins along with concerns for the landscape's health and well-being. The Sherwins Working Group was open to any and all interested participants, with an overriding intent to speak for and represent all interests whether present in spirit or in person.

SHARP was intended to serve as a resource document for the Forest Service, the Town of Mammoth Lakes, private property and real estate development interests, and any other effort with an interest in trails and recreation infrastructure development in the Sherwins region. It included detailed recommendations as well as other concepts that were expected to require additional planning and study. SHARP was included as part of the Town of Mammoth Lakes Trail System Master Plan and its formal adoption by the Town in 2011, including a programmatic environmental analysis.

## Eldorado National Forest

Located in the central Sierra Nevada mountain range and spanning across five counties and the California/ Nevada state line, the Eldorado National Forest is a 600,000-acre Page 130 of 338



Signage in the Sherwins Area.

forest with numerous rivers and lakes for fishing, mountains and meadows for skiing, campsites and picnic areas, and diverse forests. It also features four hundred miles of hiking trails open to hikers, cyclists, and equestrian uses, and over 70 day use and overnight developed recreation facilities.

The Eldorado National Forest, governed by the USFS, has a complicated landownership pattern. The Forest contains about 790,000 gross acres of land, with 190,000 of those acres owned by entities outside of the Forest Service. Intermingled parcels tend to be isolated and enclosed by government land. Outside the administrative boundary, several small areas of National Forest land are separate from the main body of the Eldorado and are surrounded by private property.

As the area urbanized, contrasting land philosophies grew, with conflicts affecting the abilities of both government managers and private parties to develop their land as they might prefer. In response, the Forest Service adopted the Eldorado National Forest Land Management Plan (1989)<sup>3</sup> to establish the primary management direction for the entire forest. Part of the Plan included possible resolutions to this management issue such as a land adjustment program, coordinated land management planning with local counties, and consolidation of interior ownership and establishing future land patterns to facilitate long-term management of the Forest.

Since the Plan's adoption, there have been several amendments to the Plan, including a Conservation Covenant amendment for the acquisition of three parcels of land for outdoor recreation, sustainable forestry, biological and cultural resource protection, and grazing enhancement purposes.

As part of this acquisition, the Pacific Forest and Watershed Lands Stewardship Council – comprised of representatives from state and federal agencies, water districts, tribal and rural interests, forest and farm industry groups, conservation organizations, the California Public Utilities Commission, and Pacific Gas and Electric Company - was tasked with preparing a Land Conservation Plan. This Land Conservation Plan (2020) establishes a framework for the conservation and/ or enhancement of these lands and ensures the permanent protection of these lands.



Eldorado National Forest. Photo Credit. Sebastian Werner

## Auburn State Recreation Area (SRA)

The Auburn SRA is a 40-mile long park along the American River in Northern California with over 900,000 visitors a year. Major recreational uses in the Auburn SRA include hiking, camping, mountain biking, fishing, and boating. There are also equestrian/horseback riding trails and areas for off-highway motorcycle riding. The Auburn SRA is largely comprised of federal lands, with the California State Parks administering the area under a Managing Partnership Agreement (MPA) with the US Bureau of Reclamation (Reclamation) since 1977.

In 2012, State Parks and Reclamation entered into a 25-year MPA for the federal lands at Auburn SRA, as well as Folsom Lake SRA and the Folsom Powerhouse State Historic Park. The MPA specifies management roles and responsibilities for each agency, such as Reclamation's responsibility of the protection of natural resources on federal property, and a costshare agreement, which states that Reclamation will enter into a Financial Assistance Program with State Parks when operation and maintenance costs exceed revenues. The MPA also requires Reclamation and State

Parks to convene annually to review and inspect the project areas for compliance with the MPA.

This includes ensuring administration, operation, maintenance, and development procedures are adequate; identifying and correcting deficiencies and problems; and ensuring management of the project areas are in accordance with the MPA. State Parks and Reclamation subsequently adopted the Auburn

SRA General Plan (2021)<sup>4</sup> to establish a long-range vision, goals, and guidelines for park management. It also provides direction on future recreation opportunities, resource management, historic sites, visitor facilities, park improvements, services, and programs.

4 https://www.parks.ca.gov/?page\_id=24325



Auburn State Recreation Area. Photo Credit: California State Parks Page 132 of 338

## Friends of Joshua Tree (FOJT)

Established as a national park in 1994, Joshua Tree National Park (JTNP) encompasses nearly 800,000 acres of desert land across the counties of Riverside and San Bernardino in Southern California, JTNP is home to a variety of delicate plant, reptile, mammal, and bird species, and features a paleontological area, over 700 archaeological sites and 19 cultural landscapes. It is a popular destination to hike and camp, with 191 miles of hiking trails, 93 miles of paved and 106 miles of unpaved roads, 9 campgrounds, and 10 picnic areas. The Park also has three entrance stations. three visitor centers and a nature center.

JTNP has long held a reputation as being a world-class climbing destination. By the 1990s, however, the need for a private, non-profit entity to manage issues like conservation and maintenance, and how these issues relate to climbers' access, became apparent. In 1991, a group of local climbers formed Friends of Joshua Tree (FOJT) to address these issues and represent climbers' interests in JTNP.

Today, FOJT continues its tradition of advocating, communicating, and encouraging ethical and environmentally sound climbing practices. FOJT accomplishes this through several focus areas:

- National park liaison Through ongoing collaborations with the National Park Service (NPS), FOJT has played a pivotal role in the Backcountry and Wilderness Management Plan (2000) and the Joshua Tree National Park Climbing Management Plan (forthcoming).
- Trail restoration FOJT works with the Access Fund and NPS to establish and maintain trails in JTNP and organizes a volunteer corps several times a year to improve trails and damaged or sensitive areas.
- 3. Climbing stewards A cooperative agreement with JTNP hosts several in-season, full-time stewards who reside in the Park and provide information about climbing, bouldering, slacklining, and park regulations to visitors. Climbing stewards also conduct patrols, report graffiti, and help maintain cleanliness.

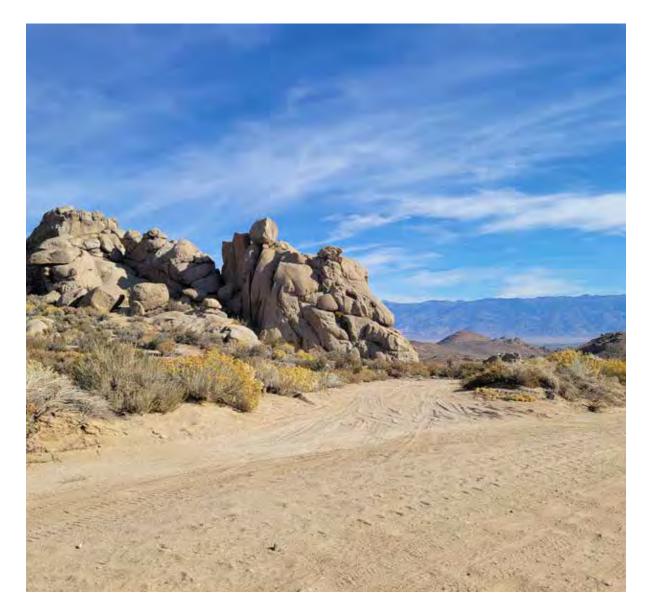
- 4. Park improvements FOJT provides input on issues such as automobile parking, user trails and environmental impact, and Park preservation. FOJT also works with climbers to educate them on important park matters through events, slideshows, public gatherings, and town hall meetings.
- 5. Community relations FOJT regularly engages with the local Joshua Tree business community, advocacy network, and tribal leadership through collaborations, meetings, and events.
- Fixed anchor replacement FOJT supports anchor replacement with gear and funds for creating modern bolts, chains, anchors, and hangers.
- Climber Coffee On weekends during the climbing season, FOJT hosts "Climber Coffee" as a way of increasing engagement between visitors and climbing rangers.



Joshua Tree National Park. Photo Credit. Jarek Tuszyński

## **Climbing Area Precedents**

Similar climbing destinations around the country have experienced many of the same issues as the Buttermilk Project Area and have addressed them in unique and creative ways. The following examples are of climbing destinations that have been able to begin to address many of the issues and could provide valuable insight into some of the strategies that should be adopted in the Buttermilk Project Area. Many of the problems at these similar climbing destinations had to do with crowds exceeding the built capacity of the climbing area. By formalizing the visitor experience through permits and built out facilities implemented by a governing body, many of the problems have been addressed.



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### Horse Pens 40, AL<sup>1</sup>

Horse Pens 40 has incorporated into an official park with user fees and camping facilities. The standard fee is \$11 per day and \$22 per night for primitive camping at formalized sites. Fires are limited to existing fire pits. Horse Pens is also one of the sites of the Triple Crown of Bouldering Series.

#### Hueco Tanks, TX<sup>2</sup>

An incorporated park outside of El Paso, TX, Hueco Tanks has become one of the premier climbing destinations in the world due to the unique huecos in the rock. Climbers must call the Texas State Park Ranger to make a reservation beforehand and pay \$7 per day. All climbers must also check in at the booth beforehand and watch a welcome video. There is a campground with restrooms, showers and a dump station, and reservations are limited to 3 days. The park also offers guided tours of the parks to see the cultural sites, natural views, and climbing guides.

#### **Stone Fort, TN<sup>3</sup>**

Stone Fort is a popular climbing area that has recently become under the management of a local climbers coalition and the Southeastern Climbers Coalition. The park charges \$9 a day for a pass. Passes are purchased at the clubhouse before entering the park. The clubhouse offers facilities for climbers including restrooms and food. There is no camping on the property. Stone Fort is one of the sites of the Triple Crown of Bouldering Series.



Horse Pens 40.
Photo Credit: Horse Pens 40

3 https://www.stoneforttn.com/



Climbing in Hueco Tanks, TX. Photo Credit: TopRock Climbing Page 135 of 338

<sup>1</sup> www.hp40.com

<sup>2</sup> https://tpwd.texas.gov/state-parks/hueco-tanks/activities

## Joe's Valley, UT<sup>4</sup>

Joe's Valley has undergone similar development and growing pains as the Buttermilk Project Area. Two campgrounds have been established within the climbing area with vault toilets and trash receptacles. There are also more robust campsites nearby at the reservoir. The nearby town of Orangeville has also developed to accommodate climbers with showers, restaurants, and campgrounds. The Joe's Valley Climbing Festival has been instrumental in raising funds and partnerships to manage the land and create relationships between locals and the visiting climbers.

## New River Gorge, WV<sup>5</sup>

The New River Gorge is a sport climbing area managed by the National Park Service. Campgrounds are first come, first served. Backcountry camping is only allowed by permit and after meeting with a ranger. There are facilities including bathrooms, trash collection, and picnic areas throughout the park.





Joe's Valley Climbing Festival. Photo Credit. Martha Samokhvalova, Joe's Valley Fest

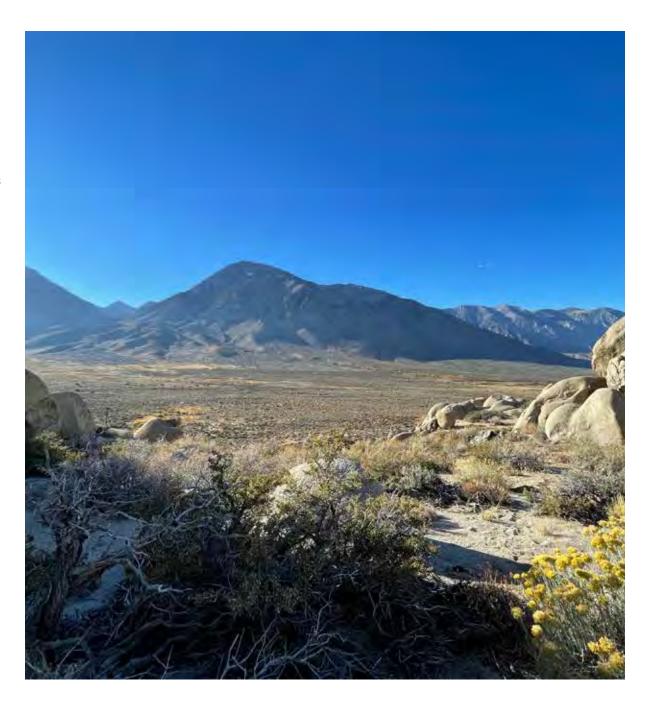


Rock climbing in New River Gorge. Photo Credit. ACE Adventure Resort Page 136 of 338



## **Funding**

To implement many of the alternatives and actions in this document, funds will need to be raised by the management organization. Sources such as sponsorships and partnerships with local gyms and competitions/festivals, day pass fees, camping and parking fees, as well as fundraising from the landowners should be considered. National, state, and local grants are also opportunities for funding sources.



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## **Funding Sources**

FUNDING SOURCE	DESCRIPTION
Access Fund Climbing Preservation Grant Program	Since its inception in 1991, Access Fund has funded over \$1.4 million to local organizations, climbers, and public agencies. Access Fund provides funding for projects that demonstrate local climber support, collaboration with land managers, and a commitment to long-term change. Most grant requests range from \$1,000 to \$4,000, but Access Fund considers requests for over \$10,000 if the projects should have national significance and use a high degree of matching funds.  Grant applications are reviewed in two cycles each year.
Federal Lands Programs	Both the Federal Lands Access Program (FLAP) and the Federal Lands Transportation Program (FLTP) provide funds for use on Federal Lands Transportation Facilities (FLTFs). FLTFs include public roads, trails, highways, bridges, and transit systems. Eligible activities include transportation planning, research, engineering, preventive maintenance, rehabilitation, restoration, construction, and reconstruction of FLTFs located on or adjacent to, or providing access to, federal lands and adjacent vehicular parking areas, among other activities.  The FLAP authorized \$322.76 million to the State of California in fiscal year 2022. For fiscal year 2020, the FLTP awarded \$375 million in funds, distributed among several Federal Land Management Agency partners including the National Park Service, USDA Forest Service, and Bureau of Land

FUNDING SOURCE	DESCRIPTION
Forest Service Great American Outdoors Act (GAOA)	Enacted into law in 2020, the GAOA continues to provide new opportunities for the USDA Forest Service to deliver benefits to the American public through major investments in infrastructure, recreation facilities, public lands access, and land and water conservation. The GAOA established the National Parks and Public Land Legacy Restoration Fund to address the deferred maintenance backlog for 5 federal agencies and provided permanent full funding for the Land and Water Conservation Fund.  The Legacy Restoration Fund is authorized for up to \$1.9 billion each year, of which the Forest Service receives 15 percent. The funding cycle through 2025 has been completed. GAOA will only continue to be a funding option if the law is reauthorized and additional funding is allocated for 2026 and beyond.
Habitat Conservation Fund (HCF)	The HCF allocates approximately \$2 million each year to seven unique categories. Eligible projects include nature interpretation programs to bring urban residents into park and wildlife areas, protection of various plant and animal species, and acquisition and development of wildlife corridors and trails.  The HCF is administered by the State of California Department of Parks and Recreation. The next anticipated application due date is June 2025.
Inyo County Community Project Sponsorship Program (CPSP)	The CPSP funds projects, programs, and events undertaken by non-profit organizations in Inyo County. Competitive grants are available for projects that provide recreational or cultural enrichment to the community, or projects that enhance visitation to the community.  Grant applications are accepted each fall, with the amount of funding available for CPSP based on the County Budget. For the 2024 grant cycle, this amount was \$40,000.

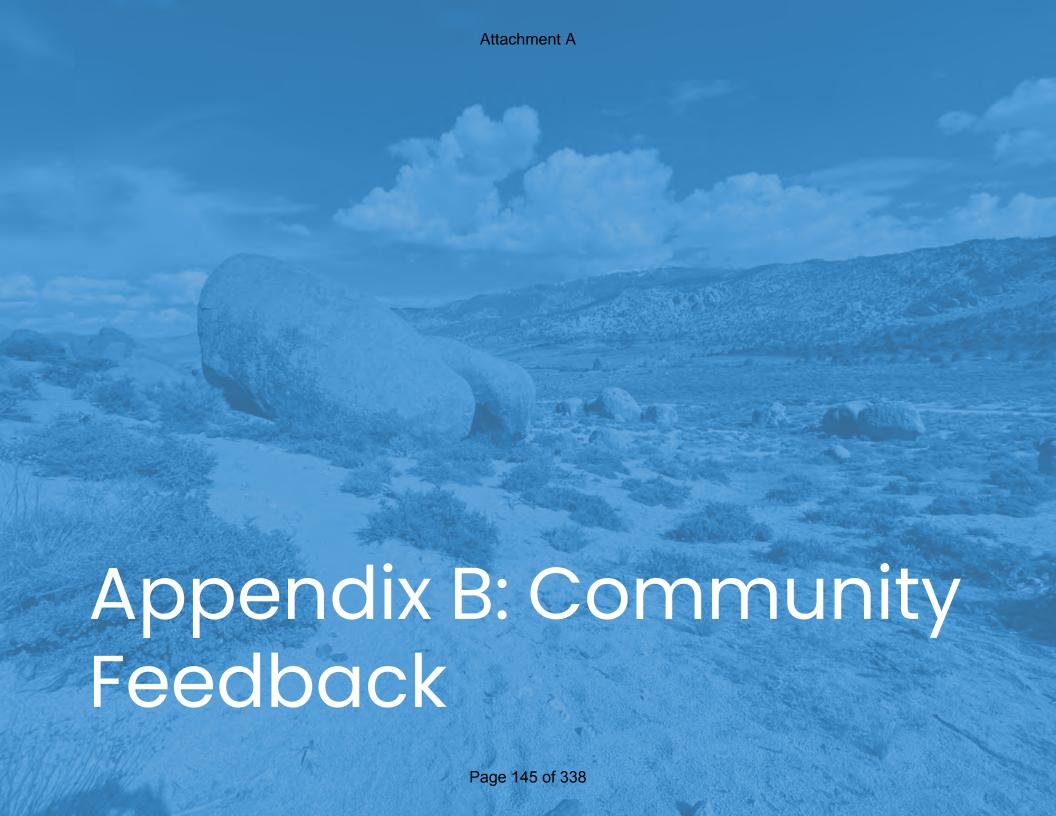
FUNDING SOURCE	DESCRIPTION
Legacy Trails Program	Administered by American Trails, this program provides up to \$100,000 for projects that restore, protect, and maintain watersheds in national forests and grasslands. Eligible projects also include those that improve trail resiliency and trailhead access, protect endangered species, and provide emergency access like evacuation routes. Projects should engage a significant number of volunteers, have local investment, and benefit the public. Agencies that apply must have a formal written agreement with their local Forest Service Office.
National Forest Foundation (NFF) Matching Awards Program (MAP)	Through MAP, the NFF provides funds for projects that directly benefit America's National Forests and Grasslands. MAP pairs federal funds provided through a cooperative agreement with the Forest Service with non-federal dollars raised by award recipients, multiplying the resources available to benefit the National Forest System. The NFF requires that all projects proposed for funding must include community involvement and hands-on stewardship activities to benefit the National Forest System. There is no specific minimum or maximum award amount, though NFF mainly considers requests ranging from \$5,000 to \$35,000.
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants	Previously known as BUILD and TIGER Discretionary Grants, the RAISE program enables the Department of Transportation to invest in road, rail, transit, and port projects that have a significant local or regional impact. While the potential solutions included in this Initiative may not be eligible due to their small scale, a major capital improvement, such as significant road or trail improvements in the area, may qualify.  RAISE grants are awarded on a competitive basis, providing \$1.5 billion annually for fiscal years 2022–2026. The deadline for fiscal year 2024 is February 28, 2024. The deadline for fiscal year 2025 will be January 13, 2025.

FUNDING SOURCE	DESCRIPTION
Recreational Trails Program (RTP)	For trails that are primarily recreational in nature, the RTP provides funding to states. These funds can be used for trails with a variety of purposes including hiking, biking, equestrian use, and off-road motorized vehicles. This program funds trail and trailhead maintenance and restoration, construction of new trails, and safety and educational programming for trail users.  The RTP is administered by the California Department of Parks and Recreation.
Road Maintenance and Rehabilitation Program (RMRP)	Senate Bill 1 created the Road Maintenance and Rehabilitation Program (RMRP) to address deferred maintenance on state highways and local road systems. Program funds can be spent on both design and construction efforts.  Funds are programmed by the State Controller's Office with guidance from the California Transportation Commission.
Surface Transportation Block Grant Program (STBG)	The STBG provides flexible funding that may be used by states and localities for smaller-scale projects to preserve and improve the conditions and performance on any federal-aid highway, pedestrian and bicycle infrastructure, and transit capital projects. Recreational trails projects are eligible under the STBG, including the maintenance and restoration of existing recreational trails.  Estimated annual STBG funding for fiscal years 2022-2026 is about \$14.5 billion. The Bipartisan Infrastructure Law directs the Federal Highway Administration to apportion this funding as a lump sum for each state, which is then divided among apportioned programs. Each state's apportionment is calculated based on a percentage specified in law.

FUNDING SOURCE	DESCRIPTION
Trails Capacity Program	Established in 2022 by American Trails, the Trails Capacity Program supports partners from all nonmotorized and motorized trail user groups. Projects may include trail research, stewardship, and maintenance projects that are inclusive, engaging, educational, and foster improved trail user behavior. The Program is open to projects along public trails on public or private land across the country. Though the Program focuses on state and local lands, projects on federal land are accepted.  Applications open in fall, with awards made in the following spring. Grant amounts range from a minimum of \$5,000 to a maximum of \$10,000.
Vibrant Recreation and Tourism Grant	The Vibrant Recreation and Tourism regional goal, part of the Sierra Nevada Conservancy's (SNC) Strategic Plan, aims to enhance, promote, and develop sustainable recreation and tourism opportunities in our service area. SNC accordingly administers the Vibrant Recreation and Tourism Directed Grant Program to support planning and implementation efforts to enhance and develop sustainable recreation and tourism opportunities and increase access to public lands.  Future funding allocations are yet to be determined; as additional funding allocations become available, the SNC may direct those allocations to support the Vibrant Recreation and Tourism Grant.



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# **Community Feedback Tables**

The following tables show the number of positive and negative comment each alternative received during Workshop 2. The table also shows the number of participants that marked the challenge as in their top 3 most important category that needs to be addressed in the Buttermilk Project Area.

#### **MANAGEMENT**

	ONLINE COMMENT BOX	JOIN EXISTING COMMITTEE	SHARED MANAGEMENT	IN TOP 3 CONCERNS
POSITIVE COMMENTS	7	7	23	
NEGATIVE COMMENTS	0	0	0	4
TOTAL COMMENTS	7	7	7	

## **BUTTERMILK ROAD**

	CONSISTENT GRADING/ DRAINAGE	MAINTENANCE PLAN	NORTHERN ROUTE	PAVED ROUTE	SHUTTLE SERVICE	IN TOP 3 CONCERNS
POSITIVE COMMENTS	17	29	2	14	8	
NEGATIVE COMMENTS	0	1	10	19	8	10
TOTAL COMMENTS	17	30	12	33	16	

## **CAMPING**

	CAMPING BAN	CAMPING PERMIT	DEVELOPED CAMPSITE	PRIMITIVE CAMPSITE	REQUIRE CAMPSITE USE	IN TOP 3 CONCERNS
POSITIVE COMMENTS	2	18	19	26	15	
NEGATIVE COMMENTS	3	12	8	3	4	12
TOTAL COMMENTS	5	30	27	29	19	

## **CLIMBING RANGERS**

	HIRE MORE RANGERS	KIOSK/WELCOME CENTER	VOLUNTEERS	IN TOP 3 CONCERNS
POSITIVE COMMENTS	22	25	24	
NEGATIVE COMMENTS	3	1	0	8
TOTAL COMMENTS	25	26	24	

## **EDUCATION**

	ROBUST EDUCATION	SIMPLE EDUCATION	VISITOR'S PERMITS	IN TOP 3 CONCERNS
POSITIVE COMMENTS	25	38	18	
NEGATIVE COMMENTS	3	0	4	12
TOTAL COMMENTS	28	38	22	

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## **HABITAT DESTRUCTION**

	BAN OHVS	IMPROVE TRAIL NETWORK	INFRASTRUCTURE AND SIGNAGE	IN TOP 3 CONCERNS
POSITIVE COMMENTS	18	12	28	
NEGATIVE COMMENTS	4	2	1	10
TOTAL COMMENTS	22	14	29	

## **MAINTENANCE AND STAFFING**

	ADDITIONAL FACILITIES	MORE EDUCATION	LAW ENFORCEMENT	VOLUNTEERS	IN TOP 3 CONCERNS
POSITIVE COMMENTS	11	21	24	26	
NEGATIVE COMMENTS	3	0	6	0	3
TOTAL COMMENTS	14	21	30	26	

## **OVERCROWDING**

	INFRASTRUCTURE IMPROVEMENTS	PERMIT SYSTEM	PARKING AND CAMPING AREAS	IN TOP 3 CONCERNS
POSITIVE COMMENTS	14	15	21	
NEGATIVE COMMENTS	2	11	0	6
TOTAL COMMENTS	16	26	21	

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## **PARKING**

	PAVED PARKING LOTS	PARKING PERMITS	REDUCE PARKING	SIGNAGE AND DELINEATION	SHUTTLE SERVICE	UNPAVED PARKING LOT	IN TOP 3 CONCERNS
POSITIVE COMMENTS	8	10	3	31	16	12	
NEGATIVE COMMENTS	11	4	0	1	6	0	12
TOTAL COMMENTS	19	14	3	32	22	12	

## **TRAILS**

	CREATE NEW TRAILS	DELINEATE TRAILS	DECOMMISSION TRAILS	IN TOP 3 CONCERNS
POSITIVE COMMENTS	17	22	17	
NEGATIVE COMMENTS	2	0	2	5
TOTAL COMMENTS	19	22	19	

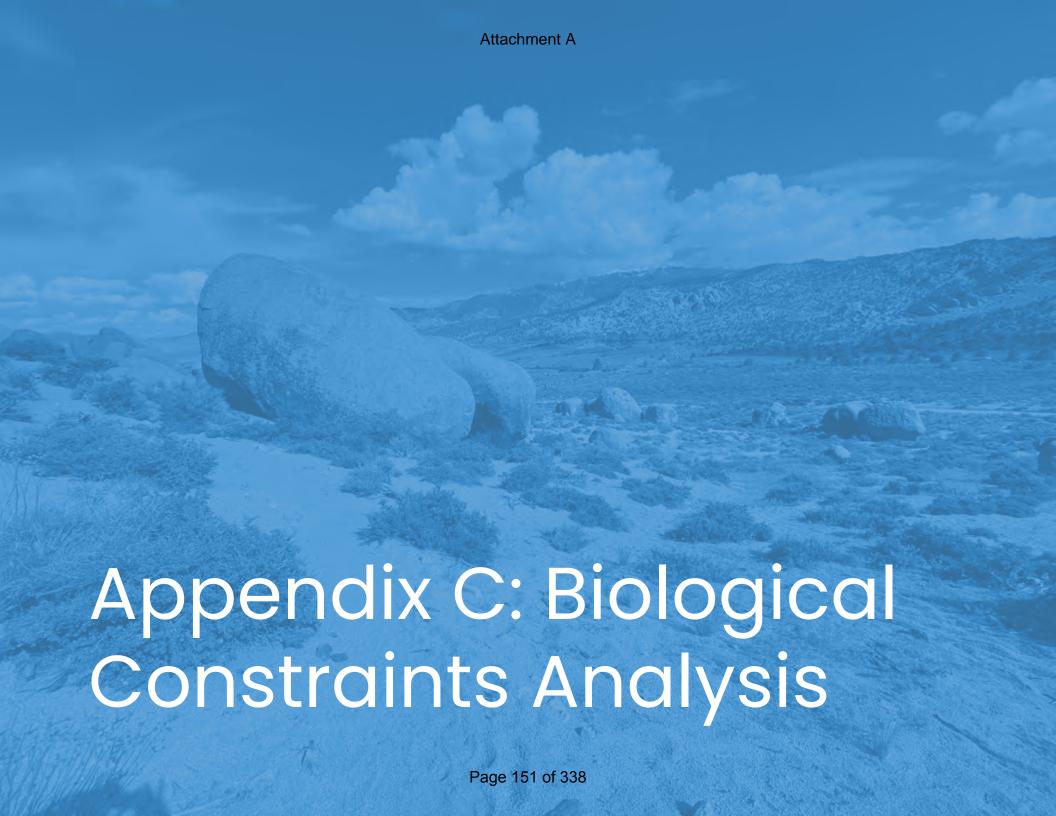
## TRIBAL INVOLVEMENT

	TRIBAL AMBASSADOR	EDUCATION PROGRAMS	REPRESENTATION ON COMMITTEES	IN TOP 3 CONCERNS
POSITIVE COMMENTS	18	24	26	
NEGATIVE COMMENTS	0	0	0	6
TOTAL COMMENTS	18	24	26	

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## **WILDFIRES**

	FIRE BAN	FIRE PITS DEVELOPED CAMPSITES	FIRE PITS PRIMITIVE/ DISPERSED CAMPSITES	IN TOP 3 CONCERNS
POSITIVE COMMENTS	24	26	7	
NEGATIVE COMMENTS	2	4	5	7
TOTAL COMMENTS	26	30	12	



HELIX Environmental Planning, Inc. 1180 Iron Point Road, Suite 130 Folsom, CA 95630 916.435.1202 www.helixepi.com



October 24, 2023

Project 00030.00004.001

Tim Bevins
Alta Planning + Design, Inc.
617 W. 7th Street, Suite 1103
Los Angeles, CA 90017
timbevins@altago.com

Subject: Biological Constraints Analysis for the Buttermilk Recreational Plan Area, Inyo County, CA

Dear Mr. Bevins:

On behalf of Alta Planning + Design, Inc., HELIX Environmental Planning, Inc. (HELIX) prepared this Biological Constraints Analysis for the Buttermilk Recreational Plan Area near the Bishop in Inyo County, California (Attachment A; Figure 1). The purpose of our analysis was to identify potential constraints related to biological resources, including potential wetlands or other aquatic resources in the proposed Buttermilk Recreational Plan Area. This memorandum includes a description of the location, setting, and existing biological condition of the site as well as an analysis of the potential for sensitive biological resources to occur on the site. The information presented in the biological constraints analysis letter report will also inform the Eastern Sierra Council of Governments as to the opportunities and constraints in advance of conducting follow-on environmental compliance documentation pursuant to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and/or regulatory permitting.

#### Location and Setting

The approximately 33,183-acre site (Study Area) consists primarily of undeveloped land dominated by native plant assemblages common to the eastern slopes of the Sierra Nevada and the Great Basin Desert in the Owens Valley. Small portions of private land in the Study Area are currently used for irrigated agriculture, especially near Round Valley along US Highway 395. Rural residences are also present in the Study Area.

The Study Area is located west and north of the City of Bishop, Inyo County, California. A portion of the Study Area extends along the Owens River where popular rock-climbing areas, including Happy Boulders and Sad Boulders, are located. Another section of the Study Area extends along Pine Creek Road towards Pine Creek Pass Trailhead, which provides public access into the John Muir Wilderness. Other rock-climbing areas are noted north of US Highway 168, including Buttermilk Boulders and the Checkerboard Boulders, and numerous hiking trailheads. The surrounding area also encompasses land managed by the US Forest Service (USFS) (Attachment A; Figure 2) and the Bureau of Land Management (BLM), which provides an abundance of other recreational uses such as fishing, camping, wildlife viewing, hunting, and off-road vehicle use.

Letter to Mr. Tim Bevins October 24, 2023 Page 2 of 7

#### **METHODS**

### Analysis Objectives

- Identify and depict the biological communities in the Study Area;
- Identify and evaluate sensitive resources and special-status plant and animal species that could occur in the Study Area; and,
- Provide conclusions and future management recommendations.

#### **Database Queries**

HELIX conducted a review of special-status species records for the Study Area including *Tungsten Hills*, *CA* US Geological Survey 7.5-minute and eight surrounding quadrangles (quads) from the following databases:

- US Fish and Wildlife Service Information for Planning and Consultation (IPaC) (USFWS 2023a);
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2023);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2023);
- Bureau of Land Management Sensitive plants lists for the Bishop Field office (BLM 2022);
- Bureau of Land Management Sensitive wildlife lists for the Bishop Field office (BLM 2014);
- USFS Region 5 Forester's Sensitive Animal Species List for Inyo National Forest (USFS 2013); and,
- USFS Region 5 Forester's Sensitive Plant Species List for Inyo National Forest (USFS 2013).

The results of these database queries are provided in Attachment B. Species were analyzed for their potential to occur in the Study Area based on habitat affinities, elevation range, and geographic range (Attachment C). For the purposes of this report, special-status species and other protected biological resources are those that fall into one or more of the following categories:

- Species listed as rare, threatened, or endangered under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), including candidates and species proposed for listing;
- Species designated as rare, protected, or fully protected pursuant to the California Fish and Game Code (CFGC);
- Species considered a Species of Special Concern (SSC) by the CDFW;
- Species meeting the definition of rare or endangered under Section 15380 of CEQA;



Letter to Mr. Tim Bevins October 24, 2023 Page 3 of 7

- Species considered to be sensitive by the BLM Bishop Field Office;
- Species considered to be sensitive by the USFS in Inyo National Forest;
- Plants having a California Rare Plant Rank (CRPR) of 1, 2, or 3;
- Nesting bird species protected by the CFGC and/or the Migratory Bird Treaty Act; or,
- Aquatic resources considered waters of the US or State.

#### Field Reconnaissance

A biological reconnaissance survey was conducted by HELIX Senior Biologist Patrick Martin on August 10 and 11, 2023. The Study Area was assessed at representative locations along Pine Creek Road, Buttermilk Road, and Chalk Bluff Road for plant communities, habitat types, aquatic resources, and wildlife present at the time of the survey, and assessed for the potential to support special-status species.

#### **EXISTING CONDITIONS**

The Study Area is primarily located on federally managed lands operated by the USFS and BLM that supports recreational use of the area that could include, but is not limited to: rock-climbing, hiking, camping, fishing, hunting, and off-road vehicle use. Private lands with irrigated agriculture and rural residences are also present. Most of the Study Area currently consists of native plant assemblages found along the eastern Sierra Nevada slopes and shrub dominated habitats of the Great Basin Desert. The Study Area supports aquatic resources with the main drainage of the Study Area consisting of the Owens River. All other drainages, such as Pine Creek and Horton Creek, support riparian habitat and are tributary to the Owens River. The Owens River is tributary to Owens Lake, a traditional navigable water. An aerial map is provided in Attachment A; Figure 3.

## Vegetation Communities

Vegetation community mapping provided in Attachment A; Figure 4 uses the Existing Vegetation data (USFS 2018) from the Classification and Assessment with LANDSAT of Visible Ecology Groupings (CALVEG) Zone 9, the Great Basin (USFS 2018). The CALVEG habitat classification system is easily crosswalked to other classification systems, such as *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988).

A total of 26 vegetation communities occur within the Study Area. These habitats include alkali desert scrub, alpine dwarf-shrub, annual grassland, aspen, barren, bitterbrush, desert riparian, desert scrub, desert wash, eastside pine, fresh emergent wetland, juniper, lacustrine, lodgepole pine, mixed chaparral, montane chaparral, montane hardwood-conifer, perennial grassland, pinyon-juniper, riverine, sagebrush, Sierran mixed conifer, subalpine conifer, urban, and wet meadow. Representative site photographs are included in Attachment D.



Letter to Mr. Tim Bevins October 24, 2023 Page 4 of 7

#### SPECIAL-STATUS SPECIES EVALUATION

## Evaluation of Regionally Occurring Special-Status Plant Species

A total of 118 special-status plant species are known to occur in the region of the Study Area. A total of 52 of these species were determined to have potential to occur in the Study Area. Of these 52 species, four species are listed under the FESA or CESA. These species include Fish Slough milkvetch (*Astragalus lentiginosus* var. *piscinensis*) a federally threatened species; white bark pine (*Pinus albicaulis*), a species proposed for listing under FESA; Owens Valley checkerbloom (*Sidalcea covillei*), a state listed endangered species; and western Joshua tree (*Yucca brevifolia*), a candidate for listing under CESA.

The remaining 48 species are ranked by CNPS 1B, 2B or 3 or listed as sensitive by the BLM or USFS. Based on the literature review, other published information, California Wildlife Habitat Relationship (CWHR) vegetation mapping managed by CDFW, and the observed habitats present in the Study Area, special-status plant species have the potential to occur in the Study Area based on the presence of native plant assemblages and the limited amount of development in the Study Area. Potential impacts to special-status plant species or their habitats could occur as a result of the implementation of the Buttermilk Recreational Plan Area.

#### Evaluation of Regionally Occurring Special-Status Animal Species

A total of 54 special-status wildlife species are known to occur in the region of the Study Area. A total of 32 of these species were determined to have potential to occur in the Study Area. Of these 32 species 12 species are listed under the FESA or CESA, with federally designated critical habitat present for two species. These species include Crotch's bumble bee (*Bombus crotchii*), a candidate to be listed as endangered under CESA; Monarch butterfly (*Danaus plexippus pop. 1*), a candidate to be listed under FESA; Owens Tui chub (*Siphateles bicolor ssp. snyderi*), an endangered species under FESA and CESA; Sierra Nevada yellow-legged frog (*Rana sierrae*), an endangered species under FESA and threatened under CESA; Swainson's hawk (*Buteo swainsoni*), a threatened species under CESA; greater sage-grouse (*Centrocercus urophasianus*), a candidate species under CESA; yellow-billed cuckoo (*Coccyzus americanus occidentalis*), a threatened species under FESA and an endangered species under CESA; willow flycatcher (*Empidonax traillii*), an endangered species under CESA; southwestern willow flycatcher (*Empidonax traillii extimus*), an endangered species under FESA and CESA; bald eagle (*Haliaeetus leucocephalus*), an endangered species under CESA; and Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), an endangered species under FESA and CESA.

Federally designated critical habitat is present in the western limits of the Study Area for Sierra Nevada yellow-legged frog and Sierra Nevada bighorn sheep. The remaining 20 sensitive wildlife species are listed as CDFW watch list, CDFW species of special concern, CDFW fully protected species or sensitive species of the BLM or USFS. There are numerous reported occurrences of special-status animal species in the Study Area. Potential impacts to special-status wildlife species or their habitats could occur as a result of the implementation of the Buttermilk Recreational Plan Area.

Monarch butterfly, a candidate to be listed under the FESA was observed in the Study Area along Pine Creek Road. Monarch butterflies were observed associated with narrow-leaf milkweed (*Asclepias fascicularis*), a larval host plant for this species, which was also observed to be abundant along Pine



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Creek Road. It can be assumed that Monarch butterfly will occur in the Study Area during all life stages for this species.

### **Evaluation of Nesting Birds**

The Study Area provides a diverse array of vegetation communities that could provide nesting habitat for native birds throughout the entire Study Area. No nesting birds were observed during the reconnaissance level survey in August 2023. Native birds are protected from disturbance during the nesting season by CFGC and the Migratory Bird Treaty Act. The Study Area supports potential nesting habitat for nesting migratory birds, including raptors, in the form of trees, shrubs, and bare ground. Activities within the Study Area resulting in ground disturbance and/or vegetation removal have potential to cause physical disturbance to active bird nests, if present.

#### Evaluation of Jurisdictional Waters of the U.S. and State

HELIX conducted a routine assessment of wetlands and "other waters" of the US on August 10 and 11, 2023, generally in accordance with the US Army Corps of Engineers' (USACE) Corps of Engineers Wetlands Delineation Manual, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). A formal delineation of wetlands was not completed.

The USFWS National Wetlands Inventory (NWI) online database was queried to identify whether any wetlands or other waters of the US, as mapped by the USFWS, are present in the Study Area. The query indicates that several NWI mapped aquatic resources occur within the Study Area, which include freshwater emergent wetland, freshwater forested/shrub wetland, freshwater pond, lake and riverine (USFWS 2023b). NWI features are displayed in Attachment A; Figure 5.

The Study Area supports aquatic resources with the main drainage of the Study Area consisting of the Owens River. All large drainages, such as Pine Creek, McGee Creek, Birch Creek, and Horton Creek support riparian habitat and are tributary to the Owens River. The Owens River is tributary to Owens Lake, a traditional navigable water. All drainages and adjacent wetlands in the Study Area are potentially jurisdictional features that would qualify as potential waters of the US or potential waters of the State. All drainages and wetlands are potential waters of the State. Riparian habitat may also fall under CDFW jurisdiction.

#### Tree Preservation

Inyo County does not include a tree preservation ordinance or other special codes related to trees.

#### CONCLUSION

Aquatic resources are present in the Study Area that would qualify as potential waters of the US or waters of the State subject to USACE and Regional Water Quality Control Board (RWQCB) jurisdiction under Sections 404 and 401 of the Clean Water Act as well as CDFW jurisdiction under Section 1600 of the CFGC. All potential waters of the US or State are tributary to Owens Lake, a traditional navigable water. Riparian habitat along streams may also fall under CDFW jurisdiction under Section 1600 of the CFGC. If any impacts to aquatic resources are expected, a formal aquatic resources delineation should be conducted and submitted to the resource agencies to determine the extent of jurisdiction. In the



Letter to Mr. Tim Bevins October 24, 2023 Page 6 of 7

event that any aquatic resources are determined to be jurisdictional, the project proponent will be required to apply for appropriate permit(s) to fill aquatic resources and any mitigation measures contained in the permits will require implementation prior to filling any onsite features deemed subject to regulation.

Special-status plant or animal species were not observed in the Study Area during a reconnaissance survey conducted in August 2023. However, there is potential habitat for 52 species of sensitive plants and 32 species of sensitive wildlife in addition to nesting migratory bird species. A total of four plant species and 12 wildlife species are listed under the FESA or CESA, with federally designated critical habitat present for two wildlife species. A full biological resources assessment would likely need to be prepared to detail biological resources more fully within the Study Area and to support CEQA, NEPA compliance, and other regulatory permitting for any proposed project within the Study Area. The potential presence of federally and state listed, and other special-status species will likely require habitat mitigation and implementation of applicable avoidance and minimization measures for implementation of the Buttermilk Recreational Plan Area.

If you have any questions regarding this Biological Constraints Analysis, please contact me by e-mail at <a href="mailto:PatrickM@helixepi.com">PatrickM@helixepi.com</a>.

Sincerely,

Patrick Martin

Senior Biologist/Wetland Scientist

#### Attachments:

Attachment A: Figures

Attachment B: Special-Status Species Database Queries

Attachment C: Potential for Special-Status Species to Occur in the Study Area

Attachment D: Representative Photographs



Letter to Mr. Tim Bevins October 24, 2023 Page 7 of 7

#### REFERENCES

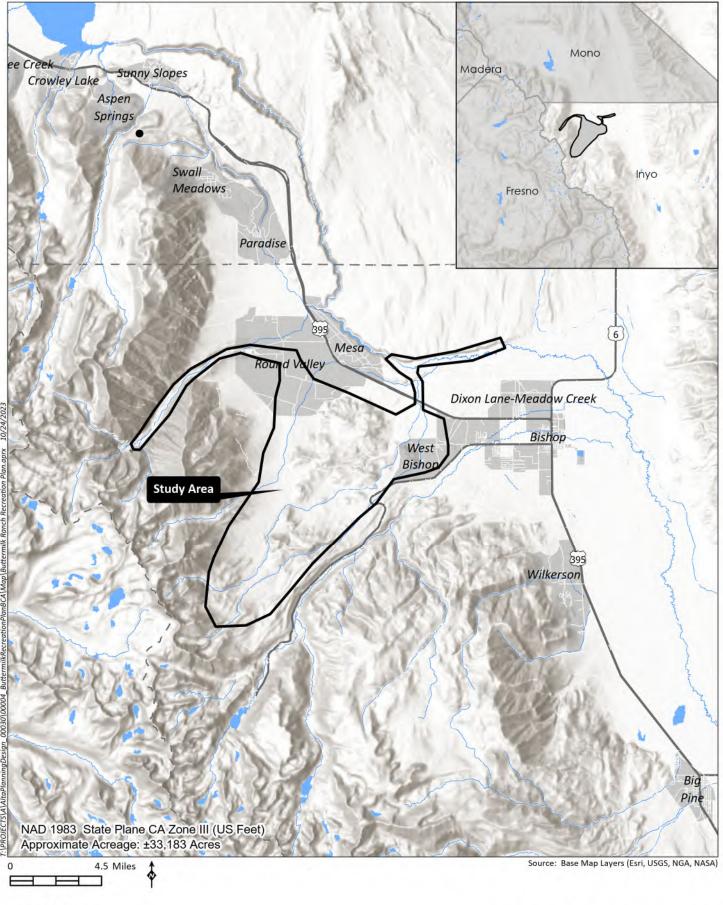
- California Department of Fish and Wildlife (CDFW). 2023. California Natural Diversity Database (CNDDB) RareFind 5. Dated August 1, 2023.
- California Native Plant Society (CNPS). 2023. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). Website <a href="http://www.rareplants.cnps.org">http://www.rareplants.cnps.org</a>. Dated August 1, 2023.
- Mayer, K.E. and W.F. Laudenslayer. 1988. A Guide to Wildlife Habitats of California. State of California, Resources Agency, Department of Fish and Game, Sacramento, CA 166pp.
- US Department of Agriculture Forest Service (USFS). 2013. USDA Forest Service, Pacific Southwest Region, Sensitive Species by Forest. Updated September 9.
  - 2018. Existing Vegetation (Eveg) Classification and Assessment with LANDSAT of Visible Ecological Groupings (CALVEG) Region 5, Zone 9, Great Basin.
- US Department of the Interior Bureau of Land Management (BLM). 2014. Special-status animals list for the Bishop field office. September 23.
  - 2022. All BLM California Special-status plants. January 31.
- US Fish and Wildlife Service (USFWS). 2023a. Information for Planning and Consultation (IPaC) Trust Resource Report. Generated August 1, 2023 at <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a>.
  - 2023b. National Wetlands Inventory. Wetlands Mapper. Accessed online August 1, 2023 at <a href="https://www.fws.gov/wetlands/data/Mapper.html">https://www.fws.gov/wetlands/data/Mapper.html</a>.



## Attachment A

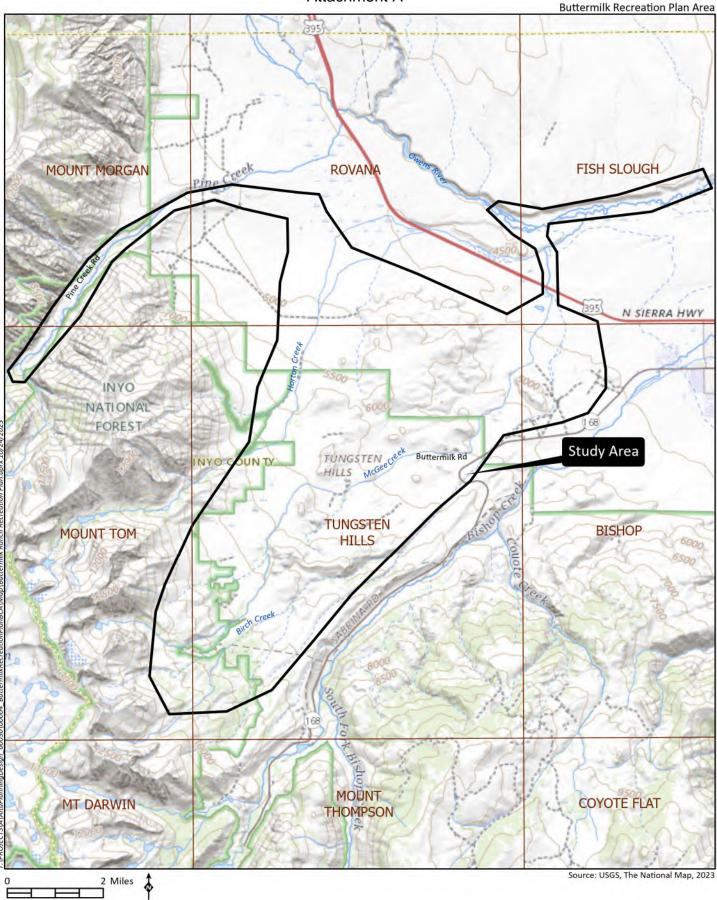
Figures





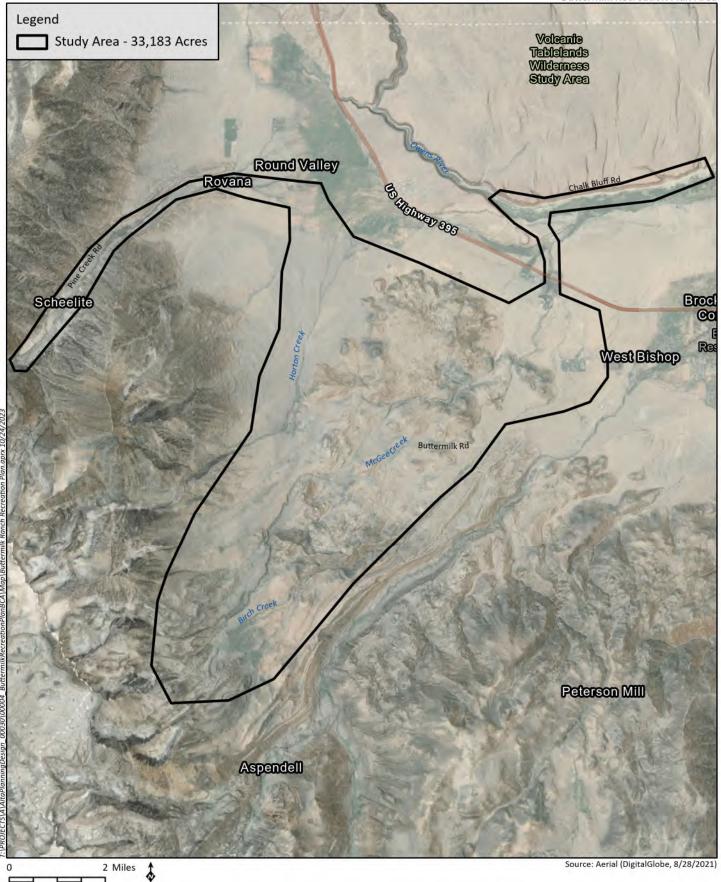
HELIX
Environmental Planning

**Site and Vicinity Map** 



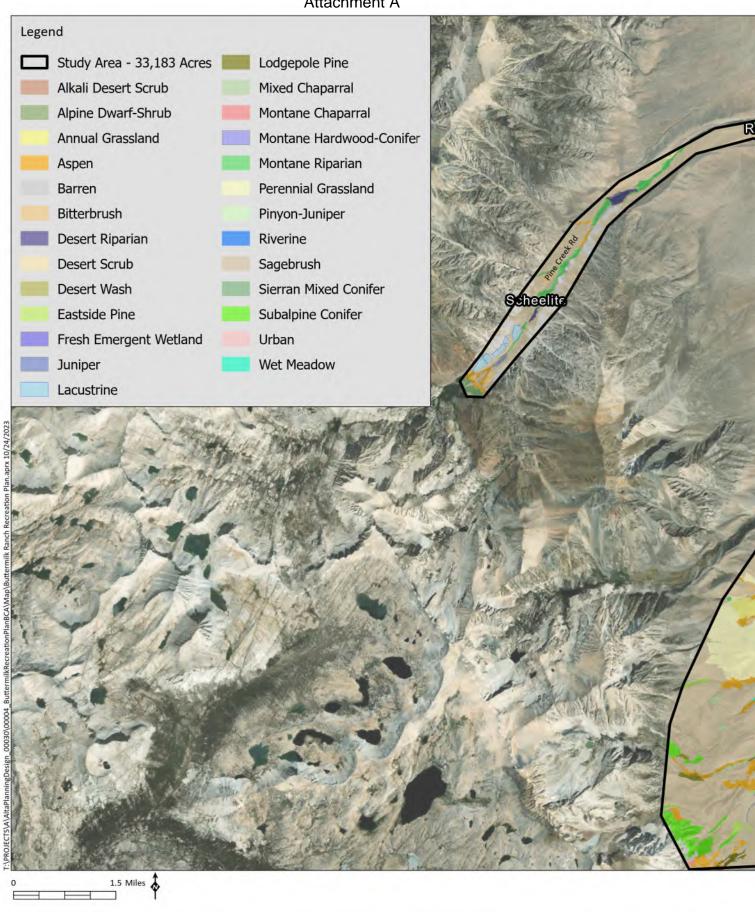


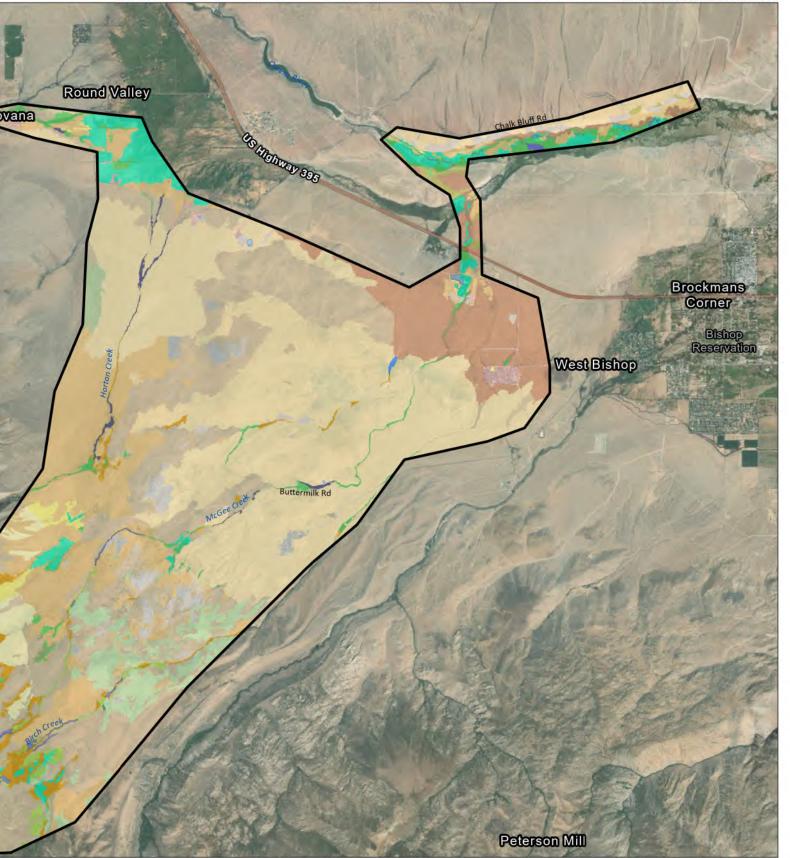
**USGS Topographic Map** 



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**Aerial Map** 





Source: USFS EVEG, 2018; Aerial (DigitalGlobe, 8/28/2021)

## **Vegetation Communities**



## Attachment B

Special-Status Species Database Queries



## United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

Reno Fish And Wildlife Office 1340 Financial Boulevard, Suite 234 Reno, NV 89502-7147 Phone: (775) 861-6300 Fax: (775) 861-6301

In Reply Refer To: August 01, 2023

Project Code: 2023-0111808

Project Name: Buttermilk Recreation Plan

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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O8/01/2023 Attachment A

## Attachment(s):

- Official Species List
- Migratory Birds

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Reno Fish And Wildlife Office** 1340 Financial Boulevard, Suite 234 Reno, NV 89502-7147 (775) 861-6300

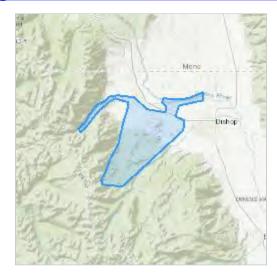
## **PROJECT SUMMARY**

Project Code: 2023-0111808

Project Name: Buttermilk Recreation Plan
Project Type: Recreation Operations
Project Description: Recreation plan.

Project Location:

The approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/@37.34268495000006">https://www.google.com/maps/@37.342684950000006</a>,-118.54869973699326,14z



Counties: Inyo County, California

## **ENDANGERED SPECIES ACT SPECIES**

There is a total of 13 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## **MAMMALS**

NAME	STATUS
Fisher <i>Pekania pennanti</i>	Endangered
Population: SSN DPS	O
There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical	
habitat.	
Species profile: <a href="https://ecos.fws.gov/ecp/species/3651">https://ecos.fws.gov/ecp/species/3651</a>	
North American Wolverine <i>Gulo gulo luscus</i>	Proposed
No critical habitat has been designated for this species.	Threatened
Species profile: <a href="https://ecos.fws.gov/ecp/species/5123">https://ecos.fws.gov/ecp/species/5123</a>	
Sierra Nevada Bighorn Sheep Ovis canadensis sierrae	Endangered
Population: Sierra Nevada	J
There is <b>final</b> critical habitat for this species. Your location overlaps the critical habitat.	
Species profile: <a href="https://ecos.fws.gov/ecp/species/3646">https://ecos.fws.gov/ecp/species/3646</a>	
Sierra Nevada Red Fox <i>Vulpes vulpes necator</i>	Endangered
Population:	O
No critical habitat has been designated for this species.	
Species profile: <a href="https://ecos.fws.gov/ecp/species/4252">https://ecos.fws.gov/ecp/species/4252</a>	

**BIRDS** 

NAME STATUS

Southwestern Willow Flycatcher *Empidonax traillii extimus* 

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/6749">https://ecos.fws.gov/ecp/species/6749</a>

Yellow-billed Cuckoo Coccyzus americanus

Threatened

Population: Western U.S. DPS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>

**AMPHIBIANS** 

NAME STATUS

Mountain Yellow-legged Frog Rana muscosa

Endangered

Population: Northern California DPS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8037

Sierra Nevada Yellow-legged Frog Rana sierrae

Endangered

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/9529

**FISHES** 

NAME STATUS

Owens Pupfish Cyprinodon radiosus

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4982">https://ecos.fws.gov/ecp/species/4982</a>

Owens Tui Chub Gila bicolor ssp. snyderi

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/7289">https://ecos.fws.gov/ecp/species/7289</a>

**INSECTS** 

NAME STATUS

Monarch Butterfly Danaus plexippus

Candidate

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>

FLOWERING PLANTS

NAME STATUS

Fish Slough Milk-vetch *Astragalus lentiginosus var. piscinensis* 

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/7947">https://ecos.fws.gov/ecp/species/7947</a>

#### **CONIFERS AND CYCADS**

NAME STATUS
Whitebark Pine *Pinus albicaulis* Threatened

No critical habitat has been designated for this species.

Species profile: <a href="https://ecos.fws.gov/ecp/species/1748">https://ecos.fws.gov/ecp/species/1748</a>

## **CRITICAL HABITATS**

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME
Sierra Nevada Bighorn Sheep Ovis canadensis sierrae
https://ecos.fws.gov/ecp/species/3646#crithab

Sierra Nevada Yellow-legged Frog Rana sierrae
https://ecos.fws.gov/ecp/species/9529#crithab

## **MIGRATORY BIRDS**

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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DDEEDING

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	SEASON
American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/6886">https://ecos.fws.gov/ecp/species/6886</a>	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31

NAME	BREEDING SEASON
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8878">https://ecos.fws.gov/ecp/species/8878</a>	Breeds Jun 15 to Sep 10
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20
Black-throated Gray Warbler <i>Dendroica nigrescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jul 20
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9462">https://ecos.fws.gov/ecp/species/9462</a>	Breeds May 15 to Jul 15
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9464">https://ecos.fws.gov/ecp/species/9464</a>	Breeds Mar 20 to Sep 20
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere

NAME	BREEDING SEASON
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a>	Breeds Apr 20 to Sep 30
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a>	Breeds Mar 1 to Jul 15
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds elsewhere
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	Breeds May 20 to Aug 31
Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9420">https://ecos.fws.gov/ecp/species/9420</a>	Breeds Feb 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8002">https://ecos.fws.gov/ecp/species/8002</a>	Breeds Apr 15 to Jul 15
Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9433">https://ecos.fws.gov/ecp/species/9433</a>	Breeds Apr 15 to Aug 10
Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9441">https://ecos.fws.gov/ecp/species/9441</a>	Breeds May 1 to Jul 31
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a>	Breeds Jun 1 to Aug 31
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

## **Probability of Presence (■)**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

## **Breeding Season** (

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

## Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

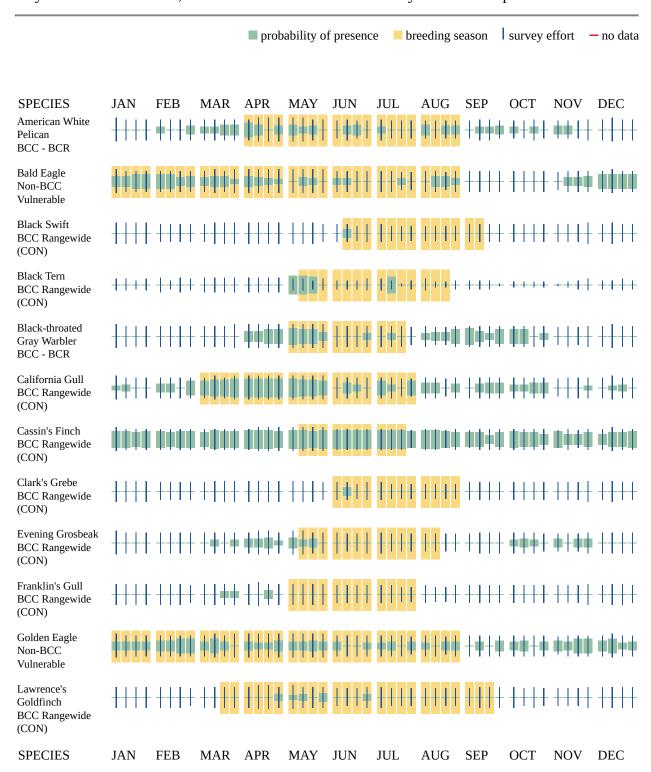
## No Data (-)

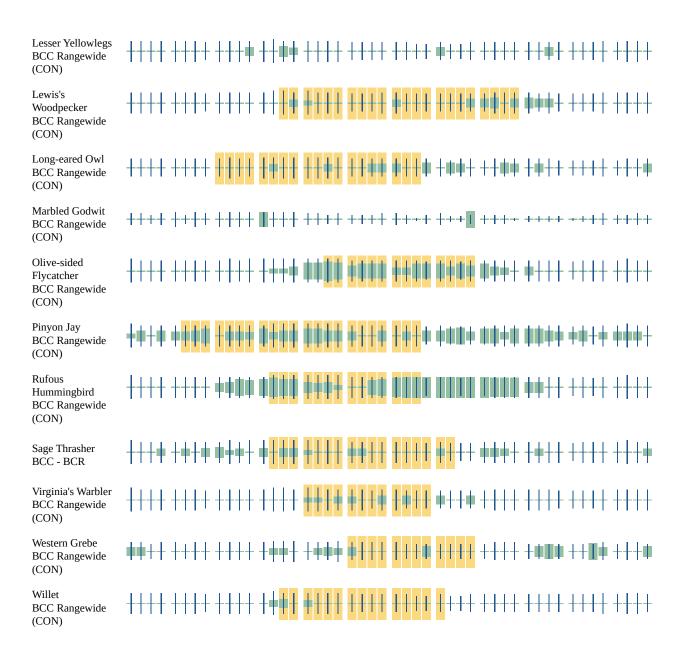
A week is marked as having no data if there were no survey events for that week.

## **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Additional information can be found using the following links:

- Birds of Conservation Concern <a href="https://www.fws.gov/program/migratory-birds/species">https://www.fws.gov/program/migratory-birds/species</a>
- Measures for avoiding and minimizing impacts to birds <a href="https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds">https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</a>
- Nationwide conservation measures for birds <a href="https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf">https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</a>

## **MIGRATORY BIRDS FAQ**

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

08/01/2023 Attachment A

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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## What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern</u> (<u>BCC</u>) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <a href="Rapid Avian Information">Rapid Avian Information</a> Locator (RAIL) Tool.

## What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

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Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <a href="Eagle Act">Eagle Act</a> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

#### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

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certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## **IPAC USER CONTACT INFORMATION**

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#### BUTTERMILK INFRASTRUCTURE AND RECREATION PLANNING INITIATIVE



## Selected Elehitents 169 Element Code

## California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria:

Quad<span style='color:Red'> IS </span>(Tungsten Hills (3711835)<span style='color:Red'> OR </span>Fish Slough (3711844)<span style='color:Red'> OR </span>Rovana (3711845)<span style='color:Red'> OR </span>Mt. Morgan (3711846)<span style='color:Red'> OR </span>Coyote Flat (3711824)<span style='color:Red'> OR </span>Mt. Darwin (3711826)<span style='color:Red'> OR </span>Bishop (3711834)<span style='color:Red'> OR </span>Mt. Thompson (3711825)<span style='color:Red'> OR </span>Mount Tom (3711836))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAD09020	Hydromantes platycephalus	None None	None Status	G4 G4	State Rank	WL
	Mount Lyell salamander					
AAABB01040	Anaxyrus canorus Yosemite toad	Threatened	None	G2	S2	SSC
AAABH01170	Lithobates pipiens northern leopard frog	None	None	G5	S2	SSC
AAABH01340	Rana sierrae Sierra Nevada yellow-legged frog	Endangered	Threatened	G1	S2	WL
ABNKC12060	Accipiter gentilis northern goshawk	None	None	G5	S3	SSC
ABNKC19070	Buteo swainsoni Swainson's hawk	None	Threatened	G5	S4	
ABNKC22010	Aquila chrysaetos golden eagle	None	None	G5	S3	FP
ABNKD06090	Falco mexicanus prairie falcon	None	None	G5	S4	WL
ABPAE33043	Empidonax traillii extimus southwestern willow flycatcher	Endangered	Endangered	G5T2	S3	
ABPAU08010	Riparia riparia bank swallow	None	Threatened	G5	S3	
AFCHA02089	Oncorhynchus clarkii seleniris Paiute cutthroat trout	Threatened	None	G5T1	S1	
AFCJB1303J	Siphateles bicolor snyderi Owens tui chub	Endangered	Endangered	G4T1	S1	
AFCJB3705F	Rhinichthys osculus ssp. 2 Owens speckled dace	None	None	G5T2Q	S2	SSC
AFCJC02090	Catostomus fumeiventris Owens sucker	None	None	G3	S3	SSC
AFCNB02090	Cyprinodon radiosus Owens pupfish	Endangered	Endangered	G1	S2	FP
AMACC02010	Lasionycteris noctivagans silver-haired bat	None	None	G3G4	S3S4	
AMACC05032	Lasiurus cinereus hoary bat	None	None	G3G4	S4	
AMACC07010	Euderma maculatum spotted bat	None	None	G4	S3	SSC
AMACC08010	Corynorhinus townsendii Townsend's big-eared bat	None	None	G4	S2	SSC



## Selected Elehttents 159 tElement Code

# California Department of Fish and Wildlife California Natural Diversity Database



			24.4.7	01.1.5	<b>.</b>	Rare Plant Rank/CDFW
Element Code	Species	Federal Status	State Status	Global Rank	State Rank	SSC or FP
AMACC10010	Antrozous pallidus pallid bat	None	None	G4	S3	SSC
AMAEA0102L	Ochotona princeps schisticeps gray-headed pika	None	None	G5T4	S2S4	
AMAEB03041	Lepus townsendii townsendii western white-tailed jackrabbit	None	None	G5T5	S3?	SSC
AMAFF11033	Microtus californicus vallicola Owens Valley vole	None	None	G5T3	S3	SSC
AMAJA03017	Vulpes vulpes necator pop. 2 Sierra Nevada red fox - Sierra Nevada DPS	Endangered	Threatened	G5TNR	S1	
AMAJF01014	Martes caurina sierrae Sierra marten	None	None	G4G5T3	S3	
AMAJF03010	Gulo gulo wolverine	Proposed Threatened	Threatened	G4	S1	FP
AMALE04015	Ovis canadensis sierrae Sierra Nevada bighorn sheep	Endangered	Endangered	G4T2	S2	FP
CTT45310CA	Alkali Meadow Alkali Meadow	None	None	G3	S2.1	
CTT52320CA	Transmontane Alkali Marsh Transmontane Alkali Marsh	None	None	G3	S2.1	
CTT63510CA	Water Birch Riparian Scrub Water Birch Riparian Scrub	None	None	GNR	SNR	
IIHYM24260	Bombus pensylvanicus American bumble bee	None	None	G3G4	S2	
IIHYM24460	Bombus morrisoni  Morrison bumble bee	None	None	G3	S1S2	
IIHYM24480	Bombus crotchii Crotch bumble bee	None	Candidate Endangered	G2	S2	
IMBIV04220	Anodonta californiensis California floater	None	None	G3Q	S2?	
IMGASJ0290	Pyrgulopsis perturbata Fish Slough springsnail	None	None	G1	S1	
IMGASJ0360	Pyrgulopsis wongi Wong's springsnail	None	None	G2	S2	
NBMUS3C011	Elodium blandowii Blandow's bog moss	None	None	G4	S2	2B.3
NBMUS4U010	Myurella julacea small mousetail moss	None	None	G5	S2	2B.3
NBMUS5S1B0	Pohlia tundrae tundra thread moss	None	None	G3	S3	2B.3
NLT0028030	Solorina spongiosa fringed chocolate chip lichen	None	None	G4G5	S1	2B.2



## Selected ElehttentsnootElement Code

## California Department of Fish and Wildlife California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
NLTEST91L0	Dermatocarpon meiophyllizum	None None	None Status	G3G5	Siate Rank	2B.3
NETESTATE	silverskin lichen	None	None	0303	33	20.5
PDAST2R0K0	Crepis runcinata	None	None	G5	S3	2B.2
D/1012110110	fiddleleaf hawksbeard	110110	110110	00	00	23.2
PDAST8H1R0	Packera indecora	None	None	G5	S2?	2B.2
	rayless mountain ragwort					
PDBOR0V0U0	Plagiobothrys parishii	None	None	G1	S1	1B.1
	Parish's popcornflower					
PDBRA060F0	Boechera dispar	None	None	G3	S3	2B.3
	pinyon rockcress					
PDBRA111F0	Draba lonchocarpa	None	None	G5	S2S3	2B.3
	spear-fruited draba					
PDBRA11210	Draba praealta	None	None	G5	S3	2B.3
	tall draba					
PDBRA112A0	Draba sierrae	None	None	G3	S3	1B.3
	Sierra draba					
PDBRA2N062	Thelypodium integrifolium ssp. complanatum foxtail thelypodium	None	None	G5T4T5	S2	2B.2
PDBRA40130	Boechera tularensis	None	None	G3	S3	1B.3
	Tulare rockcress					
PDCAR0G0U0	Sabulina stricta	None	None	G5	S3	2B.3
	bog sandwort					
PDFAB0F0S1	Astragalus argophyllus var. argophyllus	None	None	G5T4	S2	2B.2
	silver-leaved milk-vetch					
PDFAB0F5N0	Astragalus monoensis	None	Rare	G2	S2	1B.2
	Mono milk-vetch					
PDFAB0F7F0	Astragalus ravenii	None	None	G2	S2	1B.3
	Raven's milk-vetch					
PDFAB0FB9E	Astragalus lentiginosus var. piscinensis	Threatened	None	G5T1	S1	1B.1
	Fish Slough milk-vetch			0.7.0	0.4	
PDFAB2B2K2	Lupinus magnificus var. hesperius	None	None	G3T1Q	S1	1B.3
DDE 4 DODOZO	Mcgee Meadows lupine	Nana	D	00	00	4D 0
PDFAB2B2Z0	Lupinus padre-crowleyi  Father Crowley's lupine	None	Rare	G2	S2	1B.2
PDHYD0C2F0	Phacelia inyoensis	None	None	G2	S2	1B.2
-DITIDUCZEU	Inyo phacelia	None	None	G2	32	10.2
PDLOA031S0	Mentzelia torreyi	None	None	G4	S2	2B.2
<i>B</i> 20/100100	Torrey's blazing star	140110	110110	0.	02	25.2
PDMAL11040	Sidalcea covillei	None	Endangered	G2	S2	1B.1
	Owens Valley checkerbloom		<del></del>	-	•	
PDONA060R0	Epilobium palustre	None	None	G5	S2	2B.3
	marsh willowherb					



## Selected Elehttents∩sytElement Code

## California Department of Fish and Wildlife **California Natural Diversity Database**



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDRAN0L190	Ranunculus hydrocharoides	None	None	G4	S1	2B.1
FDRANUL 190	frog's-bit buttercup	None	None	G4	31	20.1
PPPOCOVOGO	·	Nama	Nama	C4T2O	60	00.0
PDROS0X092	Ivesia kingii var. kingii	None	None	G4T3Q	S2	2B.2
	alkali ivesia			0	0.0	
PDROS18010	Petrophytum caespitosum ssp. acuminatum marble rockmat	None	None	G5T2	S2	1B.3
PDROS1B2R0	Potentilla morefieldii	None	None	G2	S2	1B.3
	Morefield's cinquefoil					
PDSAX0P0A0	Parnassia parviflora	None	None	G5?	S2	2B.2
	small-flowered grass-of-Parnassus					
PDSOL0Q010	Oryctes nevadensis	None	None	G3	S2	2B.1
	Nevada oryctes					
PDVIO04431	Viola pinetorum ssp. grisea	None	None	G4G5T3	S3	1B.2
	grey-leaved violet					
PMCYP03C85	Carex scirpoidea ssp. pseudoscirpoidea western single-spiked sedge	None	None	G5T5	S2	2B.2
PMCYP0B0N0	Fimbristylis thermalis	None	None	G4	S1S2	2B.2
	hot springs fimbristylis					
PMCYP0Q250	Trichophorum pumilum	None	None	G5	S3	2B.2
	little bulrush					
PMJCG02040	Triglochin palustris	None	None	G5	S2	2B.3
	marsh arrow-grass				<u></u>	22.0
PMLIL02061	Allium atrorubens var. atrorubens	None	None	G4T4	S2	2B.3
	Great Basin onion				<u></u>	22.0
PMLIL0D0F0	Calochortus excavatus	None	None	G2	S2	1B.1
1 WEIEGDOI G	Inyo County star-tulip	None	None	02	02	15.1
PMPOA4Z1H0	Poa lettermanii	None	None	G4	S3	2B.3
1 WII 67(421110	Letterman's blue grass	None	None	0-1	00	25.0
PMPOA6P010	Elymus salina	None	None	G5	S2S3	2B.3
I WII OAGI 010	Salina Pass wild-rye	None	None	<b>G</b> 5	3233	20.3
DMDOT02070		None	None	C.F.	62	0D 2
PMPOT030Z0	Potamogeton robbinsii  Robbins' pondweed	None	None	G5	S3	2B.3
DDODI 10401 6	·	Ness	Nissa	0.4	00	00.0
PPOPH010L0	Botrychium crenulatum	None	None	G4	S3	2B.2
	scalloped moonwort					

**Record Count: 78** 

CNPS Rare Plant Inventory



### **Search Results**

82 matches found. Click on scientific name for details

Search Criteria: <u>CRPR</u> is one of [1A:1B:2A:2B:3:4], <u>9-Quad</u> include [3711844:3711845:3711846:3711824:3711826:3711835:3711834:3711825:3711836]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK		CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Agrostis humilis	mountain bent grass	Poaceae	perennial herb	Jul-Sep	None	None	G4Q	S2	2B.3		1980- 01-01	© 2004 Steve Matsor
Aliciella triodon	coyote gilia	Polemoniaceae	annual herb	Apr-Jun	None	None	G5	S2	2B.2		2006- 10-04	© 2020 Steve Matson
Allium atrorubens var. atrorubens	Great Basin onion	Alliaceae	perennial bulbiferous herb	May-Jun	None	None	G4T4	S2	2B.3		1994- 01-01	© 2021 Steve Matson
Angelica kingii	King's angelica	Apiaceae	perennial herb	Jun-Aug	None	None	G4	S3	4.2		2001- 01-01	© 2015 Steve
Antennaria pulchella	beautiful pussy-toes	Asteraceae	perennial stoloniferous herb	Jun-Sep	None	None	G4	S4	4.3		1994- 01-01	© 2014 Steve Matsor
<u>Arabis repanda</u> v <u>ar. greenei</u>	Greene's rockcress	Brassicaceae	perennial herb	Jun-Aug	None	None	G5T3Q	S3	3.3	Yes	2001- 01-01	No Photo Available
Astragalus argophyllus var. argophyllus	silver-leaved milk-vetch	Fabaceae	perennial herb	May-Jul	None	None	G5T4	S2	2B.2		1980- 01-01	No Photo Available
<u>Astragalus</u> inyoensis	Inyo milk- vetch	Fabaceae	perennial herb	May-Jul	None	None	G3	S3	4.2		1974- 01-01	No Photo Availabl

			DOTTE	RMILK INFR	LAO III	00101	L AIVE	KLOKL	Alloit	FLAMMI	to little	AIIVE
Astragalus kentrophyta var. danaus	Sweetwater Mountains milk-vetch	Fabaceae	perennia <b>AtteaCl</b>	nment A	None	None	G5T4	S4	4.3		1974- 01-01	No Photo Available
Astragalus lentiginosus var. piscinensis	Fish Slough milk-vetch	Fabaceae	perennial herb	Jun-Jul	FT	None	G5T1	S1	1B.1	Yes	1980- 01-01	No Photo Available
Astragalus monoensis	Mono milk- vetch	Fabaceae	perennial herb	Jun-Aug	None	CR	G2	S2	1B.2	Yes	1974- 01-01	No Photo Available
Astragalus ravenii	Raven's milk- vetch	Fabaceae	perennial herb	Jul-Sep	None	None	G2	S2	1B.3	Yes	1974- 01-01	No Photo Available
<u>Boechera dispar</u>	pinyon rockcress	Brassicaceae	perennial herb	Mar-Jun	None	None	G3	S3	2B.3		1994- 01-01	No Photo Available
Boechera pygmaea	Tulare County rockcress	Brassicaceae	perennial herb	Jun-Jul	None	None	G3	S3	4.3	Yes	1974- 01-01	No Photo Available
Boechera tularensis	Tulare rockcress	Brassicaceae	perennial herb	(May)Jun- Jul(Aug)	None	None	G3	S3	1B.3	Yes	2011- 07-05	No Photo Available
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul- Aug	None	None	G4	S2	2B.3		1994- 01-01	© 2005 Steve Matson
<u>Botrychium</u> <u>crenulatum</u>	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	None	None	G4	S3	2B.2		1984- 01-01	© 2016 Steve Matson
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G2	S2	1B.1	Yes	1974- 01-01	No Photo Available
Calyptridium pygmaeum	pygmy pussypaws	Montiaceae	annual herb	Jun-Aug	None	None	G1G2	S1S2	1B.2	Yes	2008- 10-10	No Photo Available

BUTTERMILE	CINFRASTRUC	TURE AND RECRE	ATION PLANNING	INITIATIVE	:							
<u>Carex buxbaumii</u>	Buxbaum's sedge	Cyperaceae	perenniaAttac rhizomatous herb	h <b>imen</b> t9A	None	None	G5	S3	4.2		2001-01-01	© 2008 Dean Wm. Taylor, Ph.D.
<u>Carex congdonii</u>	Congdon's sedge	Cyperaceae	perennial rhizomatous herb	Jul-Aug	None	None	G4	S4	4.3	Yes	1974- 01-01	No Photo Available
<u>Carex</u> incurviformis	Mt. Dana sedge	Cyperaceae	perennial rhizomatous herb	Jul-Aug	None	None	G4G5	S4	4.3		1994- 01-01	No Photo Available
<u>Carex scirpoidea</u> <u>ssp.</u> <u>pseudoscirpoidea</u>	single-spiked	Cyperaceae	perennial rhizomatous herb	Jul-Sep	None	None	G5T5	S2	2B.2		2001- 01-01	No Photo Available
Carex tahoensis	Tahoe sedge	Cyperaceae	perennial rhizomatous herb	Jul-Aug	None	None	G5	S4	4.3		2001- 01-01	No Photo Available
<u>Chaetadelpha</u> <u>wheeleri</u>	Wheeler's dune-broom	Asteraceae	perennial rhizomatous herb	Apr-Sep	None	None	G4	S2	2B.2		2001- 01-01	No Photo Available
<u>Cleomella</u> <u>brevipes</u>	short- pedicelled cleomella	Cleomaceae	annual herb	May-Oct	None	None	G4	S3	4.2		2001- 01-01	No Photo Available
<u>Crepis runcinata</u>	fiddleleaf hawksbeard	Asteraceae	perennial herb	May-Aug	None	None	G5	<b>S</b> 3	2B.2		2015- 10-26	No Photo Available
<u>Cryptantha</u> g <u>lomeriflora</u>	clustered- flower cryptantha	Boraginaceae	annual herb	Jun-Sep	None	None	G4Q	S4	4.3	Yes	2001- 01-01	No Photo Available
<u>Delphinium</u> <u>inopinum</u>	unexpected larkspur	Ranunculaceae	perennial herb	May-Jul	None	None	G3	<b>S</b> 3	4.3	Yes	1974- 01-01	No Photo Available
<u>Dermatocarpon</u> <u>meiophyllizum</u>	silverskin lichen	Verrucariaceae	foliose lichen (aquatic)		None	None	G3G5	S3	2B.3		2022- 07-14	No Photo Available

Draba californica	z California draba	Brassicaceae	perennia <b>A(tte)Cl</b>	nmentA	None None G3	S3	4.2		1994- 01-01	No Photo Available
<u>Draba</u> <u>lonchocarpa</u>	spear-fruited draba	Brassicaceae	perennial herb	Jun-Jul	None None G5	S2S3	2B.3		2001- 01-01	No Photo Available
<u>Draba praealta</u>	tall draba	Brassicaceae	perennial herb	Jul-Aug	None None G5	S3	2B.3		2001- 01-01	No Photo Available
Draba sierrae	Sierra draba	Brassicaceae	perennial herb	Jun-Aug	None None G3	S3	1B.3	Yes	1974- 01-01	No Photo Available
<u>Draba</u> subumbellata	mound draba	Brassicaceae	perennial herb	Jul	None None G3	S3	4.3		1994- 01-01	No Photo Available
<u>Elodium</u> <u>blandowii</u>	Blandow's bog moss	Helodiaceae	moss		None None G4	S2	2B.2		2001- 01-01	© 2013 Scot Loring
Elymus salina	Salina Pass wild-rye	Poaceae	perennial rhizomatous herb	May-Jun	None None G5	S2S3	2B.3		2001- 01-01	No Photo Available
<u>Epilobium</u> <u>palustre</u>	marsh willowherb	Onagraceae	perennial rhizomatous herb	Jul-Sep	None None G5	S2	2B.3		2001- 01-01	No Photo Available
Eriastrum sparsiflorum	few-flowered eriastrum	Polemoniaceae	annual herb	May-Sep	None None G5	S4	4.3		2012- 09-04	No Photo Available
<u>Ericameria</u> albida	white- flowered rabbitbrush	Asteraceae	perennial evergreen shrub	Jun-Nov	None None G4	S3	4.2		2001- 01-01	No Photo Available
Eriogonum baileyi var. praebens	Bailey's woolly buckwheat	Polygonaceae	annual herb	May-Sep	None None G5T	4 S4	4.3		2001- 01-01	No Photo Available
Erythranthe laciniata	cut-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jul	None None G4	S4	4.3	Yes	1974- 01-01	© 2017 Steven Perry

_,	Nevada	Asteraceae	annual h <b>Attach</b>	n <b>men</b> ttA	None	None	G4	S3	4.3		1974-	
<u>nevadensis</u>	wormwood										01-01	No
												Photo
												Available
	hot springs	Cyperaceae	perennial	Jul-Sep	None	None	G4	S1S2	2B.2		1980-	
<u>thermalis</u>	fimbristylis		rhizomatous herb								01-01	No Photo
			Helb									Available
Fuitillauia	nina fritillan	Liliaceae	perennial	May	None	Nana	C1	S4	4.3	Ves	2001	
<u>Fritillaria</u> pinetorum	pine fritillary	Lillaceae	bulbiferous herb	May- Jul(Sep)	None	None	G4	54	4.5	Yes	2001-	100
<u>panetorann</u>			building and the fa	341(3ep)							01 01	© 2008
												Steve Matson
Coodmania	aaldaa	Dalvaanasaaa	annual barb	Apr. Aug	Nana	Nana	C2	CZ	4.2		1004	WIGCSOTT
	golden goodmania	Polygonaceae	annual herb	Apr-Aug	None	None	G3	S3	4.2		1994- 01-01	Ty -
idleold	goodinania										01-01	© 2007
												Steve
												Matson
	Inyo hulsea	Asteraceae	perennial herb	Apr-Jun	None	None	G5T2T3	S1S2	2B.2		1980-	11/6
<u>ssp. inyoensis</u>											01-01	© 2011
												Steve
												Matson
<u>Ivesia kingii var.</u>	alkali ivesia	Rosaceae	perennial herb	May-Aug	None	None	G4T3Q	S2	2B.2		1988-	10 p
<u>kingii</u>											01-01	© 2008
												Steve
												Matson
<u>Jamesia</u>	rosy-petalled	Hydrangeaceae	perennial	May-Sep	None	None	G5T4	S4	4.3		1994-	Z.
americana var.	cliffbush		deciduous shrub								01-01	© 2005
<u>rosea</u>												Steve
												Matson
<u>Loeflingia</u>	sagebrush	Caryophyllaceae	annual herb	Apr-May	None	None	G5T3	S2	2B.2		1974-	
<u>squarrosa var.</u>	loeflingia										01-01	No
<u>artemisiarum</u>												Photo
												Available
<u>Loeseliastrum</u>	depressed	Polemoniaceae	annual herb		None	None	G4	S3	4.3		2008-	
<u>depressum</u>	standing-										11-20	No
	cypress											Photo
												Available
	stiff lomatium	Apiaceae	perennial herb	Apr-May	None	None	G3	S3	4.3	Yes	1974-	
<u>rigidum</u>											01-01	No
												Photo
								6.1	45.5	.,		Available
	Mcgee	Fabaceae	perennial herb	Apr-Jun	None	None	G3T1Q	S1	1B.3	Yes	1980-	
	Mandania										01-01	No Photo
magnificus var.	Meadows Junine											THOLO
magnificus var.	Meadows Iupine											
magnificus var. hesperius	lupine	Fahaceae	nerennial borb	Jul-Aug	None	CP	G2	52	1R 2	Var	107/	
magnificus var. hesperius  Lupinus padre-	lupine Father	Fabaceae	perennial herb	Jul-Aug	None	CR	G2	S2	1B.2	Yes	1974- 01-01	Available
magnificus var. hesperius  Lupinus padre- crowleyi	lupine	Fabaceae	perennial herb	Jul-Aug	None	CR	G2	S2	1B.2	Yes	1974- 01-01	Available  No Photo

<u>Mentzelia torreyi</u>	Torrey's blazing star	Loasaceae	perennia <b>Atteach</b>	nmenta	None	None G	54	S2	2B.2		2001- 01-01	No
	SIGENING Star										01 01	Photo Available
Muilla coronata	crowned muilla	Themidaceae	perennial bulbiferous herb	Mar- Apr(May)	None	None (	53	S3	4.2		1988- 01-01	No Photo Available
Myurella julacea	small mousetail moss	Pterigynandraceae	moss		None	None 0	G5	S2	2B.3		2001- 01-01	© 2021 Scot
<u>Oryctes</u> nevadensis	Nevada oryctes	Solanaceae	annual herb	Apr-Jun	None	None 0	53	S2	2B.1		1974- 01-01	No Photo Available
Packera indecora	rayless mountain ragwort	Asteraceae	perennial herb	Jul-Aug	None	None C	55	S2?	2B.2		2001-01-01	© 2013 Kirsten Bovee
<u>Parnassia</u> <u>parviflora</u>	small- flowered grass-of- Parnassus	Parnassiaceae	perennial herb	Aug-Sep	None	None C	G5?	S2	2B.2		2008- 12-10	No Photo Available
Penstemon papillatus	Inyo beardtongue	Plantaginaceae	perennial herb	Jun-Jul	None	None 0	G3	S3	4.3	Yes	1974- 01-01	No Photo Available
Petrophytum  caespitosum ssp. acuminatum	marble rockmat	Rosaceae	perennial evergreen shrub	Aug-Sep	None	None (	65T2	S2	1B.3	Yes	2001- 01-01	No Photo Available
Phacelia inyoensis	Inyo phacelia	Hydrophyllaceae	annual herb	Apr-Aug	None	None 0	52	S2	1B.2	Yes	1974- 01-01	No Photo Available
Plagiobothrys parishii	Parish's popcornflower	Boraginaceae	annual herb	Mar- Jun(Nov)	None	None (	61	S1	1B.1	Yes	2001- 01-01	No Photo Available
<u>Plagiobryoides</u> <u>vinosula</u>	wine-colored tufa moss	Bryaceae	moss		None	None (	53G4	S3S4	4.2		2014- 06-10	No Photo Available
Poa lettermanii	Letterman's blue grass	Poaceae	perennial herb	Jul-Aug	None	None (	54	S3	2B.3		2001- 01-01	No Photo Available
			Page 1	94 of 33	Ω							

<u>Pohlia tundrae</u>	tundra thread moss	Mielichhoferiaceae		nment A		None	G3	S3	2B.3		2001- 01-01	©2014 Dean Wm. Taylor
Potamogeton robbinsii	Robbins' pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Jul-Aug	None	None	G5	S3	2B.3		1994- 01-01	©2014 Dana York
<u>Potentilla</u> <u>morefieldii</u>	Morefield's cinquefoil	Rosaceae	perennial herb	Jul-Sep	None	None	G2	S2	1B.3	Yes	1994- 01-01	No Photo Available
<u>Primula</u> pauciflora	beautiful shootingstar	Primulaceae	perennial herb	Apr-Jun	None	None	G5	S3	4.2		2001-	© 2008 Steve Matson
Ranunculus hydrocharoides	frog's-bit buttercup	Ranunculaceae	perennial herb (aquatic)	(May)Jun- Sep	None	None	G4	S1	2B.1		1974- 01-01	No Photo Available
<u>Sabulina stricta</u>	bog sandwort	Caryophyllaceae	perennial herb	Jul-Sep	None	None	G5	S3	2B.3		2010- 04-06	No Photo Available
<u>Sarcobatus</u> <u>baileyi</u>	Bailey's greasewood	Sarcobataceae	perennial deciduous shrub	Apr-Jul	None	None	G4	S1	2B.3		2011- 08-09	No Photo Available
<u>Sidalcea covillei</u>	Owens Valley checkerbloom	Malvaceae	perennial herb	Apr-Jun	None	CE	G2	S2	1B.1	Yes	1974- 01-01	No Photo Available
<u>Solorina</u> <u>spongiosa</u>	fringed chocolate chip lichen	Peltigeraceae	crustose lichen (terricolous)		None	None	G4G5	S1	2B.2		2014- 03-01	© 2014 Martin Hutten
Spartina gracilis	alkali cord grass	Poaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	4.2		1974- 01-01	No Photo Available
<u>Thalictrum</u> <u>alpinum</u>	arctic meadow-rue	Ranunculaceae	perennial stoloniferous herb	Jul-Aug	None	None	G5	S3	4.3		2001- 01-01	No Photo Available
Thelypodium integrifolium ssp. complanatum	foxtail thelypodium	Brassicaceae	annual/perennial herb Page 1	Jun-Oct 95 of 33		None	G5T4T5	S2	2B.2		2001- 01-01	No Photo Available

<u>Tonestus</u> <u>peirsonii</u>	Peirson's tonestus	Asteraceae	perennia <b>Atttacl</b>	nment A	None None G3	S3	4.3	Yes	1974- 01-01	No
										Photo
										Available
<u>Trichophorum</u>	little bulrush	Cyperaceae	perennial	Aug	None None G5	<b>S</b> 3	2B.2		1994-	
<u>pumilum</u>			rhizomatous						01-01	No
			herb							Photo
										Available
<u>Triglochin</u>	marsh arrow-	Juncaginaceae	perennial	Jul-Aug	None None G5	S2	2B.3		1980-	
<u>palustris</u>	grass		rhizomatous						01-01	No
			herb							Photo
										Available
<u>Viola pinetorum</u>	grey-leaved	Violaceae	perennial herb	Apr-Jul	None None G4G5T3	S S3	1B.2	Yes	1994-	
<u>ssp. grisea</u>	violet								01-01	No
										Photo
										Available

Showing 1 to 82 of 82 entries

### Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 1 August 2023].

## USDA Forest Service, Pacific Southwest Region Sensitive Plant Species by Forest

Scientific Name (Common Name)  Abronia alpina (Ramshaw Meadows abronia)  Abronia alpina (Ramshaw Meadows abronia)  Astragalus cimae var. sufflatus (inflated Cima milk-vetch)  Astragalus johannis-howellii (Long Valley milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus ronoensis (Mono milk-vetch)  Astragalus ronoensis (Mono milk-vetch)  Astragalus ronoensis (Bodie Hills rockcress)  Boechera bodiensis (Bodie Hills rockcress)  X Boechera evadens (hidden rockcress)  Boechera evadens (hidden rockcress)  Boechera ilpinzliae (Pinzi's rockcress)  Boechera tularensis (Tulare rockcress)  Boechera tularensis (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  X Botrychium ascendens (upswept moonwort)  Botrychium lineare (slender moonwort)  Botrychium linearia (common moonwort)  Botrychium paradoxum (paradox moonwort)  Botrychium paradoxum (paradox moonwort)  Botrychium paradoxum (paradox moonwort)  Botrychium paradoxum (paradox moonwort)  X Botrychium paradoxum (paradox moonwort)  Botrychium paradoxum (paradox moonwort)  X Calcohortus excavatus (Inyo County star-tulip)  X Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X Draba acticata (Mineral King draba)		
Abronia alpina (Ramshaw Meadows abronia)  Abronia nana var. covillei (Coville's dwarf abronia)  Astragalus cimae var. sufflatus (inflated Cima milk-vetch)  Astragalus johannis-howellii (Long Valley milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lemmonii (Raven's milk-vetch)  Astragalus monoensis (Mono milk-vetch)  X  Astragalus ravenii (Raven's milk-vetch)  X  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  X  Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  X  Boechera shockleyi (Shockley's rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Boethera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium minganense (mingan moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	2013 FS R5 RF Sensitive Plant Species List	Inyo NF
Abronia nana var. covillei (Coville's dwarf abronia)  Astragalus cimae var. sufflatus (inflated Cima milk-vetch)  Astragalus johannis-howellii (Long Valley milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  X  Astragalus ravenii (Raven's milk-vetch)  X  Boechera bodiensis (Bodie Hills rockcress)  X  Boechera evadens (hidden rockcress)  X  Boechera evadens (hidden rockcress)  X  Boechera shockleyi (Shockley's rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium minganense (mingan moonwort)  X  Botrychium minganense (mingan moonwort)  X  Botrychium myaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Cryptanba asterophora var. asterophora (Tahoe draba)	Scientific Name (Common Name)	
Astragalus cimae var. sufflatus (inflated Cima milk-vetch)  Astragalus johannis-howellii (Long Valley milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lemtiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus monoensis (Mono milk-vetch)  Astragalus revenii (Raven's milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  X  Boechera bodiensis (Bodie Hills rockcress)  X  Boechera evadens (hidden rockcress)  X  Boechera evadens (hidden rockcress)  X  Boechera pinzliae (Pinzl's rockcress)  X  Boechera shockleyi (Shockley's rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium minganense (mingan moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium unux (moosewort)  X  Botrychium unux (moosewort)  X  Botrychium yaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)	Abronia alpina (Ramshaw Meadows abronia)	Х
Astragalus johannis-howellii (Long Valley milk-vetch)  Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus monoensis (Mono milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tiehmii (Tiehm's rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  Craba asterophora var. asterophora (Tahoe draba)	Abronia nana var. covillei (Coville's dwarf abronia)	Х
Astragalus lemmonii (Lemmon's milk-vetch)  Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus monoensis (Mono milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera tilarensis (Tulare rockcress)  Boechera tilarensis (Tulare rockcress)  X  Boechera tularensis (Tulare rockcress)  Boechera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium linaria (common moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calochortus excavatus (Inyo County star-tulip)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)	Astragalus cimae var. sufflatus (inflated Cima milk-vetch)	Х
Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus monoensis (Mono milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tularensis (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  X Botrychium crenulatum (scalloped moonwort)  X Botrychium lineare (slender moonwort)  X Botrychium lunaria (common moonwort)  X Botrychium paradoxum (paradox moonwort)  X Sotrychium paradoxum (paradox moonwort)  X Sotrychium paradoxum (paradox moonwort)  X Calochortus excavatus (Inyo County star-tulip)  X Callybridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  Draba asterophora var. asterophora (Tahoe draba)	Astragalus johannis-howellii (Long Valley milk-vetch)	Х
Astragalus lentiginosus var. kernensis (Kern Plateau milk-vetch)  Astragalus monoensis (Mono milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tularensis (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  X Botrychium crenulatum (scalloped moonwort)  X Botrychium lineare (slender moonwort)  X Botrychium lunaria (common moonwort)  X Botrychium paradoxum (paradox moonwort)  X Sotrychium paradoxum (paradox moonwort)  X Sotrychium paradoxum (paradox moonwort)  X Calochortus excavatus (Inyo County star-tulip)  X Callybridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  Draba asterophora var. asterophora (Tahoe draba)		Х
Astragalus monoensis (Mono milk-vetch)  Astragalus ravenii (Raven's milk-vetch)  Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Soechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tularensis (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  X Botrychium crenulatum (scalloped moonwort)  X Botrychium lineare (slender moonwort)  X Botrychium lunaria (common moonwort)  X Botrychium paradoxum (paradox moonwort)  X Sotrychium paradoxum (paradox moonwort)  X Sotrychium tunux (moosewort)  X Sotrychium yaaxudakeit (glant moonwort)  X Calochortus excavatus (Inyo County star-tulip)  X Callyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Chaba asterophora var. asterophora (Tahoe draba)		Х
Boechera bodiensis (Bodie Hills rockcress)  Boechera evadens (hidden rockcress)  Soechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Soechera tiehmii (Tiehm's rockcress)  Boethera tiehmii (Tiehm's rockcress)  Sotrychium ascendens (upswept moonwort)  Sotrychium ascendens (upswept moonwort)  Sotrychium crenulatum (scalloped moonwort)  Sotrychium lineare (slender moonwort)  Sotrychium lunaria (common moonwort)  Sotrychium paradoxum (paradox moonwort)  Sotrychium paradoxum (paradox moonwort)  Sotrychium tunux (moosewort)  Sotrychium tunux (moosewort)  Sotrychium yaaxudakeit (giant moonwort)  X Botrychium yaaxudakeit (giant moonwort)  X Calochortus excavatus (Inyo County star-tulip)  X Caloytridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Capba asterophora var. asterophora (Tahoe draba)		Х
Boechera evadens (hidden rockcress)  Boechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boechera tiehmii (Tiehm's rockcress)  Boetrychium incendensi (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (mingan moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium tunux (moosewort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Bruchia bolanderi (Bolander's bruchia)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Astragalus ravenii (Raven's milk-vetch)	Х
Boechera pinzliae (Pinzl's rockcress)  Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  X  Boechera tularensis (Tulare rockcress)  X  Botrychium ascendens (upswept moonwort)  X  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lunaria (common moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium tunux (moosewort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Calochortus excavatus (Inyo County star-tulip)  X  Caloyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Boechera bodiensis (Bodie Hills rockcress)	Х
Boechera shockleyi (Shockley's rockcress)  Boechera tiehmii (Tiehm's rockcress)  X Boechera tularensis (Tulare rockcress)  X Botrychium ascendens (upswept moonwort)  X Botrychium crenulatum (scalloped moonwort)  X Botrychium lineare (slender moonwort)  X Botrychium lunaria (common moonwort)  X Botrychium lunaria (common moonwort)  X Botrychium paradoxum (paradox moonwort)  X Botrychium paradoxum (paradox moonwort)  X Botrychium yaaxudakeit (giant moonwort)  X Botrychium yaaxudakeit (giant moonwort)  X Calochortus excavatus (Inyo County star-tulip)  X Calyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)	Boechera evadens (hidden rockcress)	Х
Boechera tiehmii (Tiehm's rockcress)  Boechera tularensis (Tulare rockcress)  Strychium ascendens (upswept moonwort)  Strychium crenulatum (scalloped moonwort)  Strychium lineare (slender moonwort)  Strychium lineare (slender moonwort)  Strychium lineare (slender moonwort)  Strychium lineare (slender moonwort)  Strychium lineare (mingan moonwort)  Strychium paradoxum (paradox moonwort)  Strychium paradoxum (paradox moonwort)  Strychium unux (moosewort)  Strychium yaaxudakeit (giant moonwort)  Struchia bolanderi (Bolander's bruchia)  Struchia bolanderi (Bolander's bruchia)  Struchia bolanderi (Bolander's bruchia)  Struchia bolanderi (Tioga Pass sedge)  Struchium pygmaeum (pygmy pussypaws)  Struchium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  Stryptantha circumscissa var. rosulata (rosette cushion cryptantha)  Stryptantha incana (Tulare cryptantha)  Stryptantha asterophora var. asterophora (Tahoe draba)	Boechera pinzliae (Pinzl's rockcress)	Х
Boechera tularensis (Tulare rockcress)  Botrychium ascendens (upswept moonwort)  Strychium crenulatum (scalloped moonwort)  Strychium crenulatum (scalloped moonwort)  Strychium lineare (slender moonwort)  Strychium lunaria (common moonwort)  Strychium lunaria (common moonwort)  Strychium paradoxum (paradox moonwort)  Strychium paradoxum (paradox moonwort)  Strychium yaaxudakeit (giant moonwort)  Strychium yaaxudakeit (giant moonwort)  Struchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  Xtrychium pygmaeum (pygmy pussypaws)  Carex tiogana (Tioga Pass sedge)  Xtrychium californica (California saw-grass)  Xtryptantha circumscissa var. rosulata (rosette cushion cryptantha)  Xtryptantha incana (Tulare cryptantha)  Xtryptantha incana (Tulare cryptantha)  Xtryptanta asterophora var. asterophora (Tahoe draba)	Boechera shockleyi (Shockley's rockcress)	X
Botrychium ascendens (upswept moonwort)  Botrychium crenulatum (scalloped moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lineare (slender moonwort)  X  Botrychium lunaria (common moonwort)  X  Botrychium minganense (mingan moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium paradoxum (paradox moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Bruchia bolanderi (Bolander's bruchia)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Boechera tiehmii (Tiehm's rockcress)	X
Botrychium crenulatum (scalloped moonwort)  Botrychium lineare (slender moonwort)  Sotrychium lunaria (common moonwort)  Sotrychium lunaria (common moonwort)  Sotrychium minganense (mingan moonwort)  Sotrychium paradoxum (paradox moonwort)  Sotrychium tunux (moosewort)  Sotrychium yaaxudakeit (giant moonwort)  Sotrychium yaaxudakeit (giant moonwort)  Sotrychium yaaxudakeit (giant moonwort)  Sotrychium yaaxudakeit (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  Xourex tiogana (Tioga Pass sedge)  Xourex tiogana (Tioga Pass sedge)  Xourex tiogana (Tioga Pass sedge)  Xourex tiogana (California saw-grass)  Xourex tiogana (California saw-grass)  Xourex tiogana (Tioga Pass sedge)  Xourex tiog	Boechera tularensis (Tulare rockcress)	X
Botrychium lineare (slender moonwort)  Botrychium lunaria (common moonwort)  Sotrychium minganense (mingan moonwort)  Sotrychium paradoxum (paradox moonwort)  Sotrychium tunux (moosewort)  Botrychium tunux (moosewort)  Sotrychium yaaxudakeit (giant moonwort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Bruchia bolanderi (Bolander's bruchia)  X  Calochortus excavatus (Inyo County star-tulip)  X  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Botrychium ascendens (upswept moonwort)	X
Botrychium lunaria (common moonwort)  Botrychium minganense (mingan moonwort)  X Botrychium paradoxum (paradox moonwort)  X Botrychium tunux (moosewort)  X Botrychium yaaxudakeit (giant moonwort)  X Bruchia bolanderi (Bolander's bruchia)  X Calochortus excavatus (Inyo County star-tulip)  X Calyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  X Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)	Botrychium crenulatum (scalloped moonwort)	X
Botrychium minganense (mingan moonwort)  Botrychium paradoxum (paradox moonwort)  X  Botrychium tunux (moosewort)  X  Botrychium yaaxudakeit (giant moonwort)  X  Bruchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  X  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Botrychium lineare (slender moonwort)	X
Botrychium paradoxum (paradox moonwort)  Botrychium tunux (moosewort)  Botrychium yaaxudakeit (giant moonwort)  X Bruchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  X Calyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  X Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)	Botrychium lunaria (common moonwort)	X
Botrychium tunux (moosewort)  Botrychium yaaxudakeit (giant moonwort)  X  Bruchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  X  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Botrychium minganense (mingan moonwort)	X
Botrychium yaaxudakeit (giant moonwort)  Bruchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  X Calyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  X Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)	Botrychium paradoxum (paradox moonwort)	X
Bruchia bolanderi (Bolander's bruchia)  Calochortus excavatus (Inyo County star-tulip)  X Calyptridium pygmaeum (pygmy pussypaws)  X Carex tiogana (Tioga Pass sedge)  X Cladium californica (California saw-grass)  X Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)	Botrychium tunux (moosewort)	X
Calochortus excavatus (Inyo County star-tulip)  Calyptridium pygmaeum (pygmy pussypaws)  X  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  X  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Botrychium yaaxudakeit (giant moonwort)	X
Calyptridium pygmaeum (pygmy pussypaws)  Carex tiogana (Tioga Pass sedge)  X  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  X  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Bruchia bolanderi (Bolander's bruchia)	X
Carex tiogana (Tioga Pass sedge)  Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Calochortus excavatus (Inyo County star-tulip)	X
Cladium californica (California saw-grass)  Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Calyptridium pygmaeum (pygmy pussypaws)	X
Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)  Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X  Cryptantha incana (Tulare cryptantha)  X  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)	Carex tiogana (Tioga Pass sedge)	Х
Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)  X Cryptantha incana (Tulare cryptantha)  X Dedeckera eurekensis (July gold)  X Draba asterophora var. asterophora (Tahoe draba)  X	Cladium californica (California saw-grass)	Х
Cryptantha incana (Tulare cryptantha)  Dedeckera eurekensis (July gold)  X  Draba asterophora var. asterophora (Tahoe draba)  X	Cordylanthus eremicus ssp. kernensis (Kern Plateau bird's beak)	X
Dedeckera eurekensis (July gold) X Draba asterophora var. asterophora (Tahoe draba) X	Cryptantha circumscissa var. rosulata (rosette cushion cryptantha)	X
Draba asterophora var. asterophora (Tahoe draba) X	Cryptantha incana (Tulare cryptantha)	X
	Dedeckera eurekensis (July gold)	X
Draba cruciata (Mineral King draba)	Draba asterophora var. asterophora (Tahoe draba)	X
, ,	Draba cruciata (Mineral King draba)	X

Pacific Southwest Region, Regional Forester's Sensitive Species List. National direction for designation and management in Forest Service Manual (FSM) 2670.

1

nt of sensitive species can be found

# USDA Forest Service, Pacific Southwest Region Sensitive Plant Species by Forest

2013 FS R5 RF Sensitive Plant Species List	Inyo NF
Draba incrassata (Sweetwater Mountains draba)	X
Draba monoensis (White Mountains draba)	Х
Draba sharsmithii (Mt. Whitney draba)	Х
Ericameria gilmanii (Gilman's goldenbush)	Х
Erigeron aequifolius (Hall's daisy)	Х
Erigeron multiceps (Kern River daisy)	Х
Erigeron uncialis var. uncialis (limestone daisy)	Х
Eriogonum wrightii var. olanchense (Olancha Peak buckwheat)	Х
Helodium blandowii (Blandow's bog moss)	Х
Hesperidanthus jaegeri (Jaeger's hesperidanthus)	Х
Horkelia hispidula (White Mountains horkelia)	Х
Hulsea brevifolia (short-leaved hulsea)	Х
Lupinus duranii (Mono Lake lupine)	Х
Lupinus lepidus var. culbertsonii (Hockett Meadows lupine)	Х
Lupinus padre-crowleyi (Father Crowley's lupine)	Х
Meesia uliginosa (broad-nerved hump-moss)	Х
Mentzelia inyoensis (Inyo blazing star)	Х
Monardella beneolens (sweet-smelling monardella)	Х
Peltigera gowardii (veined water lichen)	Х
Petrophyton caespitosum ssp. acuminatum (marble rockmat)	Х
Phacelia inyoensis (Inyo phacelia)	Х
Phacelia monoensis (Mono County phacelia)	Х
Phacelia novenmillensis (Nine Mile Canyon phacelia)	Х
Pinus albicaulis (whitebark pine)	Х
Plagiobothrys parishii (Parish's popcornflower)	Х
Polemonium chartaceum (Mason's sky pilot)	Х
Polyctenium williamsiae (Williams' combleaf)	Х
Potentilla morefieldii (Morefield's cinquefoil)	Х
Senecio pattersonensis (Mount Patterson senecio)	Х
Streptanthus gracilis (alpine jewel-flower)	Х
Streptanthus oliganthus (Masonic Mountain jewel-flower)	Х
Trifolium dedeckerae (Dedecker's clover)	Х

Pacific Southwest Region, Regional Forester's Sensitive Species List. National direction for designation and management of sein Forest Service Manual (FSM) 2670.

2

ensitive species can be found

USDA Forest Service, Pacific Southwest Region

Bishop 30 Specie

Mammal

Desert big

6/30/2013; Updated 9/9/2013	-	
-, -, -, -, -, -, -, -, -, -, -, -, -, -		
		Inyo
Scientific Name	Common Name	<u>Ē</u> .
BIRDS (12)		
Accipiter gentilis	Northern goshawk	Х
Centrocercus urophasianus	Greater sage-grouse	X
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	X
Empidonax traillii	Willow flycatcher	X
Haliaeetus leucocephalus	Bald eagle	Х
Strix nebulosa	Great gray owl	Х
Strix occidentalis occidentalis	California spotted owl	Х
MAMMALS (13)		
Antrozous pallidus	Pallid bat	Х
Brachylagus idahoensis	Pygmy rabbit	Х
Corynorhinus townsendii	Townsend's big-eared bat	Х
Gulo gulo luscus	North American wolverine	X
Martes caurina	Pacific marten	Х
Pekania pennanti	Fisher	Х
Myotis thysanodes	Fringed myotis	Х
Vulpes vulpes necator	Sierra Nevada red fox	?
AMPHIBIANS (21)		
Anaxyrus canorus	Yosemite toad	Х
Anaxyrus exsul	Black toad	Х
Batrachoseps campi	Inyo Mountain salamander	Х
Rana muscosa	Mountain yellow-legged frog: Southern Sierra D	Х
Rana sierrae	Sierra Nevada yellow-legged frog	Х
REPTILES (12)		
Elgaria panamintina	Panamint alligator lizard	Х
<b>INVERTEBRATES, TERRESTRIAL (24)</b>		
Euphydryas editha monoensis	Mono Lake checkerspot butterfly	Х
Plebulina emigdionis	San Emigdio blue butterfly	X
Speyeria nokomis apacheana	Apache silverspot butterfly	X
INVERTEBRATES, AQUATIC - Mollusks		
Pyrgulopsis owensensis	Owen's Valley springsnail	Х
Pyrgulopsis wongi	Wong's springsnail	X
FISHES (22)	<u> </u>	
Oncorhynchus mykiss aguabonita	California golden trout	X
R5 Total Sensitive Animals = 124	Total # Sensitive Animals per Forest	27
No Total Gelisitive Allilliais - 124	Total # Setisitive Attituals per Forest	INY
		LIINT

	30 Specie
Mammal	
	Desert big
	Fringed m
	Long-eare
	Mohave g
	Owens Va
	Pacific fis
	Pallid bat
	Pygmy ra
	Sierra Ne
	Small-foo
	Spotted b
	Townsend
	Yuma my
Bird	
	Bald eagle
	Bank swa
	Burrowing
	Golden ea
	Greater s
	Least Bell
	Northern
	Swainson
	Western y
Reptile	
	Northern
	Panamint
Amphibian	

COMMON

FIELD OFFICE

Note: Common names may not always meet official standards used by various scientific organizations, but have been edited for document consistency. Only the first letter of the common name has been capitalized unless referring to a personal or geographic name.

Federal Stat

Amargosa

Black toa Inyo Mou

September-23-14

Fish

NAME	SCIENTIFIC NAME	FEDERAL STATUS	STATE STATUS	BLM STATUS	OTHER STATUS	
es						
ghorn sheep	Ovis canadensis nelsoni			BLMS	SF	
nyotis	Myotis thysanodes			BLMS		
ed myotis	Myotis evotis			BLMS		
round squirrel	Spermophilus mohavensis		ST	BLMS		
alley vole	Microtus californicus vallicola			BLMS		
her	Martes pennanti (pacifica) DPS	FC	SC	BLMS	SSC	
	Antrozous pallidus			BLMS	SSC	
bbit	Brachylagus idahoensis			BLMS		
vada bighorn sheep	Ovis canadensis sierrae	FE	SE		SF	
ted myotis	Myotis ciliolabrum			BLMS		
at	Euderma maculatum			BLMS	SSC	
d's big-eared bat	Corynorhinus townsendii			BLMS	SSC	
otis	Myotis yumanensis			BLMS		
e	Haliaeetus leucocephalus	FD	SE	BLMS	EA	
llow	Riparia riparia		ST	BLMS		
g owl	Athene cunicularia			BLMS	SSC	
agle	Aquila chrysaetos			BLMS	EA	
age-grouse	Centrocercus urophasianus	FC		BLMS	SSC	
's vireo	Vireo bellii pusillus	FE	SE			
goshawk	Accipiter gentilis			BLMS	SSC	
's hawk	Buteo swainsoni		ST	BLMS		
yellow-billed cuckoo	Coccyzus americanus occidentalis	FC	SE	BLMS		
sagebrush lizard	Sceloporus graciosus graciosus			BLMS		
alligator lizard	Elgaria panamintina			BLMS		
d	Anaxyrus exsul		ST	BLMS	SF	
ntains slender salamander	Batrachoseps campi			BLMS		
ı River pupfish	Cyprinodon nevadensis amargosae			BLMS		

us: FE = Federally Endangered, FT = Federally Threatened, FC = Federal Candidate, FP = Proposed for Federal Listing, FD = Delisted from Federal ESA; State Status: SE = State Endangered, ST = State Threatened, andidate, SD = Delisted from State ESA; Other Status: EA = Bald and Golden Eagle Protection Act, SF = Fully Protected, SSC = Species of Special Concern

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Scientific Name	Common Name	Plant Type	Family
Abronia umbellata var. breviflora	pink sand-verbena	VASC	Nyctaginaceae
Abronia villosa var. aurita	chaparral sand-verbena	VASC	Nyctaginaceae
Acanthomintha ilicifolia	San Diego thornmint	VASC	Lamiaceae
Acanthoscyphus parishii var. goodmaniana	Cushenberry oxytheca	VASC	Polygonaceae
Acmispon argyraeus var. multicaulis	scrub lotus	VASC	Fabaceae
Acmispon haydonii	pygmy lotus	VASC	Fabaceae
Acmispon rubriflorus	red-flowered bird's-foot trefoil	VASC	Fabaceae
Agave utahensis var. eborispina	ivory-spined agave	VASC	Agavaceae
Agrostis blasdalei	Blasdale's bent grass	VASC	Poaceae
Agrostis hooveri	Hoover's bent grass	VASC	Poaceae
Agrostis lacuna-vernalis	vernal pool bent grass	VASC	Poaceae
Allium hickmanii	Hickman's onion	VASC	Alliaceae
Allium howellii var. sanbenitense	San Benito onion	VASC	Alliaceae
Allium jepsonii	Jepson's onion	VASC	Alliaceae
Allium marvinii	Yucaipa onion	VASC	Alliaceae
Allium munzii	Munz's onion	VASC	Alliaceae
Allium sharsmithiae	Sharsmith's onion	VASC	Alliaceae
Allium shevockii	Spanish Needle onion	VASC	Alliaceae
Allium tuolumnense	Rawhide Hill onion	VASC	Alliaceae
Ambrosia pumila	San Diego ambrosia	VASC	Asteraceae
Amsinckia lunaris	bent-flowered fiddleneck	VASC	Boraginaceae
Ancistrocarphus keilii	Santa Ynez groundstar	VASC	Asteraceae
Anisocarpus scabridus	scabrid alpine tarplant	VASC	Asteraceae
Arabis mcdonaldiana	McDonald's rock-cress	VASC	Brassicaceae
Arctostaphylos bakeri subsp. sublaevis	The Cedars manzanita	VASC	Ericaceae
Arctostaphylos cruzensis	Arroya de La Cruz manzanita	VASC	Ericaceae
Arctostaphylos glandulosa ssp. gabrielensis	Gabilan Mountains manzanita	VASC	Ericaceae
Arctostaphylos hookeri subsp. hookeri	Hooker's manzanita	VASC	Ericaceae
Arctostaphylos klamathensis	Klamath manzanita	VASC	Ericaceae
Arctostaphylos luciana	Santa Lucia manzanita	VASC	Ericaceae
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	VASC	Ericaceae
Arctostaphylos montereyensis	Toro manzanita	VASC	Ericaceae
Arctostaphylos morroensis	Morro manzanita	VASC	Ericaceae
Arctostaphylos myrtifolia	lone manzanita	VASC	Ericaceae
Arctostaphylos nissenana	Nissenan manzanita	VASC	Ericaceae
Arctostaphylos otayensis	Otay manzanita	VASC	Ericaceae
Arctostaphylos pajaroensis	Pajaro manzanita	VASC	Ericaceae
Arctostaphylos pechoensis	Pecho manzanita	VASC	Ericaceae
Arctostaphylos pilosula	Santa Margarita manzanita	VASC	Ericaceae
Arctostaphylos pumila	sandmat manzanita	VASC	Ericaceae

Fed Status	CA Status	TB.1	NNPS	NV Status	Global Rank	S2	State Rank	Applegate	⊼ Arcata	Bakersfield	Barstow	Bishop	Central Coast	Eagle Lake	El Centro	Mother Lode	Needles	Palm Springs	Redding	Ridgecrest	Ukiah
									K		1/				S			1/			
FT	SE	1B.1 1B.1			G5T2? G1	S2					K				3			K S			-
FE	SE	1B.1			G4?T1	S2 S1					K							3			-
FE		1B.3			G4?T2	S2					K						K				
		1B.3			G4:12	S3									K		K				
		1B.1			G2	S2							S		K				S		S
		1B.3			G4T3	S2					K		3						3		3
		1B.2			G2	S2					K		S								K
		1B.2			G2 G2	S2				K											K
		1B.1			G2 G1	S1				IX			K								-
		1B.2			G2	S2							K								-
		1B.3			G3G4T3	S3							K								
		1B.2			G2	S2							- 1			K			S		
		1B.2			G1	S1										- 1		K	<u> </u>		
FE	ST	1B.1			G1	S1												S			-
1 -	J1	1B.3			G2	S2							K								
		1B.3			G2	S2				K			- 1							K	
		1B.2			G2	S2				- 1						K				IX.	
FE		1B.1			G1	S1												K			
1 -		1B.2			G3	S3												IX	S		K
		1B.1			G1	S1				S									<u> </u>		
		1B.3			G2G3	S2S3													S		
FE	SE	1B.1			G3	S3			K												
		1B.2			G2T2	S2			- 1												K
	511	1B.2			G1G2	S1S2							S								
		1B.2			G5T2	S2							S								
		1B.2			G3T2	S2							K								
		1B.2			G3	S3													S		-
		1B.2			G2	S2				S											-
		1B.3			G5T3	S3															K
		1B.2			G2?	S2?							K								
FT		1B.1			G1	S1				K											
FT		1B.2			G1	S1										K					
		1B.2			G1	S1										K					$\neg \neg$
		1B.2			G1	S1												K			
		1B.1			G1	S1							K								$\neg \neg$
		1B.2			G2	S2				S											
		1B.2			G2?	S2?				K											
		1B.2			G1	S1							K								

Arctostaphylos rainbowensis	rainbow manzanita	VASC	Ericaceae
Arctostaphylos rudis	sand mesa manzanita	VASC	Ericaceae
Arctostaphylos standfordiana ssp. raichei	Raiche's manzanita	VASC	Ericaceae
Aristocapsa insignis	Indian Valley spineflower	VASC	Polygonaceae
Astragalus agnicidus	Humboldt milk-vetch	VASC	Fabaceae
Astragalus agrestis	field milk-vetch	VASC	Fabaceae
Astragalus albens	Cushenberry milk-vetch	VASC	Fabaceae
Astragalus anxius	Ash Valley milk-vetch	VASC	Fabaceae
Astragalus argophyllus var. argophyllus	silverleaf milk-vetch	VASC	Fabaceae
Astragalus atratus var. mensanus	Darwin Mesa milk-vetch	VASC	Fabaceae
Astragalus bernardinus	San Bernardino Milk-Vetch	VASC	Fabaceae
Astragalus brauntonii	Braunton's milk-vetch	VASC	Fabaceae
Astragalus cimae var. sufflatus	inflated Cima milk-vetch	VASC	Fabaceae
Astragalus deanei	Dean's milk-vetch	VASC	Fabaceae
Astragalus douglasii var. perstrictus	Jacumba milk-vetch	VASC	Fabaceae
Astragalus ertterae	Walker Pass milk-vetch	VASC	Fabaceae
Astragalus funereus	black milk-vetch	VASC	Fabaceae
Astragalus hornii var. hornii	Horn's milk-vetch	VASC	Fabaceae
Astragalus jaegerianus	Lane Mtn. milk-vetch	VASC	Fabaceae
Astragalus johannis-howellii	Long Valley milkvetch	VASC	Fabaceae
Astragalus lemmonii	Lemmon's milk-vetch	VASC	Fabaceae
Astragalus lentiformis	lens-pod milk-vetch	VASC	Fabaceae
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	VASC	Fabaceae
Astragalus lentiginosus var. kernensis	Kern Plateau milk-vetch	VASC	Fabaceae
Astragalus lentiginosus var. piscinensis	Fish Slough milk-vetch	VASC	Fabaceae
Astragalus leucolobus	Big Bear Valley woolypod	VASC	Fabaceae
Astragalus magdalenae var. peirsonii	Peirson's milk-vetch	VASC	Fabaceae
Astragalus mojavensis var. hemigyrus	curved-pod milkvetch	VASC	Fabaceae
Astragalus monoensis	Mono milk-vetch	VASC	Fabaceae
Astragalus nyensis	Nye milk-vetch	VASC	Fabaceae
Astragalus oocarpus	San Diego milk-vetch	VASC	Fabaceae
Astragalus oophorus var. lavinii	Lavin's milk-vetch	VASC	Fabaceae
Astragalus pachypus var. jaegeri	Jaeger's bush milk-vetch	VASC	Fabaceae
Astragalus pseudiodanthus	Tonopah milk-vetch	VASC	Fabaceae
Astragalus pulsiferae var. pulsiferae	Pulsifer's milk-vetch	VASC	Fabaceae
Astragalus pulsiferae var. suksdorfii	Suksdorf's milk-vetch	VASC	Fabaceae
Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	VASC	Fabaceae
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	VASC	Fabaceae
Astragalus shevockii	Shevock's milk-vetch	VASC	Fabaceae
Astragalus tener var. ferrisiae	Ferris's milk-vetch	VASC	Fabaceae
Astragalus tiehmii	Tiehm's milk-vetch	VASC	Fabaceae
Astragalus tricarinatus	triple-ribbed milk-vetch	VASC	Fabaceae
Astragalus webberi	Webber's milk-vetch	VASC	Fabaceae
Atriplex argentea var. longitrichoma	Pahrump orache	VASC	Chenopodiaceae
Atriplex cordulata var. cordulata	heart-leaved saltbush	VASC	Chenopodiaceae
Atriplex cordulata var. erecticaulis	Earlimart orache	VASC	Chenopodaceae
Atriplex coronata var. notatior	San Jacinto Valley crownscale	VASC	Chenopodiaceae
Actiples colonata vali hotation	San Jacinto valley crownscale	V/13C	Cherropodiacede

		1B.1			G2	S2										K			
		1B.2			G2	S2				K									
		1B.1			G3T2	S2			S									K	
		1B.2			G2?	S2?				S									
	SE	1B.1			G3	S3			S										
		2.B2			G5	S2		K					K						
FE		1B.1			G1	S1					K								
		1B.3			G1	S1		K											
		2B.2			G5T4	S1						K	K						
		1B.1			G4G5T1	S2											K		
		1B.2			G3	S3					K				K				
FE		1B.1			G2	S2										S			
		1B.3			G3T3	S3											K		
		1B.1			G1	S1										K			
		1B.2			G5T3?	S2S3								K		K			$\neg$
		1B.3			G2	S2				K							S		$\neg$
		1B.2			G2	S2					K								$\neg$
		1B.1			G4G5T1T2	S1				K							S		$\neg$
FE		1B.1			G2	S2					K								$\neg$
	SR	1B.2			G2	S1						K							П
		1B.2	W	S1	G2	S2		S											П
		1B.2			G2	S2							K						П
FE		1B.2			G5T1	S1										K			П
		1B.2			G5T2?	S2				S									$\neg$
FT		1B.1			G5T1	S1						K							$\neg$
		1B.2			G2	S2					K								$\neg$
FT	SE	1B.2			G3G4T1	S1								K					┨
		1B.1			G3G4T2T3	S1											K		П
	SR	1B.2			G2	S2						K							┨
		1B.1			G3	S1					K								┨
		1B.2			G?	S?								S		K			
		1B.2			G4T2	S1						K							$\dashv$
		1B.1			G4T1	S1										S			$\dashv$
		1B.2			G3Q	S2						K							$\dashv$
		1B.2	W		G4T2		A; S1 in NV						K						$\dashv$
		1B.2	-		G4T2	S2	,						S						$\neg$
		1B.2			G2T2	S2			K										$\neg$
		1B.2			G4T3	S3			-			ŀ	<				S	K	$\dashv$
		1B.3			G3	S3				K		•							$\dashv$
		1B.1			G1T1	S1											S		$\dashv$
		<del>-</del>	W		G3	S2		K									-		$\dashv$
FE		1B.2			G1	S1		••								K			$\dashv$
		1B.2			G1	S1							S						$\dashv$
		1B.1			G5T2	S2					K								$\dashv$
		1B.2			G3T2	S2				K									$\dashv$
		1B.2			G3T1	S1				S									$\dashv$
FE		1B.1			G4T1	S1				J						S			$\dashv$
ΓE		TD.T			0411	JΙ										J			

Atriplex coronata var. vallicola	Lost Hills crownscale	VASC	Chenopodiaceae
Atriplex flavida	Carrizo Plain crownscale	VASC	Chenopodiaceae
Atriplex pacifica	South Coast saltscale	VASC	Chenopodiaceae
Atriplex parishii	Parish's brittlescale	VASC	Chenopodiaceae
Atriplex subtilis	subtle orache	VASC	Chenopodaceae
Baccharis vanessae	Encinitas coyotebrush	VASC	Asteraceae
Balsamorhiza lanata	woolly balsamroot	VASC	Asteraceae
Balsamorhiza macrolepis	big-scale balsamroot	VASC	Asteraceae
Balsamorhiza sericea	silky balsamroot	VASC	Asteraceae
Berberis harrisoniana	Kofa Mountain barberry	VASC	Berberidaceae
Berberis nevinii	Nevin's barberry	VASC	Berberidaceae
Bloomeria clevelandii	San Diego goldenstar	VASC	Themidaceae
Boechera bodiensis	Bodie Hills rock cress	VASC	Brassicaceae
Boechera lincolnensis	Lincoln rock cress	VASC	Brassicaceae
Boechera serpenticola	Serpentine Rockcress	VASC	Brassicaceae
Brodiaea filifolia	thread-leaved brodiaea	VASC	Themidaceae
Brodiaea insignis	Kaweah brodiaea	VASC	Themidaceae
Brodiaea matsonii	Sulphur Creek brodiaea	VASC	Themidaceae
Brodiaea orcuttii	Orcutt's brodiaea	VASC	Themidaceae
Brodiaea rosea ssp. rosea	Indian Valley brodiaea	VASC	Themidaceae
Bryoria spiralifera	twisted horsehair lichen	LICH	Parmeliaceae
Bryoria tortuosa	yellow-twist horsehair	LICH	Parmeliaceae
Buxbaumia viridis	green bug moss	BRYO	Buxbaumiaceae
Calochortus clavatus var. avius	Pleasant Valley mariposa lily	VASC	Liliaceae
Calochortus clavatus var. gracilis	slender mariposa lily	VASC	Liliaceae
Calochortus dunnii	Dunn's mariposa lily	VASC	Liliaceae
Calochortus excavatus	Inyo mariposa	VASC	Liliaceae
Calochortus fimbriatus	late-flowered mariposa lily	VASC	Liliaceae
Calochortus greenei	Greene's mariposa	VASC	Liliaceae
Calochortus longebarbatus var. longebarbatus	long-haired star-tulip	VASC	Liliaceae
Calochortus monanthus	Shasta River mariposa	VASC	Liliaceae
Calochortus obispoensis	San Luis mariposa lily	VASC	Liliaceae
Calochortus palmeri var. munzii	San Jacinto mariposa lily	VASC	Liliaceae
Calochortus palmeri var. palmeri	Palmer's mariposa lily	VASC	Liliaceae
Calochortus persistens	Siskiyou mariposa lily	VASC	Liliaceae
Calochortus raichei	The Cedars fairy-lantern	VASC	Liliaceae
Calochortus simulans	La Panza mariposa lily	VASC	Liliaceae
Calochortus striatus	alkali mariposa lily	VASC	Liliaceae
Calochortus westonii	Shirley Meadows star-tulip	VASC	Liliaceae
Calycadenia hooveri	Hoover's calycadenia	VASC	Asteraceae
Calycadenia micrantha	small-flowered calycadenia	VASC	Asteraceae
Calycadenia villosa	dwarf calycadenia	VASC	Asteraceae
Calyptridium parryi var. hesseae	Santa Cruz Mountains pussypaws	VASC	Montiaceae
Calyptridium pulchellum	Mariposa pussypaws	VASC	Montiaceae
Calystegia collina subsp. tridactylosa	three-fingered morning-glory	VASC	Convolvulaceae
Calystegia purpurata subsp. saxicola	coastal bluff morning-glory	VASC	Convolvulaceae
Calystegia stebbinsii	Stebbins' morning glory	VASC	Convolvulaceae
Carlocopia accopinion	Steading morning giory	¥7.5C	CONTONUIACEAE

		1B.2	G4T2	S2			K		K						
		1B.3	G2G3	S2S3			K								
		1B.2	G4	S2								S			
		1B.1	G1G2	S1								S			
		1B.2	G1	S1			S								
FT	SE	1B.1	G1	S1								K			
		1B.2	G3	S3									K		
		1B.2	G2	S2							K		K		K
		1B.3	G4Q	S3									S		
		1B.2	G1G2	S1							K				
FE	SE	1B.1	G1	S1								K			
		1B.1	G2	S2								K			
		1B.3	G2	S2				K							
		2B.3	G4?	S2										K	
		1B.2	G1	S1									S		
FT	SE	1B.1	G1	S1								K			
	SE	1B.2	G1	S1			S								
		1B.1	G1	S1									K		
		1B.1	G2	S2						K		K			
	SE	3.1	G2	S2									K		K
		1B.1	G3	S1S2		K									
			G5	S2									K		
		2.2	G4G5	S2									S		
		1B.2	G4T2	S2							S				
		1B.2	G4T2T3	S2S3								S			
	SR	1B.2	G2G3	S2S3						K		K			
		1B.1	G2	S2				K						S	
		1B.3	G3	S3			S								
		1B.2	G3	S3									K		
		1B.2	G4T3	S3	S								S		
		1A	GH	SH									S		
		1B.2	G2	S2			S								
		1B.2	G3T3	S3								K			
		1B.2	G3T2	S2			K	K				S		K	
FC	SR	1B.2	G1	S1									S		
		1B.2	G2	S2											K
		1B.3	G2	S2			K								
		1B.2	G3	S3			K	S						S	
		1B.2	G2	S2			K								
		1B.3	G2	S2							S				
		1B.2	G2	S2											S
		1B.1	G3	S3			S								
		1B.1	G3G4T2	S2					K						
FT		1B.1	G1	S1			S				S				
		1B.2	G4T1	S1		K									K
		1B.2	G4T2T3	S2S3											K
FE	SE	1B.1	G1	S1							K				

Calystegia vanzuukiae	Van Zuuk's morning-glory	VASC	Convolvulaceae
Camissonia benitensis	San Benito evening-primrose	VASC	Onagraceae
Camissonia integrifolia	Kern River evening-primrose	VASC	Onagraceae
Camissoniopsis hardhamiae	Hardham's evening-primrose	VASC	Onagraceae
Campanula californica	swamp harebell	VASC	Campanulaceae
Campanula exigua	chaparral harebell	VASC	Campanulaceae
Campanula sharsmithiae	Sharsmith's harebell	VASC	Campanulaceae
Campanula shetleri	Castle Crags harebell	VASC	Campanulaceae
Carex klamathensis	Klamath sedge	VASC	Cyperaceae
Carex obispoensis	San Luis Obispo sedge	VASC	Cyperaceae
Carex saliniformis	deceiving sedge	VASC	Cyperaceae
Carex xerophila	chaparral sedge	VASC	Cyperaceae
Carlquistia muirii	Muir's raillardella	VASC	Asteraceae
Carpenteria californica	tree-anemone	VASC	Hydrangeaceae
Castilleja ambigua subsp. insalutata	pink Johnny-nip	VASC	Orobanchaceae
Castilleja ambigua var. humboldtiensis	Humboldt Bay owl's-clover	VASC	Orobanchaceae
Castilleja campestris subsp. succulenta	succulent owl's clover	VASC	Orobanchaceae
Castilleja densiflora subsp. obispoensis	Obispo Indian paintbrush	VASC	Orobanchaceae
Castilleja gleasoni	Mt. Gleason Indian paintbrush	VASC	Orobanchaceae
Castilleja mendocinensis	Mendocino Coast paintbrush	VASC	Orobanchaceae
Castilleja rubicundula subsp. rubicundula	pink creamsacs	VASC	Orobanchaceae
Caulanthus californicus	California jewelflower	VASC	Brassicaceae
Caulanthus lemmonii	Lemmon's jewelflower	VASC	Brassicaceae
Ceanothus confusus	Rincon Ridge ceanothus	VASC	Rhamnaceae
Ceanothus cyaneus	Lakeside ceanothus	VASC	Rhamnaceae
Ceanothus divergens	Calistoga ceanothus	VASC	Rhamnaceae
Ceanothus otayensis	Otay Mountain ceanothus	VASC	Rhamnaceae
Ceanothus roderickii	Pine Hill ceanothus	VASC	Rhamnaceae
Centromadia parryi subsp. congdonii	Congdon's tarplant	VASC	Asteraceae
Centromadia parryi subsp. parryi	pappose tarplant	VASC	Asteraceae
Centromadia pungens ssp. laevis	smooth tarplant	VASC	Asteraceae
Chaenactis carphoclinia var. peirsonii	Peirson's pincushion	VASC	Asteraceae
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	VASC	Asteraceae
Chaenactis parishii	Parish's chaenactis	VASC	Asteraceae
Chaenactis suffrutescens	Shasta chaenactis	VASC	Asteraceae
Chamaesyce hooveri	Hoover's spurge	VASC	Euphorbiaceae
Chlorogalum grandiflorum	Red Hills soaproot	VASC	Agavaceae
Chlorogalum pomeridianum var. minus	dwarf soaproot	VASC	Agavaceae
Chlorogalum purpureum var. purpureum	purple amole	VASC	Agavaceae
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	VASC	Orobanchaceae
Chloropyron maritimum subsp. palustre	Pt. Reyes birds-beak	VASC	Orobanchaceae
Chloropyron molle subsp. hispidum	hispid bird's-beak	VASC	Orobanchaceae
Chloropyron tecopense	Tecopa bird's-beak	VASC	Orobanchaceae
Chorizanthe aphanantha	Irish Hills spineflower	VASC	Polygonaceae
Chorizanthe biloba var. immemora	Hernandez spineflower	VASC	Polygonaceae
Chorizanthe blakleyi	Blakley's spineflower	VASC	Polygonaceae
Chorizanthe breweri	Brewer's spineflower	VASC	Polygonaceae

		1B.3	G2Q	S2						K			
FD		1B.1	G2	S2				K					
		1B.3	G2	S2		S						K	
		1B.2	G1Q	S1		K		S					
		1B.2	G3	S3									K
		1B.2	G2	S2				K					
		1B.2	G1	S1				S					
		1B.3	G2	S2								S	
		1B.2	G2	S2								S	
		1B.2	G2G3	S2S3		K							
		1B.2	G2	S2									S
		1B.2	G2	S2						K			
		1B.3	G2	S2		K						K	
	ST	1B.2	G1?	S1?		S							
		1B.1	G4T2	S2				K					
		1B.2	G4T2	S2	K								K
FT	SE	1B.2	G4?T2	S2		K							
		1B.2	G5T2	S2		S							
	SR	1B.2	G2	S2							S		
		1B.2	G2	S2	S								K
		1B.2	G5T2	S2								S	K
FE	SE	1B.1	G1	S1		K		K					
		1B.2	G3	S3		K							
		1B.2	G1	S1									K
		1B.2	G2	S2							K		
		1B.2	G2	S2									K
		1B.2	G1	S1							K		
FE	SR	1B.2	G1	S1						K			
		1B.1	G3T2	S2				K					• •
		1B.2	G3T1	S1							_		K
		1B.1	G3G4T2	S2							S		
		1B.3	G5T2	S2					K				
		1B.1	G5T1	S1					S				
		1B.3	G3G4	S3					K			1/	
		1B.3	G3	S3								K	
FT		1B.2	G2	S2						14		S	
		1B.2	G3	S3						K		1/	
		1B.2	G5T3	S3		_						K	S
FT		1B.1	G2T2	S2		S		S					
		1B.2	G4?T1	S1	17						S		
		1B.2	G4?T2	S2	K								
		1B.1	G2T1	S1		S	1/	S					
		1B.2	G2	S1		1/	K						
		1B.1	G1	S1		K		1/					
		1B.2	G3T1?	S1?		1/		K					
		1B.3	G2	S2		K							
		1B.3	G2	S2		K							

Chorizanthe minutiflora	Fort Ord spineflower	VASC	Polygonaceae
Chorizanthe parryi var. parryi	Parry's spineflower	VASC	Polygonaceae
Chorizanthe polygonoides var. longispina	long-spined spineflower	VASC	Polygonaceae
Chorizanthe pungens var. pungens	Monterey spineflower	VASC	Polygonaceae
Chorizanthe rectispina	straight-awned spineflower	VASC	Polygonaceae
Chorizanthe robusta var. robusta	robust spineflower	VASC	Polygonaceae
Chorizanthe xanti var. leucotheca	white-bracted spineflower	VASC	Polygonaceae
Cirsium ciliolatum	Ashland thistle	VASC	Asteraceae
Cirsium crassicaule	slough thistle	VASC	Asteraceae
Cirsium fontinale var. campylon	Mt. Hamilton thistle	VASC	Asteraceae
Cirsium fontinale var. obispoense	Chorro Creek bog thistle	VASC	Asteraceae
Cirsium occidentale var. lucianum	Cuesta Ridge thistle	VASC	Asteraceae
Cirsium occidentale var. compactum	compact cobwebby thistle	VASC	Asteraceae
Cirsium rhothophilum	surf thistle	VASC	Asteraceae
Cirsium scariosum var. loncholepis	La Graciosa thistle	VASC	Asteraceae
Clarkia amoena ssp. whitneyi	Whitney's farewell-to-spring	VASC	Onagraceae
Clarkia australis	Small's southern clarkia	VASC	Onagraceae
Clarkia biloba ssp. Australis	Mariposa clarkia	VASC	Onagraceae
Clarkia borealis subsp. arida	Shasta clarkia	VASC	Onagraceae
Clarkia delicata	delicate clarkia	VASC	Onagraceae
Clarkia gracilis subsp. albicaulis	white-stemmed clarkia	VASC	Onagraceae
Clarkia mildrediae subsp. mildrediae	Mildred's clarkia	VASC	Onagraceae
Clarkia mosquinii	Mosquin's clarkia	VASC	Onagraceae
Clarkia rostrata	beaked clarkia	VASC	Onagraceae
Clarkia springvillensis	Springville clarkia	VASC	Onagraceae
Clarkia tembloriensis subsp. calientensis	Vasek's clarkia	VASC	Onagraceae
Claytonia peirsonii ssp. Yorkii	York's spring beauty	VASC	Montiaceae
Clinopodium chandleri	San Miguel savory	VASC	Lamiaceae
Collinsia antonina	San Antonio collinsia	VASC	Plantaginaceae
Collinsia multicolor	San Francisco collinsia	VASC	Plantaginaceae
Comarostaphylis diversifolia subsp. diversifolia	summer holly	VASC	Rhamnaceae
Cordylanthus eremicus ssp. kernensis	Kern Plateau bird's-beak	VASC	Orobanchaceae
Cordylanthus rigidus subsp. littoralis	seaside bird's-beak	VASC	Orobanchaceae
Cordylanthus tenuis subsp. pallescens	pallid bird's-beak	VASC	Orobanchaceae
Croton wigginsii	Wiggins' croton	VASC	Euphorbiaceae
Cryptantha clokeyi	Clokey's cryptantha	VASC	Boraginaceae
Cryptantha crinita	silky cryptantha	VASC	Boraginaceae
Cryptantha dissita	serpentine cryptantha	VASC	Boraginaceae
Cryptantha excavata	deep-scarred cryptantha	VASC	Boraginaceae
Cryptantha ganderi	Gander's cryptantha	VASC	Boraginaceae
Cryptantha mariposae	Mariposa cryptantha	VASC	Boraginaceae
Cryptantha schoolcraftii	Schoolcraft's cryptantha	VASC	Boraginaceae
Cryptantha spithamaea	Red Hills cryptantha	VASC	Boraginaceae
Cusickiella quadricostata	Bodie Hills cusickiella	VASC	Brassicaceae
Cylindropuntia californica var. californica	snake cholla	VASC	Cactaceae
Cylindropuntia fosbergii	pink teddy-bear cholla	VASC	Cactaceae
Cylindropuntia munzii	Munz cholla	VASC	Cactaceae
Cymrai Opantia manzii	IVIUITZ CITOTIA	٧٨٥٥	Cactaceae

		1B.2		G1	S1					K							
		1B.1		G3T3	S3								K				٦
		1B.2		G5T3	S3						S		Κ				٦
FT		1B.2		G2T2	S2					K							٦
		1B.3		G1	S1			K		K							٦
FE		1B.1		G2T1	S1					S							٦
		1B.2		G4T3	S3				S				K				٦
	SE	2B.1		G3	S1									S			٦
		1B.1		G2	S2			S									٦
		1B.2		G2T2	S2					S							٦
FE	SE	1B.2		G2T2	S2			S									┨
1 -	JL	1B.2		G3G4T2	S2			S									$\dashv$
																	$\dashv$
	C.T.	1B.2		G3G4T2	S2			K									4
		1B.2		G1	S1			K									4
FE	ST	1B.1		G5T1	S1			S									4
		1B.1		G5T1	S1		S										_
		1B.2		G2	S2			K									_
		1B.2		G4G5T3	S3							K					
		1B.1		G3T2	S2									K			
		1B.2		G3	S3						K		K				
		1B.2		G5T2	S2									K			
		1B.3		G3T3	S3									S			
		1B.1		G2	S2									K			٦
		1B.3		G3	S3							K					٦
FT	SE	1B.2		G2	S2			K									٦
		1B.1		G3T1	S1			S									٦
		1B.1		G2G3T1	S1										K		٦
		1B.2		G2	S2								K				٦
		1B.2		G1	S1					S							٦
		1B.2		G2	S2					S							٦
		1B.2		G3T2	S2								K				٦
		1B.3		G3T2	S2			K					IX.		S		۲
	SF	1B.1		G5T2	S2			K		K							$\dashv$
	JL	1B.2		G4G5T1	S1			K		IX.				S			$\dashv$
	CD										K			3			$\dashv$
	SK	2B.2		G2G3	S2				1/		K						$\dashv$
		1B.2		G3	S3				K						S		4
		1B.2		G2	S2									K			4
		1B.2		G2	S2		S									K	4
		1B.3		G1	S1											K	4
		1B.1		G1G2	S1								S				4
		1B.3		G2G3	S2S3					S		K					$\perp$
		2B.2	W	G3	S1 (CA); S3 (NV)	K											
		1B.3		G2	S2							K					
		1B.2		G3	S2					K							
		1B.1		G3T2	S1								S				
		1B.3		G2	S2						K						1
		1B.3		G3	S1						K		K				٦
																	_

Cymopterus deserticola	desert cymopterus	VASC	Apiaceae
Cymopterus ripleyi var. saniculoides	Ripley's cymopterus	VASC	Apiaceae
Cypripedium fasciculatum	clustered lady's slipper	VASC	Orchidaceae
Cypripedium montanum	mountain lady's slipper	VASC	Orchidaceae
Dalea ornata	ornate dalea	VASC	Fabaceae
Dedeckera eurekensis	July gold	VASC	Polygonaceae
Deinandra arida	Red Rock tarplant	VASC	Asteraceae
Deinandra conjugens	Otay tarplant	VASC	Asteraceae
Deinandra floribunda	Tecate tarplant	VASC	Asteraceae
Deinandra halliana	Hall's tarplant	VASC	Asteraceae
Deinandra increscens subsp. villosa	Gaviota tarplant	VASC	Asteraceae
Deinandra minthornii	Santa Suzana tarplant	VASC	Asteraceae
Deinandra mohavensis	Mojave tarplant	VASC	Asteraceae
Delphinium califonicum ssp. interius	Hospital Canyon larkspur	VASC	Ranunculaceae
Delphinium hesperium subsp. cuyamacae	Cuyamaca larkspur	VASC	Ranunculaceae
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	VASC	Ranunculaceae
Delphinium parryi subsp. blochmaniae	dune larkspur	VASC	Ranunculaceae
Delphinium purpusii	Kern County Larkspur	VASC	Ranunculaceae
Delphinium recurvatum	recurved larkspur	VASC	Ranunculaceae
Delphinium umbraculorum	umbrella larkspur	VASC	Ranunculaceae
Dendriscocaulon intricatulum	northern moon shrub	LICH	Lobariaceae
Dendrocollybia racemosa	no common name	FUNG	Tricholomataceae
Dieteria asteroides var. lagunensis	Mount Laguna aster	VASC	Asteraceae
Diplacus mohavensis	Mojave monkeyflower	VASC	Phrymaceae
Diplacus pictus	Calico monkeyflower	VASC	Phrymaceae
Diplacus pulchellus	yellow-lip pansy monkeyflower	VASC	Phrymaceae
Dithyrea maritima	beach spectaclepod	VASC	Brassicaceae
Dodecahema leptoceras	slender-horned spineflower	VASC	Polygonaceae
Dudleya abramsii ssp. affinis	San Bernardino Mountains dudleya	VASC	Crassulaceae
Dudleya abramsii subsp. murina	mouse-gray dudleya	VASC	Crassulaceae
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	VASC	Crassulaceae
Dudleya multicaulis	many-stemmed dudleya	VASC	Crassulaceae
Dudleya saxosa subsp. saxosa	Panamint dudleya	VASC	Crassulaceae
Dudleya variegata	variegated dudleya	VASC	Crassulaceae
Dudleya viscida	sticky dudleya	VASC	Crassulaceae
Echinocereus engelmannii var. howei	Howe's hedgehog cactus	VASC	Cactaceae
Enceliopsis covillei	Panamint daisy	VASC	Asteraceae
Entosthodon kochii	Koch's cord moss	BRYO	Funariaceae
Epilobium nivium	Snow Mountain willowherb	VASC	Onagraceae
Epilobium oreganum	Oregon fireweed	VASC	Onagraceae
Epilobium siskiyouense	Siskiyou fireweed	VASC	Onagraceae
Eremalche kernensis	Kern mallow	VASC	Malvaceae
Eriastrum brandegeeae	Brandegee's eriastrum	VASC	Polemoniaceae
Eriastrum densifolium subsp. sanctorum	Santa Ana River woolystar	VASC	Polemoniaceae
Eriastrum harwoodii	Harwood's eriastrum	VASC	Polemoniaceae
Eriastrum luteum	yellow-flowered eriastrum	VASC	Polemoniaceae
Ericameria cuneata var. macrocephala	Laguna Mountains goldenbush	VASC	Asteraceae
Zirodineria caricata var. macrocephaia	Labana Modificanio Bolactioasii	V/10C	, isteraceae

		1B.2	G2	S2			K								K	
		1B.2	G3G4T3Q	S1											K	
		4.2	G4	S4										K		
		4.2	G4	S4										K		
		2B.1	G4G5	S2					K							
	SR	1B.3	G3	S3			k	(							K	
		1B.2	G1	S1											S	
FT	SE	1B.1	G1	S1									S			
		1B.2	G2	S2						K		ı	K			
		1B.1	G2	S2		S		K								
FE	SE	1B.1	G4G5T2	S2		S										
		1B.2	G2	S2									S			
	SE	1B.3	G2G3	S2S3		K	S						K		K	
		1B.2	G3T3	S3				S								
	SR	1B.2	G4T2	S2						S		9	S			
		1B.2	G4T2	S2		S										
		1B.2	G4T2	S2		S										
		1B.3	G2	S2		K										
		1B.2	G3	S3		K		K								
		1B.3	G3	S3		K										
			G3G4Q	S1	S									K		
			G4	None										S		
	SR	2B.1	G5T2T3Q	S1						K						
		1B.2	G2	S2			K									
		1B.2	G2	S2		K										
		1B.2	G2	S2							K					
		1B.1	G2	S1		S										
FE	SE	1B.1	G1	S1									K			
		1B.2	G4T2	S2			K									
		1B.3	G4T2	S2		K										
		1B.1	G3T2	S2		S										
		1B.2	G2	S2								9	S			
		1B.3	G4T3	S3										ļ	K	
		1B.2	G2	S2									K			
		1B.2	G2	S2									K			
		1B.1	G5T1	S1							ŀ	(				
		1B.2	G2?	S2?											K	
		1B.3	G1	S1							K					
		1B.1	G2G3	S2S3	K											
		1B.2	G2	S2										S		
		1B.3	G3	S3									_	S		
FE		1B.1	G3?T2Q	S2		K										
		1B.1	G1Q	S1										K		S
FE	SE	1B.1	G4T1	S1									K			
		1B.2	G2	S2			K				ŀ	<b>(</b>	<u> </u>			
		1B.2	G2	S2		K										
		1B.3	G5T2T3	S2S3						K						

Ericameria fasciculata	Eastwood's goldenbush	VASC	Asteraceae
Ericameria gilmanii	Gilman's goldenbush	VASC	Asteraceae
Ericameria palmeri var. palmeri	Palmer's goldernbush	VASC	Asteraceae
Erigeron aequifolius	Hall's daisy	VASC	Asteraceae
Erigeron blochmaniae	Blochman's leafy daisy	VASC	Asteraceae
Erigeron calvus	bald daisy	VASC	Asteraceae
Erigeron greenei	Greene's narrow-leaved daisy	VASC	Asteraceae
Erigeron maniopotamicus	Mad River fleabane daisy	VASC	Asteraceae
Erigeron multiceps	Kern River daisy	VASC	Asteraceae
Erigeron parishii	Parish's daisy	VASC	Asteraceae
Erigeron serpentinus	serpentine daisy	VASC	Asteraceae
Erigeron supplex	supple daisy	VASC	Asteraceae
Erigeron uncialis var. uncialis	limestone daisy	VASC	Asteraceae
Eriogonum alexanderae	Alexander's buckwheat	VASC	Polygonaceae
Eriogonum apricum var. apricum	Ione buckwheat	VASC	Polygonaceae
Eriogonum bifurcatum	forked buckwheat	VASC	Polygonaceae
Eriogonum butterworthianum	Butterworth's buckwheat	VASC	Polygonaceae
Eriogonum cedrorum	The Cedars buckwheat	VASC	Polygonaceae
Eriogonum contiguum	Reveal's buckwheat	VASC	Polygonaceae
Eriogonum crosbyae	Crosby's buckwheat	VASC	Polygonaceae
Eriogonum eremicola	Wildrose Canyon buckwheat	VASC	Polygonaceae
Eriogonum heermannii var. occidentale	western Heermann's buckwheat	VASC	Polygonaceae
Eriogonum hoffmannii var. hoffmannii	Hoffmann's buckwheat	VASC	Polygonaceae
Eriogonum hoffmannii var. robustius	robust Hoffmann's buckwheat	VASC	Polygonaceae
Eriogonum kelloggii	Red Mountain buckwheat	VASC	Polygonaceae
Eriogonum kennedyi var. pinicola	Kern buckwheat	VASC	Polygonaceae
Eriogonum mensicola	Pinyon Mesa buckwheat	VASC	Polygonaceae
Eriogonum microthecum var. panamintense	Panamint Mountains buckwheat	VASC	Polygonaceae
Eriogonum microthecum var. schoolcraftii	Schoolcraft's wild buckwheat	VASC	Polygonaceae
Eriogonum nervulosum	Snow Mtn. buckwheat	VASC	Polygonaceae
Eriogonum nortonii	Pinnacles buckwheat	VASC	Polygonaceae
Eriogonum nudum var. murinum	mouse buckwheat	VASC	Polygonaceae
Eriogonum ovalifolium var. vineum	Cushenberry buckwheat	VASC	Polygonaceae
Eriogonum prociduum	prostrate buckwheat	VASC	Polygonaceae
Eriogonum temblorense	Temblor buckwheat	VASC	Polygonaceae
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	VASC	Polygonaceae
Eriogonum umbellatum var. glaberrimum	green buckwheat	VASC	Polygonaceae
Eriogonum ursinum var. erubescens	blushing wild buckwheat	VASC	Polygonaceae
Eriophyllum mohavense	Barstow woolly-sunflower	VASC	Asteraceae
Eryngium aristulatum var. parishii	San Diego button-celery	VASC	Apiaceae
Eryngium spinosepalum	spiny-sepaled button-celery	VASC	Apiaceae
Erysimum ammophilum	coast wallflower	VASC	Brassicaceae
Erysimum concinnum	bluff wallflower	VASC	Brassicaceae
Erysimum menziesii	Menzies' wallflower	VASC	Brassicaceae
Erythranthe calcicola	limestone monkeyflower	VASC	Phrymaceae
Erythranthe filicaulis	slender-stemmed monkeyflower	VASC	Phrymaceae
Erythranthe inflatula	ephemeral monkeyflower	VASC	Phrymaceae
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		1B.1			G2	S2						K					
		1B.3			G2	S2			K							S	
		1B.1			G4T2T3	S1								S			
		1B.3			G3	S3										K	
		1B.2			G2	S2			K								
		1B.1			G1Q	S1					S						
		1B.2			G3	S3											K
		1B.2			G2?	S2?		S									
		1B.2			G2	S2			S								
FT		1B.1			G2	S2				K							
		1B.3			G2	S2											K
		1B.2			G2	S2											S
		1B.2			G3G4T2	S2										S	
		1B.1			G3Q	S1					S						
FE	SE	1B.1			G1T1	S1							K				
		1B.2			G3	S3				K			k	(			
	SR	1B.3			G2	S2						S					
		1B.3			G1	S1											K
		2B.3			G2	S2										K	
			W		G3	S3	K										
		1B.3			G1	S1					S					K	
		1B.2			G5T2	S2						K					
		1B.3			G3T2	S2										K	
		1B.3			G3T3	S3				K							
	SE	1B.2			G2	S2		K									
		1B.1			G4T1	S1			S							K	
		1B.3			G3	S3					S					K	
		1B.3			G5T3	S3					K					K	
		1B.2	W		G5T3 in CA	; S3 (CA); S1 (NV)	S					K					
		1B.2			G2	S2											K
		1B.3			G2	S2						K					
		1B.2			G5T2	S2			K								
FE		1B.1			G5T1	S1				K							$\neg$
		1B.2	W	S1	G3	S3 (CA); S1 (NV)	K					K					$\neg$
		1B.2			G2	S2.2			K								$\neg$
		1B.2			G5T2	S2									S		
		1B.3			G5T2?	S2	S										
		1B.3			G3G4T2	S2									S		$\neg$
		1B.2			G2	S2				K						K	$\neg$
FE	SE	1B.1			G5T1	S1								S			
		1B.2			G2	S2			K								
		1B.2			G2	S2						S					
		1B.2			G3	S3		K									$\neg$
FE	SE	1B.1			G1	S1		K									$\neg$
		1B.3			G2	S2										K	$\neg$
		1B.2			G2	S2							K				$\dashv$
		1B.2			G3	S2	K					K			S		$\dashv$
						<del></del>						••					

Erythranthe marmorata	Stanislaus monkeyflower	VASC	Phrymaceae
Erythranthe norrisii	Kaweah monkeyflower	VASC	Phrymaceae
Erythranthe rhodopetra	Red Rock Canyon monkeyflower	VASC	Phrymaceae
Erythranthe shevockii	Kelso Creek monkeyflower	VASC	Phrymaceae
Erythronium tuolumnense	Tuolumne fawn-lily	VASC	Liliaceae
Eschscholzia lemmonii ssp. kernensis	Tejon poppy	VASC	Papaveraceae
Eschscholzia minutiflora subsp. twisselmannii	Red Rock poppy	VASC	Papaveraceae
Eschscholzia rhombipetala	diamond-petaled California poppy	VASC	Papaveraceae
Euphorbia jaegeri	Orocopia Mountains spurge	VASC	Euphorbiaceae
Euphorbia ocellata subsp. rattanii	Stony Creek spurge	VASC	Euphorbiaceae
Euphorbia platysperma	flat-seeded spurge	VASC	Euphorbiaceae
Extriplex joaquinana	San Joaquin spearscale	VASC	Chenopodiaceae
Fremontodendron decumbens	Pine Hill flannelbush	VASC	Malvaceae
Fremontodendron mexicanum	Mexican flannelbush	VASC	Malvaceae
Fritillaria brandegeei	Greenhorn fritillary	VASC	Liliaceae
Fritillaria falcata	talus fritillary	VASC	Liliaceae
Fritillaria gentneri	Gentner's fritillaria	VASC	Liliaceae
Fritillaria ojaiensis	Ojai fritillary	VASC	Liliaceae
Fritillaria pluriflora	adobe-lily	VASC	Liliaceae
Fritillaria striata	striped adobe-lily	VASC	Liliaceae
Fritillaria viridea	San Benito fritillary	VASC	Liliaceae
Galium angustifolium ssp. borregoense	Borrego bedstraw	VASC	Rubiaceae
Galium angustifolium ssp. jacinticum	San Jacinto Mountains bedstraw	VASC	Rubiaceae
Galium angustifolium subsp. onycense	Onyx Peak bedstraw	VASC	Rubiaceae
Galium californicum subsp. primum	Alvin Meadow bedstraw	VASC	Rubiaceae
Galium californicum subsp. sierrae	El Dorado bedstraw	VASC	Rubiaceae
Galium glabrescens subsp. modocense	Modoc bedstraw	VASC	Rubiaceae
Galium grande	San Gabriel bedstraw	VASC	Rubiaceae
Galium hardhamiae	Hardham's bedstraw	VASC	Rubiaceae
Galium hilendiae subsp. kingstonense	Kingston bedstraw	VASC	Rubiaceae
Galium serpenticum subsp. scotticum	Scott Mtn. bedstraw	VASC	Rubiaceae
Galium serpenticum subsp. warnerense	Warner Mtns. bedstraw	VASC	Rubiaceae
Gentiana setigera	Mendocino gentian	VASC	Gentianaceae
Gilia capitata ssp. pacifica	Pacific gilia	VASC	Polemoniaceae
Gilia millefoliata	dark-eyed gilia	VASC	Polemoniaceae
Gilia tenuiflora subsp. arenaria	sand gilia	VASC	Polemoniaceae
Githopsis tenella	delicate bluecup	VASC	Campanulaceae
Glossopetalon pungens	pungent glossopetalon	VASC	Crossosomatacea
Gratiola heterosepala	Boggs Lake hedge-hyssop	VASC	Plantaginaceae
Grimmia torenii	Toren's grimmia	BRYO	Grimmiaceae
Grimmia vaginulata	vaginulate grimmia	BRYO	Grimmiaceae
Grindelia fraxinipratensis	Ash Meadows gum-plant	VASC	Asteraceae
Grindelia hallii	San Diego gumplant	VASC	Asteraceae
Harmonia doris-nilesiae	Niles's harmonia	VASC	Asteraceae
Harmonia hallii	Hall's harmonia	VASC	Asteraceae
Harmonia stebbinsii	Stebbins's harmonia	VASC	Asteraceae
Helianthella castanea	Diablo rock-rose	VASC	Asteraceae

			1B.1		GXQ	SX							S			
			1B.3		G2	S2			K							
			1B.1		G1	S1									K	
			1B.1		G2	S2			K						K	
			1B.2		G2	S2							K			
			1B.1		G5T2	S2			K							
			1B.2		G5T2	S2									K	
			1B.1		G1	S1			S							
			1B.1		G1	S1							k	Κ		
			1B.2		G4T1T2	S1S2									K	
			1B.2		G3	S1				S		S				
			1B.2		G2	S2										K
	FE	SR	1B.2		G1	S1							K			
	FE		1B.1		G1	S1						K		K		
			1B.3		G2G3	S2S3			S							
			1B.2		G2	S2					K					
	FE		1B.1		G1	S1									K	
			1B.2		G2	S2			K							
			1B.2		G3	S3									S	K
		ST	1B.1		G2	S2			S							
			1B.2		G2	S2					K					
		SR	1B.3		G5T3?	S3?						K				
			1B.3		G5T2?	S2?						K				
			1B.3		G5T3	S3			K							
			1B.2		G5T1Q	S1								S		
	FE	SR	1B.2		G5T1	S1							K			
			1B.2		G4T3	S3	K									
			1B.2		G2	S2								S		
			1B.3		G3	S3			K							
			1B.3		G4T2	S2				K			k	(		
			1B.2		G4G5T2	S2.2				••				•	K	
			1B.2		G4G5T2	S2.2	S									
			1B.2		G2	S1		K								
			1B.2		G5T3	S2		K								S
			1B.2		G2	S2		K								
	FF	ST	1B.2		G3G4T2	S2					K					
		J1	1B.3		G2	S2					1		K			
ie			1B.2		G2G3	S1								(		
		SF	1B.2		G2G3	S2	K		K		K	•	- 1	•	K	K
		JL	1B.3		G2	S2	1		11			•				K
			1B.1		G2G3	S1							k	(		IX.
	FT		1B.2	CE	G2G3	S1				K			- 1	`		
			1B.2	CL	G2 G2	S2				11		K				
			1B.1		G2 G2	S2						IX			S	
			1B.2		G2 G2	S2?									J	K
			1B.2		G2 G2	S2 :									K	N.
											c				N	
			1B.2		G2	S2					S					

Helianthus niveus subsp. tephrodes	Algodones Dunes sunflower	VASC	Asteraceae
Helianthus winteri	Winter's sunflower	VASC	Asteraceae
Hesperevax sparsiflora var. brevifolia	short-leaved evax	VASC	Asteraceae
Hesperidanthus jaegeri	Jaeger's hesperidanthus	VASC	Brassicaceae
Hesperocyparis forbesii	Tecate cypress	VASC	Cupressaceae
Hesperocyparis nevadensis	Piute cypress	VASC	Cupressaceae
Hesperocyparis pygmaea	pygmy cypress	VASC	Cupressaceae
Hesperolinon adenophyllum	glandular western flax	VASC	Linaceae
Hesperolinon bicarpellatum	two-carpellate western flax	VASC	Linaceae
Hesperolinon breweri	Brewer's dwarf flax	VASC	Linaceae
Hesperolinon didymocarpum	Lake County dwarf flax	VASC	Linaceae
Hesperolinon drymarioides	drymaria-like western flax	VASC	Linaceae
Hesperolinon sharsmithiae	Sharsmith's western flax	VASC	Linaceae
Hesperolinon tehamense	Tehama County western flax	VASC	Linaceae
Heterotheca shevockii	Shevock's golden-aster	VASC	Asteraceae
Heuchera brevistaminea	Laguna Mountains alumroot	VASC	Saxifragaceae
Horkelia bolanderi	Bolander's horkelia	VASC	Rosaceae
Horkelia cuneata var. puberula	mesa horkelia	VASC	Rosaceae
Horkelia hendersonii	Henderson's horkelia	VASC	Rosaceae
Horkelia marinensis	Point Reyes horkelia	VASC	Rosaceae
Horkelia parryi	Parry's horkelia	VASC	Rosaceae
Horkelia tenuiloba	thin-lobed horkelia	VASC	Rosaceae
Horkelia truncata	Ramona horkelia	VASC	Rosaceae
Hosackia crassifolia var. otayensis	Otay Mountain lotus	VASC	Fabaceae
Hulsea californica	San Diego sunflower	VASC	Asteraceae
Iris hartwegii ssp. columbiana	Tuolumne iris	VASC	Iridaceae
Iris munzii	Munz's iris	VASC	Iridaceae
Isocoma menziesii var. decumbens	decumbent goldenbush	VASC	Asteraceae
Ivesia aperta var. aperta	Sierra Valley ivesia	VASC	Rosaceae
Ivesia jaegeri	Jaeger's ivesia	VASC	Rosaceae
Ivesia kingii var. kingii	alkali ivesia	VASC	Rosaceae
Ivesia longibracteata	Castle Crags ivesia	VASC	Rosaceae
Ivesia paniculata	Ash Creek ivesia	VASC	Rosaceae
Ivesia patellifera	Kingston Mtns. ivesia	VASC	Rosaceae
Ivesia pickeringii	Pickering's ivesia	VASC	Rosaceae
Ivesia rhypara var. rhypara	grimy ivesia	VASC	Rosaceae
Ivesia sericoleuca	Plumas ivesia	VASC	Rosaceae
Ivesia webberi	Webber's ivesia	VASC	Rosaceae
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	VASC	Juncaceae
Juncus luciensis	Santa Lucia dwarf rush	VASC	Juncaceae
Lagophylla diabolensis	Diablo Range hare-leaf	VASC	Asteraceae
Lasthenia californica subsp. macrantha	perennial goldfields	VASC	Asteraceae
Lasthenia conjugens	Contra Costa goldfields	VASC	Asteraceae
Lasthenia glabrata subsp. coulteri	Coulter's goldfields	VASC	Asteraceae
Layia carnosa	beach layia	VASC	Asteraceae
Layia discoidea	rayless tidytips	VASC	Asteraceae
Layia heterotricha	pale-yellow layia	VASC	Asteraceae
	· · · ·		

	SE	1B.2			G4T2T3	S2						K					
		1B.2			G1G2	S1S2			K								
		1B.2			G4T2T3	S2S3		K									K
		1B.2			G2	S2				S					k	(	
		1B.1			G2	S2								K			
		1B.2			G2	S2			K								
		1B.2			G1	S1										Ş	S
		1B.2			G3	S3										ŀ	K
		1B.2			G2	S2										ŀ	K
		1B.2			G2	S2											S
	SE	1B.2			G1	S1											S
		1B.2			G2	S2										ŀ	K
		1B.2			G2Q	S2										ŀ	K
		1B.3			G2	S2									K		
		1B.3			G2	S2			S								
		1B.3			G2	S2						K		K			
		1B.2			G1	S1										ŀ	K
		1B.1			G4T1	S1								S			
		1B.1			G1G2	S1									S		
		1B.2			G2	S2										S	S
		1B.2			G2	S2							K				
		1B.2			G2	S2		S								ŀ	K
		1B.3			G3	S3								K			
		1B.1			G5T1	S1								K			
		1B.3			G2	S2						K		S			
		1B.2			G4T1	S2							K				
		1B.3			G2	S2			K								
		1B.2			G3G5T2T3	S2						K		K			
		1B.2	Т		G2T2	S2 (CA); S1 (NV)					K						
		1B.3			G2G3	S1							K				
		2B.2			G4T3Q	S2				K							
		1B.3			G1	S1									S		
		1B.2			G2	S2	K										
		1B.3			G1	S2				K			K				$\neg$
		1B.2			G2	S2.2									S		$\Box$
			W		G2T2	S2 (NV)	K										$\Box$
		1B.2			G2	S2					S						$\Box$
FT		1B.1	Т	CE	G1	S2 (CA); S1 (NV)					K						$\Box$
		1B.1			G2T2	S2									K		
		1B.2			G3	S3					S K						
		1B.2			G2G3	S2S3					K						$\neg$
		1B.2			G3T2	S2		S								ŀ	K
FE		1B.1			G1	S1					K						
		1B.1			G4T2	S2			K								$\neg$
FE	SE	1B.1			G2	S2		K									$\neg$
		1B.1			G1	S1					K						$\neg$
		1B.1			G2	S2			K		K						$\neg$
					-				-		•						

Layia jonesii	Jones' layia	VASC	Asteraceae
Layia leucopappa	Comanche Point layia	VASC	Asteraceae
Layia munzii	Munz's tidy-tips	VASC	Asteraceae
Layia septentrionalis	Colusa layia	VASC	Asteraceae
Legenere limosa	legenere	VASC	Campanulaceae
Lepechinia ganderi	Gander's pitcher-sage	VASC	Lamiaceae
Lepidium flavum var. felipense	Borrego Valley pepper-grass	VASC	Brassicaceae
Lepidium jaredii subsp. album	Panoche pepper-grass	VASC	Brassicaceae
Lepidium jaredii subsp. jaredii	Jared's pepper-grass	VASC	Brassicaceae
Leptosiphon floribundus ssp. hallii	Santa Rosa Mountains leptosiphon	VASC	Polemoniaceae
Leptosiphon nuttallii subsp. howellii	Mt. Tedoc linanthus	VASC	Polemoniaceae
Leptosiphon serrulatus	Madera leptosiphon	VASC	Polemoniaceae
Leptosyne hamiltonii	Mt. Hamilton coreopsis	VASC	Asteraceae
Lessingia glandulifera var. tomentosa	Warner Springs lessingia	VASC	Asteraceae
Lewisia cantelovii	Cantelow's lewisia	VASC	Portulacaceae
Lewisia cotyledon var. heckneri	Heckner's lewisia	VASC	Portulacaeae
Lewisia disepala	Yosemite lewisia	VASC	Montiaceae
Lilium maritimum	coast lily	VASC	Liliaceae
Limnanthes alba subsp. parishii	Parish's meadowfoam	VASC	Limnanthaceae
Limnanthes bakeri	Baker's meadowfoam	VASC	Limnanthaceae
Limnanthes floccosa subsp. bellingeriana	Bellinger's meadowfoam	VASC	Limnanthaceae
Limnanthes floccosa subsp. californica	Butte County meadowfoam	VASC	Limnanthaceae
Linanthus bernardinus	Pioneertown linanthus	VASC	Polemoniaceae
Linanthus maculatus subsp. emaculatus	Jacumba Mountains linanthus	VASC	Polemoniaceae
Linanthus maculatus subsp. maculatus	Little San Bernardino Mtns. linanthus	VASC	Polemoniaceae
Linanthus orcuttii	Orcutt's linanthus	VASC	Polemoniaceae
Loeflingia squarrosa var. artemisiarum	Sagebrush loeflingia	VASC	Caryophyllaceae
Lomatium congdonii	Congdon's lomatium	VASC	Apiaceae
Lomatium observatorium	Mt. Hamilton lomatium	VASC	Apiaceae
Lomatium ravenii var. ravenii	Raven's lomatium	VASC	Apiaceae
Lomatium repostum	Napa lomatium	VASC	Apiaceae
Lomatium roseanum	adobe lomatium	VASC	Apiaceae
Lomatium shevockii	Owens Peak Iomatium	VASC	Apiaceae
Lupinus citrinus var. citrinus	orange lupine	VASC	Fabaceae
Lupinus citrinus var. deflexus	Mariposa lupine	VASC	Fabaceae
Lupinus duranii	Mono Lake lupine	VASC	Fabaceae
Lupinus excubitus var. medius	Mountain Springs bush lupine	VASC	Fabaceae
Lupinus Iudovicianus	San Luis Obispo County lupine	VASC	Fabaceae
Lupinus magnificus var. hesperius	McGee Meadows lupine	VASC	Fabaceae
Lupinus magnificus var. magnificus	Panamint Mtns. lupine	VASC	Fabaceae
Lupinus sericatus	Cobb Mountain lupine	VASC	Fabaceae
Lupinus spectabilis	shaggyhair lupine	VASC	Fabaceae
Lupinus uncialis	lilliput lupine	VASC	Fabaceae
Madia radiata	showy golden madia	VASC	Asteraceae
Malacothamnus aboriginum	Indian Valley bush-mallow	VASC	Malvaceae
Malacothamnus hallii	Hall's bush-mallow	VASC	Malvaceae
Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	VASC	Malvaceae
	Tanner Tanney Saon History		

		1B.2		G2	S2			S									
		1B.1		G1	S1			S									
		1B.2		G2	S2			K		K							
		1B.2		G2	S2										S		K
		1B.1		G2	S2					S					K		
		1B.3		G3?	S3									K			
		1B.2		G5T1	S1							S					
		1B.2		G2T2	S2					K							
		1B.2		G2T1T2	S1S2			K									
		1B.3		G4T1T2	S1S2									K			
		1B.3		G5T2	S2										S		
		1B.2		G3	S3			S									
		1B.2		G2	S2					S							
		1B.1		G4T?	S2									K			
		1B.2		G3	S3								K		S		
		1B.2		G4T3	S3?										K		
		1B.2		G2	S2			K									
		1B.1		G2	S2												K
	SE	1B.2		G4T2	S2							K		S			
	SR	1B.1		G1	S1		S										
		1B.2		G4T3	S1	S									S		
FE	SE	1B.1		G4T1	S1										S		
		1B.2		G1	S1				S								
		1B.1		G2T1	S1							K					
		1B.2		G2	S2				K					K			
		1B.3		G3	S2							S		S			
		2B.2		G5T2T3	S2	S				K	K						
		1B.2		G2	S2								K				
		1B.2		G1	S1					S							
		1B.3		G4T2	S2	K					K						
		1B.2		G2G3	S2S3												K
		1B.2	W	G2G3	S2 (CA); S2 (NV)	K											
		1B.2		G2	S2			K								K	
		1B.2		G2T2	S2			S									
	ST	1B.2		G2T1	S1								S				
		1B.2		G2	S2					K							
		1B.3		G4T2T3	S2							K		K			
		1B.2		G1	S1			S									
		1B.3		G3T2Q	S2					S							
		1B.2		G3T2Q	S2					S						K	
		1B.2		G2	S2												K
		1B.2		G2	S2								K				
		2B.2		G4	S2	K											
		1B.1		G3	S3			K		K							
		1B.2		G3	S3			S		K							
		1B.2		G2Q	S2			_		.,							K
		1B.2		G3T3Q	S3					K	·						.,
		۷.۷		3313Q	<i>JJ</i>					- 1	•						

Malacothamnus palmeri var. lucianus	Arroyo Seco bush-mallow	VASC	Malvaceae
Malacothrix saxatilis var. arachnoidea	Carmel Valley malacothrix	VASC	Asteraceae
Menodora spinescens var. mohavensis	Mojave menodora	VASC	Oleaceae
Mentzelia inyoensis	Inyo blazing star	VASC	Loasaceae
Mentzelia polita	polished blazing star	VASC	Loasaceae
Mentzelia tridentata	creamy blazing star	VASC	Loasaceae
Microseris paludosa	marsh microseris	VASC	Asteraceae
Mielichhoferia shevockii	Shevock's copper moss	BRYO	Mielichhoferiacea
Mimulus gracilipes	slender-stalked monkerflower	VASC	Phrymaceae
Monardella beneolens	sweet-smelling monardella	VASC	Lamiaceae
Monardella boydii	Boyd's monardella	VASC	Lamiaceae
Monardella eremicola	Clark Mountain monardella	VASC	Lamiaceae
Monardella hypoleuca ssp. intermedia	intermediate monardella	VASC	Lamiaceae
Monardella hypoleuca subsp. lanata	felt-leaved monardella	VASC	Lamiaceae
Monardella linoides subsp. oblonga	Tehachapi monardella	VASC	Lamiaceae
Monardella macrantha ssp. hallii	Hall's monardella	VASC	Lamiaceae
Monardella nana subsp. leptosiphon	San Felipe monardella	VASC	Lamiaceae
Monardella palmeri	Palmer's monardella	VASC	Lamiaceae
Monardella robisonii	Robison monardella	VASC	Lamiaceae
Monardella sinuata subsp. nigrescens	northern curly-leaved monardella	VASC	Lamiaceae
Monardella stoneana	Jennifer's monardella	VASC	Lamiaceae
Monardella undulata subsp. crispa	crisp monardella	VASC	Lamiaceae
Monardella undulata subsp. undulata	San Luis Obispo monardella	VASC	Lamiaceae
Monardella venosa	veiny monardella	VASC	Lamiaceae
Monolopia congdonii	San Joaquin woolly threads	VASC	Asteraceae
Nama demissa var. covillei	Coville's purple mat	VASC	Namaceae
Navarretia leucocephala ssp. Pauciflora	few-flowered navarretia	VASC	Polemoniaceae
Navarretia leucocephala subsp. bakeri	Baker's navarretia	VASC	Polemoniaceae
Navarretia miwukensis	Mi-Wuk navarretia	VASC	Polemoniaceae
Navarretia nigelliformis subsp. radians	shining navarretia	VASC	Polemoniaceae
Navarretia paradoxiclara	Patterson's navarretia	VASC	Polemoniaceae
Navarretia paradoxinota	Porter's navarretia	VASC	Polemoniaceae
Navarretia prostrata	prostrate vernal pool navarretia	VASC	Polemoniaceae
Navarretia rosulata	Marin County navarretia	VASC	Polemoniaceae
Navarretia setiloba	Piute Mountains navarretia	VASC	Polemoniaceae
Nemacladus calcaratus	Chimney Creek nemacladus	VASC	Campanulaceae
Nemacladus inyoensis	Badger Flat threadplant	VASC	Campanulaceae
Nemacladus secundiflorus var. robbinsii	Robbins' nemacladus	VASC	Campanulaceae
Nemacladus twisselmannii	Twisselmann's nemacladus	VASC	Campanulaceae
Neviusia cliftonii	Shasta snow-wreath	VASC	Rosaceae
Nitrophila mohavensis	Amargosa niterwort	VASC	Amaranthaceae
Nolina interrata	Dehesa nolina, bear grass	VASC	Ruscaceae
Oenothera wolfii	Wolf's evening-primrose	VASC	Onagraceae
Opuntia basilaris var. brachyclada	short-joint beavertail	VASC	Cactaceae
Opuntia basilaris var. treleasei	Bakersfield cactus	VASC	Cactaceae
Orcuttia californica	California orcutt grass	VASC	Poaceae
Orcuttia inaequalis	San Joaquin Valley orcutt grass	VASC	Poaceae

		1B.2			G3T1Q	S1			S					
		1B.2			G5T2	S2			S					
		1B.2			G4T2	S2		K			K			
		1B.1	W		G3	S3		K K						
		1B.2			G2	S2					K			
		1B.3			G3	S3		K					S	
		1B.2			G2	S2								K
,		1B.2			G2	S2					K	S		
•		1B.2			G2G3	S2S3	S							
		1B.3			G1	S1							K	
		1B.2			G2Q	S2		K					1	
		1B.3			G2G3Q	S2S3		IX.			K			
											K	S		
		1B.3			G4T2?	S2?								
		1B.2			G4T3	S3						K	14	
		1B.3			G5T2	S2						_	K	
		1B.3			G5T3	S3				_		S		
		1B.2			G4G5T2Q	S2				S				
		1B.2			G2	S2	S							
		1B.3			G3	S3		K				S		
		1B.2			G3T2	S2			S					
		1B.2			G2	S1						Κ		
		1B.2			G3T2	S2	K							
		1B.2			G2	S2	K							
		1B.1			G1	S1							S	
FE		1B.2			G2	S3	K		K					
		1B.3			G5T3	S3		K			K			
FE	ST	1B.1			G4T1	S1								S
		1B.1			G4T2	S2							S	
		1B.2			G1G2	S1S2					K			
		1B.2			G4T2	S2			K					
		1B.3			G2	S2					K			-
					G2	S2					IX			K
		1B.3 1B.2			G2	S2			S					
									3					
		1B.2			G2	S2	17							K
		1B.1			G2	S2	K					S		
		1B.2			G1	S1	K						S	
		1B.2			G3	S3							K	
		1B.2			G3T2	S2							S	
	SR	1B.2			G1	S1	S							
		1B.2			G2	S2							S	
FE	SE	1B.1		CE	G1	S1		K						
	SE	1B.1			G2	S2						S		
		1B.1			G2	S1	S							
		1B.2			G5T3	S3		K				S		
FE	SE	1B.1			G5T1	S1	S						S	
FE		1B.1			G1	S1						S		
FT		1B.1			G1	S1	K							
	<b>7</b> -													

Orcuttia pilosa	hairy orcutt grass	VASC	Poaceae
Orcuttia tenuis	slender orcutt grass	VASC	Poaceae
Oreocarya roosiorum	bristlecone cryptantha	VASC	Boraginaceae
Oreonana vestita	woolly mountain-parsley	VASC	Apiaceae
Oreostemma elatum	tall alpine aster	VASC	Asteraceae
Orthocarpus pachystachyus	Shasta orthocarpus	VASC	Orobanchaceae
Packera eurycephala var. lewisrosei	cut-leaved ragwort	VASC	Asteraceae
Packera ganderi	Gander's butterweed	VASC	Asteraceae
Packera layneae	Layne's butterweed	VASC	Asteraceae
Palafoxia arida var. gigantea	giant Spanish needle	VASC	Asteraceae
Panicum acuminatum var. thermale	Geyser's panicum	VASC	Poaceae
Paronychia ahartii	Ahart's paronychia	VASC	Caryophyllaceae
Pedicularis centranthera	dwarf lousewort	VASC	Orobanchaceae
Pediomelum castoreum	Beaver Dam breadroot	VASC	Fabaceae
Penstemon albomarginatus	white-margined beardtongue	VASC	Plataginaceae
Penstemon bicolor subsp. roseus	rosy two-toned beardtongue	VASC	Plataginaceae
Penstemon fruticiformis var. amargosae	Death Valley beardtongue	VASC	Plantaginaceae
Penstemon janishiae	Janish's beardtongue	VASC	Plantaginaceae
Penstemon newberryi var. sonomensis	Sonoma beardtongue	VASC	Plantaginaceae
Penstemon personatus	closed-throated beardtongue	VASC	Plantaginaceae
Penstemon stephensii	Stephens' beardtongue	VASC	Plantaginaceae
Penstemon sudans	Susanville beardtongue	VASC	Plantaginaceae
Pentachaeta exilis subsp. aeolica	slender pentachaeta	VASC	Asteraceae
Perityle inyoensis	Inyo rock daisy	VASC	Asteraceae
Perityle villosa	Hanaupah rock daisy	VASC	Asteraceae
Petalonyx thurberi subsp. gilmanii	Death Valley sandpaper-plant	VASC	Loasaceae
Phacelia cookei	Cooke's phacelia	VASC	Boraginaceae
Phacelia greenei	Scott Valley phacelia	VASC	Boraginaceae
Phacelia insularis var. continentis	North Coast phacelia	VASC	Hydrophyllaceae
Phacelia inundata	playa phacelia	VASC	Boraginaceae
Phacelia inyoensis	Inyo phacelia	VASC	Boraginaceae
Phacelia leonis	Siskiyou phacelia	VASC	Boraginaceae
Phacelia monoensis	Mono County phacelia	VASC	Boraginaceae
Phacelia mustelina	Death Valley round-leaved phacelia	VASC	Boraginaceae
Phacelia nashiana	Charlotte's phacelia	VASC	Boraginaceae
Phacelia novenmillensis	Nine Mile Canyon phacelia	VASC	Boraginaceae
Phacelia parishii	Parish's phacelia	VASC	Boraginaceae
Phacelia perityloides var. jaegeri	Jaeger's phacelia	VASC	Hydrophyllaceae
Phacelia phacelioides	Mount Diablo phacelia	VASC	Boraginaceae
Phaeocollybia californica	California phaeocollybia	FUNG	Cortinariaceae
Phaeocollybia olivacea	olive phaeocollybia	FUNG	Cortinariaceae
Phaeocollybia spadicea	spadicea phaecollybia	FUNG	Cortinariaceae
Phlox hirsuta	Yreka phlox	VASC	Polemoniaceae
Pholisma sonorae	sand food	VASC	Boraginaceae
Pinus albicaulis	white bark pine	VASC	Pinaceae
Piperia candida	white-flowered rein orchid	VASC	Orchidaceae
Piperia yadonii	Yadon's rein orchid	VASC	Orchciaceae
	. 3.60 0 . 0 0 . 0.1116		2.2

FE	SE	1B.1			G1	S1							S		
FT	SE	1B.1			G2	S2	K						K		
	SR	1B.2			G2	S2				S				S	
		1B.3			G3	S3		K							
		1B.2			G2	S2					S				
		1B.1			G1	S1							S		
		1B.2			G4T2	S2							K		
		1B.2			G2	S2							<b>(</b>		
FT	SR	1B.2			G2	S2						K	S		
		1B.3			G5T3	S2					K				
	SE	1B.2			G5T2Q	S2							14		S
		1B.1			G2	S2					14		K		-
		2B.3			G4	S2			1/		K	1/			-
		1B.2			G3	S2			K			K			
		1B.1 1B.1			G2 G2T2O	S1			K			K K			
		1B.1 1B.3			G3T3Q G4T3	S1 S2			K						
		2B.2			G413	S1	K		N			K			
		1B.3			G4T2	S2	N								K
		1B.2			G2 G2	S2 S2							S		IX.
		1B.3			G2 G2	S2			K			K	3		-
		4.3	W	N1	G3	S3	S				K	K			
		1B.2	• • • • • • • • • • • • • • • • • • • •	141	G5T1	S1				K					
		1B.2			G2	S2				K				K	
		1B.3			G2	S2								S	
		1B.3			G5T2	S2			K					K	
		1B.1			G1	S1							S		
		1B.2			G2	S2							K		
		1B.2			G2T2	S2									S
		1B.3	W		G2	S2 (CA); S2? (NV)	S				K				
		1B.2			G2	S2				K					
		1B.3			G3	S3							S		
		1B.1	Т		G3	S2				K					
		1B.3			G2	S2								S	
		1B.2			G3	S3		K						K	
		1B.2			G3	S3		K						K	
		1B.1			G2G3	S1			K						
		1B.1			G4T2	S2						K			
		1B.2			G1	S1				K					
					G3	None							S		
					G3	None							S		
					G3G4	None							S		
FE	SE	1B.2			G1	S1							S		
		1B.2			G2	S2					K				
FP					G3	SNR		_		K					
		1B.3			G3	S3		S							
FE		1B.1			G1	S1				K					

Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	VASC	Boraginaceae
Plagiobothrys parishii	Parish's popcornflower	VASC	Boraginaceae
Plagiobothrys uncinatus	hooked popcorn-flower	VASC	Boraginaceae
Pleuropogon hooverianus	Hoover's semaphore grass	VASC	Poaceae
Poa diaboli	Diablo Canyon blue grass	VASC	Poaceae
Poa sierrae	Sierra blue grass	VASC	Poaceae
Polyctenium williamsiae	Williams's combleaf	VASC	Brassicaceae
Polygonum polygaloides subsp. esotericum	Modoc County knotweed	VASC	Polygonaceae
Potentilla basaltica	Black Rock potentilla	VASC	Rosaceae
Pseudobahia peirsonii	Tulare pseudobahia	VASC	Asteraceae
Ptilidium californicum	Pacific fuzzwort	BRYO	Ptilidiaceae
Puccinellia howellii	Howell's alkali-grass	VASC	Poaceae
Puccinellia parishii	Parish's alkali-grass	VASC	Poaceae
Puccinellia simplex	California alkali grass	VASC	Poaceae
Pyrrocoma lucida	sticky pyrrocoma	VASC	Asteraceae
Quercus dumosa	Nuttall's scrub oak	VASC	Fagaceae
Raillardella pringlei	showy raillardella	VASC	Asteraceae
Rhynchospora californica	California beaked-rush	VASC	Cyperaceae
Ribes canthariforme	Moreno currant, San Diego currant	VASC	Grossulariaceae
Ribes tularense	Sequoia gooseberry	VASC	Grossulariaceae
Rorippa columbiae	Columbia yellow cress	VASC	Brassicaceae
Rupertia hallii	Hall's rupertia	VASC	Fabaceae
Sabulina howellii	Howell's sandwort	VASC	Caryophyllaceae
Sabulina stolonifera	Scott Mtn. sandwort	VASC	Caryophyllaceae
Sagittaria sanfordii	Sanford's arrowhead	VASC	Alismataceae
Saltugilia latimeri	Latimer's woodland-gilia	VASC	Polemoniaceae
Salvia greatae	Orocopia sage	VASC	Lamiaceae
Sanicula saxatilis	rock sanicle	VASC	Apiaceae
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	VASC	Lamiaceae
Sedum albomarginatum	Feather River stonecrop	VASC	Crassulaceae
Sedum laxum subsp. eastwoodiae	Red Mountain stonecrop	VASC	Crassulaceae
Sedum paradisum subsp. paradisum	Canyon Creek stonecrop	VASC	Crassulaceae
Senecio clevelandii var. heterophyllus	Red Hills ragwort	VASC	Asteraceae
Sidalcea covillei	Owens Valley checkerbloom	VASC	Malvaceae
Sidalcea hickmanii subsp. anomala	Cuesta Pass checkerbloom	VASC	Malvaceae
Sidalcea hickmanii subsp. parishii	Parish's checkerbloom	VASC	Malvaceae
Sidalcea keckii	Keck's checkerbloom	VASC	Malvaceae
Sidalcea malviflora ssp. purpurea	purple-stemmed checkerbloom	VASC	Malvaceae
Sidalcea malviflora subsp. patula	Siskiyou checkerbloom	VASC	Malvaceae
Sidalcea oregana subsp. eximia	coast checkerbloom	VASC	Malvaceae
Sidalcea robusta	Butte County checkerbloom	VASC	Malvaceae
Silene bolanderi	Bolander's catchfly	VASC	Caryophyllaceae
Silene campanulata subsp. campanulata	Red Mountain catchfly	VASC	Caryophyllaceae
Silene occidentalis subsp. longistipitata	long-stiped campion	VASC	Caryophyllaceae
Smilax jamesii	English Peak greenbriar	VASC	Smilacaceae
Sowerbyella rhenana	stalked orange peel fungus	FUNG	Pyrenemataceae
Spathularia flavida	fairy fan	FUNG	Cudoniaceae
-1		. 55	55111d05d6

		1B.2			G3T1Q	S1					K									
		1B.1			G1	S1					S									
		1B.2			G2	S2			S											
	ST	1B.1			G2	S2		S												
		1B.2			G2	S2			S											
		1B.3			G3	S3								K						
		1B.2	T	CE	G2Q	S1 (CA); S2 (NV)	S			ا	K	S								
		1B.1			G4G5T3	S3	K													
FC		1B.3	T		G1	S1(CA); S1 (NV)	K													
FT	SE	1B.1			G1	S1			S											
		4.3			G3G4	S3?											S			
		1B.1			G1	S1											S			
		1B.1			G2G3	S1				S										
		1B.2			G3	S2			Κ										K	
		1B.2			G3	S3						K								
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		1B.1			G1	S1											S			J
		1B.3			G2	S2										S				
		1B.3			G2	S2			Κ											
		1B.2			G3	S1	S					S					S			
		1B.2			G2G3	S2S3											K			٦
		1B.3			G4	S2											S			٦
		1B.3			G2	S2											S			
		1B.2			G3	S3								K						
		1B.2			G3	S3				K					K	K		K		П
		1B.3			G2G3	S2S3							K		S	K				٦
	SR	1B.2			G2	S2					S									
		1B.2			G4T3	S3										S				
		1B.2			G2	S2											S			٦
		1B.2			G5T2	S2		K												
		1B.3			G4G5T2	S2											K			П
		1B.2			G4?T2Q	S2?								K						٦
	SE	1B.1			G2	S2					K									٦
		1B.2			G3T1	S1			S											٦
		1B.2			G3T1	S1										S				٦
FE		1B.1			G2	S2			K										K	٦
		1B.2			G5T1	S1													K	٦
		1B.2			G5T2	S2		S												٦
		1B.2			G5T1	S1		S												٦
		1B.2			G2	S2											K			٦
		1B.2			G4T4?	S2		K											K	٦
	SE	4.2			G5T3Q	S3		K											S	٦
		1B.2			G4T2Q	S2											S			٦
		1B.3			G2	S2											S			٦
					G3G5	None											S			٦
					G4G5	None											S			٦
																	-			_

Sphaeralcea rusbyi var. eremicola	Rusby's desert-mallow	VASC	Malvaceae
Stenotus lanuginosus var. lanuginosus	woolly stenotus	VASC	Asteraceae
Stipa exigua	little ricegrass	VASC	Poaceae
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	VASC	Brassicaceae
Streptanthus brachiatus subsp. brachiatus	Socrates Mine jewel-flower	VASC	Brassicaceae
Streptanthus brachiatus subsp. hoffmanii	Freed's jewel-flower	VASC	Brassicaceae
Streptanthus callistus	Mount Hamilton jewel-flower	VASC	Brassicaceae
Streptanthus campestris	southern jewel-flower	VASC	Brassicaceae
Streptanthus cordatus var. piutensis	Piute Mountains jewel-flower	VASC	Brassicaceae
Streptanthus glandulosus var. hoffmanii	Hoffmann's jewel-flower	VASC	Brassicaceae
Streptanthus hesperidis	green jewelflower	VASC	Brassicaceae
Streptanthus insignis ssp. lyonii	Arburua Ranch jewelflower	VASC	Brassicaceae
Streptanthus morrisonii subsp. elatus	Three Peaks jewel-flower	VASC	Brassicaceae
Streptanthus morrisonii subsp. hirtiflorus	Dorr's Cabin jewel-flower	VASC	Brassicaceae
Streptanthus morrisonii subsp. kruckebergii	Kruckeberg's jewel-flower	VASC	Brassicaceae
Streptanthus morrisonii subsp. morrisonii	Morrison's jewel-flower	VASC	Brassicaceae
Streptanthus oliganthus	Masonic Mountain jewel-flower	VASC	Brassicaceae
Streptanthus vernalis	early jewel-flower	VASC	Brassicaceae
Stylocline citroleum	oil neststraw	VASC	Asteraceae
Stylocline masonii	Mason neststraw	VASC	Asteraceae
Sulcaria isidiifera	splitting yarn lichen	LICH	Alectoriaceae
Symphyotrichum defoliatum	San Bernardino aster	VASC	Asteraceae
Symphyotrichum greatae	Greata's aster	VASC	Asteraceae
Tetracoccus dioicus	Parry's tetracoccus	VASC	Euphorbiaceae
Thelypodium howellii ssp. howellii	Howell's thelypodium	VASC	Brassicaceae
Thermopsis californica var. semota	velvety false lupine	VASC	Fabaceae
Thysanocarpus rigidus	Ridge Fringepod	VASC	Brassicaceae
Tortula californica	California screw-moss	BRYO	Pottiaceae
Tracyina rostrata	beaked tracyina	VASC	Asteraceae
Trifolium buckwestiorum	Santa Cruz clover	VASC	Fabaceae
Trifolium jokerstii	Butte County golden clover	VASC	Fabaceae
Trifolium kingii subsp. dedeckerae	DeDecker's clover	VASC	Fabaceae
Trifolium polyodon	Pacific Grove clover	VASC	Fabaceae
Trifolium siskiyouense	Siskiyou clover	VASC	Fabaceae
Triteleia ixioides ssp. cookii	Cook's triteleia	VASC	Themidaceae
Triteleia piutensis	Piute Mountains triteleia	VASC	Themidaceae
Tropidocarpum californicum	Kings gold	VASC	Brassicaceae
Vaccinium shastense subsp. shastense	Shasta huckleberry	VASC	Ericaceae
Verbena californica	Red Hills vervain	VASC	Verbenaceae
Viola pinetorum ssp. grisea	grey-leaved violet	VASC	Violaceae
Wyethia reticulata	El Dorado mule ears	VASC	Asteraceae
Xylorhiza cognata	Mecca-aster	VASC	Asteraceae
Xylorhiza orcuttii	Orcutt's woody aster	VASC	Asteraceae
Yucca brevifolia	Western joshua tree	VASC	Agavaceae
Zeltnera namophila	spring-loving centaury	VASC	Gentianaceae
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	1B.2			G4T2	S2							K				
	2B.2			G5T3	S3	K										
	2B.3			G5	S2	K				Κ						
	1B.2			G2T2	S2		K									
	1B.2			G2T1	S1											K
	1B.2			G2T2	S2											K
	1B.3			G1G2	S1S2				9	5						
	1B.3			G3	S3			K			S		S			
	1B.2			G5T1	S1		K								K	
	1B.3			G4TH	SH											S
	1B.2			G2	S2											K
	1B.2			G3G4T2	S2				9	5						
	1B.2			G2T2	S2											K
	1B.2			G2T1	S1											S
	1B.2			G2T1	S1											K
	1B.2			G2T2	S2											K
	1B.2	W		G2G3	S2				K							
	1B.2			G1	S1											K
	1B.1			G2	S2		K									
	1B.1			G1	S1		S									
	1B.1			G1	S1		S									
	1B.2			G2	S2						S		K			
	1B.3			G3	S3		S						S			
	1B.2			G3?	S2								K			
	1B.2			G2T2	S2	S				K						
	1B.2			G4T2	S2						S					
	1B.2			G1G2	S1S2						S					
	1B.2			G2G3	S2S3	S	S									
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	1B.1			G2	S2				ŀ	<b>(</b>						
	1B.2			G2	S2					`				K		
	1B.3			G2	S2		S								K	
SR	1B.1			G1	S1				ŀ	<b>(</b>					IX.	
311	1B.1			GH	SH					`				S		
	1B.3			G5T2T3	S2S3		K									
	1B.1			G31213	S1		K									
	1B.1			G1	S1		K									
	1B.3			G3	S3		K							K		
FT ST	1B.1			G2	S2							K				
11 31	1B.1			G4G5T3	S3							IX			K	
	1B.2			G4G513	S2							K		—		
	1B.2			G2 G2	S2 S2							N	K	—	—	
											V		K			
	1B.2			G2G3	S2		17	17	I/		K		1/		V	
SC		_	C.	G3	C2 (No. 1-1-)		K		K				K		K	
FT		Т	CE	G2Q	S2 (Nevada)			K								

Plant Type: BRYO = Bryophyte; FUNG = Fundstachment Lichen; VASC = Vascular plant; Fed Status: FE = Federall Federal Listing; FD = Federally Delisted. State of California (CA) Status: SE = State Endangered; ST = State Threatener Plants rare, threatened, or endangered in CA and elsewhere; 2 = Plants rare, threatened, or endangered in CA, but most watch list. Decimals following the CA Rare Plant Rank Numbers: x.1 = Seriously endangered in CA; x.2 = Fairly end State of Nevada (NV) Status: CE = Critically Endangered; CE# = Proposed for Critically Endangered. Global and State global range; G-ranks are used for species as a whole, T-ranks for subspecies; the State (S) Rank is assigned by the State http://www.natureserve.org/explorer/ranking.htm#interpret. K or S under BLM field offices: K = Known to occur of Type: BRYO = Bryophyte; FUNG = Fungus; LICH = Lichen; VASC = Vascular plant; Fed Status: FE = Federally Endaltisting; FD = Federally Delisted. State of California (CA) Status: SE = State Endangered; ST = State Threatened; SR = threatened, or endangered in CA and elsewhere; 2 = Plants rare, threatened, or endangered in CA, but more common Decimals following the CA Rare Plant Rank Numbers: x.1 = Seriously endangered in CA; x.2 = Fairly endangered in (NV) Status: CE = Critically Endangered; CE# = Proposed for Critically Endangered. Global and State Rank: The GG-ranks are used for species as a whole, T-ranks for subspecies; the State (S) Rank is assigned by the State Heritage P www.natureserve.org/explorer/ranking.htm#interpret. K or S under BLM field offices: K = Known to occur on BLM www.natureserve.org/explorer/ranking.htm#interpret. K or S under BLM field offices: K = Known to occur on BLM

y Endangered; FD = Federally Delisted; FT = Federally Threatened; FC = Federal Candidate; FP = Proposed for ed; SR = State Rare; SC = State Candidate. California Rare Plant Rank: 1A = Plants presumed extinct in CA; 1B = ore common elsewhere; 3 = Plants about which more Information is needed; 4 = Plants of limited distribution – a dangered in CA; x.3 = Not very endangered in CA. Nevada Native Plant Society (NNPS) Status: W = Watch List. It Rank: The Global Rank is assigned by NatureServe and reflects the overall condition of the element throughout its the Heritage Program and reflects the overall condition of the element within a State. Code meanings can be found at: In BLM lands managed by that field office; S = Suspected to occur on BLM lands managed by that field office. Plant angered; FD = Federally Delisted; FT = Federally Threatened; FC = Federal Candidate; FP = Proposed for Federal State Rare; SC = State Candidate. California Rare Plant Rank: 1A = Plants presumed extinct in CA; 1B = Plants rare, In elsewhere; 3 = Plants about which more Information is needed; 4 = Plants of limited distribution – a watch list. CA; x.3 = Not very endangered in CA. Nevada Native Plant Society (NNPS) Status: W = Watch List. State of Nevada lobal Rank is assigned by NatureServe and reflects the overall condition of the element throughout its global range; rogram and reflects the overall condition of the element within a State. Code meanings can be found at: http://

FIELD OFFICE		COMMON NAME	SCIENTIFIC NAME	FEDERAL STATE STATUS STATUS
		Owens pupfish	Cyprinodon radiosus	FE SE
		Owens speckled dace	Rhinichthys osculus ssp. 2	
		Owens tui chub	Siphateles bicolor snyderi	FE SE
Eagle Lake		20 Species		
	Mammal			
		Fringed myotis	Myotis thysanodes	
		Long-eared myotis	Myotis evotis	
		Pacific fisher	Martes pennanti (pacifica) DPS	FC SC
		Pallid bat	Antrozous pallidus	
		Pygmy rabbit	Brachylagus idahoensis	
		Small-footed myotis	Myotis ciliolabrum	
		Townsend's big-eared bat	Corynorhinus townsendii	
		Yuma myotis	Myotis yumanensis	
	Bird			
		Bald eagle	Haliaeetus leucocephalus	FD SE
		Bank swallow	Riparia riparia	ST
		Burrowing owl	Athene cunicularia	
		California spotted owl	Strix occidentalis occidentalis	
		Golden eagle	Aquila chrysaetos	
		Greater sage-grouse	Centrocercus urophasianus	FC
		Greater sandhill crane	Grus canadensis tabida	ST
		Northern goshawk	Accipiter gentilis	
		Swainson's hawk	Buteo swainsoni	ST
		Tricolored blackbird	Agelaius tricolor	
	Reptile			
		California mountain kingsnake	Lampropeltis zonata	
		Northern sagebrush lizard	Sceloporus graciosus graciosus	
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Federal Status: FE = Federally Endangered, FT = Federally Threatened, FC = Federal Candidate, FP = Proposed for Federal Listing, FD = Delisted from Federal ESA; State Status: SE = State Endange SC = State Candidate, SD = Delisted from State ESA; Other Status: EA = Bald and Golden Eagle Protection Act, SF = Fully Protected, SSC = Species of Special Concern

September-23-14

BLM OTHER
STATUS STATUS
SF
BLMS

BLMS BLMS BLMS SSC BLMS SSC  $\operatorname{BLMS}$ BLMS BLMS SSC BLMS BLMS EΑ BLMS BLMS SSC SSC BLMS  $\operatorname{BLMS}$ EΑ  $\operatorname{BLMS}$ SSC SF BLMS  $\operatorname{BLMS}$ SSC **BLMS** BLMS SSC

ered, ST = State Threatened,

BLMS BLMS

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# Attachment C

Potential for Special-Status Species to Occur in the Study Area

Scientific Nam
Common Nam
Plants
<i>Abronia alpina</i> Ramshaw meadows abro
Abronia nana var. covillle Coville's dwarf abronia
Agrostis humilis mountain bent grass
Aliciella triodon coyote gilia
Allium atrorubens var. atı Great Basin onion
Arabis repanda var. greer Greene's rockcress



Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreation Plan Area | October 2023

ie/ ie¹	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
-			
nia	//1B.1/USFS	A perennial herb found in granitic, gravelly and sandy margins of meadows and seeps from 2,400 – 2,700 meters elevation. Known from only Ramshaw Meadows and Templeton Meadows. Blooms July – August (CNPS 2023).	Will not occur. The Study Area is outside of this species known range.
i	//4.2/USFS	A perennial herb found on carbonate or sandy soils in Great Basin scrub, Joshua tree woodland, subalpine and upper montane coniferous forest, and pinyon-juniper woodland from 1,524 – 3,100 meters elevation. Blooms May – August (CNPS 2023).	May occur. Suitable habitat is present for this species in the Study Area and this species is known to occur in Inyo County (CNPS 2023).
	//2B.3	A perennial herb found in alpine boulder and rock fields, meadows, seeps, and subalpine coniferous forest from 2,670 – 3,200 meters elevation. May be synonymous with <i>A. thurberiana</i> , a common species. Blooms July – September (CNPS 2023).	Will not occur. The Study Area is outside of this species known range.
	//2B.2	An annual herb found in Great Basin scrub and pinyon-juniper woodland from 610 – 1,700 meters elevation. Blooms April – June (CNPS 2023).	May occur. Suitable habitat is present for this species in the Study Area and this species is known to occur in Inyo County (CNPS 2023).
rorubens	//2B.3	A perennial bulbiferous herb found on rocky or sandy soils in Great Basin scrub and pinyon-juniper woodland from 1,200 – 2,315 meters elevation. Blooms May – June (CNPS 2023).	May occur. Suitable habitat is present for this species in the Study Area and this species is known to occur in Inyo County (CNPS 2023).
nei	//3.3	A perennial herb found in talus and granitic rocky or sandy sites in upper montane- and subalpine coniferous forest from 2,345 – 3,600 meters elevation. Taxonomic status is uncertain; synonymous with <i>Boechera repanda</i> in Baldwin <i>et al.</i> (2012). Blooms June – August (CNPS 2023).	May occur. Suitable habitat is present for this species in the Study Area and this species is known to occur in Inyo County (CNPS 2023).

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Astragalus argophyllus var. argophyllus silver-leaved milk-vetch	//2B.2/BLM	A perennial herb found in saline or alkaline meadows, seeps, and playas from 1,240 – 2,350 meters elevation. Blooms May – July (CNPS 2023).	May occur. S for this spec this species County (CNF
Astragalus cimae var. sufflatus Inflated Cima milk-vetch	//1B.3/BLM, USFS	A perennial herb found on rocky carbonate soils in Great Basin scrub and pinyon-juniper woodland from 1,500 – 2,075 meters elevation. Currently known from only 7 extant occurrences in the Saline Valley area. Blooms April – June (CNPS 2023).	May occur. S for this species this species County (CNF
Astragalus johannis-howellii Long Valley milk-vetch	/SR/1B.2/BLM, USFS	A perennial herb found in sandy Great Basin scrub and pinyon-juniper woodland from 2,040 – 2,530 meters elevation. Blooms June – August (CNPS 2023).	May occur. S for this spec this species County (CNF
Astragalus kentrophyta var. danaus Sweetwater Mountains milk-vetch	//4.3/USFS	A perennial herb found in rocky alpine boulder fields and subalpine coniferous forest from 3,000 3,660 meters elevation. Blooms June - August (CNPS 2023).	Will not occ below the el species.
Astragalus lemmonii Lemmon's milk-vetch	//1B.2/USFS	A perennial herb found in Great Basin scrub, meadows, seeps, and lake shores from 1,007 – 2,200 meters elevation. Blooms May – August (September) (CNPS 2023).	May occur. S for this spec this species County (CNF
Astragalus lentiginosus var. kernensis Kern Plateau milk-vetch	//1B.2/USFS	A perennial herb found on sandy meadows, seeps in subalpine coniferous forest from 2,240 – 2,750 meters elevation. Blooms June – July (CNPS 2023).	Will not occ below the el species.
Astragalus lentiginosus var. piscinensis Fish Slough milk-vetch	FT//1B.1/BLM	A perennial herb found on alkaline playas from 1,130 – 1,300 meters elevation. Currently known only from Fish Slough. Blooms June – July (CNPS 2023).	May occur. S for this spec this species County (CNF
Astragalus monoensis Mono milk-vetch	/SR/1B.2/BLM, USFS	A perennial herb found on pumice, gravel, or sandy substrates in Great Basin scrub and upper montane coniferous forest from 2,110 –	May occur. for this spec this species County (CNF



ion Plan Area | October 2023

#### ential to Occur<sup>3</sup>

tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

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C-2

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreate

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
		3,355 meters elevation. Blooms June – August (CNPS 2023).	
Astragalus oophorus var. lavinii Lavin's milk-vetch	//1B.2/BLM	A perennial herb found in Great Basin scrub and pinyon and juniper woodland from 2,450 – 3,050 meters elevation. Blooms June (CNPS 2023).	Will not occu outside of th
Astragalus pseudiodanthus Tonopah milk-vetch	//1B.2/BLM	A perennial herb found on Great Basin scrub (stabilized dunes) from 2,025 – 2,075 meters elevation. Blooms May – June (CNPS 2023).	Will not occu
Astragalus pulsiferae var. pulsiferae Pulsifer's milk-vetch	//1B.2/BLM	A perennial herb found on granitic soils in lower montane coniferous forest, pinyon-juniper woodland, and Great Basin scrub from 1,300 – 1,800 meters elevation. Blooms March – September (CNPS 2023).	Will not occu outside of th
Astragalus ravenii Raven's milk-vetch	//1B.3/USFS	A perennial herb found on gravelly soil in alpine boulder and rock field, and upper montane coniferous forest from 3,355 – 3,460 meters elevation. Blooms July – September (CNPS 2023).	Will not occubelow the elespecies.
Astragalus webberi Webber's milk-vetch	//1B.2/BLM	A perennial herb found in broad-leafed upland forest, meadows and seeps, and lower montane coniferous forest from 731 – 1,250 meters elevation. Blooms May – July (CNPS 2023).	Will not occu
Boechera bodiensis Bodie Hills rockcress	//2B.3/BLM, USFS	A perennial herb found on sandy soils in Great Basin scrub and pinyon-juniper woodland from 1,375 – 3,105 meters elevation. Blooms June – July (CNPS 2023).	May occur. S for this spec this species i County (CNP
Boechera dispar pinyon rockcress	//1B.3	A perennial herb found on gravelly granitic soils in Joshua tree woodland, pinyon-juniper woodland, and Mojavean desert scrub from 1,200 – 2,540 meters elevation. Blooms March – June (CNPS 2023).	May occur. S for this spec this species County (CNP



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area is is species known range. **Ir.** The Study Area is is species known range. ır. The Study Area is is species known range. ır. The Study Area is evational range of this **Ir.** The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).

C-3

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Boechera evadens Hidden rockcress	//1B.3/USFS	A perennial herb found in upper montane coniferous forest from 2,560 – 2,855 meters elevation. Blooms May – August (CNPS 2023).	Will not occ outside of t
Boechera pinzlieae Pinzl's rockcress	//1B.3/USFS	A perennial herb found in alpine boulder and rock fields and on scree or sandy soils in subalpine coniferous forest from 3,000 – 3,350 meters elevation. Blooms in July (CNPS 2023).	Will not occ below the e species.
Boechera shockleyi Shockley's rockcress	//2B.2/USFS	A perennial herb found on rocky or gravelly soils derived from carbonate or quartzite substrates in pinyon-juniper woodland from 875 – 2,310 meters elevation. Blooms May – June (CNPS 2023).	May occur. for this spec this species County (CNI
Boechera tiehmii Tiehm's rockcress	//1B.3/USFS	A perennial herb found in granitic alpine boulder and rock fields from 2,970 – 3,590 meters elevation. Blooms July – August (CNPS 2023).	Will not occ below the e species.
Boechera tularensis Tulare rockcress	//1B.3, USFS	A perennial herb found on rocky slopes, sometimes roadsides, in subalpine coniferous forest and upper montane coniferous forest from 1,825 – 3,350 meters elevation. Blooms (May) June – July (August) (CNPS 2023).	May occur. for this spec this species County (CNI
Botrychium ascendens upswept moonwort	//2B.3/USFS	A perennial non-flowering plant (pteridophyte) found in mesic lower montane coniferous forest and meadows and seeps from 1,115 – 3,045 meters elevation. Reproduces (June) July – August (CNPS 2023).	May occur. for this spec this species County (CNI
Botrychium crenulatum scalloped moonwort	//2B.2/USFS	A perennial rhizomatous non-flowering plant (pteridophyte) found in bogs, fens, lower and upper montane coniferous forest, meadows and seeps, freshwater marshes, and swamps from 1,258 – 3,280 meters elevation.  Reproduces June – September (CNPS 2023).	May occur. for this species this species County (CN
Botrychium lineare slender moonwort	//1B.1/USFS	A perennial herb found in disturbed areas in subalpine forest, upper montane coniferous	Will not occount outside of t



ion Plan Area | October 2023

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tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

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tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

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C-4

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/				
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot	
		forest, meadows, and seeps from 2,560 – 2,600 meters elevation. No blooming period (CNPS 2023).		
Botrychium lunaria (=neolunaria) common moonwort	//2B.3/USFS	A perennial rhizomatous herb found in subalpine forest, upper montane coniferous forest, meadows and seeps from 1,980 to 3,400 meters elevation. Reproduces in August (CNPS 2023).	Will not occu outside of th	
Botrychium minganense mingan moonwort	//4.2/USFS	A perennial rhizomatous non-flowering plant (pteridophyte) found in mesic conditions in bogs and fens, meadow and seep edges, and lower and upper montane coniferous forests from 1,455 – 2,180 meters elevation.  Reproduces July – September (CNPS 2023).	Will not occu outside of th	
Botrychium paradoxum paradox moonwort	//2B.1/USFS	A perennial rhizomatous herb found in limestone and marble alpine boulder and rock fields, and moist upper montane coniferous forest from 1740 – 4200 meters elevation.  Reproduces in August (CNPS 2023)	Will not occur outside of th	
Botrychium tunux moosewort	//2B.1/USFS	A perennial rhizomatous herb found on calcareous soils, in alpine boulder rock fields above 3,600 meters elevation. Reproduces August – September (CNPS 2023).	Will not occu outside of th and below it	
<i>Bruchia bolanderi</i> Bolander's bruchia	//4.2/USFS	A moss found on damp soil in meadows, seeps, and lower- and upper montane coniferous forests from 1,700 – 2,800 meters elevation.  No bloom period (CNPS 2023).	Will not occuouside of the	
Calochortus excavatus Inyo County star-tulip	//1B.1/BLM, USFS	A perennial bulbiferous herb found in mesic, alkaline microsites in chenopod scrub, meadows, and seeps from 1,150 – 2,000 meters elevation. Widely distributed throughout the Owens and Chalfant Valleys. Blooms April – July (CNPS 2023).	May occur. S for this speci this species i County (CNP	



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area is is species known range. ır. The Study Area is is species known range. ır. The Study Area is is species known range. ır. The Study Area is is species known range s elevational range. ır. The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). C-5

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Calyptridium pygmaeum pygmy pussypaws	//1B.2/USFS	An annual herb on sandy or gravelly soil in subalpine coniferous forests and upper montane coniferous forest from 1,980 – 3,110 meters elevation. Blooms June – August (CNPS 2023).	Will not occ outside of the
Carex scirpoidea ssp. pseudoscirpoidea western single-spiked sedge	//2B.2	A perennial rhizomatous herb found in mesic, often carbonate, microsites in alpine boulder and rock fields, subalpine coniferous forest, meadows, and seeps from 2,990 – 3,700 meters elevation. Blooms July and September (CNPS 2023).	Will not occ below the el species.
Carex tiogana Tioga Pass sedge	//1B.3/USFS	A perennial herb found on mesic soils in meadows and seeps around lake margins from 3,100 – 3,300 meters elevation. Bloom July – August (CNPS 2023).	Will not occ below the el species.
Chaetadelpha wheeleri Wheeler's dune-broom	//2B.2	A perennial rhizomatous herb that is found in sandy substrates within desert dunes, Great Basin scrub, and Mojavean desert scrub from 795 – 1900 meters above msl. Blooms April – September (CNPS 2023).	May occur. S for this spec this species County (CNP
Cladium californicum California saw-grass	//2B.2/USFS	A perennial rhizomatous herb found in meadows, seeps, and alkaline marshes from 60 – 1,600 meters elevation. Blooms June – September (CNPS 2023).	Will not occ outside of th
Crepis runcinata fiddleleaf hawksbeard	//2B.2	A perennial herb found in mesic, alkaline microsites in Mojavean desert scrub and pinyon- juniper woodland from 1,250 – 2,195 meters elevation. Blooms May – August (CNPS 2023).	May occur. S for this spec this species County (CNP
Cordylanthus eremicus ssp. kernensis Kern Plateau bird's beak	//1B.3/USFS	An annual hemiparasitic herb found in Great Basin scrub, Joshua tree woodland, pinyon-juniper woodland, and upper montane coniferous forest from 1,675 – 3,000 meters	Will not occ outside of th



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area is is species known range. **Ir.** The Study Area is evational range of this **Ir.** The Study Area is evational range of this uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). **Ir.** The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). **Ir.** The Study Area is is species known range.

C-6

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
		elevation. Blooms (May) July – September (CNPS 2023).	
Cryptantha circumscissa var. rosulata Rosette cushion cryptantha	//1B.2/USFS	An annual herb found on granitic or rocky soils in alpine boulder fields and subalpine coniferous forests from 2,950 – 3,660 meters elevation. Blooms July – August (CNPS 2023).	Will not occ outside of th
Cryptantha incana Tulare cryptantha	//1B.3/USFS	An annual herb found on gravelly or rocky soils in lower montane coniferous forests from 1,430 – 2,150 meters elevation. Blooms June – August (CNPS 2023).	Will not occ outside of th
Cusickiella quadricostata Bodie Hills cusickiella	//1B.2/BLM	A perennial herb found on clay, rocky soils in Great Basin scrub and pinyon and juniper woodland from 2,000 – 2,800 meters elevation. Blooms May – July (CNPS 2023).	Will not occo
Dedeckera eurekensis July gold	/SR/1B.3/BLM, USFS	A moss found on carbonate soils in Mojavean desert scrub from 1,215 -2,200 meters elevation (CNPS 2023).	May occur. S for this spec this species County (CNP
Delphinium inopinum unexpectged larkspur	//4.3/USFS	A perennial herb found on metamorphic, rocky soils in upper montane coniferous forest from 1,890 – 2,800 meters elevation. Blooms May – July (CNPS 2023).	May occur. for this species this species County (CNF
Dermatocarpon meiophyllizum Silverskin lichen	//2B.3	An aquatic foliose lichen found in aquatic habitats in coastal prairie, lower and upper montane coniferous forest, North Coast coniferous forest and subalpine coniferous forest from 295 – 3,495 meters elevation (CNPS 2023).	Will not occ outside of th
Draba asterophora var. asterophora Tahoe draba	//1B,2/USFS	A perennial herb found in alpine boulder and rock field, and subalpine coniferous forest from 2,500 – 3,505 meters elevation.  Blooms July – August (September) (CNPS 2023).	Will not occ outside of the



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 C-7

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>			
<i>Draba cruciata</i> Mineral King draba	//1B.3/USFS	A perennial herb found on gravelly soils in subalpine coniferous forest from 2,500 – 3,315 meters elevation. Blooms June – August (CNPS 2023).	Will not occountside of t
<i>Draba incrassata</i> Sweetwater Mountains draba	USFS	A perennial stoloniferous herb found on rhyolitic talus in alpine boulder and rock fields from 2,500 – 3,965 meters elevation. Blooms July – August (CNPS 2023).	Will not occ outside of the
<i>Draba lonchocarpa</i> spear-fruited draba	//2B.3	A perennial herb found on scree derived from carbonate substrates within alpine boulder and rock fields from 3,000 – 3,295 meters above msl. Blooms June – July (CNPS 2023).	Will not occ below the e species.
<i>Draba monoensis</i> White Mountains draba	//1B.2/USFS	A perennial herb found in alpine boulder and rock fields, and meadows and seeps from 3,000 – 3,960 meters elevation. Blooms August (CNPS 2023).	Will not occ below the e species.
<i>Draba sharsmithii</i> Mt. Whitney draba	//1B.3/USFS	A perennial herb found in alpine boulder and rock fields, and subalpine coniferous forests from 3,300 – 3,960 meters elevation. Blooms July – August (CNPS 2023).	Will not occ below the e species.
<i>Draba sierrae</i> Sierra draba	//1B.3	A perennial herb found on granitic or carbonate soils in alpine boulder and rock fields from 3,500 – 4,265 meters elevation. Blooms (May) June – August (CNPS 2023).	Will not occ below the e species.
Elodium (=Helodium) blandowii Blandow's bog moss	//2B.2/USFS	A moss occurring in damp soil in meadows and seeps, and subalpine coniferous forest from 1,862 – 2,700 meters elevation. (CNPS 2023)	Will not occ outside of the
Elymus salina Salina Pass wild-rye	//2B.3	A perennial rhizomatous herb found on rocky soils in pinyon-juniper woodland from 1,350 – 2,135 meters elevation. Blooms May – June (CNPS 2023).	May occur. for this species this species County (CNI
<i>Epilobium palustre</i> marsh willowherb	//2B.3	A perennial rhizomatous herb in bogs, fens, and mesic meadows and seeps. No specified elevation. Blooms July – August. Known in CA	Will not occourside of the



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ential to Occur <sup>3</sup>					
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<b>Ir.</b> The Study Area is is species known range.					

C-8

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreati

Scientific Name/	2	Habitat, Ecology and Life History	
Common Name <sup>1</sup>	Status <sup>2</sup>		Pot
		only from Grass Lake (ELD Co.) and Willow Lake (PLU Co.) (CNPS 2023).	
Ericameria gilmanii Gilman's goldenbush	//1B.3/USFS	A perennial shrub found rocky carbonate or granitic soils in subalpine coniferous forest and upper montane coniferous forest from 2,100 – 3,400 meters elevation. Blooms August – September (CNPS 2023).	May occur. S for this spec this species i County (CNP
Erigeron calvus Bald daisy	//1B.1/BLM	A perennial herb found in Great Basin scrub at 1,200 meters elevation. Blooms March – July (CNPS 2023).	Will not occu outside of th and the Stud elevational r
Erigeron aequifolius Hall's daisy	//1B.3/BLM, USFS	An perennial rhizomatous herb found on rocky, granitic soils in broadleaf forests, lower montane coniferous forests, pinyon and juniper woodlands, and upper montane coniferous forests from 1,500 – 2,440 meters elevation. Blooms June – August (CNPS 2023).	Will not occ outside of th
<i>Erigeron multiceps</i> Kern RIver daisy	//1B.2/USFS	A perennial herb found in meadows, seeps and openings in upper montane coniferous forests from 1,500 – 2,535 meters elevation. Known only from the Kern Plateau. Blooms June – September (CNPS 2023).	Will not occ outside of th
Erigeron uncialis var. uncialis Limestone daisy	//1B.2/USFS	A perennial herb found on carbonate substrates in Great Basin scrub, pinyon-juniper woodland, and subalpine coniferous forest from 1,900 – 2,900 meters elevation. Blooms May – July (CNPS 2023).	May occur. for this species this species County (CNF
Eriogonum alexanderae Alexander's buckwheat	//1B.1/BLM	A perennial herb found in shale or gravelly microsites in Great Basin scrub, and pinyon-juniper woodland at 2,895 meters elevation.  Blooms March – July (CNPS 2023).	Will not occ outside of th and the Stud elevational i
Eriogonum eremicola Wildrose Canyon buckwheat	//1B.3/BLM	An annual herb found on sandy or gravelly soils in upper montane coniferous forest and pinyon-juniper woodland from 2,200 – 3,100	Will not occ outside of the



on Plan Area | October 2023 ential to Occur<sup>3</sup> itable habitat is present s in the Study Area and known to occur in Inyo 2023). r. The Study Area is s species known range Area is above the nge of this species. r. The Study Area is s species known range. r. The Study Area is s species known range. itable habitat is present s in the Study Area and known to occur in Inyo 2023). r. The Study Area is s species known range Area is below the nge of this species. r. The Study Area is s species known range.

C-9

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
		meters elevation. Blooms June – September (CNPS 2023).	
<i>Eriogonum meniscola</i> Pinyon Mesa buckwheat	//1B.3/BLM	A perennial herb found in rocky or gravelly microsites in Great Basin scrub, pinyon-juniper woodland, upper montane coniferous forest from 1,800 – 2,805 meters elevation. Blooms July – September (CNPS 2023).	May occur. for this spec this species County (CN
Erigonum microthecum var. panamintense Panamint Mountains buckwheat	//1B.3/BLM	A perennial deciduous shrub found in rocky microsites in pinyon-juniper woodland and subalpine coniferous forest from 1,890 – 3,250 meters elevation. Blooms June – October (CNPS 2023).	May occur. for this spec this species County (CN
<i>Eriogonum wrightii</i> var. <i>olanchense</i> Olancha Peak buckwheat	//1B.3/USFS	A perennial herb found in rocky or gravelly microsites in alpine boulder and rock field, subalpine coniferous forest from 3,260 – 3,535 meters elevation. Blooms July – September (CNPS 2023).	Will not occ outside of the and the Stu- elevational
Fimbristylis thermalis Hot springs fimbristylis	//2B.3	A perennial rhizomatous herb found in alkaline microsites near hot springs from 110 – 1,340 meters elevation. Blooms July – September (CNPS 2023).	May occur. for this species this species County (CNI
<i>Hesperidanthus jaegeri</i> Jaeger's hesperidanthus	//1B.2/BLM, USFS	A perennial herb found in carbonate rocky microsites in Great Basin scrub, pinyon-juniper woodland, and subalpine coniferous forest from 2,135 – 2,800 meters elevation. Known only from the Inyo Mountains. Blooms May – July (CNPS 2023).	May occur. for this species this species County (CNI
Horkelia hispidula White Mountains horkelia	//1B.3/USFS	A perennial herb found in alpine dwarf scrub, Great Basin scrub, and subalpine coniferous forest from 3,000 – 3,400 meters elevation.  Blooms July – August (CNPS 2023).	Will not occ outside of t and the Stu elevational
Hulsea brevifolia Short-leaved hulsea	//1B.2/USFS	A perennial herb on granitic, volcanic or sandy soil in lower montane coniferous forest, and upper montane coniferous forest from 1,500 –	Will not occourside of t



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Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name		3,200 meters elevation. Blooms May – August	
		(CNPS 2023).	
Hulsea vestita ssp. inyoensis Inyo hulsea	//2B.2	A perennial herb found on rocky soils in chenopod scrub, Great Basin scrub, and pinyon-juniper woodland from 1,645 – 3,000 meters elevation. Blooms April – June (CNPS 2023).	May occur. for this species this species County (CNI
Ivesia kingii var. kingii alkali ivesia	//2B.2/BLM	A perennial herb found on mesic, alkaline, clay soils in Great Basin scrub, meadows, seeps, and playas from 1,200 – 2,130 meters elevation.  Known from the Chalfant, Long, and northern Owens valleys. Blooms May – August (CNPS 2023).	May occur. for this species this species County (CN
Loeflingia squarrosa var. artemisiarum sagebrush loeflingia	//2B.2/BLM	An annual herb found on sandy soils in Great Basin scrub and Sonoran desert scrub, and on desert dunes, from 700 – 1,615 meters elevation. Blooms April – May (CNPS 2023).	May occur. for this species this species County (CNI
<i>Lupinus duranii</i> Mono Lake lupine	//1B.2/BLM, USFS	A perennial herb found on volcanic pumice and gravel in Great Basin scrub, upper montane coniferous forest, and subalpine coniferous forest from 2,000 – 3,000 meters elevation.  Blooms May – August (CNPS 2023).	Not expected present for Area however known to or present in N
Lupinus lepidus var. culbertsonii Hocket Meadows lupine	//1B.3/USFS	A perennial herb found in meadows, seeps, and mesic, rocky soils in upper montane coniferous forests from 2,440 – 3,000 meters elevation. Blooms July – August (CNPS 2023).	Will not occountside of t
Lupinus magnificus var. hesperius McGee Meadows lupine	//1B.3/BLM	A perennial herb found on sandy soils in Great Basin scrub and upper montane coniferous forest from 1,260 – 1,830 meters elevation. Blooms April – June (CNPS 2023).	May occur. for this species this species County (CNI
Lupinus magnificus var. magnificus Panamint Mountains lupine	//1B.2/BLM	A perennial herb found in Mojavean desert scrub, Great Basin scrub, pinyon-juniper woodland, and upper montane coniferous	Not expected present for Area however known to o



ion Plan Area | October 2023

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uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).

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Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>		forest from 1,000 – 2,545 meters elevation.	limited to th
		Blooms April – June (July) (CNPS 2023).	(CNPS 2023)
Lupinus padre-crowleyi Father Crowley's lupine	/SR/1B.2/USFS	A perennial herb found on decomposed granite substrates in Great Basin scrub, riparian scrub, riparian forest, and upper montane coniferous forest from 2,200 – 4,000 meters elevation.  Blooms June – August (CNPS 2023).	May occur. for this spec this species County (CNI
<i>Meesia uliginosa</i> Broad-nerved humpmoss	//2B.2/USFS	A moss found in damp soil in bogs and fens, meadows and seeps, subalpine forest and upper montane coniferous forest from 1,210 – 2,804 meters elevation. No blooming period (CNPS 2023).	Will not occ outside of th
Mentzelia inyoensis Inyo blazing star	//1B.1/BLM, USFS	A perennial herb found on rocky, sometimes carbonate, soils in Great Basin scrub and pinyon-juniper woodland from 1,158 – 1,980 meters elevation. Blooms April – October (CNPS 2023).	May occur. for this species this species County (CNI
Mentzelia torreyi Torrey's blazing star	//2B.2	A perennial herb found on alkaline sandy or rocky, usually volcanic, soils Great Basin scrub, Mojavean desert scrub, and pinyon-juniper woodland from 1,170 – 2,835 meters elevation. Blooms June – August (CNPS 2023).	May occur. for this species this species County (CNF
<i>Monardella beneolens</i> Sweet-smelling monardella	//1B.3/USFS	A perennial rhizomatous herb found on granitic soils in alpine boulder fields and rock fields, subalpine coniferous forest, and upper montane coniferous forest from 2,475 – 3,500 meters elevation. Blooms June – September (CNPS 2023).	Will not occ outside of th
Myurella julacea small mousetail moss	//2B.3	A moss found on damp rock and soil in alpine boulder and rock fields, and subalpine coniferous forest from 2,700 – 3,000 meters elevation. No blooming period (CNPS 2023).	Will not occ below the e species and present for
Oreocarya roosiorum Bristlecone cryptantha	/SR/1B.2/BLM	A perennial herb found on rocky carbonate soils in subalpine coniferous forest 2,440 –	May occur. for this spec



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tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

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Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>			
		3,230 meters elevation. Known only from the Mazourka Peak area in the Inyo Mountains. Blooms June – July (CNPS 2023).	this species County (CN
Oryctes nevadensis Nevada oryctes	//2B.1	An annual herb found on sandy soils in chenopod scrub and Mojavean desert scrub from 1,100 – 2,535 meters elevation. Widely distributed in the Owens Valley. Blooms April – June (CNPS 2023).	May occur. for this spe this species County (CN
Packera indecora rayless mountain ragwort	//2B.2	A perennial herb found in mesic meadows and seeps from 1,600 – 2,000 meters elevation. Blooms July – August (CNPS 2023).	Will not occourside of t
Parnassia parviflora small-flowered grass-of-parnassus	//2B.2	A perennial herb found on mesic soils in meadows and seeps from 2,000 – 2,855 meters elevation. Blooms August – September (CNPS 2023).	May occur. for this species this species County (CN
Peltigera gowardi Veined water lichen	//4.2/USFS	A foliose aquatic lichen found in riparian forest from 1,065 – 2,620 meters elevation. No bloom period (CNPS 2023).	Will not occourside of t
Perityle inyoensis Inyo rock daisy	//1B.2/BLM	A perennial herb found on rocky carbonate soils in Great Basin scrub and pinyon-juniper woodland from 1,800 – 2,710 meters elevation. Known from the southern Inyo and Coso Mountains. Blooms June – August (CNPS 2023).	May occur. for this spe this species County (CN
Petrophytum caespitosum ssp. acuminatum marble rockmat	//1B.3/USFS	A perennial evergreen shrub on carbonate or granitic, rocky soils in lower- and upper montane coniferous forests from 1,015 – 2,300 meters elevation. Blooms August – September (CNPS 2023).	May occur. for this specthis species County (CN
Phacelia inyoensis Inyo phacelia	//1B.2/BLM, USFS	An annual herb found in alkaline meadows and seeps from 915 – 3,200 meters elevation. Widely distributed throughout the Owens, Chalfant, and Long valleys. Blooms April – August (CNPS 2023).	May occur. for this spe this species County (CN



ion Plan Area | October 2023

#### ential to Occur<sup>3</sup>

s known to occur in Inyo S 2023).

tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

Ir. The Study Area is is species known range.

suitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).

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tuitable habitat is present es in the Study Area and is known to occur in Inyo S 2023).

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Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Phacelia monoensis Mono County phacelia	//1B.1/BLM, USFS	An annual herb found on clay soils, often on roadsides, in Great Basin scrub and pinyon-juniper woodland from 1,900 – 2,900 meters elevation. Blooms May – July (CNPS 2023).	Will not occ outside of the
Phacelia novenmillensis Nine Mile Canyon phacelia	//1B.2/BLM, USFS	An annual herb found in broadleaved upland forest, cismontane woodland, upper montane coniferous forest, and pinyon-juniper woodland from 1,645 – 2,640 meters elevation. Blooms May – June (CNPS 2023).	Will not occ outside of th
Pinus albicaulis White bark pine	FP///BLM	A gymnosperm found in red fir coniferous forest and subalpine forests to timberline from 2,000 – 3,700 meters elevation. No bloom period (CNPS 2023).	May occur. for this species this species County (CNI
Plagiobothrys parishii Parish's popcornflower	//1B.1/BLM, USFS	An annual herb found in mesic alkaline microsites in Great Basin scrub and Joshua tree woodland from 750 – 1,400 meters elevation. Widely distributed in Owens Valley. Blooms March – June (November) (CNPS 2023).	May occur. for this spec this species County (CNI
<i>Poa lettermanii</i> Letterman's blue grass	//2B.3	A perennial herb found on sandy or rocky soils in alpine boulder and rock fields from 3,500 – 4,265 meters elevation. Blooms July – August (CNPS 2023).	Will not occ below the e species.
Pohlia tundrae tundra thread moss	//2B.3	A moss found on gravelly, damp soil in alpine boulder and rock fields from 2,700 – 3,000 meters elevation. No blooming period (CNPS 2023).	will not occ below the e species and present for
Polemonium chartaceum Mason's sky pilot	//1B.3/USFS	A perennial herb found on rocky serpentine, granitic, or volcanic soils in alpine boulder and rock fields and subalpine coniferous forest from 3,290 – 4,270 meters elevation. Blooms June – August (CNPS 2023).	Will not occ below the e species.
Polyctenium williamsiae William's combleaf	//1B.2/BLM, USFS	A perennial herb found in Great Basin scrub, marshes, swamps, pinyon and juniper woodland, playas and vernal pools from 1,347	Will not occountside of t



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area is is species known range. ır. The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). ır. The Study Area is evational range of this **Ir.** The Study Area is evational range of this uitable habitat is not his species. **Ir.** The Study Area is evational range of this **Ir.** The Study Area is is species known range. C-14

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
		- 2,700 meters elevation. Blooms March – July (CNPS 2023).	
Potamogeton robbinsii Robbins' pondweed	//2B.3	A perennial, aquatic rhizomatous herb found in deep water, lakes, marshes and swamps from 1,530 – 3,300 meters elevation. Blooms July – August (CNPS 2023).	Will not occ not provide habitat for t
Potentilla morefieldii Morefield's cinquefoil	//1B.3/USFS	A perennial herb found on carbonate substrates in alpine boulder and rock fields from 3,265 – 4,000 meters elevation. Blooms July – September (CNPS 2023).	Will not occ below the el species.
Ranunculus hydrocharoides frog's-bit buttercup	//2B.1	A perennial aquatic herb found in freshwater marshes and swamps from 1,100 – 2,700 meters elevation. Blooms (May) June – September (CNPS 2023).	May occur. S for this spec this species County (CNF
Sabulina stricta bog sandwort	//2B.3	A perennial herb found in alpine boulder and rock fields, alpine dwarf scrub, and meadows, and seeps from 2,440 – 3,960 meters elevation. Blooms July – September (CNPS 2023).	May occur. S for this spec this species County (CNF
<i>Sarcobatus baileyi</i> Bailey's greasewood	//2B.3	A perennial deciduous shrub found in alkaline microsites in dry lakes, washes, and roadsides in chenopod scrub from 1,500 – 1,600 meters elevation. Known from the Fish Lake Valley and the Coso Range. Blooms April – July (CNPS 2023).	May occur. S for this species this species County (CNF
Senecio pattersonensis Mount Patterson senecio	//1B.3/USFS	A perennial herb found in alpine boulder and rock fields from 2,900 – 3,720 meters elevation. Blooms July – September (CNPS 2023).	Will not occ outside of th
Sidalcea covillei Owens Valley checkerbloom	/SE/1B.1/BLM	A perennial herb found in mesic alkaline microsites in chenopod scrub, meadows, and seeps from 1,095 – 1,415 meters elevation. Widely distributed throughout Owens Valley. Blooms April – June (CNPS 2023).	May occur. S for this spec this species County (CNF



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area does deep water marsh nis species. **Ir.** The Study Area is evational range of this uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). **Ir.** The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
Solorina spongiosa fringed chocolate chip lichen	//2B.2	A crustose lichen found on moss mats in carbonate substrates at seeps in subalpine coniferous forest. No elevation range specified. Known from 1 location on Mount Thompson. No blooming period (CNPS 2023).	Will not occu outside of th and subalpin not present.
Streptanthus gracilis alpine jewel-flower	//1B.3/ USFS	An annual herb found on rocky or granitic rocky soils in subalpine coniferous forest and upper montane coniferous forest from 2,800 – 3,500 meters elevation. Blooms July – August (CNPS 2023).	Will not occu outside of th
Streptanthus oliganthus Masonic Mountain jewel-flower	//1B.2/BLM, USFS	A perennial herb found on rocky volcanic or granitic rocky soils in pinyon-juniper woodland from 1,980 – 3,050 meters elevation. Blooms June – July (CNPS 2023).	Will not occi outside of th
Thelypodium integrifolium ssp. complanatum foxtail thelypodium	//2B.2	An annual or perennial herb found in alkaline or subalkaline mesic microsites in seeps and Great Basin scrub from 1,100 – 2,500 meters elevation. Widely distributed in the northern Owens Valley and Long Valley. Blooms June – October (CNPS 2023).	May occur. S for this speci this species i County (CNP
Tonestus peirsonii Peirson's tonestus	//4.3	A perennial rhizomatous herb found on alpine boulder and subalpine coniferous forest in rocky areas from 2,900 – 3,700 meters elevation. Blooms in July – August (CNPS 2023).	Will not occubelow the elesters.
Trichophorum pumilum little bulrush	//2B.2	A perennial rhizomatous herb found on carbonate substrates on riverbanks, bogs, fens, marshes, swamps, and riparian scrub from 2,860 – 3,250 meters elevation. Blooms in August (CNPS 2023).	Will not occubelow the elespecies.
<i>Trifolium dedeckerae</i> Dedecker's clover	//1B.3/BLM, USFS	A perennial herb found on granitic and rocky soils in lower montane coniferous forest, pinyon juniper woodland, subalpine coniferous forest, and upper montane coniferous forest,	May occur. S for this species i this species i County (CNP



ion Plan Area | October 2023 ential to Occur<sup>3</sup> **Ir.** The Study Area is is species known range, e coniferous forests are **Ir.** The Study Area is is species known range. **Ir.** The Study Area is is species known range. uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023). **Ir.** The Study Area is evational range of this **Ir.** The Study Area is evational range of this uitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
		from 2,100 – 3,500 meters elevation. Blooms in May – July (CNPS 2023).	
Triglochin palustris marsh arrow-grass	//2B.3	A perennial rhizomatous herb found in mesic microsites in meadows, seeps, marshes, and subalpine coniferous forests, and freshwater marshes and swamps from 2,285 – 3,700 meters elevation. Blooms July – August (CNPS 2023).	May occur for this spe this species County (CN
Viola pinetorum ssp. grisea grey-leaved violet	//1B.2/BLM	A perennial herb found in meadows, seeps, subalpine coniferous forests, and upper montane coniferous forests from 1,500 – 3,400 meters elevation. Blooms April – July (CNPS 2023).	May occur. for this spe this species County (CN
<i>Yucca brevifolia</i> Western Joshua tree	/SC//BLM	A tree that occurs in desert flats and slopes from 400 – 2,300 meters elevation. Blooms from March – May (eFlora 2023).	May occur. for this spe known to o
Animals			
Invertebrates			
Bombus crotchii crotch bumble bee	/SCE/	Crotch bumble bees occur in grassland and scrub habitats (California Department of Fish and Wildlife [CDFW] 2019). New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (CDFW 2019). This species is a generalist forager and has been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; food plants include Asclepias spp., Antirrhinum spp., Clarkia spp., Eschscholzia spp., Eriogonum spp., Chaenactis spp., Lupinus spp., Medicago spp., Phacelia spp., and Salvia spp. (Koch et al. 2012). The flight period for queens in California is from February to October. New queens hibernate over the winter and initiate a new colony the	May occur for this spe records in t species in t County (CD



ion Plan Area   October 2023
ential to Occur <sup>3</sup>
suitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).
cuitable habitat is present es in the Study Area and s known to occur in Inyo S 2023).
uitable habitat is present es, and this species is cur in Inyo County.
euitable habitat is present es in the Study Area and e CNDDB document this e Mono County and Inyo W 2023).

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name-		following spring (CDFW 2019). Rare throughout	
		its range and in decline in the Central Valley	
		and southern California (CDFW 2019).	
		The federal listing on December 17, 2020, was	
		for overwintering populations of Monarch	
		butterflies that roost in wind protected tree	
		groves, especially with <i>Eucalyptus</i> sp., and	
		species of pine or cypress with nectar and	,
		water sources nearby. Winter roost sites	Present. The
		extend along the coast from Mendocino	narrow-leaf
		County to Baja California. As caterpillars,	along Pine C
		monarchs feed exclusively on the leaves of	2023. Adult
Danaus plexippus pop. 1	FC//	milkweed (Asclepias sp.) (Nial et al. 2019 and	also observe
monarch butterfly		USFWS 2020). Monarch butterfly migration	along Pine C
		routes pass east over the Sierra Nevada in the	determined
		fall and back to the California coast in the	Study Area a
		spring (USFWS 2020). The overwintering	present in o
		population is located along the Coast while	is also prese
		summer breeding areas occur in interior	
		California and North America with spring	
		breeding areas located further east (USFWS	
		2020).	
Euphydryas editha monoensis		Occurs in pinyon-juniper woodland, meadows,	May occur.
Mono Lake checkerspot butterfly	//USFS	mountain slopes on the east slope of the Sierra	the known r
Mono Lake encokerspot batterny		Nevada and western edge of the Great Basin.	
Plebulina emigdionis		Occurs in the western and southwestern	Will not occ
San Emigdio blue butterfly	//USFS	margins of the Mojave Desert.	outside of th
Jan Emigaio blue butterny		,	species.
		Found in escarpments of the White and Inyo	Will not occ
Pyrgulopsis owensensis	//USFS	Mountains along the east side of Owens Valley.	outside of th
Owen's Valley springsnail		This species occurs in small springs (Furnish	species.
Duraulancia wanai		2007).	·
Pyrgulopsis wongi	//USFS	Found in perennial springs, seeps and spring- runs in the Inyo National Forest along the	May occur. the known r
Wong's springsnail		Turis in the myo wational Forest along the	True known r



on Plan Area   October 2023		
ential to Occur <sup>3</sup>		
larval host plant, nilkweed was observed eek Road in August nonarch butterflies were I near the milkweed eek. This species was to be present in the nd can be assumed to be ner localities if milkweed t.		
he Study Area is within nge of this species.		
r. The Study Area is e known range of this		
r. The Study Area is known range of this		
he Study Area is within nge of this species, and		

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
Common Name-		western side of the Owens Valley (Furnish	this species of
		2007).	seeps.
Speyeria nokomis apacheana Apache silverspot butterfly	//USFS	Occurs in small habitat patches in seeps, springs, and riparian habitats of the central and western Great Basin (USFWS 2021).	May occur. T
Fishes			
Catostomus fumeiventris Owens sucker	//SSC	Large (15 cm) fish common throughout the Owens River and Bishop Creek systems. Found in streams with long reaches, few riffles, and fine substrates with few cobbles, and found in lakes near the bottom, regardless of depth (Moyle et al. 2015).	May occur. T the Owens R occur in the O tributaries, p area.
Cyprinodon nevadensis amargosae Amargosa River pupfish	//BLM	This species is limited to the Amargosa River watershed in Inyo County (Moyle et al. 2015).	Will not occu outside of th species.
Cyprinodon radiosus Owens pupfish	FE/SE/	A small fish (< 2.5 inches in length) that is currently known from 4 locations: Fish Slough, Mule Springs, well 368, and Warm Springs (USFWS 2009a). This species congregates in small schools, feeds mostly on aquatic insects, and spawns over soft substrates in the spring and summer. Non-native predators such as bass, brown trout, and bluegill pose a serious threat to this species (USFWS 2009a).	Will not occu outside of th species.
Oncorhynchus clarkia seleniris Paiute cutthroat trout	FT//	This subspecies of cutthroat trout is limited to 11.5 miles of stream habitat in the Silver King Creek basin, which is tributary to the East Fork Carson River. This species native range occurs entirely upstream of Llewellyn Falls along Silver King Creek and all accessible tributaries. This inland trout species has been introduced into several other lakes and streams in California and has at least four self-sustaining populations that have been established outside	Will not occu outside of th species, whice Creek, a tribu Carson River populations a County, but a Study Area (6



on Plan Area | October 2023 ential to Occur<sup>3</sup> ould occur in springs and ne Study Area is within nge of this species. nis species is limited to ver watershed and could wens River and its rticularly in the Bishop r. The Study Area is known range of this r. The Study Area is known range of this r. The Study Area is known range of this n is limited to Silver King tary to the East Fork However, transplanted re present in Inyo re not present in the DFW 2023).

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Ро
Common Name-		the historic range, which includes North Fork	
		Cottonwood Creek and Cabin Creek in Inyo	
		County (USFWS 2004). Inhabits cold waters of	
		alpine lakes and streams. This species is	
		sensitive to the presence of other salmonids	
		and requires gravel riffles in streams for	
		spawning.	
		Occur in cold, clear alpine streams in the	
		southern Sierra Nevada above 2,300 meters	
		elevation. This species is endemic to the South	Will not occ
		Fork Kern River and its tributary streams. This	outside of th
Oncorhynchus mykiss aguabonita	//SSC/USFS	species as also been broadly transplanted	species, and
California golden trout	, , , , , , , , , , , ,	outside of its historic range throughout the	the Kern Riv
		Sierra Nevada and the Rocky Mountains,	is widely pla
		where it has hybridized with rainbow trout	agencies acı
		(Moyle et al. 2015).	
		The Owens speckled dace has been extirpated	
		from a majority of its historic range; however,	
		three populations remain: in Fish Slough,	
		Round Valley, and in irrigation ditches in and	
		near the City of Bishop. Known to occupy a	
		variety of habitats, ranging from small cold	
		water streams to hot-spring systems, although	May occur.
Rhinichthys osculus ssp. 2		they are rarely found in water exceeding 29°C.	the Owens F
Owens speckled dace	//SSC	They currently persist at two Long Valley sites	occur in the
owens speckied date		(Whitmore Hot Springs and Little Alkali Lake),	tributaries,
		one East Fork Owens River site near Benton (a	area.
		spring on Mathieu Ranch/Lower Marble	
		Creek), and live sites in the northern Owens	
		Valley (North McNally Ditch, North Fork Bishop	
		Creek, irrigation ditch in north Bishop, Lower	
		Horton Creek, and Lower Pine and Rock creeks)	
Cinhatalas hisalar san saudari		(Moyle et al. 1995).	Mayacci
Siphateles bicolor ssp. snyderi	FE/SE/	An endemic fish (1.5 -18 cm) to the Owens	May occur.
Owens tui chub		Basin that inhabits clear, slow-moving water	the Owens



ion Plan Area   October 2023
ential to Occur <sup>3</sup>
r. The Study Area is e known range of this this species is limited to r drainage. This species ated by resources less the Sierra Nevada.
his species is limited to
ver watershed and could Dwens River and its articularly in the Bishop
his species is limited to
ver watershed and could
C-20

Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
Common Name <sup>1</sup>	Status	Tiabitat, Leology and the History	
		with aquatic vegetation and cover. Spawning	occur in the
		occurs in late winter to early summer, usually	tributaries.
		over gravel or aquatic vegetation (USFWS	
		2009b). Presumed extirpated in the wild or	
		genetically swamped by hybridization with	
		exotic Lahontan tui chub (USFWS 1998).	
		Currently restricted to six isolated sites, all of	
		which have been artificially created or altered	
		and include: Little Hot Creek Pond, Hot Creek	
		Headwaters, Sotcher Lake, Upper Owens	
		Gorge, White Mountain Research Station, and	
		Mule Spring (USFWS 2009b).	
Amphibians			
		A high elevation toad that breeds in wet	
		meadows and snowmelt pools from 1,460 –	Not expecte
	FT//SSC/USFS	3,360 m. This species has a maximum known	expected to but could oc portions of t west.
Anaxyrus canorus		upland movement of 1.09 miles from breeding	
Yosemite toad		ponds. In uplands, springheads and seeps are	
		important upland habitat for this species. They	
		also utilize ground cover, such as mammal	
		burrows, logs, rocks (USFWS 2014).	
		This species occurs in springs, water courses,	Will not occu
Anaxyrus exsul	/ST/FP/BLM, USFS	marshes, and wet meadows between the	outside of th
black toad	, 51, 11, 52111, 5313	White Mountains and the Inyo Mountains in	species.
		Deep Springs Valley (Zeiner et al. 1990).	- 12
		This species is limited to canyons of the Inyo	
Batrachoseps campi		Mountains. This species is associated with	Will not occi
Inyo Mountain salamander	//SSC/BLM, USFS	freshwater seeps and springs in steep walled	outside of th
,		canyons and boulder strewn canyons (Zeiner et	species.
		al. 1990).	
		Inhabits massive rock areas in mixed conifer,	May occur. S
Hydromantes platycephalus	, ,	red fir, lodgepole pine, and subalpine habitats	in the Study
Mount Lyell salamander	//SSC	from 1,260 – 3,640 meters above msl. This	to semi-pern
		species only occurs in the Sierra Nevada range	present, such
		from Placer County south to Tulare County and	its tributarie



on Plan Area   October 2023
ntial to Occur <sup>3</sup>
wens River and its
. This species is not
ccur in the Study Area
ur in higher elevation
e Study Area to the
The Study Area is
known range of this
The Study Area is
known range of this
itable habitat is present
rea where permanent anent aquatic habitat is
as the Owens River and
C-21

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Ро
Common Name		an isolated population in Sierra County	
		(Jennings and Hayes 1994).	
Lithobates pipiens Northern leopard frog	//SSC	A highly aquatic frog that is found near quiet, permanent and semi-permanent water in many habitats from sea level to 2,130 meters above msl. Native range of this species is east of the Sierra Nevada – Cascade Crest, other occurrences in California are introduced. Species requires shoreline cover, submerged/emergent aquatic vegetation for cover and reproduction, which occurs from December to June. Home range is unknown, most adults likely move less than 12 meters, but make unpredictable and potentially extensive movements during or immediately following warm rains (Zeiner et al. 1990).	May occur. in the Study to semi-per present, suc its tributario
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	FE/ST//USFS	A high elevation frog that requires permanent water bodies that do not freeze solid over winter, which may include lakes, streams, tarns, perennial plunge pools in intermittent streams. Aquatic habitat for overwintering must be a minimum of 5.6 feet, but 8.2 feet or deeper or other habitat structures is preferred to avoid freezing conditions (USFWS 2016). Tadpoles require two years to develop, so water bodies that do not freeze solid or dry up during normal years are essential (USFWS 2016). This species has a maximum known upland movement of 82 feet from streams and up to 984 feet between water bodies around lakes (USFWS 2016).	May occur. in the Study species occur the Study A aquatic hab present in t the Study A habitats.
Rana muscosa Mountain yellow-legged frog (Northern California DPS)	FE/SE/	Southern mountain yellow-legged frog has historically inhabited rocky and shaded streams on desert and coastal slopes from 370 to 2,290 m (1,200 to 7,500 ft) in elevation, with	Will not occourside of the species.



ion Plan Area   October 2023
ential to Occur <sup>3</sup>
uitable habitat is present Area where permanent anent aquatic habitat is as the Owens River and
uitable habitat is present Area for this species. This is further to the west in the in high elevation thats. Critical habitat is the western boundaries of the in high elevation
r. The Study Area is e known range of this
C-22

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Ро
		cool waters originating from springs and	
		snowmelt. Individuals are most often found in	
		creeks with permanent water in at least some	
		portion of the reach. Mountain yellow-legged	
		frogs seem to be absent from the smallest	
		creeks, probably because these have	
		insufficient depth for adequate refuge and	
		overwintering habitat. Pools usually had some	
		type of structure that could function as refugia	
		such as bank overhangs, rocks, and downfall	
		logs or branches (USFWS 2012).	
Reptiles			
		The Panamint alligator lizard occurs only in	
		Inyo and southeastern Mono counties. It has	Not expecte
		been found in the White and Inyo mountains	present for
Elgaria panamintina	//SSC/BLM	to the north and west and in the Panamint	Area; how
Panamint alligator lizard		range to the south and east. Elevations range	known to oc
Tanariire aingator nzara		from 960-2290 m. Found near permanent	and White N
		water in canyons, damp gullies, and rocky	of the Study
		areas near dense vegetation (Zeiner et al.	or the study
		1990).	
		Occurs in sagebrush and other shrubland	
Sceloporus graciosus graciosus	,	dominated habitats with open space for	May occur.
Northern sagebrush lizard	//BLM	basking. This species occurs in the Great Basin	species is pr
		east of the Sierra Nevada and in the northeast	Study Area.
		corner of California (Stebbins 2003).	
Birds		Tarris de la companya della companya della companya de la companya de la companya della companya	T
Accipiter gentilis Northern goshawk		Nests and forages in mature and old-growth	May occur.
		forest stands in a broad range of conifer and	species is pr
	/ /000/0144 ::===	coniferous hardwood types, including Pacific	Study Area,
	//SSC/BLM, USFS	Ponderosa, Jeffrey and lodgepole pine, mixed	located in th
		conifer, firs, and pinyon-juniper with relatively	portions of
		dense canopies. May also forage in meadow	mature and
		edges and open sagebrush. Nesting and	present.



ion Plan Area   October 2023
ential to Occur <sup>3</sup>
I. Suitable habitat is also species in the Study er, this species is only ur in the Panamint, Inyo countains east and south Area.
uitable habitat for this sent throughout the
uitable habitat for this sent throughout the vith suitable habitat higher elevation se Study Area where ense forests are
C-23

Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>	314143	Tidestat, Ecology and End these,	
		fledgling period: March 1 – August 15 (Woodbridge and Hargis 2006).	
Aquila chrysaetos Golden eagle	//FP/BLM	Typically occurs in rolling foothills, mountain areas, deserts and other open habitats up to 3,822 meters elevation. Typically nests on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).	May occur. S species is pro Study Area.
Athene cunicularia Burrowing owl	//SSC/BLM	Forages in grasslands, agricultural fields, and disturbed places where burrowing mammals are abundant with low and sparse vegetation. Nests in burrows, especially those of California ground squirrel ( <i>Otospermophilus beecheyi</i> ) but will use other refuge sites (Shuford and Gardali 2008). In the Central Valley of California, most foraging occurs within a 600-m radius of the nest (Gervais et al. 2003).	May occur. S species is pro Study Area.
Buteo swainsoni Swainson's hawk	/ST//BLM	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Nests on large trees in open riparian habitat, scattered trees or small groves of trees in open areas (CDFW 1994).	May occur. S species is pro Study Area, located in the portions of t
Centrocercus urophasianus Greater sage-grouse	/SC/SSC/BLM, USFS	This species is found in sagebrush, perennial grassland, wet meadow, bitterbrush and alkali desert habitats in northeastern California from the Oregon border to Inyo County. Found in sagebrush during winter and spring, and meadows in summer (Zeiner et al. 1990).	May occur. S species is pro Study Area, located in the portions of t
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FT/SE//BLM, USFS	Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California. Frequents valley foothill and desert riparian	May occur. S for this spec occur nestin



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ential to Occur <sup>3</sup>
uitable habitat for this sent throughout the
uitable habitat for this sent throughout the
uitable habitat for this sent throughout the with suitable habitat lower elevation e Study Area.
uitable habitat for this sent throughout the vith suitable habitat lower elevation e Study Area.
uitable habitat is present es and this species could along drainages with
C-24

Scientific Name/	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>	Status	nabitat, Ecology and Life history	Pu
		habitats. Inhabits open woodlands with clearings, and riparian habitats with dense understory foliage along slow-moving drainages, backwaters, or seeps. Prefers dense willows for roosting but will use adjacent orchard in the Sacramento Valley. Typically requires expansive riparian habitat for nesting (Zeiner et al. 1990).	riparian hab River or Pin
<i>Empidonax traillii</i> willow flycatcher	/SE//USFS	Nests in expansive montane riparian or wet meadows in shrubs, typically willows up to 10 feet high. Forages in willow thickets or in adjacent meadows (Zeiner et al. 1990).  Typically found nesting between 600 – 2,500 m amsl (Zeiner et al. 1990).	May occur. for this spec occur nestin riparian hab
Empidonax traillii extimus southwestern willow flycatcher	FE/SE/	Nests in dense riparian habitats in southwestern North America. Forages within and above the riparian canopy, along the patch edge, in openings within the territory, above water, and glean from tall trees and herbaceous ground cover (USFWS 2002).  Typically found below 8,500 feet above msl.	May occur. for this spec occur nestin riparian hab
Falco mexiccanus Prairie falcon	//WL	An uncommon permanent resident of the deserts, Central Valley, inner Coast Ranges, and Sierra Nevada in California. Primarily found in grasslands, rangelands, desert scrub, and some agricultural areas. Requires sheltered cliffs and ledges for cover. Dives from a perch or from flight to take prey on the ground (Zeiner et al. 1990).	May occur. species is pr Study Area, located alor rocky habita
Haliaeetus leucocephalus Bald eagle	/SE/FP/BLM, USFS	Requires large bodies of water with an abundant fish population. Feeds on fish, carrion, small mammals, and water-fowl. Nests are usually located within a 1-mile radius of water. Nests are most often situated in large	May occur. species is pr with suitabl one mile of



ion Plan Area | October 2023 ential to Occur<sup>3</sup> tat, such as the Owens Creek. uitable habitat is present es and this species could g along drainages with uitable habitat is present es and this species could g along drainages with tat. uitable habitat for this esent throughout the with nesting habitat g cliffs and other steep uitable habitat for this esent in the Study Area, habitat located within arge bodies of water.

Scientific Name/			_
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
		trees with a commanding view of the area	
		(Zeiner et al. 1990).	
Riparia riparia Bank swallow	/ST//BLM	Found primarily in riparian and lowland habitat in California. Nests in colonies along cliffs or steep riverbanks in holes. In California, a majority of the population is situated along the Sacramento River and the Feather River. Other smaller populations persist near Monterey and north of Shasta counties (Zeiner et al. 1990).	May occur. S species is pre where steep are present.
Strix nebulosa Great gray owl	/SE//USFS	Lives in mixed conifer or red fir forest in or on the edge of meadows. Requires large diameter snags (greater than 60 cm in diameter) in a forest with a high canopy closure which provide a cool sub-canopy microclimate. Snags include conifers and oaks (Wu et al. 2015). They typically use larger quality meadow habitat areas of at least 25 acres (Beck and Winter 2000) and select territories by the abundance of prey. Nests tend to be within 250 m of quality meadow habitat at higher elevations (above 1,800 m amsl). At lower elevations, it was documented that nearly a third of nests were greater than 750 m from meadows (at elevations from 700 m – 1,500 m), and likely not associated with meadows (Wu et al. 2015).	Will not occu outside of th species, whic with the wes higher elevat
Strix occidentalis occidentalis California spotted owl	FPT//SSC/FSS, BLMS	Lives in old-growth coniferous forests and rocky canyons. Prefers late seral-stage forests with large, old trees, multiple canopy layers, and downed woody debris. In the Sierra Nevada it uses Sierran mixed conifer forests at mid-elevations (Shuford and Gardali 2008). At lower elevations it inhabits ponderosa pine forests and blue oak-gray pine woodlands and valley foothill riparian forests (Shuford and	Will not occu outside of th species, whic with the wes higher elevat



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ential to Occur <sup>3</sup>
uitable habitat for this sent in the Study Area, slopes with friable soils
r. The Study Area is known range of this n is typically associated ern Sierra Nevada or on habitats.
r. The Study Area is known range of this n is typically associated ern Sierra Nevada or on habitats.
C-26

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Vireo bellii pusillus Least Bell's vireo	FE/SE/	Gardali 2008). At higher elevations, this species occupies red fir forests at high elevations (Shuford and Gardali 2008). Nests in tree cavities, broken-topped trees, and platforms, such as old raptor or squirrel nests. Does not build own nest (Zeiner et al. 1990).  Is an obligate riparian species during the breeding season that prefers early successional habitat (USFWS 1998). Typically found in structurally diverse habitat such as cottonwood-willow forests, oak woodlands, and mule fat scrub (USFWS 1998) that generally contains both canopy and shrub layers and includes some associated upland habitat. This species will winter in arroyos that contain mesquite scrub habitat and are not limited to willow dominated habitats. Previously considered to be limited to southern California, recent account of this species with successful breeding in Salinas Valley and in Yolo County show that this species is expanding back into its former range (CDFW 2023).	Will not occoutside of to species, who to be south
Mammals			
Antrozous pallidus pallid bat	//SSC/BLM	Occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet (Bolster, ed. 1998). This species is very sensitive to disturbance of roosting sites. Common roost sites are rock crevices, old buildings, bridges caves, mines, and hollow trees (Bolster, ed. 1998).	May occur. species is pr primarily in abundant.
Brachylagus idahoensis Pygmy rabbit	//BLM, USFS	This species is found in sagebrush, bitterbrush and pinyon-juniper woodlands in the Great	Not expected



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ential to Occur <sup>3</sup>
r. The Study Area is known range of this n is typically considered n California.
uitable habitat for this sent in the Study Area, ocky outcrops, which are
. Suitable habitat is is species, however the
C-27

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/	Ct.tur?	Habitat Facilities of the History	0.0	
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot	
		Basin of Modoc, Lassen and Mono counties (Zeiner et al. 1990).	Study Area i species rang the Study Ar unlikely to o	
Corynorhinus townsendii Townsend's big-eared bat	//SSC/BLM	Widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetle and other insects which it catches on the wing or by gleaning from vegetation. Typically found near water since it is poor at concentrating its urine. This species uses caves, mines, tunnels, buildings and human made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner et al. 1990).	May occur. species is pr primarily in tunnels are	
Euderma maculatum Spotted bat	//SSC/BLM	Occurs in deserts, grasslands and mixed coniferous forests up to 10,000 feet. Forages over water or close to the ground primarily on moths. Prefers to roost in rocky cliffs with crevices but may also use caves or buildings. This species also forages and roosts individually but may on occasion roost in groups. Spotted bat is considered to be one of the rarest mammals in North America (Zeiner et al. 1990).	May occur. species is pr primarily in with crevice	
<i>Gulo gulo</i> California wolverine	FPT/ST/FP/USFS	Found in alpine, subalpine and riparian habitats in remote areas with low levels of human use. In the Sierra Nevada may also use red fir, mixed conifer and lodgepole forests, typically above 1,311 m amsl in areas that typically support deep snow through May in most years (Spencer and Rustigian-Romsos 2012). Dens in caves, cliffs, log hollows and/or burrows (Zeiner et al. 1990). Considered to be	Not expected present alor the Study Alareas. This so in California known to red However, in dispersing the control of the cont	



ion Plan Area | October 2023 ential to Occur<sup>3</sup> on the edge of this e, which occurs north of ea and this species is ccur in the Study Area. uitable habitat for this esent in the Study Area, reas where caves or resent. uitable habitat for this esent in the Study Area, reas where rocky cliffs are present. d. Suitable habitat is g the western extent of ea in high elevations ecies is extremely rare and is currently not produce in California. lividuals could occur rough the Study Area. C-28

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreated

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
		extirpated from California (Moriarity et al. 2009). Recent wolverine detections were determined to be dispersers from Idaho (Moriarity et al. 2009).	
Lepus townsendii townsendii western white-tailed jackrabbit	//SSC	An uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada, primarily from the Oregon border south to Tulare and Inyo counties. Preferred habitats include sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland. Found in open areas with scattered shrubs and exposed flat-topped ridges above 2600 meters. Open meadows and flat-topped hills with open stands of trees, some brush, and herbaceous understory are preferred for summer feeding. Young or stunted conifers, or shrubs, are required for day-time cover.  Winters are spent in areas with sagebrush, or in thickets of young trees (Zeiner et al. 1990).	May occur. species is pr Study Area.
<i>Martes caurina</i> Pacific marten	//USFS	Coniferous and mixed conifer forests with more than 40% canopy closure typically from 1,350 – 3,200 m amsl (Zielinski 2014). Requires old growth forests that consist primarily of fir and lodgepole pines with cavities for nesting and denning (Zielinski 2014). Will also den under logs in the snow and form snow tunnels. Active year round, and typically avoids open areas with no canopy cover, but will forage in meadows, riparian areas and along streams (Zielinski 2014). Capable of traveling up to 15 miles in a single night while foraging (Zeiner et al. 1990). When traveling, marten typically moves along ridgetops.	Not expected present along the Study Along areas where forests are punlikely to roccur dispendence area especial



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ential to Occur <sup>3</sup>			
uitable habitat for this			
sent throughout the			
. Suitable habitat is			
the western extent of a in high elevations			
lense and mature			
esent. This species is produce in the Study			
r, individuals could			
ng through the Study			
y in riparian areas.			
C-29			

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/			
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
<i>Microtus californicus vallicola</i> Owens Valley vole	//SSC/BLM	Found in mesic alkali meadows adjacent to aquatic habitats in the Owens Valley from 1,130 – 6,000 feet above msl (USFWS 1998). Requires friable soil for burrowing and forages on grasses, sedges, and herbs (USFWS 1998).	May occur. species is pr Study Area.
<i>Myotis ciliolabrum</i> Small-footed myotis	//BLM	Occurs throughout California up to 8,900 feet, in primarily arid and brushy to open forested habitat near water (Zeiner et al. 1990). This species is typically found humid roosting sites in buildings, caves, mines, under bark, snags and crevices. This species forages close to water since it has a poor urine concentrating ability. This species is often seen drinking water soon after it emerges from its roost (Zeiner et al. 1990).	<b>May occur.</b> species is pr Study Area,
<i>Myotis evotis</i> Long-eared myotis	//BLM	Occurs throughout California up to 9,350 feet, although it is uncommon throughout its range. Habitats include all shrubland type habitats, woodland and forests with a preference for coniferous forests (Zeiner et al. 1990). This species is typically found roosting in buildings, under bark, snags and crevices. Caves may be used for night roosts. This species tends to roost in small groups (Zeiner et al. 1990). This species forages close to water since it has a poor urine concentrating ability. This species is often seen foraging along edge habitats (Zeiner et al. 1990).	May occur. Species is pr Study Area,
Myotis thysanodes Fringed myotis	//BLM, USFS	Occurs throughout California up to 9,350 feet, although it is most common between 4,000 to 7,000 feet. Habitats include pinyon-juniper, foothill hardwood and hardwood-conifer forests. This species is typically found roosting in buildings, mines, caves or crevices. Separate day and night roosts may be used (Zeiner et al.	May occur. species is pr Study Area,



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ential to Occur <sup>3</sup>
uitable habitat for this sent throughout the
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uitable habitat for this sent throughout the specially near water.
uitable habitat for this sent throughout the specially near water.
C-30

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/			
o 1	Status <sup>2</sup>	Habitat, Ecology and Life History	Po
Common Name <sup>1</sup>		1000) TI:	
		1990). This species forages close to water since	
		it has a poor urine concentrating ability. This	
		species is often seen gleaning prey off of	
		foliage (Zeiner et al. 1990).	
		Occurs throughout California up to 11,000 feet,	
		although it is rare above 8,000 feet. Habitats	
		include open forests and woodlands with a	
		water source nearby, which this species	
A A continuo con con cin		typically forages over. This species is typically	May occur.
Myotis yumanensis	//BLM	found roosting in buildings, mines, caves or	species is pre
Yuma myotis		crevices. Roosting habitat also includes abandoned swallow nests, and under bridges	Study Area,
		(Zeiner et al. 1990). This species forages close	
		to water since it has a poor urine concentrating	
		ability. This species is often seen drinking on	
		the wing (Zeiner et al. 1990).	
		This species occurs in the Peninsular Ranges of	Will not occ
Ovis canadensis nelsoni	//FP/BLM, USFS	Southern California from the San Jacinto and	outside of th
desert bighorn sheep	//1 F/BLIVI, USI 3	Santa Rosa Mountains south to Mexico.	species.
			May occur. S
		The species uses rocky, steep terrain for	in the Study
		escape and bedding, remains near rugged	species occu
Ovis canadensis sierrae	FE/SE//BLM	terrain while feeding in open habitat. Found in	the Study Ard habitats. Crit the western Area in high
Sierra Nevada bighorn sheep		a variety of open habitats, including rocky	
		barrens, meadows, and low, sparse brushlands	
		(Zeiner et al. 1990).	
<i>Pekania pennanti</i> Fisher (Southern Sierra Nevada DPS)		Occupy late-successional conifer and mixed	Not expecte
		conifer-hardwood forests with an abundance	present alor
		of downed wood, snags, large trees, and a	the Study Ar
		dense canopy (Zielinski 2014). Typically found	areas where
	FE/ST/SSC/USFS, BLM	at elevations from 1,070 – 2,135 m amsl,	forests are p
		where persistent snow does not accumulate	unlikely to r
		and impede movement (Zielinski 2014).	Area. Howe
		Riparian forests and habitat close to open	occur disper
		water such as streams are important. Cavities	Area especia



ion Plan Area | October 2023 ential to Occur<sup>3</sup> uitable habitat for this esent throughout the especially near water. **Ir.** The Study Area is e known range of this uitable habitat is present Area for this species. This rs further to the west in ea in high elevation ical habitat is present in boundaries of the Study elevation habitats. d. Suitable habitat is g the western extent of

ea in high elevations dense and mature resent. This species is produce in the Study er, individuals could sing through the Study Ily in riparian areas.

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Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

Scientific Name/			_
Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Pot
Common Name		and branches in trees, snags, stumps, rock piles, and downed timber are used as resting sites, and large diameter live, or dead trees are selected for natal and maternal dens (Zielinski 2014). There is a significant gap in the range of fisher between the southern Sierra Nevada population and the northern Sierra Nevada/southern Cascade population that stretches approximately 400 km wide (Zielinski	
Vulpes vulpes necator Sierra Nevada red fox	FE/ST/	2014).  Habitat consists of subalpine habitat characterized by a mosaic of high-elevation meadows, rocky areas, scrub vegetation, and woodlands. Has been documented migrating down to high elevation forested habitats below subalpine zones in the Sierra Nevada from 6,000 to 9,000 feet elevation in the Cascades (USFWS 2018). Opportunistic predator of rodents and lagomorphs and also eats seeds such as pine nuts. Currently in California, this species is limited to a small population near Sonora Pass and another near Mt. Lassen (USFWS 2018). These populations include hybrids.	Not expected present along the Study Are areas. This spin California are reproduce in However, inc dispersing the
Xerospermophilus mohavensis Mohave ground squirrel	/ST//BLM	Found in areas of dry, sparsely vegetated, loamy soils in the Mojave Desert. Uses burrows at the base of shrubs for cover. Aestivates from summer through spring (Zeiner et al. 1990).	Will not occu outside of th

Sensitive species reported in CNDDB or CNPS on the "Rio Linda" USGS quads, or in USFWS lists for the project site.

Status in the Project site is assessed as follows. Will Not Occur: Species is either sessile (i.e., plants) or so limited to a particular habitat that it can and/or habitat suitable for its establishment and survival does not occur on the project site; Not Expected: Species moves freely and might disperproject site, but suitable habitat for residence or breeding does not occur on the project site, potential for an individual of the species to disperse



<sup>2</sup> Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = TFP=Fully Protected; R=Rare; SSC=Species of Special Concern; WL=Watch List; BLM=Bureau of Land Management Sensitive (Bishop); USFS= US For (Invo).

ion Plan Area | October 2023 ential to Occur<sup>3</sup> d. Suitable habitat is g the western extent of ea in high elevations ecies is extremely rare and is unlikely to the Study Area. lividuals could occur rough the Study Area. **Ir.** The Study Area is is species known range. Threatened; C = Candidate; ester's Sensitive Species not disperse on its own rse through or across the through or forage in the site

C-32

Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreat

cannot be excluded with 100% certainty; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the project site; however, focuthe current project were negative; **May Occur**: Species was not observed on the site and breeding habitat is not present but the species has the project site and the species has been recorded recently on or near the observed during surveys for the current project; **Present**: The species was observed during biological surveys for the current project and is assumed or utilize the project site during some portion of its life cycle.

CRPR = California Rare Plant Rank: 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered.



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used surveys conducted for potential to utilize the site for project site, but was not ed to occupy the project site

nia but more common

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Attachment C: Potential for Special-Status Species to Occur in the Study Area for the Buttermilk Recreati This page intentionally left blank.

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- Zielinski, W. J. 2014. The forest carnivores: marten and fisher. General Technical Report: PSW-GTR-247. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.



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## Attachment D

Representative Photographs



Photo 1. View of sagebrush habitat along Pine Creek Road. August 10, 2023.



Photo 2. View of riparian habitat along Pine Creek. August 10, 2023.



Photo 3. View of Monarch butterfly (red circle) at a patch of narrow-leaf milkweed along Pine Creek Road. August 10, 2023.



Photo 4. View of sagebrush habitat looking west from Buttermilk Road. August 11, 2023.



Photo 5. View of sagebrush habitat and riparian habitat along McGee Creek near Buttermilk Road. August 11, 2023.



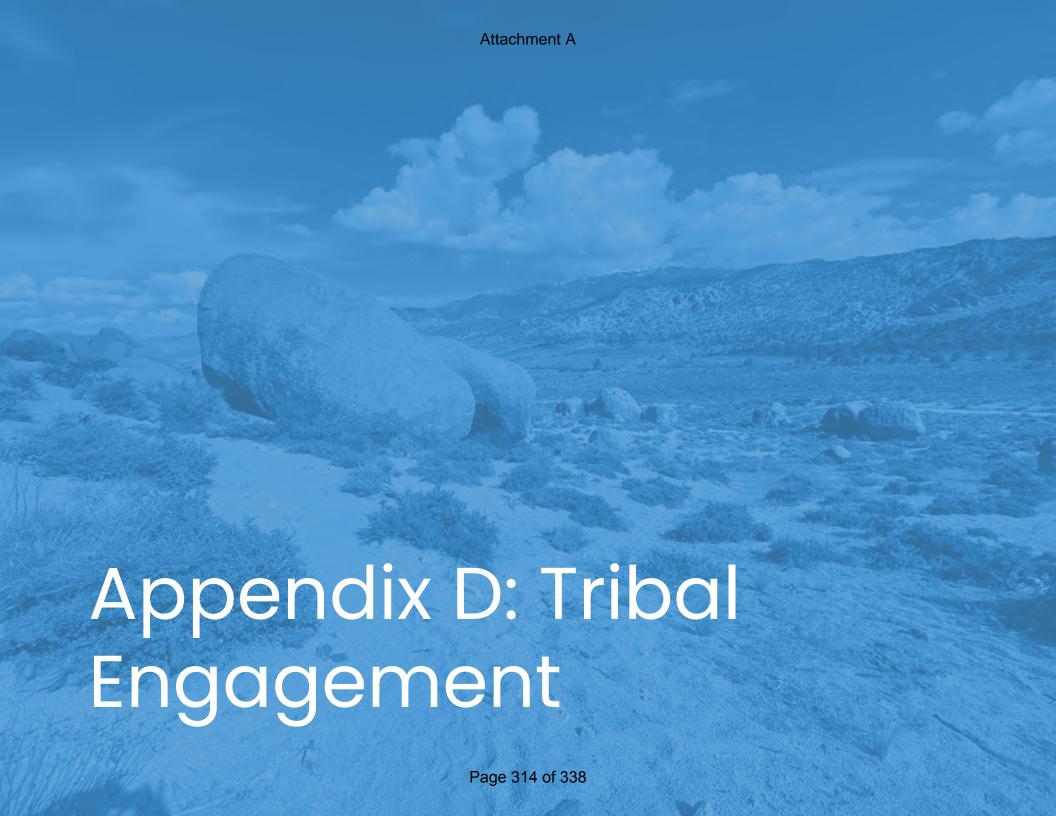
Photo 6. View of sagebrush habitat and rock outcrops along Buttermilk Road. August 11, 2023.



Photo 7. View of desert scrub habitat along Chalk Bluff Road. August 11, 2023.



Photo 8. View of riparian habitat along the Owens River and Chalk Bluff Road. August 11, 2023.



### **Tribal Engagement**

The Eastern Sierra region is the homeland of many Native American tribes who maintain a profound connection to the land. Including the perspective and insights of Tribal community members is important for informing respectful management of their ancestral homelands. The BIRPI project sought to include Tribal community members to document their unique perspectives and insights to shape recommended implementation activities.

The project team contacted Eastern Sierra tribes via email directed to the Tribal Chairperson or the Tribal Historic Preservation Officer (THPO), as available. The team was directed to focus engagement with the Bishop Paiute Tribe and met with the Bishop Paiute Tribe's on several occasions, including an initial project overview and input meeting held prior to any other public engagement, site visits, and extended public comment periods for tribal members. The team met with the Bishop Paiute THPO on June 12, 2023 as the first public engagement meeting for the project, with a followup site visit on June 13, 2023. Additional meetings and site visits occurred on November 2, 2023 and December 5, 2023 to allow for Tribal members to have dedicated space in addition to public meetings to provide information

and feedback on the plan. The team also extended the public comment period for Tribal members until December 20, 2023, to allow as much opportunity as feasible to gain Tribal input.

The project team is grateful to the Bishop Paiute THPO and other community members for their engagement with this process and the valuable testimonies provided on their traditions, connection to the landscape, and importance of cultural resource preservation in the project area.

The project team heard the following concerns and comments during the conversations held with the Bishop Paiute THPO, Tribal staff and community members:

- Tribal monitors should be invited for ground disturbing activities in the project area as there are many undocumented cultural resources through the Buttermilk.
- The Tribe supports establishing a tribal climbing ranger to augment the existing climbing ranger program.
- Tribes need to be included within the planning process.

- Tribes would like to continue to be engaged with land management decisions in the project area.
- The Buttermilk area should be considered a cultural landscape in addition to the documented cultural resources.
- Land managers and recreationalists should consider decisions on 100 year and 500 year timelines. The goal of management should be to keep the project area as pristine as possible for future generations.
- Day-use permitting should include a cultural resource education.
- Educational materials should include traditional teachings to protect the land, wildlife, and vegetation.

Comments received from the Bishop Paiute THPO reflecting conversations with Tribal Elders are listed below.

- There is big concern for this area and its sensitivity for cultural sites.
- The area needs more monitoring and Tribal involvement.
- There should be seasonal access for traditional practices without being disturbed by looky-loos. We are not zoo animals.
- I would like to see certain times of the year perhaps seasonally that the area is closed so we can keep practicing our Traditional ways without being disturbed.
- The area should have permanent permitting so we can hold those accountable who disrespect Our Land.
- Visitors need to be better Stewards and stick to pre-existing roads and trails.
- The Buttermilk area was a great place for us to gather and hunt and fish but we can't do that anymore because of all the offroad vehicles and traffic from the climbers.
- The plants and animals never get a break. When do they get time off to rest without having to deal with more and more recreation.
- No paved roads or more parking lots. Enough has been disturbed.
- The dispersed camping in the area is affecting our traditional gathering areas.
- · Climbing should be done by reservation.
- There needs to be more accountability for the negative disturbances in the area.



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#### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Elaine Kabala, ESCOG Staff

**Subject:** Contract Amendment No. 2 to the Agreement between the Eastern

Sierra Council of Governments and the Whitebark Institute of

Interdisciplinary Environmental Services for the Provision of National Environmental Policy Act Services for the Eastern Sierra Pace and Scale Accelerator and Discuss Reallocation of CDFW Proposition 1

**Grant Funds** 

Meeting date: February 28, 2024

Prepared on: February 21, 2024

**Attachments:** A) Contract Amendment No. 2 to the Agreement between the Eastern

Sierra Council of Governments and the Whitebark Institute of

Interdisciplinary Environmental Services for the Provision of National Environmental Policy Act Services for the Eastern Sierra Pace and

Scale Accelerator

BACKGROUND/HISTORY:

The Whitebark Institute of Interdisciplinary Environmental Services (Whitebark) serves as the contractor to the ESCOG for environmental planning services and project management services for the Eastern Sierra Pace and Scale Accelerator.

The proposed contract amendment expands the scope of work to include necessary silviculture assessments to prepare forest-level prescription templates and silviculture prescriptions. This work was originally scoped to be completed by Inyo National Forest silviculturists, but due to capacity constraints, the Inyo National Forest, ESCOG, and the Whitebark Institute have collaborated to identify staff resources to be provided by the consultant.

There may be additional funding under the current CDFW Proposition 1 grant award to fund additional environmental planning tasks. Based on conversations with stakeholders,

staff requests the Board discuss and provide direction on reallocating funds to expand environmental planning tasks for wildfire resiliency in the Mono basin.

#### **BUDGET IMPACTS:**

None.

#### **LEGAL REVIEW**:

ESCOG Counsel Grace Chuchla has reviewed this item and found that it complies with the law.

#### **RECOMMENDATION:**

Staff recommends the ESCOG Board approve Contract Amendment No. 2 to the Agreement between the Eastern Sierra Council of Governments and the Whitebark Institute of Interdisciplinary Environmental Services for the Provision of National Environmental Policy Act Services for the Eastern Sierra Pace and Scale Accelerator as presented and discuss reallocation of CDFW Proposition 1 grant funds.

#### **AMENDMENT NUMBER 1 TO THE**

AGREEMENT BETWEEN THE EASTERN SIERRA COUNCIL OF GOVERNMENTS AND THE WHITEBARK INSTITUTE OF INTERDISCIPLINARY ENVIRONMENTAL SCIENCES FOR THE FOR THE PROVISION OF NATIONAL ENVIRONMENTAL POLICY ACT SERVICES FOR THE EASTERN SIERRA PACE AND SCALE ACCELERATOR

WHEREAS, the Eastern Sierra Council of Governments (hereinafter referred to as "ESCOG") and The Whitebark Institute (hereinafter referred to as "Contractor"), have entered into an Agreement for the Provision of National Environmental Policy Act Services for the Eastern Sierra Pace and Scale Accelerator, dated June 1, 2022, and;

WHEREAS, ESCOG and Contractor desire and consent to amend such Agreement as set forth below;

WHEREAS, such Agreement provides that it may be modified, amended, changed, added to, or subtracted from, by the mutual consent of the parties thereto, if such amendment or change is in written form, and executed with the same formalities as such Agreement, and attached to the original Agreement to maintain continuity.

ESCOG and Contractor hereby amend such Agreement as follows:

1. Attachment A Scope of Work shall be amended to read as follows:

Whitebark will work under the authority of the INF to conduct all necessary environmental surveys, studies, and analyses for NEPA compliance using the condition-based planning approach described in the draft proposed action attached to the ESCOG's RFP of February 17, 2022. Whitebark will conduct resource studies such as botany, archaeology, wildlife habitat, recreation, soils, hydrology, and silviculture assessments sufficient to meet the grant requirements as described in Tasks 1 through 5 outlined in the ESCOG's RFP of February 17, 2022 (Attachment D).

Silvicultural walkthroughs and assessments shall be completed by Whitebark as described below:

Whitebark will conduct silviculture walkthroughs to characterize forest structure, including trees per acre by size class, basal area, snags per acre, downed fuel loads, and stand heterogeneity. With this data, Whitebark will develop forest-level prescription templates and silviculture prescriptions for select units. Whitebark will also play a large role in developing the ESCCRP Proposed Action, which is forestry focused and includes specific targets for forest structure and composition. Whitebark will produce the Silviculture Report for the ESCCRP and determine applicable Inyo National Forest land and resource management plan components.

Grantee will submit to the CDFW Grant Manager the Silviculture Assessment which includes:

- Unit-level stand structure and composition data with GIS location information
- NEPA-ready silviculture report with stand exam analyses and GIS-made maps
- Silviculture prescriptions for select units

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- Prescription templates for each forest type
- Prepare and complete Common Stand Exams in Inventoried Roadless Areas. Complete analysis of common stand exams and summarize results for IRA report
- Research into and use of decision support tools (ForSys)
- Research into tools to create efficiencies in silviculture prescription development, monitoring, and implementation preparation

All the other terms and conditions of the Agreement are unchanged and remain the same.

<u>ESCOG</u>	CONTRACTOR
By: Signature	By: Signature
Print or Type Name	Print or Type Name
Dated:	Dated:
APPROVED AS TO FORM AND LEGALITY:	
ESOCG Counsel	
APPROVED AS TO ACCOUNTING FORM:	
ESCOG Fiscal Services	_

County of Inyo Standard Contract - No. \_\_\_\_\_ Page 2









# Broadband Update ESCOG

February 28, 2024

https://ConnectedEasternSierra.net/









## Overview

- Grants Update
- Middle-Mile Broadband Initiative
- IMBC Work Plan Updates
- Links to Highlight
- Other Updates
- Acronyms for Reference









# Grants Updates

- CASF Consortia Grant
- CPUC FFA Grant
- CPUC LATA Grant
- BEAD
- CASF Infrastructure Account
- USDA RD Broadband Technical Assistance









## Grants: Consortia Grant

- Started Grant Year 2 of 3 on February 1, 2024
- Working on 2nd Semiannual Reporting and Audit









### Grants: FFA

- 5 Grant Applications Submitted for Our Region
- CPUC is Currently Reviewing Applications
- Expected Award Notifications in March or April
- Second Application Window Pending Awards









### Grants: LATA

- Current Status of Mono & Mammoth LATA Grants
  - Grant Activities are through the GSCA JPA
  - Low-Level Design In Progress
- Current Status of Inyo LATA Grant
  - Phases 1-A and 1B Complete
  - Phase 2-A RFP to be Posted in March









### Grants: BEAD

- NTIA BEAD Allocation for California: \$1.86B
- Goal: <u>Broadband Service at 100Mbps/10Mbps for All</u>
- CPUC Submitted Initial Proposal in December 2023
- CDT to Release Digital Equity Plan in Spring 2024
- Next Step: NTIA Approves Initial Proposal in 2024
- Deployment Details in <u>Initial Proposal, Section 5</u>
- High-Cost-per-Location Threshold will Impact Our Region









## Grants: CASF Infrastructure

- Next Grant Application Window is Not Yet Open
- Providers and Local Governments can Apply
- Allows Fixed Wireless for Last Mile









### Grants: USDA RD

- USDA RD Broadband Technical Assistance:
  - Awaiting USDA Announcement to send Press Releases
  - Starting work on RFPs for Both Grants









## Middle-Mile Broadband Initiative

- MMBI (the Project) & MMBN (the Network)
  - Current MMBI Network Map
- MMBI Purchase of Digital 395 Network
  - Asset Purchase Agreement (APA) Signed
  - NTIA Petition for Waiver Submitted September 29
  - Next Step: Class A Membership Board & CPUC Approvals
  - Expected APA Closing by June 30, 2024









## Work Plan Updates

- Website Update Efforts:
  - Improving Navigation & Readability
  - Simplifying Long-Term Maintenance
- BEAD Program Preparation
- Updated <u>Unserved Data</u> for all Potential Project Areas
- Speed Test Reporting: Latency Data Fields for BEAD









# Links to Highlight

- https://connectedeasternsierra.net/broadband/get-involved/
- California's BEAD Program (and Initial Proposal volumes)
- FFA Broadband Portal (Grant Applications)









# Other Updates

- AT&T Application for Relief from Carrier of Last Resort Obligations
- ACP Enrollments Ended on February 8, 2024
- NTIA Broadband Fabric Licenses for the Region
  - Tier 2 FCC Broadband data
  - Tier E NTIA BEAD Broadband Data
- SB717 Broadband Access Point Investment Acceleration Study Act









# Acronyms

- ACP Affordable Connectivity Program
- BEAD Broadband Equity, Access, and Deployment (NTIA grant program)
- CASF California Advance Services Fund (within the CPUC)
- CBC California Broadband Cooperative (Digital 395 network)
- CDT California Department of Technology
- CPUC California Public Utilities Commissions
- FCC Federal Communications Commission
- GSCA Golden State Connect Authority (JPA RCRC)
- GSN Golden State Net MMBI Third Party Network Administrator

- IMBC Inyo-Mono Broadband Consortium (ESCOG, CASF Consortia Grant)
- JPA Joint Powers Authority
- MMBI Middle-Mile Broadband Initiative (State of California project)
- MMBN Middle-Mile Broadband Network (GSN-managed network)
- NTIA National Telecommunications & Information Administration
- RCRC Rural County Representatives of California
- USDA RD US Department of Agriculture Rural Development

















#### STAFF REPORT

**To:** ESCOG Joint Powers Authority

From: Elaine Kabala, ESCOG Staff

**Subject:** Executive Director Report

Meeting date: February 28, 2024

**Prepared on:** February 22. 2024

Attachments: None

Eastern Sierra Pace and Scale Accelerator:

- The Whitebark Institute is working with the Inyo National Forest to revise the Environmental Assessment to reflect public input received as needed.
- Staff has met with stakeholders to discuss leveraging the Accelerator to address project development and environmental planning needs in the Mono Basin and Owens Valley dependent on successful grant opportunities and the recommendation of the Inyo County Community Wildfire Preparedness Plan.
- Staff continues to participate in bi-monthly Wildfire Resiliency Action Finance Team (WRAFT) to identify models to finance wildfire resiliency project implementation.
- Staff met with the Intertribal Stewardship Workforce Initiative, founded by Irvin Jim of the Washoe Tribe, to establish a Tribal workforce trained and certified in wildland fire prevention and fighting to discuss opportunities in the Eastern Sierra.
- Staff met with Peter Fulks, Cerro Coso Public Services Director, to discuss workforce training certifications being established in wildfire resiliency and fire-fighting, sustainable recreation, and Tribal cultural resources preservation in the context of both regional projects and California Jobs First synergies.

Buttermilk Infrastructure and Recreation Planning Initiative:

- Document was completed in December 2023
- Staff has provided the National Fish and Wildlife Foundation (NFWF) all final invoices and reports required by the grant agreement, which expired December 31, 2024; however, staff is working with NFWF to reserve unspent implementation funds for future work pending the decision of the funding agency.
- Staff is working with Inyo County to transition the project from planning to implementation.

#### Towns-to-Trails:

- Alta Planning and Design has identified a draft trail alignment from Olancha to Markleeville based on public input provided in Fall 2023 and computer modeling. The draft alignment is currently being vetted by local area trail experts for appropriateness and feasibility.
- The next refined trails alignment will be provided to agencies and presented for wider public input in Spring 2024.

#### Community Economic Resilience Fund:

- Staff is convening a monthly regional economic development staff roundtable to discuss project and priorities to inform CEDS and California Jobs First plan development and implementation.
- Staff met with the Economic Development Administration to discuss steps to establish an Economic Development District (EDD) in the Eastern Sierra. The designation would provide annual operating funds to continue convening regional staff, ensuring the annual CEDS implementation report is prepared and the CEDS is updated every five years as required. Additional information on the application is needed.
- Staff continues regional convening work in support of the California Jobs First project at the direction of the Sierra Business Council.
- Staff attended the California Jobs First conference in Sacramento with the Sierra Business Council and Mother Lode Job Training Center to represent the Eastern Sierra.

#### **ESCOG** Administration:

- ESCOG has received two proposals to fill the part-time interagency liaison position. Staff
  will return to the Board to approve a contract, likely requiring a special meeting before
  the next regular meeting in April.
- ESCOG repaid its \$500,000 Golden State Finance Authority (GSFA) loan. The GSFA loan fund is completely encumbered, but if funding becomes available in the future, ESCOG staff recommends renewing the loan.
- Staff is coordinating with member agency leadership to provide regular Board updates as needed.
- There is no update from Caltrans on the Highways-to-Boulevards grant at this time.