BIOLOGICAL RESOURCE ASSESSMENT FOR GLACIER FED FARMS INYO COUNTY, CALIFORNIA APN: 018-280-27



PREPARED FOR

GLACIER FED FARMS AND INYO COUNTY PLANNING DEPARTMENT

PREPARED BY

TFAM

ENGINEERING & MANAGEMENT, INC. Bishop, California

BIOLOGICAL RESOURCE ASSESSMENT For

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BIOLOGICAL RESOURCE ASSESSMENT

FOR

GLACIER FED FARMS INYO COUNTY, CALIFORNIA APN: 018-280-27

EXECUTIVE SUMMARY

Glacier Fed Farms are seeking a Conditional Use Permit to cultivate Commercial Cannabis at a property adjacent to Big Pine Creek in Inyo County (Figure 1). To assist the Inyo County Planning department with project permitting, TEAM Engineering & Management, Inc. (TEAM) has been retained to conduct a biological resource assessment of the subject parcel. This work has been requested in order to determine the potential impacts on any populations of federal or state-listed threatened, endangered or special status plant or wildlife species that may occur at the subject site, in support of California Environmental Quality Act (CEQA) compliance by the lead agency, the Inyo County Planning Department.

On September 17, 2021, TEAM conducted a botanical and biological survey of the subject site. Work included evaluating the potential impacts on any populations of federally or state-listed threatened, endangered or special status plant, wildlife or invertebrate species that may occur at the subject site. Database research was conducted prior to conducting field surveys, and a list of all threatened, endangered and special status botanical and wildlife species which were determined to have the potential to occur within the project area was developed (Appendix A).

During the September 17 survey, none of the species identified in Appendix A were observed at the subject site. None of the species identified in Appendix A are expected to be impacted by the proposed action.

It is unlikely that any of the threatened, endangered and special status plant species which have the potential to occur on the subject site listed in Appendix A would occur or find viable reproductive habitat at the proposed project location.

Threatened, endangered and special status wildlife species which have the potential to occur near the proposed project location include: *Corynorhinus townsendii* (Townsend's big-eared bat), listed as a California Species of Special Concern; *Buteo swainsonii* (Swainson's hawk), listed as threatened in California; and various birds protected by the Migratory Bird Act (MBA). Direct impacts to the Townsend's big-eared bat as a result of the proposed project are not anticipated, as preferred breeding habitat is not available at the subject site. Potential impacts to the Swainson's hawk and MBA protected birds can be mitigated by conducting a pre-construction nesting bird survey.

No federally or state-listed threatened, endangered or special status plant or wildlife species are expected to use habitat which is critical to their survival at the location of the proposed project. Potential impacts to biological resources are not anticipated to be significant.

To avoid potential impacts to nesting birds, it is recommended that ground disturbing activities be conducted outside of the typical nesting period in the Owens Valley (March 1-August 31). If this timeframe cannot be avoided, it is recommended that a nesting bird survey be conducted prior to beginning construction.

1.0 INTRODUCTION

The subject site is located about six miles west of the town of Big Pine, California in Inyo County (Figure 1). Glacier Fed Farms is seeking a Conditional Use Permit (CUP) to cultivate commercial cannabis in Inyo County, California, Assessor Parcel Number (APN 018-280-27). Jennifer Weston and Glacier Fed Farms requested that TEAM conduct a biological resource assessment in order to assist the Inyo County Planning department with approval of the project (Figure 2).

This Biological Resource Assessment Report has been prepared to present the results of the biological field survey that has been conducted for the proposed action and to assess the potential impacts on biological resources for California Environmental Quality Act (CEQA) compliance. It is anticipated that this information will be used by the Inyo County Planning Department to assist with CEQA compliance.

1.1 BACKGROUND

The proposed project area falls within the Split Mountain 7.5-minute USGS quadrangle map and is adjacent to the Coyote Flat quadrangle. The general boundaries of the biological resource field surveys conducted in September 2021 are shown on Figure 3.

TEAM's biological resource survey was conducted on September 17, 2021. The survey was conducted late in the growing season for some plant species which bloom in the spring. This survey included evaluating the potential impacts of the proposed project on any populations of federal or state-listed threatened, endangered or special status plant, wildlife or invertebrate species. TEAM's biological resource survey included coordination and initial site overview with the project proponent, review of existing data including searches of the California Native Plant Society (CNPS) online inventory of Rare and Endangered Plants and California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), and a preliminary literature search.

The field survey was focused on the area of proposed disturbance where an approximately 5,000 square foot outdoor commercial cannabis cultivation is proposed. This area has been disturbed by previous vegetable cultivation activities and according to a review of aerial photography the majority of ground disturbance occurred between 2009 and 2010. Proposed activities include installation of an 8' tall chain link security fence as well as security cameras and downward facing motion lighting. Details can be found in the Conditional Use Permit diagram, shown as Figure 2 and were described in the Inyo County Planning Department, Conditional Use Permit Application, dated June 23, 2021 (Inyo, 2021). An existing non-permanent high tunnel, which was present during the site visit will also be repositioned.

The surrounding property and water supply system was also inspected briefly, however no disturbance or changes to current conditions are proposed at these locations.

1.2 BIOLOGICAL SETTING

The subject site is located about six miles to the west of the town of Big Pine and is approximately 6,890 feet above mean sea level (2,100 meters). The project location is an approximately 5,000 square foot outdoor growing area which occurs on an approximately 12.03 acre parcel of land. USDA Forest Service – Inyo National Forest lands occur to the south and north of the property with private property (residential) on the west and east sides of the property. Glacier Lodge Road also occurs on the north side of the property. Big Pine Creek crosses on the north side of the property, flowing from west to east. The subject property is zoned as residential medium density and multiple family residential. There are two single family residences and a number of storage buildings to the north and east of the proposed project location. To the south of the proposed project location is an old dirt airstrip, portions of which have also been used for cultivation in the past according to communication with the property owner and as corroborated by a review of aerial photography.

The primary soils on site consist of the Sur-Kiona families complex. The Sur and Kiona Family units are both alluvial soils derived from glacial till and moraines. These soils generally consist of non-hydric, well-drained gravelly sandy loam at slopes of 15 to 60 percent (USDA 2021).

Dominant vegetation at the project location consists of disturbed Sagebrush bitterbrush scrub. Most common species encountered include tumbleweed (Salsola tragus), big sagebrush (Artemisia tridentata) and antelope bitterbrush (Purshia tridentata). Other common species include Indian rice grass, (Achnatherum hymenoides), Rabbitbrush (Ericameria nauseosus) and desert peach (Prunus andersonii). This area appears to have been cleared of vegetation with a small tractor recently. The tractor was present and piles of vegetation were observed on the north side of the project location. This location contains undisturbed native vegetation and has altered topography (graded flat to facilitate cultivation of vegetation). No trees occur at the proposed project location. Jeffrey pines occur to the north of the project area starting approximately 100 feet from the proposed project location.

The project location occurs approximately 300 feet to the south of Big Pine Creek. The Big Pine Creek corridor contains water birch (*Betula occidentalis*), arroyo willow (*Salix lasiolepis*) and black cottonwood (*Populus balsamifera*) among other riparian vegetation. Other species encountered during the site visit can be found in Appendix B.

There are no proposed changes to the water supply system. The intake for the water supply for the proposed project is located approximately 275 feet to the north of the proposed cultivation area. The project proponent has a current statement of Water Diversion and use from 1982 that allows domestic use, tree farming and operation of a hydro-electric power generating plant. A metal dam exists across Big Pine Creek which directs flow into the intake area. This dam can be lowered and raised in response to changing stream flows. There is a fish ladder structure near the water system intake area. The fish ladder was not assessed for proper function, however at the time of the site visit there were multiple passages for fish to navigate around or under the dam. According to the property owner, there are screens blocking the water system intake pipes that prevent fish passage. There appear to be three intake pipes for the system: one feeds the pond, one feeds the Hydro-electric system and one feeds into a Rife-ram pump. The proposed cannabis

cultivation area can be supplied water through the Rife-ram pump or from the pond through a gas-powered pump (Jennifer Weston, personal communication, September 30, 2021).

A USFWS National Wetland Inventory query shows no previously identified wetlands at the proposed project location, as shown on Figure 5. However, there is potential wetland and Water Birch Riparian Scrub habitat present near Big Pine Creek as well as around the water supply pond. A wetland delineation was outside the scope of the current assessment.

2.0 METHODS

Prior to conducting field surveys, a table of endangered, threatened and special status species which have been known to occur near the subject site was compiled. This list was created from three sources: the United States Department of the Interior, Fish and Wildlife Service (USFWS) Information for Planning and Consultation-IPaC; the CDFW's CNDDB (CDFW, 2021); and the CNPS online inventory of Rare and Endangered Plants. The USFWS list was based on a subject site query and is not an official USFWS consultation. The USFWS list was located online (USFWS, 2021). The CNPS query was based on the Big Pine, Coyote Flat, Fish Springs and Fish Springs US Geological Survey (USGS) 7.5-minute quadrangle maps. This query included all previously recorded plant observations with a California Rare Plant Rank listed for the Big Pine, Coyote Flat, Fish Springs and Fish Springs quadrangle. The CNDDB query was based on the Big Pine, Coyote Flat, Fish Springs and Fish Springs USGS 7.5-minute quadrangle maps. Figure 3 depicts the CNDDB output for the proposed project area. A review of aerial photography was also conducted. These three lists, as well as the preferred habitat types and/or known ranges for the plant and wildlife species listed, are summarized in Appendix A.

The field survey was conducted on September 17, 2021 by TEAM Biologist Greg Foote. Prior to conducting field surveys the proposed Conditional Use Permit Diagram (Figure 2) was reviewed. This document provided the tentative project location and boundaries. These boundaries were projected to an aerial photograph (Figure 3). The area surveyed was limited to the proposed disturbance area, approximately 1 acre. Surveys were conducted on foot and all visible flora and fauna were identified to the lowest possible taxon. The survey and the subsequent report were prepared generally following CDFG and USFWS guidelines (CDFG, 2000; USFWS, 2000).

In addition to the proposed project area, the existing water supply diversion was briefly inspected.

2.1 SPECIAL STATUS FLORA AND FAUNA

For the purpose of this assessment, special status species were defined as species which are one or more of the following: listed as endangered, threatened or are proposed to be listed by the Federal Endangered Species Act or the California Endangered Species Act; designated by the CDFW as a Species of Special Concern; or considered rare or endangered by the CNPS. This also includes species protected by the Migratory Bird Act.

2.1.1 Plants

After reviewing the lists of special status plant species known to occur near the subject site (Appendix A), five special status plant species were considered to have the potential to occur at the subject site: *Fritillaria pinetorum* (pine fritillary), *Lupinus padre-crowleyi* (Father Crowley's lupine), *Penstemon papillatus* (Inyo beardtongue), *Petrophytum caespitosum ssp.acuminatum* (marble rockmat) and *Viola pinetorum ssp. grisea* (grey-leaved violet). These plants were determined to have the potential to occur based on previously known occurrences from CNDDB, CNPS and USFWS database searches as well as preferred habitat availability based on map and aerial photography review.

It is unlikely that any of the other special status plant species listed in Appendix A would rely on habitat in the area of the proposed project.

2.1.2 Wildlife

Special Status wildlife species were determined to have the potential to occur at the subject site based on previously known occurrences from CNDDB, CNPS and USFWS database searches and based on the potential for preferred habitat availability within the project area. Following a review of the lists of special status wildlife species (Appendix A) ten special status wildlife species were considered to have the potential to occur at the subject site: Corynorhinus townsendii (Townsend's big-eared bat), Asio otus (long-eared owl), Buteo swainsonii (Swainson's hawk), Carpodacus cassinii (Cassin's finch), Contopus cooperi (Olive-sided Flycatcher), Icteria virens (yellow-breasted chat), Piranga rubra (summer tanager), Selasphorus rufus (Rufous Hummingbird), Bombus morrisoni (Morrison bumble bee) and Anaxyrus canorus (Yosemite toad). There were no other wildlife species identified in database searches and listed in Appendix A that are likely to utilize habitat found at the location of the proposed project.

3.0 RESULTS

3.1 SPECIAL STATUS PLANTS

The botanical portion of the survey generally followed CNPS Botanical Survey Guidelines (CNPS, 2001). Plants encountered on the project site were identified to a taxonomic level.

Located in Appendix A is an analysis of the potential for any special status plants to occur at subject site based on aerial photo review as well as known occurrences in proximity to the subject site. Appendix B lists all plant species identified at the subject site during the September 17, 2021 field survey. The project location appears to consist of a former sloping hillside that was graded flat by cutting into the hillside. A review of aerial photography indicates that the area was graded and stripped of vegetation sometime between 2009 and 2010 (GoogleEarth, 2021). The dominant plants at the project area include *Salsola tragus* (tumbleweed) *Purshia tridentata* (antelope bitterbrush), *Artemisia tridentata* (big sagebrush) and *Prunus andersonii* (desert peach). Most of the area is bare ground, there is no undisturbed habitat at the project location. Surrounding Natural Community Associations could include *Purshia tridentata* – *Artemisia tridentata* shrubland (Sawyer, 2000).

No special status plants were observed during the September 17, 2021 field event.

As the survey was conducted late in the growing season, some plants with spring and early summer bloom times may have been unable to be identified. In addition, the Eastern Sierra Current Precipitation Conditions report by LADWP dated May 25, 2021 indicate that precipitation in the Eastern Sierra was at 46% of normal for the previous winter, indicating drought conditions during this growing season (LADWP, 2021).

The Special Status plants identified in section 2.1.1 are unlikely to occur at the subject site due to the disturbed nature of the proposed project location and for the various reasons explained below:

Fritillaria pinetorum (pine fritillary) is included in the CNPS Inventory of Rare and Endangered Plants on List 4.3. The plants in this category are of limited distribution or infrequent throughout a broader area in California (CNPS, 2021). This plant which blooms in late spring to early summer (May-July) is typically found in chaparral, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest. It is unlikely that this plant would occur at the proposed project location due to the lack of shady mountain forest habitat identified during the site visit. Pine fritillary was not identified during the site survey and no impacts to this species are expected as a result of this project.

Lupinus padre-crowleyi (Father Crowley's lupine) is included in the CNPS Inventory of Rare and Endangered Plants on List 1B.2. The plants in this category are considered rare, threatened or endangered in California and elsewhere (CNPS, 2021). This plant which blooms in the summer (July-August) is typically found in decomposed granite, desert scrub, riparian scrub, upper montane conifer forests at 8,000-13,000 ft. elevation and would have likely been identifiable at the time of the survey. Habitat surrounding the project site could be available for this species; however it was not identified at the disturbed project area or in the undisturbed areas around the proposed project location. The subject site is approximate 1,000 feet lower in elevation than the

known elevational range of this species. No impacts to this species are expected as a result of this project.

Penstemon papillatus (Inyo beardtongue) is included in the CNPS Inventory of Rare and Endangered Plants on list 4.3. The plants in this category are of limited distribution or infrequent throughout a broader area in California (CNPS, 2021). This plant which blooms in the summer (June-July) is known only from the eastern Sierra Nevada and slopes to the east. It grows in rocky woodland and forest habitat types. This species is known to occur in close proximity to the proposed project location, however no *Penstemon* species were identified at the proposed project location. While the subject property contains some preferred habitat, the proposed disturbance footprint does not contain suitable habitat. No impacts to this species are expected as a result of this project.

Petrophytum caespitosum ssp.acuminatum (marble rockmat) is included in the CNPS Inventory of Rare and Endangered Plants on list 1B.3. The plants in this category are considered rare, threatened or endangered in California and elsewhere (CNPS, 2021). This plant which blooms in the summer to fall (June-September) is typically found in lower montane coniferous forest, upper montane coniferous forest, limestone or granite rocky sites and would have likely been identifiable at the time of the survey. It is unlikely that this plant would occur at the proposed project location due to the lack of preferred habitat. No impacts to this species are expected as a result of this project.

Viola pinetorum ssp. grisea (grey-leaved violet) is included in the CNPS Inventory of Rare and Endangered Plants on list 1B.2. The plants in this category are considered rare, threatened or endangered in California and elsewhere (CNPS, 2021). This plant which blooms in the spring to summer (April-July) is typically found in Subalpine coniferous forest, upper montane coniferous forest, meadows and seeps. Habitat surrounding the project site could be available for this species; however it was not identified at the disturbed project area or in the undisturbed areas around the proposed project location. No impacts to this species are expected as a result of this project.

3.2 SPECIAL STATUS WILDLIFE

All wildlife encountered during the September 17, 2021 survey at the subject site were recorded and are listed in Appendix B.

Located in Appendix A is an analysis of the potential for any special status wildlife species to occur at the subject site. Appendix B lists all wildlife species observed and able to be identified at the proposed project area during the September 17, 2021 field event.

No federally or state-listed threatened or endangered wildlife species were observed within the project area.

Following the site visit it was determined that it is unlikely that any of the Special Status species listed in Appendix A would find valuable breeding habitat, and are unlikely to occur at the proposed project location due to the disturbed nature, proximity to occupied homes and lack of trees. However, trees that occur to the north of the proposed project location have potential bird nesting habitat that could be temporarily impacted by construction related activities which can be reduced to a minimum by implementing construction activities outside of the nesting season or by conducting a nesting bird survey prior to construction. If construction is to occur during the

nesting bird season March 1 to August 31, a nesting bird survey should be conducted. This survey should be conducted no more than 3 days prior to the start of construction activities. If nesting birds are observed the local CDFG office should be consulted to determine appropriate impact minimization measures.

Preferred foraging habitat may be available on the subject site for *Corynorhinus townsendii* (Townsend's big-eared bat), a mammal which is listed as a species of special concern by the State of California. This species occurs in a wide variety of habitats in California, most common in mesic sites. Townsend's bats roost in the open, hanging from walls and ceilings and are extremely sensitive to human disturbance. Although this species has the potential to use areas around the proposed project location for forage, preferred roosting habitat was not identified at the proposed project location. Direct impacts as a result of the proposed project are not expected.

Preferred foraging habitat may be available on the subject site for *Asio otus* (long-eared owl), a bird which is listed as a species of special concern by the State of California. Long eared owls require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding. Although no trees occur at the proposed project area, there are Jeffrey pine about 100 feet to the north of the proposed project area. Impacts to the potential breeding habitat at the proposed project location are not expected, however noise from construction activities have the potential to disturb nesting birds in nearby trees. These impacts can be mitigated by either implementing construction outside of normal breeding season or conducting a preconstruction nesting bird survey if nesting season cannot be avoided.

Preferred foraging and breeding habitat may be available on or near to the subject site for *Buteo swainsoni* (Swainson's Hawk), a bird which is considered threatened by the State of California. Swainson's hawk nest sites are usually in a tree or large shrub in open country. It feeds on mostly small mammals and reptiles in early summer, large insects at other seasons. Although no trees occur at the proposed project area, there are Jeffrey pine about 100 feet to the north of the proposed project area. Impacts to the potential breeding habitat at the proposed project location can be mitigated by either implementing construction outside of normal breeding season or conducting a pre-construction nesting bird survey if nesting season cannot be avoided.

Preferred foraging habitat may be available on the subject site for *Carpodacus cassinii* (Cassin's finch), a bird which is not considered a special status species but is protected by the Migratory Bird Treaty Act. Cassin's Finches inhabit dry, open coniferous forests. They are most common in mid-elevation Ponderosa pine forests but are also found in Jeffrey pine. Although no trees occur at the proposed project area, there are Jeffrey pine about 100 feet to the north of the proposed project area. Impacts to the potential breeding habitat at the proposed project location are not expected, however noise from construction activities have the potential to disturb nesting birds. These impacts can be mitigated by either implementing construction outside of normal breeding season or conducting a pre-construction nesting bird survey if nesting season cannot be avoided.

Preferred foraging habitat may be available on the subject site for *Contopus cooperi* (Olive-sided Flycatcher), a bird which is not considered a special status species but is protected by the Migratory Bird Treaty Act. Olive-sided flycatcher nests are placed in coniferous trees (sometimes in burned, dead conifers), but nests in aspen, willow, oak, sycamore, alder, cottonwood, elm, and locust are also documented. Although no trees occur at the proposed project area, there are Jeffrey pine about 100 feet to the north of the proposed project area.

Impacts to the potential breeding habitat at the proposed project location are not expected, however noise from construction activities have the potential to disturb nesting birds. These impacts can be mitigated by either implementing construction outside of normal breeding season or conducting a pre-construction nesting bird survey if nesting season cannot be avoided.

Preferred foraging and breeding habitat may be available on the subject site (but not at the proposed project location) for *Icteria virens* (yellow-breasted chat), a bird which is listed as a species of special concern by the State of California. The yellow-breasted chat nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground. Some breeding habitat may be present near the Big Pine Creek riparian corridor, but it occurs about 300 feet away from the proposed project location. Direct impacts, as a result of the proposed project are not expected.

Preferred foraging and breeding habitat was not identified at the proposed project location for *Piranga rubra* (summer tanager), a bird which is listed as a species of special concern by the State of California. The summer tanager requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams. Some preferred foraging and breeding habitat may be available about 300 feet to the north of the proposed project area. Direct impacts, as a result of the proposed project, are not expected.

Preferred foraging habitat may be available at the subject site for *Selasphorus rufus* (Rufous Hummingbird), a bird which is not considered a special status species but is protected by the Migratory Bird Treaty Act. Rufous Hummingbirds typically breed in open or shrubby areas, forest openings, yards, and parks, and sometimes in forests, thickets, swamps, and meadows from sea level to about 6,000 feet. The subject site is at about 6,890 feet elevation. It is unlikely that Rufous Hummingbirds would use the subject site for breeding purposes. Direct impacts, as a result of the proposed project, are not expected.

It is unlikely that *Bombus morisonii* (Morrison's bumblebee), would utilize habitat at the proposed project location. Preferred food plant genera include *Cirsium, Cleome, Helianthus, Lupinus, Chrysothamnus*, and *Melilotus*. Some of these species occur in close proximity to the proposed project, however the proposed project area is mostly devoid of vegetation. Impacts as a result of the proposed project, are not expected.

Preferred breeding habitat was not identified on the subject site for *Danaus plexippus* (monarch butterfly) an insect which is a candidate for Federal Endangered Species protection. Adult monarchs feed on the nectar of many flowers, but they breed only where milkweeds are found. Milkweeds or their habitat were not identified on site. Two butterflies were observed during the September 17 site visit. One was positively identified as *Vanessa cardui* (Painted lady butterfly) the other was either a monarch or a viceroy butterfly. The Big Pine creek corridor contains abundant viceroy habitat while none of the plants required for monarch breeding were identified so it is more likely that this was a viceroy. Even if the assumption is made that a monarch was observed on site, there are unlikely to be impacts to this species as a result of the proposed project because no breeding habitat was identified on site and no additional undisturbed vegetation is proposed to be removed.

4.0 REFERENCES

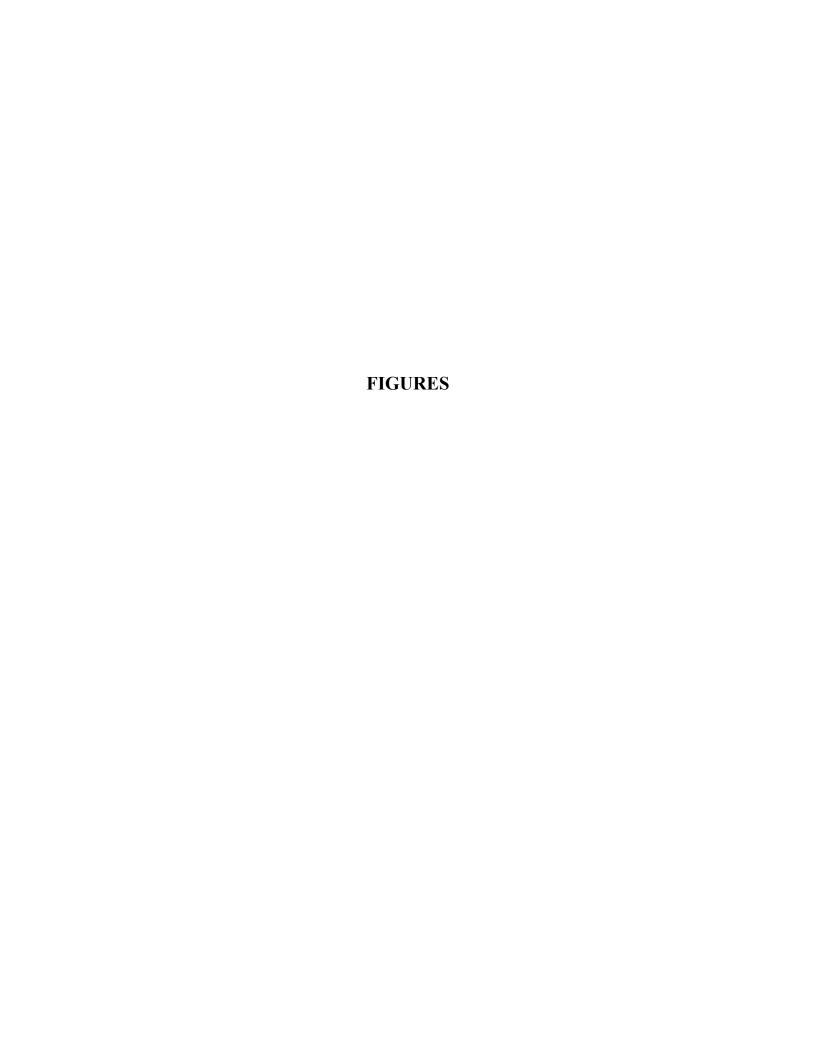
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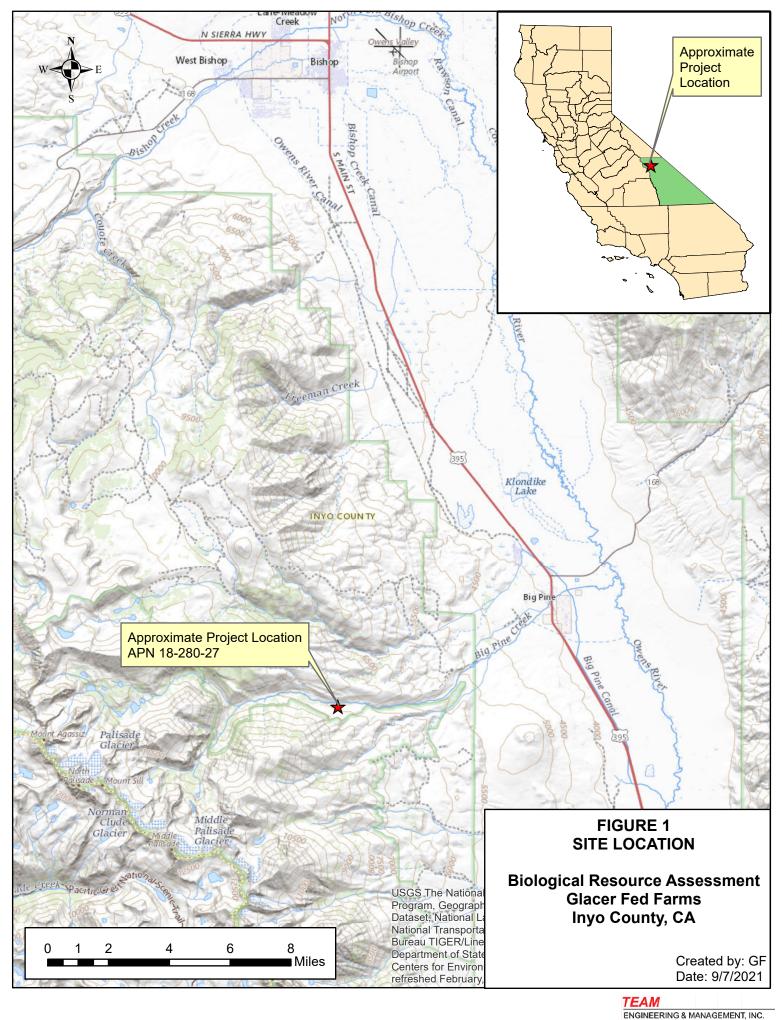
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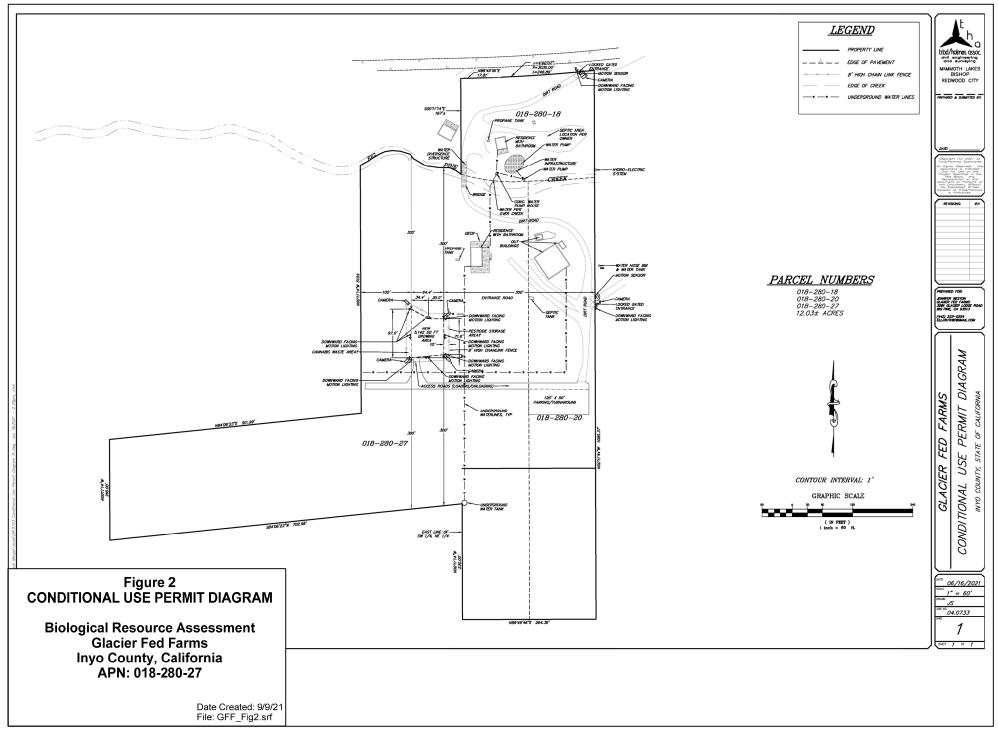
5.0 GENERAL CONDITIONS

This report has been prepared according to generally accepted standards of environmental practice at the time this assessment was performed. TEAM Engineering & Management, Inc. (TEAM) does not assume responsibility for conditions that did not come to its attention or for conditions not generally recognized as environmentally acceptable at the time this report was prepared.

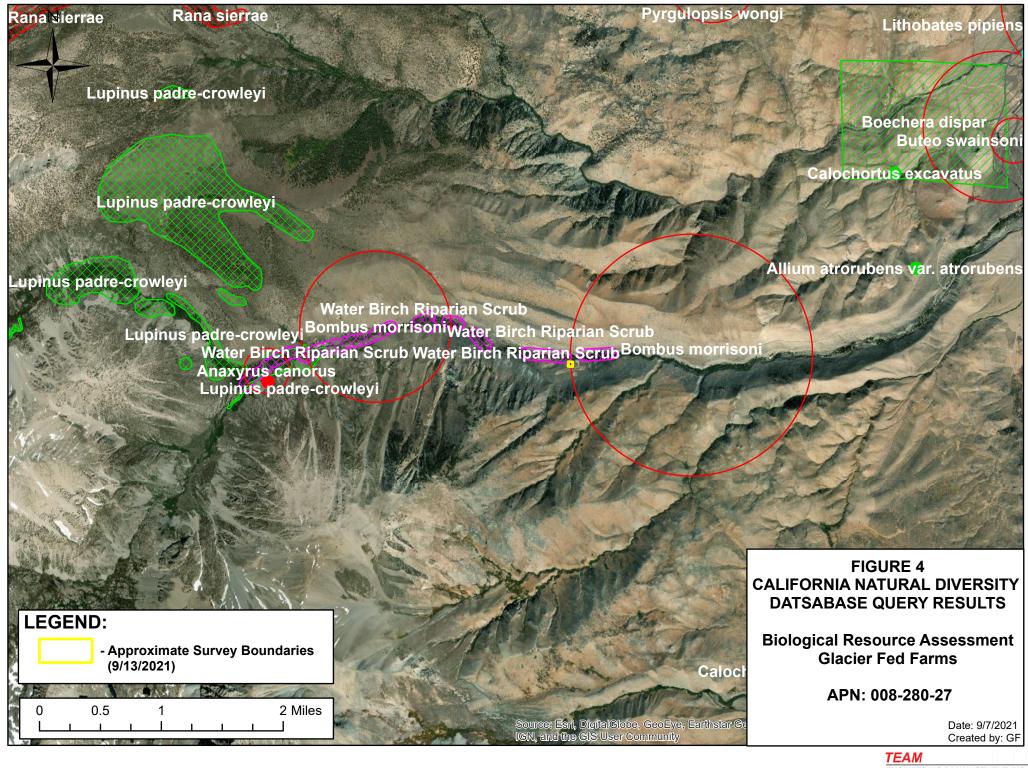
Biology is an inexact science, and investigative data commonly contain uncertainties. Professional judgments contained in this report are based upon our education and experiences on similar projects. Services performed for this project by TEAM are in accordance with professional standards for biological assessments; no guarantees are either expressed or implied.







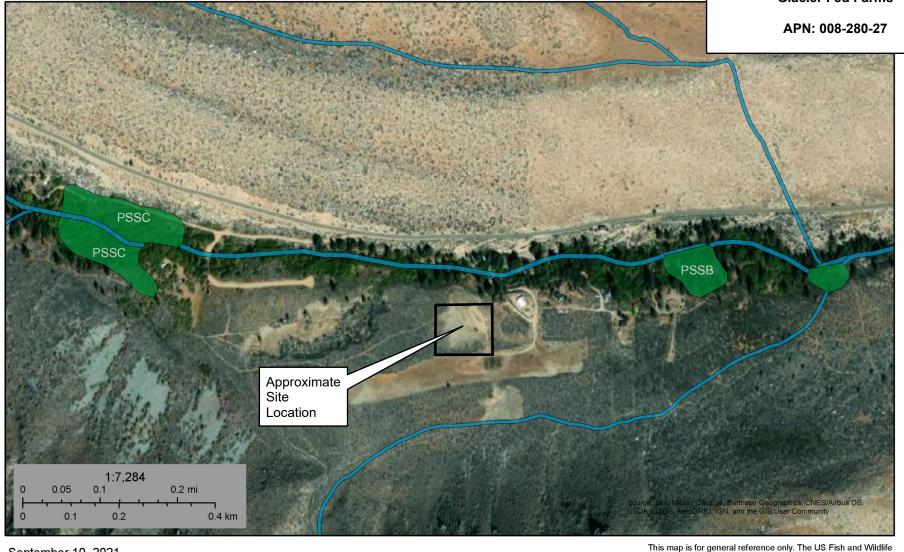




U.S. Fish and Wildlife Service **National Wetlands Inventory**

FIGURE 5 Glacier Fed Farms U.S. FISH & WILDLIFE SERVICE NATIONAL WETLAND INVENTORY MAP

Glacier Fed Farms



September 10, 2021



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the

Lake

Other

Riverine

Wetlands Mapper web site.

Wetland data based on 1985 color imagery

National Wetlands Inventory (NWI) This page was produced by the NWI mapper

Special Status Species and Occurrence Potential

Special Status Species Potential to Occur at

Glacier Fed Farms Inyo County, California

Species	Status		Distribution and Preferred Habitat	Determinate Consumet Dunicat Locations	
Species	Federal	State	Distribution and Preferred Habitat	Potential to Occur at Project Locations	
<u>Mammals</u>					
Corynorhinus townsendii Townsend's big-eared bat		CSC	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Possible. No roosting habitat. Foraging habitat may be available.	
Pekania pennanti Fisher	Endangered		Fishers are consistently associated with forests that provide moderate to high canopy closure and the presence of large woody structures such as cavity trees, snags, and logs. Large trees, large snags, and large logs with cavities are important habitat features and are commonly used as rest sites and den sites.	Unlikely. Preferred habitat not present at project location.	
Gulo gulo California wolverine	Endangered	Threatened	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats.	Unlikely. Preferred habitat not present at project location. Usually occurs in high elevation Sierra Nevada Mountains	
Ovis canadensis sierrae Sierra Nevada bighorn sheep	Endangered	Endangered	Historically found along the east side and crest of the Sierra Nevada. Available water and steep, open terrain free of competition from other grazing ungulates.	Unlikely. Preferred habitat not present at project location. Out of known range. Usually occurs in high elevation Sierra Nevada Mountains	
<u>Birds</u>					
Accipiter gentilis northern goshawk		CSC	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Unlikely. Proximity to populated area and lack of large mature forest on site.	
Asio otus long-eared owl		CSC	Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	Possible. Foraging habitat may be available.	
Athene cunicularia burrowing owl		CSC	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Unlikely. Preferred habitat not present at project location.	
Buteo swainsoni Swainson's hawk	МВА	Threatened	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	Possible. Foraging habitat may be available.	
Carpodacus cassinii Cassin's finch	МВА		Cassin's Finches inhabit dry, open coniferous forests . They are most common in mid-elevation Ponderosa pine forests but can also be found in Douglas fir, spruce, or fir forests.	Possible. Breeding and foraging habitat may be available.	
Coccyzus americanus occidentalis Western yellow-billed cuckoo	Threatened	Endangered	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Unlikely. Preferred habitat not present at project location.	
Contopus cooperi Olive-sided Flycatcher	MBA		Breeds in montane and northern coniferous forests, at forest edges and openings, such as meadows and ponds.	Possible. Breeding and foraging habitat may be available.	
Empidonax traillii extimus southwestern willow flycatcher	Endangered	Endangered	Breeds principally in (low elevations) dense willow, cottonwood, and tamarisk thickets and woodland along streams and rivers, and (high elevations) pure, streamside stands of Geyer willow.	Unlikely. Preferred breeding habitat not present at project location.	
Gymnorhinus cyanocephalus Pinyon Jay	МВА		As their name implies, they can be found in pinyon-juniper woodland, sagebrush, scrub oak, and chaparral communities, and sometimes in pine forests.	Unlikely. Preferred habitat not present at project location.	
Icteria virens yellow-breasted chat		CSC	Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Possible. Breeding and foraging habitat may be available.	

Special Status Species Potential to Occur at

Glacier Fed Farms Inyo County, California

Consider	Sta	tus	Distribution and Preferred Habitat	Potential to Occur at Project Locations
Species	Federal	State		
Piranga rubra summer tanager		CSC	Requires cottonwood-willow riparian for nesting and foraging; prefers older, dense stands along streams.	Possible. Breeding and foraging habitat may be available.
Riparia riparia bank swallow		Threatened	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Unlikely. Preferred breeding habitat not present at project location.
Selasphorus rufus Rufous Hummingbird	МВА		During breeding season, Rufous Hummingbirds are found in forests, on seed-tree harvest units, riparian shrub, and spruce-fir habitats. During the winter, it lives wherever flowers are present. It migrates to lowland stream bottoms, foothill brush land, seacoast and high mountain meadows	Possible. Foraging habitat may be available.
Tringa flavipes lesser yellowlegs	МВА		They are found in open deciduous or coniferous forest mosaics with wet or sedge meadows, marshes, bogs, or muskegs. In the breeding season they travel between nesting areas and foraging areas daily, with foraging areas mainly along the shores of lakes, sloughs, estuaries, and marshes.	Unlikely. Preferred habitat not present at project location.
<u>Insects</u>				
Bombus morrisoni Morrison bumble bee			Food plant genera include Cirsium, Cleome, Helianthus, Lupinus, Chrysothamnus, and Melilotus.	Possible. Preferred habitat may be available.
Danaus plexippus monarch butterfly	Candidate		Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Unlikely. Preferred breeding habitat not present at project location.
Amphibians				
Anaxyrus canorus Yosemite toad	Threatened		High elevation, open, montane meadows, willow thickets, and adjoining forests.	Unlikely. Preferred habitat not present at project location.
Hydromantes platycephalus Mount Lyell salamander		WL	Massive rock areas in mixed conifer, red fir, lodgepole pine, and subalpine habitats, 4000 to 11,600 feet in elevation.	Unlikely. Preferred habitat not present at project location.
Lithobates pipiens northern leopard frog		CSC	Highly aquatic species. Shoreline cover, submerged and emergent aquatic vegetation are important habitat characteristics.	Unlikely. Preferred habitat not present at project location.
Rana sierrae Sierra Nevada yellow-legged frog	Endangered	Threatened	Inhabits lakes, meadow streams, isolated pools, sunny riverbanks in the Sierra Nevada.	Unlikely due to fish stocking. And preferred habitat not present.
<u>Fishes</u>	•		,	
Catostomus fumeiventris Owens sucker		CSC	Endemic to the Owens River drainage. In its native river habitat it is most common in areas with long runs and few riffles.	Unlikely. Outside of known range. Preferred habitat not present at project location.
Cyprinodon radiosus Owens pupfish	Endangered	Endangered	Shallow water habitats in the Owens Valley. Prefers warm, clear, shallow water free of exotic fishes. Needs areas of firm substrate for spawning.	Unlikely. Outside of known range. Preferred habitat not present at project location.
Siphateles bicolor snyderi Owens tui chub	Endangered	Endangered	Endemic to the Owens River basin in a variety of habitats. Needs clear, clean water, adequate cover, and aquatic vegetation.	Unlikely. Outside of known range. Preferred habitat not present at project location.

Special Status Species Potential to Occur at

Glacier Fed Farms Inyo County, California

Connection .	Status			
Species	Federal	State	Distribution and Preferred Habitat	Potential to Occur on Project Locations
Plants				
Agrostis humilis mountain bent grass		2B.3	Alpine and subalpine meadows and screes at higher elevations. Meadows, fens, and open woodlands at lower elevations. 2670-3200 m.	Unlikely. Outside of known elevational range. No preferred habitat.
Aliciella triodon coyote gilia		2B.2	Great Basin scrub, pinyon and juniper woodland. Fine clayey sand or sand. 600- 1670 m.	Unlikely. Outside of known elevational range. No preferred habitat.
Allium atrorubens var. atrorubens Great basin onion		2B.3	Great Basin scrub, pinyon and juniper woodland. In sandy, rocky, gravelly, or sometimes clay soils. 1235-2320 m.	Unlikely. Preferred habitat not present at project location.
Antennaria pulchella beautiful pussy-toes		4.3	Alpine boulder and rock field, Meadows and seeps. 2800-3700 m.	Unlikely. Outside of known elevational range. No preferred habitat.
Arabis repanda var. greenei Greene's rockcress		3.3	Rock outcrops, talus, and gravelly soil in meadows and open pine forests.2345- 3600 m.	Unlikely. Outside of known elevational range.
Astragalus inyoensis Inyo milk-vetch		4.2	Open places at 1500-2300 m elevation in pinyon-juniper woodlands; often associated with sagebrush. Known from only one mountain range in Nevada and reported from the White and Inyo Mountains of California	Unlikely. Outside of known range.
Astragalus serenoi var shockleyi Shockley's milkvetch		2B.2	Chenopod scrub, pinyon and juniper woodland, Great Basin scrub. Coarse, granitic alluvium. 1185-2165 m.	Unlikely. Preferred habitat not present at project location.
Blepharidachne kingii King's eyelash grass		2B.3	Great Basin scrub. Rocky benches and alluvial fans. Usually on limestone. 485- 2135 m.	Unlikely. Preferred habitat not present at project location.
Boechera bodiensis Bodie hills rockcress		1B.3	Alpine boulder and rock field, Great Basin scrub, pinyon and juniper woodland, subalpine coniferous forest. In rock crevices, outcrops, and on steep slopes. Granite and volcanic substrates. 2010-3535 m.	Unlikely. Preferred habitat not present at project location.
Boechera dispar pinyon rockcress		2B.3	Rocky slopes, gravelly soil, in desert scrub, pinyon/juniper woodland	Unlikely. Preferred habitat not present at project location.
Botrychium crenulatum scalloped moonwort		2B.2	Bogs and fens, meadows and seeps, upper montane coniferous forest, lower montane coniferous forest, marshes and swamps. 1268-2380 m.	Unlikely. Preferred habitat not present at project location.
Calochortus excavatus Inyo County Star-tulip		1B.1	Grassy meadows in shadscale scrub. Flowers April-May.	Unlikely. Preferred habitat not present at project location.
Carex congdonii Congdon's sedge		4.3	Alpine boulder and rock field, Subalpine coniferous forest. 2600-3900 m.	Unlikely. Outside of known elevational range. No preferred habitat.
Carex scirpoidea ssp. pseudoscirpoidea western single-spiked sedge		2B.2	Alpine boulder and rock field, meadows and seeps, subalpine coniferous forest. Often on limestone; mesic sites. 2130-3660 m.	Unlikely. Preferred habitat not present at project location.
Cleomella brevipes Short -pedicelled cleomella		4.2	Alkaline marshes. Wet saline soils around thermal springs.	Unlikely. Preferred habitat not present at project location.
Eremothera boothii ssp. intermedia Booth's hairy evening-primrose		2B.3	Great Basin scrub, pinyon and juniper woodland, sandy sites. 880-2685 m.	Unlikely. Preferred habitat not present at project location.
Eremothera boothii ssp. alyssoides Pine Creek evening-primrose		4.3	Great Basin scrub. 600- 1700 m.	Unlikely. Outside of known elevational range.

Special Status Species Potential to Occur at

Glacier Fed Farms Inyo County, California

Consider	Status		Distribution and Bustones d Habitat	Determinate Common Duniont Locations
Species	Federal	State	Distribution and Preferred Habitat	Potential to Occur on Project Locations
Eriastrum sparsiflorum few-flowered eriastrum		4.3	Chaparral, Cismontane woodland, Great Basin scrub, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. 1075-1710 m.	Unlikely. Outside of known elevational range.
Ericameria albida white-flowered rabbitbrush		4.2	Grows in dry, alkaline plains in desert regions 300-1950 m.	Unlikely. Outside of known elevational range. No preferred habitat.
Euphrosyne nevadensis Nevada wormwood		4.3	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland. 1000-2055 m.	Unlikely. Preferred habitat not present at project location.
Fritillaria pinetorum pine fritillary		4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest. 1735-3300 m.	Possible. Preferred habitat may be available.
Goodmania luteola golden goodmania		4.2	Alkaline places on dry lake beds, flats, sinks and meadows in the California Central Valley southward into the Mojave Desert and into Nevada.	Unlikely. Preferred habitat not present at project location.
Jamesia americana var. rosea rosy-petalled cliffbush		4.3	Alpine boulder and rock field, Great Basin scrub, Pinyon and juniper woodland, Subalpine coniferous forest. 1980-3700 m.	Unlikely. Preferred habitat not present at project location.
Loeflingia squarrosa var. artemisiarum sagebrush loeflingia		2B.2	Sandy flats and dunes. Sandy areas around clay slicks w/Sarcobatus, Atriplex, Tetradymia, etc. 700-1615 m.	Unlikely. Out of known elevational range and preferred habitat not present at project location.
Lomatium rigidum stiff lomatium		4.3	Great Basin scrub, Pinyon and juniper woodland. 1200 -2200 m.	Unlikely. Preferred habitat not present at project location.
Lupinus padre-crowleyi Father Crowley's lupine		Rare (1B.2)	Decomposed granite, desert scrub, riparian scrub, upper montane conifer forests. 8,000-13,000 ft. elevation.	Possible. Preferred habitat may be available.
Lupinus pusillus var. intermontanus intermontaine lupine		2B.3	Great basin scrub, sandy soils. 1185-2060 m.	Unlikely. Preferred habitat not present at project location.
Oryctes nevadensis Nevada oryctes		2B.1	Creosote bush scrub, shadscale scrub, sandy soils, dunes.	Unlikely. Preferred habitat not present at project location.
Penstemon papillatus Inyo beardtongue		4.3	It is known only from the eastern Sierra Nevada and slopes to the east. It grows in rocky woodland and forest habitat types.	Possible. Preferred habitat may be available.
Petrophytum caespitosum ssp.acuminatum marble rockmat		1B.3	Lower montane coniferous forest, upper montane coniferous forest. Limestone or granite. Rocky sites. 925-2290 m.	Possible. Preferred habitat may be available.
Pinus albicaulis Whitebark pine	Proposed Threatened		Whitebark pine is typically found in cold, windy, high elevation or high latitude sites in western North America	Unlikely. Preferred habitat not present at project location.
Phacelia inyoensis Inyo phacelia		1B.2	Meadows and seeps, Alkaline meadows.	Unlikely. Preferred habitat not present at project location.
Plagiobothrys parishii Parish's popcorn-flower		1B.1	Joshua Tree Woodland, wetland-riparian, wet, alkaline soil around desert springs.	Unlikely. Preferred habitat not present at project location.
Potamegeton robbinsii Robbins' pondweed		2B.3	Marshes and swamps. Deep water, lakes. 1525-3495 m.	Unlikely. Preferred habitat not present at project location.

Special Status Species Potential to Occur at

Glacier Fed Farms Inyo County, California

APN:018-280-27

Species	Status		Distribution and Preferred Habitat	Detential to Oscur on Project Legations
Species	Federal	State	Distribution and Preferred Habitat	Potential to Occur on Project Locations
Sidalcea covillei	Endangered		Chenopod Scrub. Meadow and Seep Wetland. Flowers May-June. 1095-1415 m.	Unlikely. Out of known elevational range and preferred habitat not
Owens Valley checkerbloom		Endangered	Cheriopod Scrub. Meadow and Seep Welland. Flowers May-June. 1095-1415 III.	present at project location.
Sphenopholis obtusata		2B.2	Open moist sites, along rivers and springs, alkaline desert seeps. 15-2625 m.	Unlikely. Preferred habitat not present at project location.
prarie wedge grass		26.2	Open moist sites, along rivers and springs, alkaline desert seeps. 15-2625 m.	onlikely. Freiened habitat not present at project location.
Suaeda occidentalis		2B.3	Great Basin scrub. Alkaline soils; mesic sites. 1205-2015 m.	Unlikely. Preferred habitat not present at project location.
western seablite		20.5		
Thalictrum alpinum		4.3	Alpine boulder and rock field, Marshes and swamps, Meadows and seeps 2805-	Unlikely. Out of known elevational range and preferred habitat not
arctic meadow-rue		4.5	3700 m.	present at project location.
Viola pinetorum ssp. grisea grey-leaved violet		1B.2	Subalpine coniferous forest, upper montane coniferous forest, meadows and seeps. Dry mountain peaks and slopes. 1580-3700 m.	Possible. Preferred habitat may be available.

CSC = California Species of special Concern

MBA = Birds protected under Migratory Bird Act

WL = CDFW Watch List

CNPS: 1B = Rare or Endangered in California and elsewhere

2B = Rare and Endangered in California, more common elsewhere

- 3 = Need more information
- 4 = Limited distribution or infrequent throughout a broader area in California.
- 0.1 = Seriously threatened in California (high degree/immediacy of threat)
- 0.2 = Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3 = Not very threatened in California (low degree/immediacy of threats or no current threats known)

APPENDIX B

Plant/Animal Species Observed September 17, 2021

APPENDIX B

Plant/Animal Species Observed – September 17, 2021 Glacier Fed Farms Inyo County, California APN: 018-280-27

PLANTS:

Achnatherum hymenoides; indian ricegrass

Argemone munita; prickly poppy Artemisia tridentata; big sagebrush

Artemisia vulgaris; mugwort Betula occidentalis; water birch Bromus tectorum.; cheatgrass

Calystegia longipes; paiute false bindweed Chaenactis douglasii; hoary chaenactis Chenopodium album; lambsquarters

Chrysothamnus viscidiflorus; yellow rabbitbrush Equisetum laevigatum; smooth scouring rush Eriastrum wilcoxii; Wilcox's eriastrum Ericameria nauseosus; rubber rabbitbrush

Juncus balticus; Baltic rush Lupinus sp; annual lupin

Melilotus alba; white sweet clover

Monardella linoides; narrow-leaved monardella Parthenocissus quinquefolia; Virginia creeper

Pinus jeffreyi; Jeffrey pine

Populus balsamifera ssp.trichocarpa; black cottonwood

Prunus andersonii; desert peach

Purshia tridentata; antelope bitterbrush

Ribes cereum; wax currant Rosa woodsii; woods rose

Rubus armeniacus; Himalayan blackberry

Rumex crispus; curled dock Salix lasiolepis; arroyo willow Salsola tragus; tumbleweed Sambucus mexicana; elderberry

Juniperus sp.; Commercial cultivar, juniper shrub

WILDLIFE:

Accipiter cooperii; Cooper's hawk

Nucifraga columbiana, Clark's nutcracker

Odocoileus hemionus; Mule Deer (scat present, not visually observed)

Vanessa cardui; painted lady butterfly

APPENDIX C

Site Photos

APPENDIX C Site Photos – September 17, 2021 Glacier Fed Farms APN: 026-160-08



Proposed project area from south side looking north toward existing non-permanent high tunnel.



Project area from the northwest looking southeast.



Looking East toward proposed project location.



Looking northwest from edge of proposed project location toward Jeffrey pine and Big Pine Creek.



Big Pine Creek looking upstream at Weston access bridge , and water diversion infrastructure.



Water supply pond from north side looking generally south.



Water supply pond from eastern side looking approximately west.



Water supply line crossing over Big Pine Creek