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Docket Number:	07-AFC-05C
Project Title:	Ivanpah Solar Electric Generating System (Compliance)
TN #:	235407
Document Title:	IVANPAH SOLAR ELECTRIC GENERATING SYSTEM 2018-2019 AVIAN & BAT MONITORING PLAN
Description:	N/A
Filer:	Joe Douglas
Organization:	California Energy Commission
Submitter Role:	Energy Commission
Submission Date:	10/23/2020 12:07:24 PM
Docketed Date:	10/23/2020



**IVANPAH SOLAR ELECTRIC GENERATING SYSTEM
AVIAN & BAT MONITORING PLAN**

2018 – 2019 Annual Report



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January 2020

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Section 1.0 Introduction

1.1 Project Background

The Ivanpah Solar Electric Generating System (referred to in this report as "Ivanpah" or "Project") consists of three solar power electrical generating facilities (Units 1, 2, and 3) with a combined net capacity of 377 megawatts. Each unit includes a central power tower with an air-cooled condenser (ACC) and associated electrical generating equipment, surrounded by a heliostat array that reflects sunlight to a boiler at the top of the power tower. Ivanpah is located on approximately 1,457 hectares (3,600 acres) of Bureau of Land Management (BLM) land west of Interstate 15 near the town of Nipton in San Bernardino County, California (Figure 1). Construction was initiated in 2010 and completed in late 2013.

1.2 Monitoring Plan Overview and Goals

An Avian & Bat Monitoring and Management Plan (Plan) was prepared by the Project proponents in collaboration with the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Energy Commission (CEC), and Bureau of Land Management (BLM) to guide comprehensive monitoring of impacts to birds and bats associated with the operation of the Project. In December 2017, the TAC approved the field methods described in Revision 14 of the Plan (2017), which provides a framework for comparing detections in the tower area of all three units to baseline levels of mortality observed during the first four years of standardized monitoring.

Specifically, the Plan (2017) details the surveys, data analysis and reporting processes that will be implemented by Ivanpah in collaboration with the USFWS, CDFW, CEC, and BLM and provides the following goals and objectives as excerpted from the Plan (2017):

Plan Goals

1. Assess levels of mortality: Detections (i.e., fatalities or injuries) documented and an annual assessment of the level of mortality will be determined and provided consistent with the “high, medium and low” framework as described in Section 5.3.
2. Provide a Framework for Management and Response to Risks: The designation and description of the functioning of the TAC provides a management and decision framework for the identification and implementation of potential adaptive management measures.

Plan Objectives

The first two years of monitoring documented that the mortality associated with the perimeter fences, transmission lines, and offsite transects was less than 5 detections per season. Additionally, the patterns associated with avian use have been consistent over the seasons and documented in the annual reports. During the third and fourth year of monitoring, consistent patterns of mortality associated with the tower areas and heliostat areas were documented. Therefore, as revised, this Plan has the following objectives:

1. Document patterns of avian and bat mortality and injury at the facility.

2. Provide quantitative and qualitative information for developing and implementing adaptive management responses commensurate with identified impacts.
3. Provide a framework for the TAC to jointly review, characterize, and recommend responses, based on monitoring results, to the appropriate lead agency representatives.

As approved by the TAC, the revised Plan (2017) continues to: 1) satisfy the BLM Right-of-Way (ROW) Permit requirement that the Project proponent develop an avian plan as well as a Migratory Bird Treaty Act (MBTA) Conservation Agreement; 2) satisfy the requirements for the Avian & Bat Monitoring and Management Plan approved by the CEC for Ivanpah per CEC Condition of Certification BIO-21; and 3) achieve the avian and bat protection objectives of the USFWS in relation to the MBTA, Bald and Golden Eagle Protection Act (Eagle Act), and Federal Endangered Species Act (ESA), including preparing written records of the actions that have been taken to avoid, minimize, and compensate for potential adverse impacts to avian and bat species. By developing a proactive management plan in close consultation with the USFWS and other relevant state and federal agencies, Project proponents can effectively comply with the intent of the federal MBTA, Eagle Act, ESA, and relevant state regulations (USFWS 2012).

1.3 Purpose of This Report

This report provides a summary of the detections (by cause and location for known and unknown cause according to the biologically informed seasons (16 December 2018 – 15 December 2019) as described in the 2014 – 2015 Annual Report (WEST 2016), and further described in Section 2.1.5. Biologically informed seasons are defined in this report as winter (15 December 2018 – 20 March 2019), spring (21 March – 25 May 2019), summer (26 May – 17 August 2019), and fall (18 August – 15 December 2019), and are collectively referred to as the 2018 – 2019 monitoring year or year 6 throughout this report.

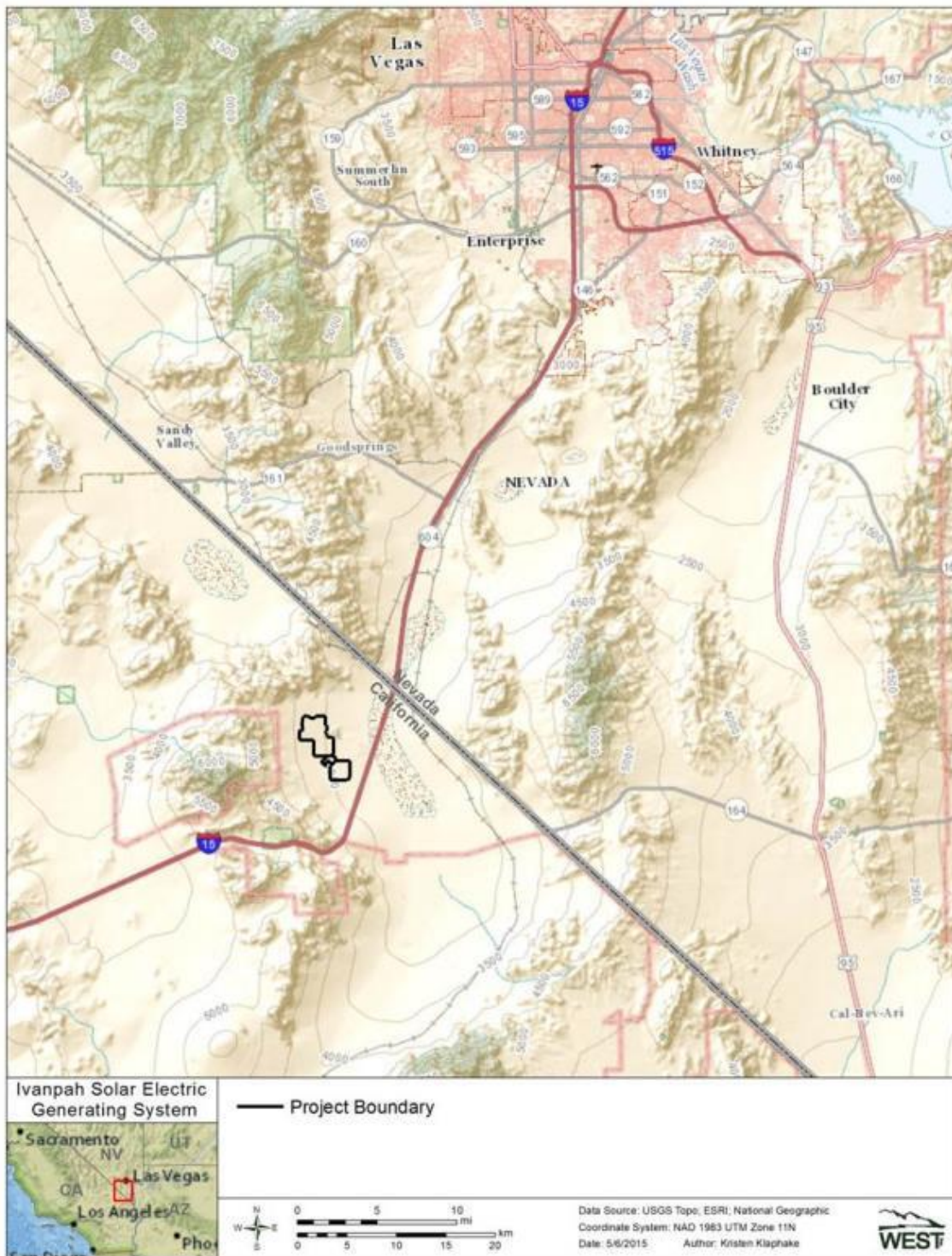


Figure 1. Ivanpah Vicinity Map.

Section 2.0 Methods

The Plan (2017) describes the methods by which monitoring and certain analyses, including comparison of detections the fatality index based on the first four years of monitoring, will occur. Below is an abridged description of the 2017 methods and subsequent modifications approved by the TAC.

2.1 Facility Monitoring

This section describes areas surveyed, the frequency and timing of the searches, and the methods by which standardized searches were conducted to identify dead/injured birds and bats (hereafter detections) at the Project. This section also describes the methods for conducting carcass removal and searcher efficiency trials; how data were reported and analyzed for incidental detections; and the methods for producing fatality estimates for the Project.

2.1.1 Standardized Searches

2.1.1.1 Areas Surveyed

Per the Plan (2017), monitoring was conducted in the “tower area”, defined as the power block (the area consisting of the tower, the ACC unit, the associated control building, and immediately adjacent areas defined by the ring road and berm/slopes surrounding these facilities) and inner high-density (HD) heliostats surrounding each power block.

2.1.1.2 Search Frequency and Timing

Standardized searches occurred at each unit on a 21-day interval in summer and winter seasons, with a 7-day interval in the spring and fall seasons until December 31, 2017. With approval from the TAC on December 21, 2017, standardized search frequency was undertaken at each unit on a 14-day interval beginning January 14, 2018 as per Revision 14 of the Plan (2017)

2.1.1.3 Search Methods

Biologists performed surveys in the tower area. Standardized walking surveys for fatalities were performed by biologists approved by CEC and BLM, in accordance with the methods outlined in the Plan (2017). Surveys were conducted approximately every 14 days, resulting in 24-26 surveys of the power block, ACC, and inner HD heliostats at each of the three units. Variability in search schedule visits was due to operational maintenance and weather conditions. Within the power block, biologists or operations staff walked through and around the power tower and ACC unit searching for dead and injured birds and bats and walked transects through the gravel surrounding the structures to achieve 100% coverage within physically accessible areas. Within the inner HD heliostats surrounding each power block, biologists or operations personnel walked transects to ensure 100% coverage. Thus, the tower area, comprising the area within 260 m of each tower, was completely covered during each survey, excepting any areas that were physically inaccessible or unsafe to survey. Inaccessible areas were, to the extent possible, scanned using binoculars.

Carcass and Feather Spot Examination. Every carcass and feather spot were examined visually by a biologist approved by the CEC and BLM for evidence of singeing or collision. Singeing to feathers can

occur when a bird enters the flux around the power tower. When no obvious evidence of singeing or collision was evident to the naked eye, the carcass or feather spot was then examined using an AmScope SE306R-AZ-E2 20X-40X-80X Digital Binocular Stereo Microscope. When singed detections involving carcasses (as opposed to only feather spots) were found, the singeing was assigned a grade based on Kagan et al. (2014), as follows.

- Grade 1 – curling of less than 50% of the flight feathers
- Grade 2 – curling of 50% or more of the flight feathers
- Grade 3 – curling and visible charring of contour feathers

Kagan et al. (2014) originally found no singeing of contour feathers in the absence of curling of 50% or more of the flight feathers. In contrast, we have found singeing of contour feathers with curling of less than 50% of flight feathers, and in the absence of curling or singeing of any flight feathers. We therefore assigned grade 3 independent of grades 1 and 2.

When a carcass was detected, biologists looked for evidence of collision, including obvious physical trauma or detection adjacent to a heliostat with a bird-strike imprint, smudge mark, and/or feathers on or near the surface of the mirror. If there was no evidence of collision or singeing (e.g., charring, curling, or melting of feathers), as confirmed through microscopic examination, the cause of injury or fatality was listed as “unknown”.

For the purpose of these surveys, feather spots were considered detections when they met the following definition:

At least two or more primary flight feathers, 5 or more tail feathers, or 10 or more feathers of any type concentrated together in an area 1-m² or smaller (Smallwood 2007), without any bone, beak, or significant amounts of flesh or skin.

In some cases, an individual detection was broken up into aggregations of feathers that would meet the criteria for a feather spot, but with pieces of the carcass that contained bone or significant amounts of flesh or skin also present. In these cases, the detection was categorized as a partial carcass (rather than a feather spot), per the “feather spot” definition above.

2.1.4 Incidental Reporting

All incidental detections are reported in the Special Purpose Utility (SPUT) permit database as per the requirements of the USFWS. Incidental detections are those discovered outside standardized search areas or are found within search areas but not during standardized searches. Detections at locations not searched under the Plan (2017) such as the heliostat area or fenceline are also considered incidental detections for this report. These detections are reported in accordance with the facility's Wildlife Incident Reporting System (described in Section 3.4 of the Plan) and are considered “incidental” detections.

Biologically Informed Seasons. In an effort to address the annual variation in migration seasons for non-resident birds, a stepwise, data-driven process was used to define biologically informed seasons in association with the 2014 – 2015 Annual Report. As described in that report, all bird species found as detections at Ivanpah were categorized as resident or non-resident. Resident species were defined as those that occur year-round, such as a black-throated sparrow. These species would be expected to have a more similar fatality risk profile year-round than non-resident species. Non-resident species were defined as either those that are transient (e.g., passing through the area during migration such as yellow-rumped warbler) or seasonal resident (e.g., those species that migrate into the areas to overwinter or breed on an annual basis such as tree swallow) and therefore would be expected to have periodic risk. Based on the dates of non-resident species observed in the Year 1 data, and supported by observations in subsequent years, a decision was made to use December 15 as the end of fall migration for the purposes of comparing seasonal fatality data among years.

Section 3.0 Monitoring Results

3.1 Summary of Avian Detections

During the 2018 – 2019 monitoring year, a total of 358 avian detections (including injured birds and incidentals) of 62 identified species and 71 identifiable species groups (Table 1) were recorded. Three-hundred-forty-eight (348) detections occurred in the tower area, and 10 were detected incidentally outside of the tower area. Of the 10 detections outside of the tower area, 3 showed signs of singeing, 1 showed signs of collision, and for the remaining six detections, the cause could not be determined (Figure 2). The three singed detections outside the tower area were a cliff swallow, a white-faced ibis, and an American pipit, with the cliff swallow and American pipit found alive.

There were 144 feather spots/partial carcasses in the tower areas of all three units, which accounted for 41.1% of detections in those searched areas. Evidence of singeing was noted through direct and microscopic examination on 53 of these 144 feather spots; evidence of collision (i.e., an impact imprint on a nearby mirror) was noted in the case of one feather spot. One feather spot was associated with an entrapped bird. Otherwise, the causes of the feather spots for the other 33 detections are unknown. These values are consistent with ranges found in previous annual assessments.

Table 1. Number of Individual Bird Detections, by Species, 2018 – 2019 Monitoring Year.

Identification and Status				Type of Detections			Source and Cause of Detections			
Species	Scientific Name	Local Breeder	Status*	Total Detections	Injuries	Fatalities	Tower Area	Other Project Lands	Singed/Collision/Other	Unknown
Unidentified bird (small)	unidentified	NA		56	0	56	56	0	24/1/2	29
yellow warbler	<i>Setophaga petechia</i>	No	SSC, BCC	50	0	50	50	0	41/0/2	7
mourning dove	<i>Zenaida macroura</i>	Yes		22	0	22	20	2	3/3/0	16
house finch	<i>Haemorhous mexicanus</i>	Yes		15	2	13	15	0	12/0/0	3
northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	No		15	0	15	15	0	11/0/0	4
yellow-rumped warbler	<i>Setophaga coronata</i>	No		13	0	13	13	0	13/0/0	0
cliff swallow	<i>Petrochelidon pyrrhonota</i>	No		12	1	11	11	1	11/0/0	1
tree swallow	<i>Tachycineta bicolor</i>	No		12	0	12	12	0	12/0/0	0
unidentified warbler	unidentified	NA		11	0	11	11	0	7/0/0	4
northern mockingbird	<i>Mimus polyglottos</i>	Yes		8	0	8	7	1	1/0/0	7
barn swallow	<i>Hirundo rustica</i>	No		7	0	7	7	0	6/0/0	1
black-throated sparrow	<i>Amphispiza bilineata</i>	Yes		7	1	6	7	0	6/0/0	1
unidentified sparrow	unidentified	NA		7	0	7	7	0	2/0/0	5
unidentified swallow	unidentified	NA		7	0	7	7	0	4/0/0	3
blue-gray gnatcatcher	<i>Poliophtila caerulea</i>	No		6	0	6	6	0	6/0/0	0

Identification and Status				Type of Detections			Source and Cause of Detections			
Species	Scientific Name	Local Breeder	Status*	Total Detections	Injuries	Fatalities	Tower Area	Other Project Lands	Singed/Collision/Other	Unknown
verdin	<i>Auriparus flaviceps</i>	Yes		6	1	5	6	0	4/1/0	1
calliope hummingbird	<i>Selasphorus calliope</i>	Yes		5	0	5	5	0	5/0/0	0
brown-headed cowbird	<i>Molothrus ater</i>	No		4	0	4	4	0	3/0/0	1
lesser nighthawk	<i>Chordeiles acutipennis</i>	No		4	0	4	4	0	0/0/0	4
Lincoln's sparrow	<i>Melospiza lincolnii</i>	No		4	0	4	4	0	1/2/0	1
MacGillivray's warbler	<i>Geothlypis tolmiei</i>	No		4	0	4	4	0	3/0/0	1
unidentified gnatcatcher	<i>Polioptila</i> spp.	NA		4	0	4	4	0	4/0/0	0
unidentified hummingbird	unidentified	NA		4	0	4	4	0	4/0/0	0
American pipit	<i>Anthus rubescens</i>	No		3	1	2	2	1	2/0/0	1
common raven	<i>Corvus corax</i>	Yes		3	2	1	3	0	2/0/0	1
Costa's hummingbird	<i>Calypte costae</i>	Yes	BCC	3	0	3	3	0	3/0/0	0
great-tailed grackle	<i>Quiscalus mexicanus</i>	No		3	0	3	3	0	1/0/0	2
lazuli bunting	<i>Passerina amoena</i>	No		3	0	3	3	0	3/0/0	0
Townsend's warbler	<i>Setophaga townsendi</i>	No		3	0	3	3	0	3/0/0	0
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	No		3	0	3	3	0	0/0/0	3
black-tailed gnatcatcher	<i>Polioptila melanura</i>	Yes		2	0	2	2	0	2/0/0	0
black-throated gray warbler	<i>Setophaga nigrescens</i>	No		2	0	2	2	0	2/0/0	0

Identification and Status				Type of Detections			Source and Cause of Detections			
Species	Scientific Name	Local Breeder	Status*	Total Detections	Injuries	Fatalities	Tower Area	Other Project Lands	Singed/Collision/Other	Unknown
Bullock's oriole	<i>Icterus bullockii</i>	No		2	0	2	2	0	2/0/0	0
cactus wren	<i>Campylorhynchus brunneicapillus</i>	Yes		2	0	2	2	0	0/0/0	2
cinnamon teal	<i>Anas cyanoptera</i>	No		2	0	2	2	0	1/0/0	1
lesser goldfinch	<i>Spinus psaltria</i>	No		2	0	2	2	0	1/0/0	1
ruby-crowned kinglet	<i>Regulus calendula</i>	No		2	0	2	2	0	2/0/0	0
rufous hummingbird	<i>Selasphorus rufus</i>	No		2	0	2	2	0	2/0/0	0
western wood-pewee	<i>Contopus sordidulus</i>	No		2	0	2	2	0	1/0/0	1
white-faced ibis	<i>Plegadis chihi</i>	No		2	0	2	1	1	2/0/0	0
Wilson's warbler	<i>Cardellina pusilla</i>	No		2	0	2	2	0	2/0/0	0
American avocet	<i>Recurvirostra americana</i>	No		1	0	1	0	1	0/0/0	1
Anna's hummingbird	<i>Calypte anna</i>	No		1	0	1	1	0	1/0/0	0
bank swallow	<i>Riparia riparia</i>	Yes	ST	1	0	1	1	0	1/0/0	0
black-chinned hummingbird	<i>Archilochus alexandri</i>	Yes		1	0	1	1	0	1/0/0	0
Brewer's sparrow	<i>Spizella breweri</i>	Yes		1	0	1	1	0	1/0/0	0
chipping sparrow	<i>Spizella passerina</i>	No		1	0	1	1	0	1/0/0	0
eared grebe	<i>Podiceps nigricollis</i>	No		1	0	1	1	0	0/0/0	1
European starling	<i>Sturnus vulgaris</i>	Yes		1	0	1	1	0	1/0/0	0
golden-crowned sparrow	<i>Zonotrichia atricapilla</i>	No		1	0	1	1	0	0/0/0	1
greater roadrunner	<i>Geococcyx californianus</i>	Yes		1	0	1	0	1	0/0/0	1

Identification and Status				Type of Detections			Source and Cause of Detections			
Species	Scientific Name	Local Breeder	Status*	Total Detections	Injuries	Fatalities	Tower Area	Other Project Lands	Singed/Collision/Other	Unknown
lark sparrow	<i>Chondestes grammacus</i>	No		1	0	1	1	0	1/0/0	0
least sandpiper	<i>Calidris minutilla</i>	No		1	0	1	1	0	1/0/0	0
loggerhead shrike	<i>Lanius ludovicianus</i>	Yes	SSC	1	0	1	1	0	0/0/0	1
Lucy's warbler	<i>Leiothlypis luciae</i>	No	SSC, BCC	1	0	1	1	0	1/0/0	0
Nashville warbler	<i>Leiothlypis ruficapilla</i>	No		1	0	1	1	0	1/0/0	0
northern flicker	<i>Colaptes auratus</i>	Yes		1	0	1	1	0	0/1/0	0
orange-crowned warbler	<i>Leiothlypis celata</i>	No		1	0	1	1	0	1/0/0	0
pine siskin	<i>Spinus pinus</i>	No		1	0	1	1	0	1/0/0	0
red-naped sapsucker	<i>Sphyrapicus nuchalis</i>	No		1	0	1	1	0	1/0/0	0
rock pigeon	<i>Columba livia</i>	Yes		1	0	1	1	0	0/1/0	0
ruddy duck	<i>Oxyura jamaicensis</i>	No		1	0	1	0	1	0/0/0	1
unidentified blackbird	unidentified	NA		1	0	1	1	0	0/0/0	1
unidentified large bird	unidentified	NA		1	0	1	1	0	0/0/1	0
unidentified teal	<i>Anas</i> spp.	NA		1	0	1	1	0	0/0/0	1
unidentified waterfowl	unidentified	NA		1	0	1	1	0	0/0/0	1
unidentified woodpecker	unidentified	NA		1	0	1	1	0	0/0/0	1
varied thrush	<i>Ixoreus naevius</i>	No		1	0	1	1	0	0/0/0	1
Vaux's swift	<i>Chaetura vauxi</i>	Yes	SSC	1	0	1	1	0	0/0/0	1

Identification and Status				Type of Detections			Source and Cause of Detections			
Species	Scientific Name	Local Breeder	Status*	Total Detections	Injuries	Fatalities	Tower Area	Other Project Lands	Singed/Collision/Other	Unknown
violet-green swallow	<i>Tachycineta thalassina</i>	No		1	0	1	1	0	1/0/0	0
warbling vireo	<i>Vireo gilvus</i>	No		1	0	1	1	0	1/0/0	0
western meadowlark	<i>Sturnella neglecta</i>	Yes		1	0	1	0	1	0/0/0	1
willet	<i>Tringa semipalmata</i>	No		1	0	1	1	0	1/0/0	0
Total	NA	NA		358	8	350	348	10	230/9/5	114

* SSC = California species of special concern, ST = State threatened, BCC = USFWS bird of conservation concern for BCR 33, FP= California fully protected species.

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3.1.1 Spatial Patterns of Detections

During the 2018 – 2019 monitoring year, 348 detections were found in the tower area with 103 (29.6%) in Unit 1, 102 (29.3%) in Unit 2, and 143 (41.1%) in Unit 3. Of the tower area detections, 227 (65.2%) showed signs of singed feather damage, 8 (2.3%) showed signs of collision, 5 (1.4%) were attributed to entrapment, and cause could not be determined for 108 (31.0%). Results from the 2018 – 2019 monitoring year are consistent with previous years.

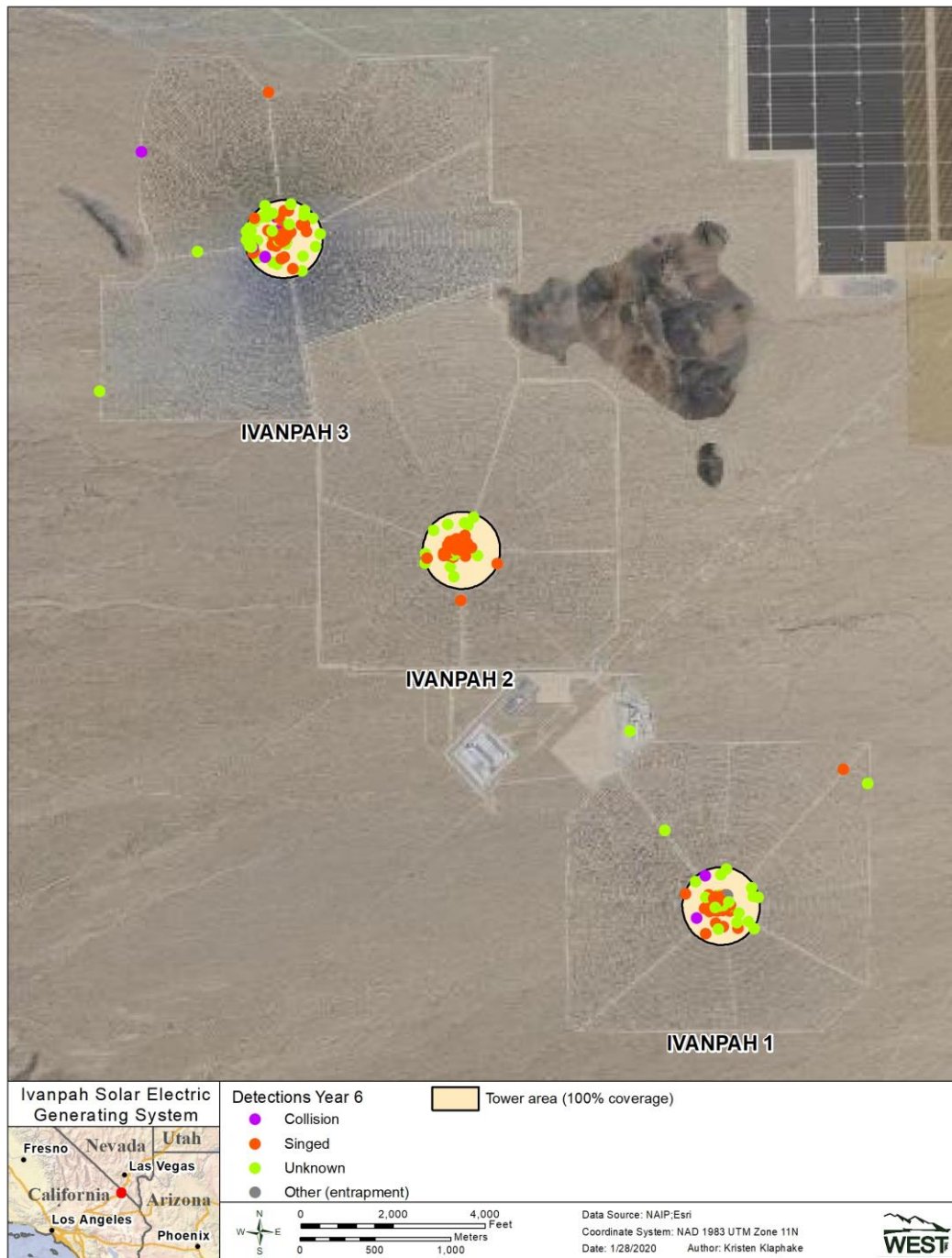


Figure 2. Locations of Detections, by Cause, within Solar Units.

3.1.2 Temporal Patterns of Detections

The number of detections reported per day varied during the 2018 – 2019 monitoring year. The number of detections per day represents the accumulation of detections over the search interval minus those detected incidentally and removed between searches. Consistent with previous years, detections per day in the tower area showed a strong seasonal pattern with detections highest in the fall (Figure 3).

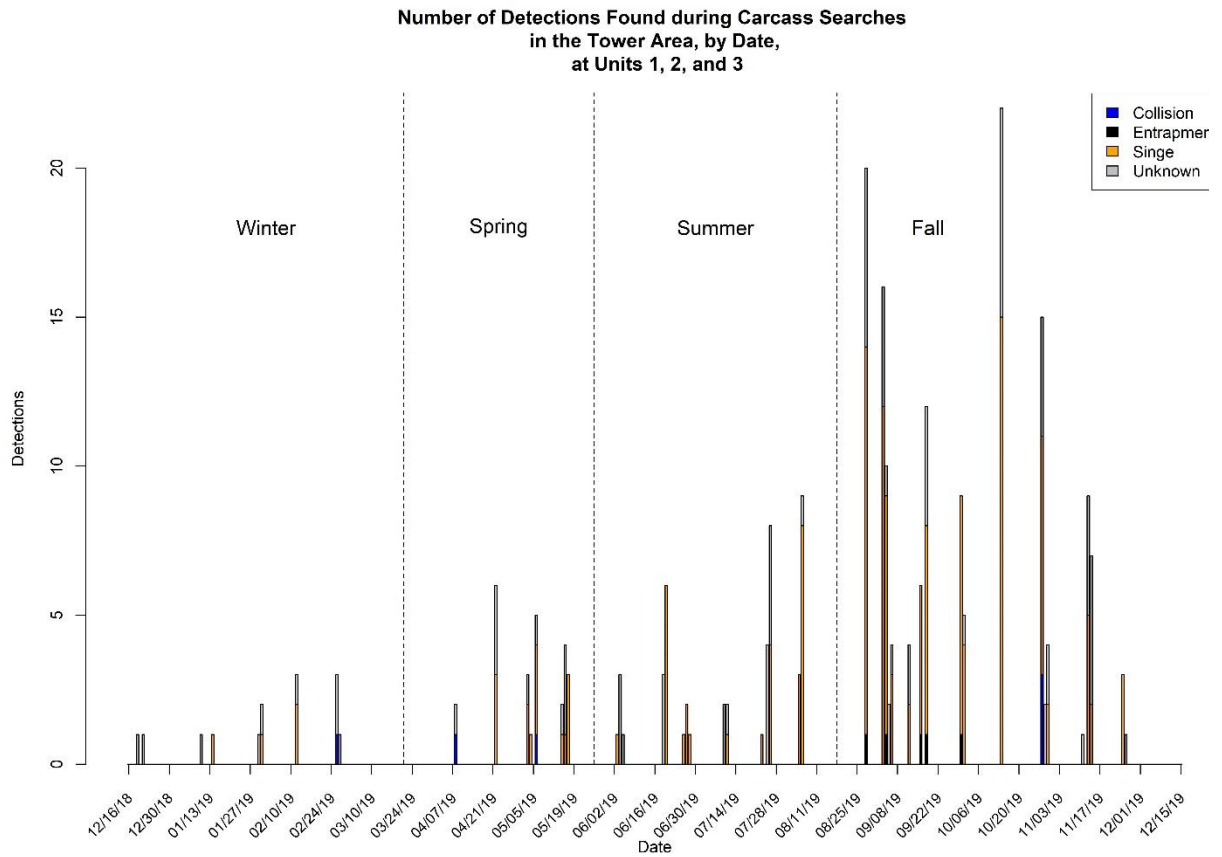


Figure 3. Number of Detections on Each Survey Date, 2018 – 2019 Monitoring Year.

3.1.2 Summary of Bat Detections

Three bats representing one species and one unidentified species were detected as fatalities during the 2018 – 2019 monitoring year. The fatalities comprised two Mexican free-tailed bats (*Tadarida brasiliensis*), and one unidentified bat. All bats were found in the power block, with one Mexican free-tailed bat and the unidentified bat found in unit 1, and the other Mexican free-tailed bat found in unit 3. Given the few detections of bats, they are not discussed further.

Section 4.0 Comparison to Fatality Index

This section utilizes the detection data as described in Section 3 to evaluate the potential for impacts in accordance with the modified Plan (2017). Detection data from the tower area for year 5 are compared to the fatality index model developed in the Plan (2017) to determine if the results of monitoring are consistent with previous years of intensive monitoring in the tower area of all three units.

4.1 Fatality Index Comparison

There was a total of 348 detections (resulting from fatality searches or incidental detection) in the tower area during the 2018 – 2019 monitoring year. The fatality index model developed in the Plan (2017) predicted that the number of detections resulting from operations monitoring should be, on average, 504, and be between 276 and 746 detections to be 90% confident that the results of fatality monitoring were consistent with the first four years of monitoring. Since the total for year 6 is well within the 90% prediction interval (276-746), the overall number of fatalities in year 6 is consistent with the first four years of monitoring (Figure 4).

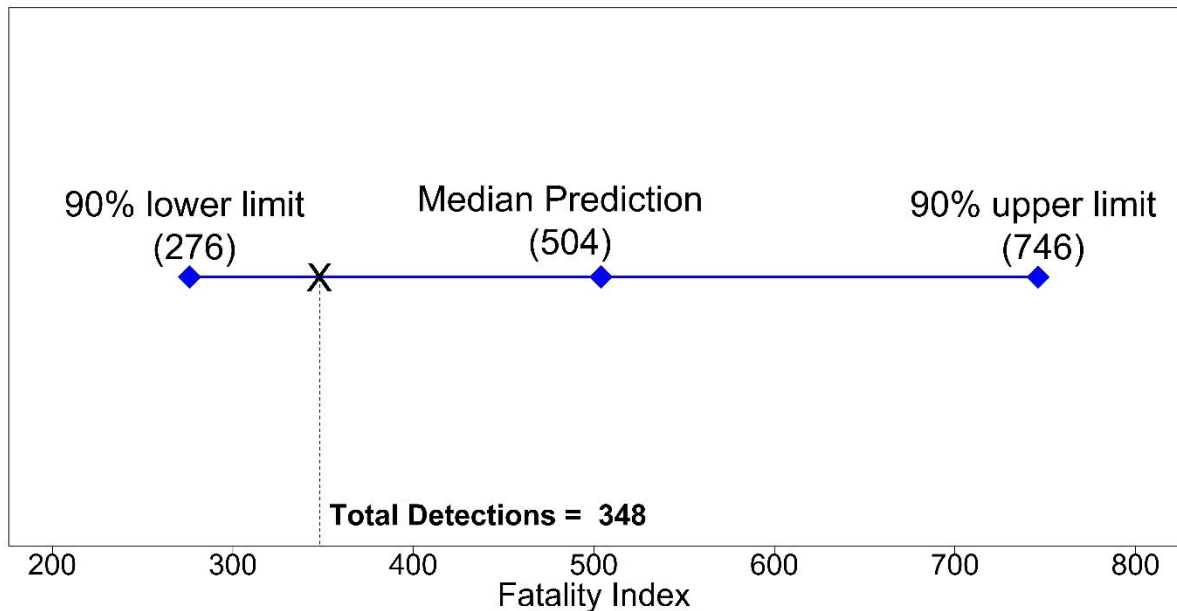


Figure 4. Total number of detections in the tower area during year 6 (348) relative to the fatality index.

Section 5.0 Framework for Management and Risk Response

According to Section 5.3 of the Plan, migratory bird mortality at Ivanpah is categorized as high, medium, or low to provide an appropriate biological basis for TAC review and decision making, based on the following definitions:

1. “High: Estimated avian mortality or injury levels are facility-caused and likely to seriously and negatively affect local, regional, or national avian populations within a particular species or group of species.”
2. “Medium: Estimated avian mortality or injury levels are facility-caused and have the potential to negatively affect local, regional, or national populations within a particular avian species or group of species.”
3. “Low: Estimated avian mortality or injury levels that have minimal or no potential to negatively affect local, regional, or national populations within a particular species or group of species.”

5.1 Comparison to the Fatality Index

As presented in ABMMP Rev 14 (Appendix D), the number of detections can be used to understand the potential effects of the facility on birds in the context of the first four years of monitoring through the fatality index. Typically, the number of detections provides little insight into potential population level effects because the fatality estimate is not known. However, in monitoring years 1 – 4 when fatality estimates were calculated, it was determined that in each year the facility had a low potential to impact each species or species group at the local, regional, or national scale. Thus, the range of values for the fatality index generated from the first four years of monitoring represents a range of values to have a low potential impact on populations (HTH 2015, WEST 2016, WEST 2017, WEST 2018).

The number of tower area detections in the 2018 – 2019 monitoring year (348) is below the median estimate of the fatality index (504) and within the 90% confidence limits of the fatality index (276 – 746). Total tower detections lower than the median fatality index but within the 90% confidence limits implies the number of detections found during the 2018 – 2019 monitoring falls on the lower end of the anticipated number of detections based on years 1 – 4, but is consistent with range of fatalities observed, and variability observed in searcher efficiency and carcass persistence during the intensive monitoring of years 1 – 4. Thus, the number of detections in the tower area is consistent with first four years of monitoring.

5.2 Assessment of Potential Effects to National and Regional Populations

As presented in ABMMP Rev 14 (Appendix D), species with more than 5 detections are evaluated for potential effects on the national or regional population. Factors established for evaluating potential population effects in ABMMP Rev 14 (Appendix D) include: species status, population size, and life history strategy. During the 2018 – 2019 monitoring year, one special status species, yellow warbler (California

species of special concern) had > 5 detections. However, when considering the scale of evaluation (national and regional) the 50 total detections represent 0.000125% and 0.009% of the national and regional, populations. Thus, mortality of yellow warblers at the Project has low potential to influence national and regional populations. Consistent with previous assessments, all of the remaining top ten species by total detections are not special status and have robust populations nationally and regionally (Table 2). Thus, there is low potential for mortality at the Project to have population level effects at the national and regional scale based on the species detected and the population sizes.

Table 2. Number of detections, occurrence at the Project, and population estimates for the top 10 species detected at the Project.

Species	Occurrence at Project	Year 5 Total detections	Population estimates from Partners in Flight Database	
			Regional (California)	National
yellow warbler*	Uncommon spring migrant, common fall migrant	50	550,000	40,000,000
mourning dove	Fall migrant, year round resident	22	4,400,000	130,000,000
house finch	Year round resident	15	9,600,000	33,000,000
northern rough-winged swallow	Spring and fall migrant	15	1,100,000	19,000,000
yellow-rumped warbler	Spring and fall migrant	13	2,200,000	47,000,000
cliff swallow	Spring and fall migrant	12	9,700,000	71,000,000
tree swallow	Spring and fall migrant	12	400,000	8,700,000
northern mockingbird	Year round resident	8	630,000	34,000,000
barn swallow	Spring and fall migrant	7	570,000	40,000,000
black-throated sparrow	Year round resident	7	2,700,000	31,000,000

* California species of special concern

5.3 Assessment of Effects to Local Populations

As presented in ABMMP Rev 14 (Appendix D), a decision framework is used to determine if a species is a local breeder near the Project. Following the decision framework, species with >5 detections were reviewed to determine, based on range maps, those that could breed locally in the vicinity of the Project. As per previous practice >5 detections are used as a threshold for analysis, consistent with four years of baseline quantitative assessments (HTH 2015, WEST 2016, WEST 2017, WEST 2018). Of the 12 species with > 5 detections, five were determined to be local breeders.

As per the ABMMP Rev 14 framework, the timing of the fatalities was reviewed to determine those that occurred during the species breeding season, based on information provided in species accounts at <https://nrm.dfg.ca.gov/taxaquery/Default.aspx>. This framework assumes that if a fatality is found during the breeding season and the fatality is of a locally breeding individual these detections are locally breeding species. Of the five locally breeding species, three had >5 detections during the breeding season: mourning

dove (20 detections), house finch (9 detections), and northern mockingbird (8 detections; Table 3). These species are consistent with those determined to be local breeders in previous annual assessments.

Table 3. Number of Detections of Locally Breeding Species During the 2018 – 2019 Monitoring Year.

Species	Start of breeding season	End of breeding season	Number of detections
Mourning dove	Late January	Late September	20
House finch	March	August	9
Northern mockingbird	Mid-February	Late September	8

Criteria established for evaluating the potential population effects in ABMMP Rev 14 (Appendix D) include: 1) species status, 2) population size, and 3) survival strategy. First, none of the three species are designated as special status species nor do any of these species have a special management designation in the Mojave Desert ecoregion. Second, the distribution of the species and overall population in the Mojave Desert in California and Nevada (Bird Conservation Region (BCR) 33) – obtained from the Partners in Flight database – was reviewed to determine the distribution and abundance in BCR 33. The mourning dove population estimate in BCR 33 is 4,700,000, the house finch population in BCR 33 is 3,300,000, the northern mockingbird population in BCR 33 is 320,000. Thus, none of these locally breeding species are special status and all have a robust population that is not likely to be affected by local removal of individuals.

Third, examining the survival strategies of these species also lends weight to a low potential for impacts, Mourning dove, house finch, and northern mockingbird are short-lived and highly fecund, and populations of birds with these life history traits are more sensitive to fecundity than adult survival (Stahl and Oli 2006). In addition, these species all have a long breeding season that provides the opportunity for multiple breeding attempts to produce offspring that could be recruited into the local population. When these factors are evaluated together, there is a low potential for impacts from the Project to the population of locally breeding bird species as a result of the limited numbers of detections.

5.4 Assessment of Effects to Special Status Species

As presented in ABMMP Rev 14 (Appendix D), all special-status species are always considered for potential population level effects for any number of detections. Special status species recorded as detections included 50 yellow warblers (California species of special concern, BCR 33 bird of conservation concern), 3 Costa’s hummingbirds (BCR 33 bird of conservation concern), 1 bank swallow (California state threatened), 1 Vaux’s swifts (California species of special concern), 1 Lucy’s warbler (California species of special concern, BCR 33 bird of conservation concern), and 1 loggerhead shrike (California species of special concern). The bank swallow, which is state listed as threatened is discussed further below. The yellow warbler was discussed earlier, and the remaining special status species had 3 or fewer detections. Considering the low number of fatalities coupled with the life-history strategy of high fecundity

and a short lifespan, the potential for population level impacts from these few detections does not rise above a “low” potential effect on a national, regional or local level.

Table 4. Detections of Sensitive Species during the 2018 – 2019 Monitoring Year.

Species	Status*	Fatalities	Injuries	Total
yellow warbler	SSC, BCC	50	0	50
Costa’s hummingbird	BCC	3	0	3
bank swallow	ST	1	0	1
Vaux’s swift	SSC	1	0	1
Lucy’s warbler	SSC, BCC	1	0	1
Loggerhead shrike	SCC	1	0	1
Total	SSC	57	0	57

*SSC = California species of special concern, ST = State threatened, BCC = USFWS bird of conservation concern for BCR 33, FP= California fully protected species.

Bank swallow is listed regionally in California due to a declining population throughout the state, and most bank swallows’ nest along the Sacramento River and its tributaries (BSTAC 2013). An estimated 20,000 bank swallows occur regionally within California and an estimated 1,400,000 occur nationally in the United States (Partners in Flight Science Committee 2013). As the local area for the Project does not contain bank swallow nesting habitat, there is no local population for evaluation. The single detection recorded during the 2018 – 2018 monitoring year likely resulted from migrating individuals that could breed as far north as Alaska. The fatality of one bank swallow represents a very small proportion of the regional or national population; thus, the one bank swallow fatality during the 2018 – 2019 monitoring year does not rise above the “low” category, as loss of this magnitude would have a minimal effect on populations at all geographic scales (regional or national).

Section 6.0 Recommendations

Based on the results on the Year 6 monitoring, the following recommendations are provided.

1. **Continue Implementation of the Approved Version of Revision 14 of the ABMMP.** The tower area is the location of all known causes – singeing, collision, and entrapment in the ACC. Rev 14, which provides ongoing systematic surveys in the tower area, will provide data that will allow for continued annual risk analysis, adaptive management and a comparison in the trends in detections with Years 1 – 6.

Section 9.0 Literature Cited

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Appendix A. Individual Avian Detections.

USFWS #	Common Name	Species Code	How Found	Detection Date	Collection Date	Condition	Time Since Death/Injury	Description of Carcass/Injury	Cause of Death/Injury	Burn Grade	Unit	Nearest Project Feature	Coordinates	SPUT Revisions
2018_524_ISEGS	loggerhead shrike	LOSH	Fatality Search	12/19/2018	12/19/2018	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4847, 35.5743	NA
2018_526_ISEGS	unidentified bird (small)	UNID	Fatality Search	12/21/2018	12/21/2018	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4512, 35.5373	NA
2019_001_ISEGS	unidentified bird (small)	UNID	Fatality Search	1/10/2019	1/10/2019	feather spot	31-60 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4513, 35.5353	NA
2019_002_ISEGS	barn swallow	BARS	Fatality Search	1/14/2019	1/14/2019	mummified	31-60 days	singe to wings, rectrices, and head.	Scorched or singed	1	2	ACC	-115.47, 35.5572	NA
2019_003_ISEGS	unidentified swallow	UNSW	Incidental	1/15/2019	1/16/2019	mummified	31-60 days	singe to all body parts with tail singed off.	Scorched or singed	1;3	3	Powerblock	-115.4827, 35.5754	NA
2019_004_ISEGS	unidentified sparrow	UNSP	Fatality Search	1/30/2019	1/30/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4841, 35.5774	NA
2019_005_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	1/31/2019	1/31/2019	broken up	3-7 days	evidence of curling to flight feathers.	Scorched or singed	3	1	Powerblock	-115.451, 35.5348	NA
2019_006_ISEGS	golden-crowned sparrow	GCSP	Fatality Search	1/31/2019	1/31/2019	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.4728, 35.5564	NA
2019_007_ISEGS	yellow-rumped warbler	YRWA	Incidental	2/11/2019	2/12/2019	dead-semi-fresh	3-7 days	evidence of singe to head and back.	Scorched or singed	3	1	Powerblock	-115.4516, 35.5351	NA
2019_008_ISEGS	unidentified bird (small)	UNID	Fatality Search	2/12/2019	2/12/2019	feather spot	3-7 days	evidence of singe to contour feathers.	Scorched or singed	3	2	Powerblock	-115.4703, 35.5566	NA
2019_009_ISEGS	unidentified bird (small)	UNID	Fatality Search	2/12/2019	2/12/2019	broken up	3-7 days	singe to tip of secondary.	Scorched or singed	1	2	Powerblock	-115.4705, 35.5566	NA
2019_010_ISEGS	unidentified bird (small)	UNID	Fatality Search	2/12/2019	2/12/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4845, 35.5744	NA
2019_011_ISEGS	northern flicker	NOFL	Fatality Search	2/26/2019	2/26/2019	mummified	8-14 days	evidence of collision with broken tip of upper and lower mandible.	collision	NA	3	Powerblock	-115.4831, 35.5753	NA
2019_012_ISEGS	unidentified bird (small)	UNID	Fatality Search	2/26/2019	2/26/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4848, 35.5746	NA
2019_013_ISEGS	unidentified woodpecker	UNWO	Fatality Search	2/26/2019	2/26/2019	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4805, 35.5749	NA
2019_014_ISEGS	unidentified blackbird	UNBB	Fatality Search	2/27/2019	2/27/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4489, 35.5356	NA
2019_015_ISEGS	western wood-pewee	WEWP	Incidental	3/5/2019	3/5/2019	dead-semi-fresh	3-7 days	singe on nape and retricies	Scorched or singed	Unknown	2	Powerblock	-115.4701, 35.5566	NA
2019_016_ISEGS	house finch	HOFI	Incidental	3/12/2019	3/12/2019	dead-semi-fresh	3-7 days	singe to central rectrices.	Scorched or singed	3	2	Powerblock	-115.4701, 35.5566	NA
2019_017_ISEGS	northern rough-winged swallow	NRWS	Incidental	3/18/2019	3/20/2019	mummified	31-60 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4516, 35.5351	NA
2019_018_ISEGS	cliff swallow	CLSW	Incidental	4/1/2019	6/20/2019	alive-injured	0-0.33 days	curling to all flight feathers, singe to right side of breast.	Scorched or singed	Unknown	2	Heliostat	-115.4702, 35.5536	NA
2019_019_ISEGS	house finch	HOFI	Incidental	4/1/2019	6/20/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4711, 35.5565	NA

USFWS #	Common Name	Species Code	How Found	Detection Date	Collection Date	Condition	Time Since Death/Injury	Description of Carcass/Injury	Cause of Death/Injury	Burn Grade	Unit	Nearest Project Feature	Coordinates	SPUT Revisions
2019_020_ISEGS	yellow-rumped warbler	YRWA	Incidental	4/8/2019	4/1/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to head, back, rump, breast.	Scorched or singed	2;3	1	Powerblock	-115.4515, 35.5351	NA
2019_021_ISEGS	common raven	CORA	Fatality Search	4/8/2019	4/1/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4834, 35.575	NA
2019_022_ISEGS	rock pigeon	ROPI	Fatality Search	4/8/2019	4/8/2019	broken up	1-3 days	imprint on heliostat matching size and shape of species.	collision	NA	3	Heliostat	-115.4834, 35.5767	NA
2019_024_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	4/22/2019	4/8/2019	dead-semi-fresh	1-3 days	singe to back, breast, face, and all flight feathers.	Scorched or singed	2;3	3	ACC	-115.4828, 35.5758	NA
2019_025_ISEGS	unidentified bird (small)	UNID	Fatality Search	4/22/2019	4/8/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.483, 35.5756	NA
2019_026_ISEGS	eared grebe	EAGR	Fatality Search	4/22/2019	4/22/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4836, 35.574	NA
2019_027_ISEGS	mourning dove	MODO	Fatality Search	4/22/2019	4/22/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4801, 35.5757	NA
2019_023_ISEGS	unidentified swallow	UNSW	Fatality Search	4/22/2019	6/20/2019	broken up	3-7 days	singe to leading edge of wing.	Scorched or singed	Unknown	1	Powerblock	-115.4525, 35.5353	NA
2019_028_ISEGS	calliope hummingbird	CAHU	Fatality Search	4/22/2019	6/20/2019	dead-fresh	0-0.33 days	curling to rectrices with most of tail singed off, all upperparts singed.	Scorched or singed	1;3	3	Heliostat	-115.4811, 35.5758	NA
2019_029_ISEGS	mourning dove	MODO	Fatality Search	5/3/2019	4/22/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4855, 35.5754	NA
2019_030_ISEGS	calliope hummingbird	CAHU	Fatality Search	5/3/2019	4/22/2019	dead-fresh	3-7 days	singe to upperparts and tail.	Scorched or singed	1;3	3	Heliostat	-115.4815, 35.5762	NA
2019_031_ISEGS	rufous hummingbird	RUHU	Fatality Search	5/3/2019	4/22/2019	dead-semi-fresh	3-7 days	curling to flight feathers with singe to contour feathers.	Scorched or singed	1	2	Powerblock	-115.471, 35.5568	NA
2019_032_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	5/4/2019	4/22/2019	dead-semi-fresh	1-3 days	singe to primary and tail feathers, crown and face.	Scorched or singed	2	2	ACC	-115.4703, 35.557	NA
2019_033_ISEGS	lazuli bunting	LAZB	Incidental	5/6/2019	5/3/2019	dead-semi-fresh	3-7 days	singe to right side of face.	Scorched or singed	3	1	Powerblock	-115.4523, 35.5352	NA
2019_034_ISEGS	black-throated gray warbler	BTYW	Fatality Search	5/6/2019	5/3/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to head, back, and rump.	Scorched or singed	2;3	3	Powerblock	-115.4833, 35.575	NA
2019_036_ISEGS	unidentified hummingbird	UNHU	Fatality Search	5/6/2019	5/3/2019	broken up	31-60 days	primaries and secondaries singed off.	Scorched or singed	2	3	Powerblock	-115.483, 35.5756	NA
2019_037_ISEGS	mourning dove	MODO	Fatality Search	5/6/2019	5/4/2019	feather spot	1-3 days	evidence of collision with imprint found on heliostat matching size and shape of species.	collision	NA	1	Heliostat	-115.4534, 35.5344	NA
2019_038_ISEGS	mourning dove	MODO	Fatality Search	5/6/2019	5/6/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4503, 35.5347	NA
2019_035_ISEGS	calliope hummingbird	CAHU	Fatality Search	5/6/2019	6/20/2019	dead-semi-fresh	0.33-1 days	singe to all upperparts with tail singed off.	Scorched or singed	1;3	3	Powerblock	-115.4834, 35.575	NA
2019_039_ISEGS	ruddy duck	RUDU	Incidental	5/8/2019	5/6/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	0	Project Structure	-115.4581, 35.5457	NA

USFWS #	Common Name	Species Code	How Found	Detection Date	Collection Date	Condition	Time Since Death/Injury	Description of Carcass/Injury	Cause of Death/Injury	Burn Grade	Unit	Nearest Project Feature	Coordinates	SPUT Revisions
2019_040_ISEGS	unidentified warbler	UNWA	Incidental	5/8/2019	5/6/2019	dead-semi-fresh	8-14 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4705, 35.5565	NA
2019_041_ISEGS	mourning dove	MODO	Incidental	5/8/2019	5/6/2019	dead-semi-fresh	1-3 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4408, 35.5423	NA
2019_042_ISEGS	Wilson's warbler	WIWA	Incidental	5/11/2019	5/6/2019	dead-semi-fresh	3-7 days	evidence of curling to flight feathers, singe to top of head.	Scorched or singed	2;3	2	Powerblock	-115.4705, 35.5565	NA
2019_043_ISEGS	mourning dove	MODO	Fatality Search	5/15/2019	5/6/2019	broken up	1-3 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4845, 35.5744	NA
2019_044_ISEGS	great-tailed grackle	GTGR	Fatality Search	5/15/2019	5/8/2019	broken up	8-14 days	evidence of singe to feathers of tibia.	Scorched or singed	3	3	Heliostat	-115.483, 35.5742	NA
2019_045_ISEGS	mourning dove	MODO	Fatality Search	5/16/2019	5/8/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4835, 35.5754	NA
2019_046_ISEGS	mourning dove	MODO	Fatality Search	5/16/2019	5/8/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4826, 35.5752	NA
2019_047_ISEGS	mourning dove	MODO	Fatality Search	5/16/2019	5/14/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4836, 35.5757	NA
2019_048_ISEGS	barn swallow	BARS	Fatality Search	5/16/2019	5/15/2019	broken up	1-3 days	singe to body with flight feathers singed off.	Scorched or singed	2;3	3	Powerblock	-115.4839, 35.5759	NA
2019_051_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	5/17/2019	5/15/2019	dead-semi-fresh	3-7 days	curling to primaries and rectrices and singe to contour feathers.	Scorched or singed	3	2	Powerblock	-115.4715, 35.5564	NA
2019_049_ISEGS	lazuli bunting	LAZB	Fatality Search	5/17/2019	6/20/2019	dead-fresh	0.33-1 days	curling to all flight feathers with many singed off, singe to contour feathers.	Scorched or singed	3	2	ACC	-115.4704, 35.557	NA
2019_050_ISEGS	yellow warbler	YWAR	Fatality Search	5/17/2019	6/26/2019	mummified	8-14 days	singe to right wing primaries, rects, and top of head.	Scorched or singed	1;3	2	ACC	-115.4704, 35.557	NA
2019_052_ISEGS	varied thrush	VATH	Incidental	5/17/2019	6/26/2019	mummified	8-14 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4705, 35.5567	NA
2019_053_ISEGS	Vaux's swift	VASW	Incidental	5/28/2019	6/27/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4516, 35.5351	NA
2019_055_ISEGS	yellow warbler	YWAR	Incidental	5/31/2019	5/16/2019	dead-semi-fresh	1-3 days	singe to right side of rump.	Scorched or singed	3	2	Powerblock	-115.4706, 35.5567	NA
2019_054_ISEGS	Anna's hummingbird	ANHU	Incidental	5/31/2019	6/27/2019	dead-fresh	0.33-1 days	curling to rectrices, singe to all of dorsal side of body, top of head.	Scorched or singed	1;3	2	Powerblock	-115.4705, 35.5564	NA
2019_056_ISEGS	unidentified bird (small)	UNID	Fatality Search	6/3/2019	5/16/2019	broken up	8-14 days	curling to flight feathers, singe to contour feathers.	Scorched or singed	1;3	1	Powerblock	-115.4519, 35.535	NA
2019_057_ISEGS	western wood-pewee	WEWP	Incidental	6/4/2019	5/16/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4704, 35.5567	NA
2019_058_ISEGS	unidentified waterfowl	UNWF	Fatality Search	6/4/2019	5/16/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4833, 35.5739	NA
2019_059_ISEGS	mourning dove	MODO	Fatality Search	6/4/2019	5/17/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4853, 35.5756	NA
2019_060_ISEGS	barn swallow	BARS	Fatality Search	6/4/2019	5/17/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.483, 35.5758	NA

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2019_061_ISEGS	yellow warbler	YWAR	Fatality Search	6/5/2019	5/17/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4704, 35.5566	NA
2019_062_ISEGS	cliff swallow	CLSW	Incidental	6/7/2019	6/28/2019	dead-fresh	0-0.33 days	primaries, secondaries, and retricies singed. left side of face singed and swollen.	Scorched or singed	1;3	2	Powerblock	-115.4714, 35.5563	NA
2019_063_ISEGS	mourning dove	MODO	Incidental	6/12/2019	7/9/2019	dead-fresh	0.33-1 days	whole carcass with imprint on heliostat.	collision	NA	1	Heliostat	-115.4527, 35.5369	NA
2019_064_ISEGS	mourning dove	MODO	Incidental	6/13/2019	5/17/2019	broken up	3-7 days	partial left and right wings. 10+ body feathers. no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4844, 35.5767	NA
2019_065_ISEGS	cliff swallow	CLSW	Incidental	6/13/2019	5/28/2019	dead-fresh	3-7 days	whole carcass. all flight feathers singed or curled. head, nape, and back singed.	Scorched or singed	2;3	1	Powerblock	-115.4515, 35.5348	NA
2019_066_ISEGS	unidentified hummingbird	UNHU	Incidental	6/13/2019	5/31/2019	dead-semi-fresh	1-3 days	whole carcass. singe on head, rump, and flanks. flight feathers curled.	Scorched or singed	2;3	1	Powerblock	-115.4521, 35.5348	NA
2019_067_ISEGS	tree swallow	TRES	Incidental	6/17/2019	5/31/2019	dead-semi-fresh	3-7 days	whole carcass. all flight feathers singed. all upperparts singed.	Scorched or singed	2;3	1	Powerblock	-115.4528, 35.535	NA
2019_068_ISEGS	mourning dove	MODO	Fatality Search	6/19/2019	6/3/2019	broken up	3-7 days	partial left and right wings. no evidence of collision or singe	unknown	NA	3	Heliostat	-115.4815, 35.5735	NA
2019_069_ISEGS	mourning dove	MODO	Fatality Search	6/19/2019	6/4/2019	broken up	3-7 days	partial left and right wings. no evidence of collision or singe	unknown	NA	3	Heliostat	-115.4807, 35.5766	NA
2019_070_ISEGS	great-tailed grackle	GTGR	Fatality Search	6/19/2019	6/4/2019	broken up	8-14 days	broken up carcass consisting of partial body, left & right wings, and head. no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.483, 35.5766	NA
2019_072_ISEGS	mourning dove	MODO	Incidental	6/19/2019	6/4/2019	dead-fresh	3-7 days	whole carcass. ant scavenged carcass close to heliostat with no imprint. possible collision.	collision	NA	3	Heliostat	-115.4931, 35.5807	NA
2019_073_ISEGS	verdin	VERD	Incidental	6/19/2019	6/4/2019	dead-semi-fresh	3-7 days	whole carcass. primaries and secondaries curled. singe on head and nape.	Scorched or singed	2;3	2	ACC	-115.4702, 35.5569	NA
2019_071_ISEGS	yellow warbler	YWAR	Incidental	6/19/2019	7/10/2019	dead-fresh	0.33-1 days	whole carcass. singe on rump and flanks.	Scorched or singed	3	2	ACC	-115.4705, 35.5569	NA
2019_075_ISEGS	unidentified bird (small)	UNID	Fatality Search	6/20/2019	6/5/2019	mummified	31-60 days	whole carcass minus top of head and wings. flight feathers curled and singed. back, rump, and flanks singed.	Scorched or singed	2;3	3	ACC	-115.4831, 35.5758	NA
2019_076_ISEGS	verdin	VERD	Fatality Search	6/20/2019	6/7/2019	dead-semi-fresh	3-7 days	whole carcass. curled body feathers on back of head.	Scorched or singed	3	1	ACC	-115.4518, 35.5358	NA

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2019_077_ISEGS	unidentified warbler	UNWA	Fatality Search	6/20/2019	6/12/2019	mummified	8-14 days	whole carcass. all flight feathers curled. head, rump, and flanks singed.	Scorched or singed	2;3	3	Powerblock	-115.4828, 35.5755	NA
2019_078_ISEGS	calliope hummingbird	CAHU	Fatality Search	6/20/2019	6/13/2019	mummified	31-60 days	whole carcass. with singe on primaries.	Scorched or singed	1	3	Powerblock	-115.4828, 35.5755	NA
2019_079_ISEGS	unidentified warbler	UNWA	Fatality Search	6/20/2019	6/13/2019	broken up	3-7 days	broken up carcass consisting of partial left wing. tips of primaries singed.	Scorched or singed	1	1	Powerblock	-115.4511, 35.5354	NA
2019_080_ISEGS	unidentified warbler	UNWA	Fatality Search	6/20/2019	6/13/2019	broken up	8-14 days	broken up carcass consisting of a partial left wing. secondaries singed.	Scorched or singed	1	1	Powerblock	-115.4516, 35.5351	NA
2019_074_ISEGS	common raven	CORA	Incidental	6/20/2019	7/10/2019	alive-injured	0-0.33 days	injured bird which was captured on site. heavy amount of singe on all flight feathers and body.	Scorched or singed	Unknown	1	Powerblock	-115.4511, 35.5354	NA
2019_081_ISEGS	unidentified hummingbird	UNHU	Fatality Search	6/26/2019	7/10/2019	dead-semi-fresh	0.33-1 days	whole carcass. tail feathers with curl and singe.	Scorched or singed	Unknown	3	Powerblock	-115.483, 35.5754	NA
2019_082_ISEGS	common raven	CORA	Incidental	6/26/2019	7/11/2019	alive-injured	0-0.33 days	the bird had noticeable singe to most of its feathers.	Scorched or singed	2;3	2	Powerblock	-115.4701, 35.5566	NA
2019_083_ISEGS	cliff swallow	CLSW	Fatality Search	6/27/2019	6/18/2019	dead-semi-fresh	3-7 days	whole carcass. all flight feather curled with singe. forehead and rump singed.	Scorched or singed	2;3	2	ACC	-115.4699, 35.5562	NA
2019_084_ISEGS	cliff swallow	CLSW	Fatality Search	6/27/2019	6/19/2019	dead-semi-fresh	8-14 days	whole carcass. all flight feather curled with singe. forehead and rump singed.	Scorched or singed	2;3	2	ACC	-115.4699, 35.557	NA
2019_085_ISEGS	barn swallow	BARS	Fatality Search	6/28/2019	6/19/2019	dead-semi-fresh	3-7 days	whole carcass. all flight feathers curled. head, rump, and flanks singed.	Scorched or singed	2;3	1	ACC	-115.4516, 35.5355	NA
2019_086_ISEGS	black-throated sparrow	BTSP	Incidental	7/9/2019	7/11/2019	alive-injured	0-0.33 days	curling to rectrices and right wing, singe to right side of face, nape, and axillary.	Scorched or singed	2;3	2	Powerblock	-115.4706, 35.5571	NA
2019_087_ISEGS	unidentified bird (small)	UNID	Fatality Search	7/10/2019	6/19/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4835, 35.5758	NA
2019_089_ISEGS	unidentified bird (small)	UNID	Fatality Search	7/10/2019	6/19/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.483, 35.5752	NA
2019_088_ISEGS	house finch	HOFI	Incidental	7/10/2019	7/11/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to breast, top of head, coverts, and back.	Scorched or singed	2;3	3	Powerblock	-115.483, 35.5754	NA
2019_090_ISEGS	mourning dove	MODO	Fatality Search	7/11/2019	6/19/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4852, 35.575	NA
2019_091_ISEGS	cliff swallow	CLSW	Fatality Search	7/11/2019	6/19/2019	dead-semi-fresh	3-7 days	curling to primaries and rectrices, singe to head and back.	Scorched or singed	2;3	2	ACC	-115.4697, 35.557	NA

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2019_092_ISEGS	blue-gray gnatcatcher	BGGN	Incidental	7/11/2019	6/20/2019	dead-semi-fresh	1-3 days	curling to right flight feathers, singe to coverts, back, and head.	Scorched or singed	1;3	1	Powerblock	-115.4525, 35.5356	NA
2019_093_ISEGS	black-throated sparrow	BTSP	Incidental	7/14/2019	7/14/2019	dead-semi-fresh	1-3 days	singe to left side of face and upper breast.	Scorched or singed	3	2	Powerblock	-115.4702, 35.5568	NA
2019_094_ISEGS	cliff swallow	CLSW	Incidental	7/14/2019	7/14/2019	dead-semi-fresh	3-7 days	all flight feathers curled, singe to coverts.	Scorched or singed	2;3	2	Powerblock	-115.4708, 35.5567	NA
2019_095_ISEGS	cliff swallow	CLSW	Incidental	7/15/2019	7/15/2019	dead-semi-fresh	1-3 days	flight feathers in both wings curled, singe to top of head and coverts.	Scorched or singed	2;3	3	ACC	-115.4826, 35.5758	NA
2019_096_ISEGS	cliff swallow	CLSW	Incidental	7/21/2019	7/22/2019	dead-semi-fresh	1-3 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4521, 35.5349	NA
2019_097_ISEGS	northern mockingbird	NOMO	Incidental	7/22/2019	7/22/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4891, 35.5747	NA
2019_098_ISEGS	rufous hummingbird	RUHU	Fatality Search	7/23/2019	8/6/2019	dead-semi-fresh	1-3 days	all flight feathers curled, singe to head, throat, and back.	Scorched or singed	2;3	3	ACC	-115.483, 35.5758	NA
2019_099_ISEGS	black-throated sparrow	BTSP	Incidental	7/23/2019	7/23/2019	dead-semi-fresh	1-3 days	flight feathers curled, singe to head.	Scorched or singed	2;3	3	Powerblock	-115.4829, 35.5756	NA
2019_100_ISEGS	unidentified bird (small)	UNID	Fatality Search	7/25/2019	7/25/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.4708, 35.5551	NA
2019_101_ISEGS	northern mockingbird	NOMO	Fatality Search	7/25/2019	7/25/2019	broken up	1-3 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.471, 35.5556	NA
2019_102_ISEGS	northern mockingbird	NOMO	Fatality Search	7/25/2019	7/25/2019	feather spot	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4847, 35.5753	NA
2019_103_ISEGS	northern mockingbird	NOMO	Fatality Search	7/25/2019	7/25/2019	dead-semi-fresh	8-14 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.4692, 35.5586	NA
2019_104_ISEGS	black-throated sparrow	BTSP	Incidental	7/25/2019	7/25/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4827, 35.5753	NA
2019_105_ISEGS	black-throated sparrow	BTSP	Fatality Search	7/26/2019	7/26/2019	dead-semi-fresh	3-7 days	all flight feathers singed off, singe to top of head, back.	Scorched or singed	2;3	1	ACC	-115.4514, 35.5356	NA
2019_106_ISEGS	house finch	HOFI	Fatality Search	7/26/2019	7/26/2019	dead-semi-fresh	3-7 days	all flight feathers singed off, singe to top of head, back, breast.	Scorched or singed	2;3	1	ACC	-115.4518, 35.5356	NA
2019_107_ISEGS	cinnamon teal	CITE	Fatality Search	7/26/2019	7/26/2019	dead-semi-fresh	1-3 days	all flight feathers singed off, singe to top of head, sides of face, back, breast.	Scorched or singed	2;3	1	ACC	-115.4517, 35.5354	NA
2019_108_ISEGS	unidentified swallow	UNSW	Fatality Search	7/26/2019	7/26/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5351	NA
2019_109_ISEGS	northern mockingbird	NOMO	Fatality Search	7/26/2019	7/26/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5351	NA
2019_110_ISEGS	unidentified swallow	UNSW	Fatality Search	7/26/2019	7/26/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5353	NA
2019_111_ISEGS	unidentified swallow	UNSW	Fatality Search	7/26/2019	7/26/2019	dead-semi-fresh	3-7 days	all flight feathers singed off, singe to head, back, breast.	Scorched or singed	2;3	1	ACC	-115.4513, 35.5358	NA
2019_112_ISEGS	unidentified bird (small)	UNID	Fatality Search	7/26/2019	7/26/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5353	NA

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2019_113_ISEGS	northern rough-winged swallow	NRWS	Incidental	7/31/2019	8/1/2019	dead-semi-fresh	3-7 days	curling to all flight feathers, singe to nape.	Scorched or singed	3	1	Powerblock	-115.4519, 35.535	NA
2019_114_ISEGS	verdin	VERD	Incidental	8/1/2019	8/1/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to contour feathers.	Scorched or singed	3	2	Powerblock	-115.4704, 35.5565	NA
2019_115_ISEGS	willet	WILL	Fatality Search	8/5/2019	8/5/2019	dead-semi-fresh	0.33-1 days	singe to head and neck feathers.	Scorched or singed	3	3	Heliostat	-115.4813, 35.5762	NA
2019_116_ISEGS	yellow warbler	YWAR	Fatality Search	8/5/2019	8/5/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to neck and head.	Scorched or singed	2	3	Heliostat	-115.4827, 35.5771	NA
2019_117_ISEGS	mourning dove	MODO	Fatality Search	8/5/2019	8/5/2019	broken up	8-14 days	curling to primary flight feathers.	Scorched or singed	1	3	Heliostat	-115.485, 35.5746	NA
2019_118_ISEGS	tree swallow	TRES	Incidental	8/6/2019	8/6/2019	dead-fresh	0.33-1 days	all flight feathers curled, singe to coverts and all of dorsal side.	Scorched or singed	2;3	3	Powerblock	-115.4836, 35.575	NA
2019_119_ISEGS	tree swallow	TRES	Fatality Search	8/6/2019	8/6/2019	mummified	8-14 days	singe to primaries and secondaries.	Scorched or singed	1	2	ACC	-115.4698, 35.5569	NA
2019_120_ISEGS	tree swallow	TRES	Fatality Search	8/6/2019	8/6/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to top of head.	Scorched or singed	2;3	3	ACC	-115.4828, 35.5757	NA
2019_121_ISEGS	Lucy's warbler	LUWA	Fatality Search	8/6/2019	8/6/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to head, back, and nape.	Scorched or singed	2;3	2	ACC	-115.47, 35.5569	NA
2019_122_ISEGS	yellow warbler	YWAR	Fatality Search	8/6/2019	8/6/2019	dead-semi-fresh	3-7 days	curling to all flight feathers, singe to head and nape.	Scorched or singed	2;3	2	ACC	-115.4699, 35.557	NA
2019_123_ISEGS	yellow warbler	YWAR	Fatality Search	8/6/2019	8/6/2019	dead-semi-fresh	3-7 days	curling to secondaries and rectrices, singe to rump.	Scorched or singed	1;3	2	ACC	-115.47, 35.557	NA
2019_124_ISEGS	unidentified gnatcatcher	UNGN	Fatality Search	8/6/2019	8/6/2019	dead-fresh	0-0.33 days	all flight feathers curled, singe to top of head.	Scorched or singed	2;3	1	ACC	-115.4512, 35.5354	NA
2019_125_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	8/6/2019	8/6/2019	feather spot	3-7 days	curling to primaries and secondaries.	Scorched or singed	Unknown	2	Powerblock	-115.4699, 35.5569	NA
2019_126_ISEGS	unidentified bird (small)	UNID	Fatality Search	8/6/2019	8/6/2019	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4708, 35.5563	NA
2019_127_ISEGS	mourning dove	MODO	Fatality Search	8/6/2019	8/6/2019	broken up	8-14 days	curling to secondary flight feathers.	Scorched or singed	1	2	Heliostat	-115.4676, 35.5558	NA
2019_128_ISEGS	Bullock's oriole	BUOR	Incidental	8/8/2019	8/8/2019	dead-fresh	0-0.33 days	singe on right side of face.	Scorched or singed	1;3	1	Powerblock	-115.4528, 35.535	NA
2019_129_ISEGS	unidentified gnatcatcher	UNGN	Incidental	8/11/2019	8/12/2019	dead-semi-fresh	3-7 days	curling to flight feathers in wings and rectrices, singe to top of head.	Scorched or singed	3	2	Powerblock	-115.4702, 35.5565	NA
2019_130_ISEGS	yellow warbler	YWAR	Incidental	8/11/2019	8/12/2019	dead-semi-fresh	3-7 days	curling to primaries, secondaries, coverts, and tail, singe on head.	Scorched or singed	2;3	2	Powerblock	-115.4711, 35.5563	NA
2019_131_ISEGS	yellow warbler	YWAR	Incidental	8/12/2019	8/12/2019	dead-fresh	0.33-1 days	singe to flight feathers in both wings and tail and head.	Scorched or singed	2;3	2	Powerblock	-115.4701, 35.5565	NA
2019_132_ISEGS	yellow warbler	YWAR	Incidental	8/12/2019	8/12/2019	dead-fresh	0.33-1 days	no evidence of singe or collision.	unknown	NA	2	Powerblock	-115.4709, 35.5572	NA

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2019_133_ISEGS	yellow warbler	YWAR	Incidental	8/13/2019	8/13/2019	dead-semi-fresh	1-3 days	curling to primaries, secondaries, rectrices, and coverts, singe to head and back.	Scorched or singed	2;3	3	Powerblock	-115.4826, 35.5755	NA
2019_134_ISEGS	yellow warbler	YWAR	Incidental	8/13/2019	8/13/2019	dead-semi-fresh	3-7 days	curling to flight feathers and tail, singe to head.	Scorched or singed	3	3	Powerblock	-115.4826, 35.5757	NA
2019_135_ISEGS	yellow warbler	YWAR	Incidental	8/13/2019	8/13/2019	dead-fresh	0.33-1 days	curling to primaries and secondaries.	Scorched or singed	1	3	ACC	-115.4825, 35.5757	NA
2019_136_ISEGS	house finch	HOFI	Incidental	8/13/2019	8/13/2019	dead-semi-fresh	1-3 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4833, 35.5759	NA
2019_137_ISEGS	yellow warbler	YWAR	Incidental	8/15/2019	8/15/2019	dead-semi-fresh	3-7 days	curling to right wing flight feathers.	Scorched or singed	1	1	Powerblock	-115.4524, 35.5351	NA
2019_138_ISEGS	yellow warbler	YWAR	Incidental	8/16/2019	8/16/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4832, 35.5751	NA
2019_139_ISEGS	lesser goldfinch	LEGO	Incidental	8/16/2019	8/16/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4836, 35.5754	NA
2019_140_ISEGS	house finch	HOFI	Incidental	8/16/2019	8/16/2019	dead-fresh	0.33-1 days	curling to tail, singe on belly.	Scorched or singed	1;3	3	Powerblock	-115.4835, 35.5756	NA
2019_141_ISEGS	tree swallow	TRES	Incidental	8/16/2019	8/16/2019	dead-semi-fresh	3-7 days	singe to both wings and rectrices, head, and back.	Scorched or singed	2;3	3	Powerblock	-115.4834, 35.5757	NA
2019_142_ISEGS	yellow warbler	YWAR	Incidental	8/16/2019	8/16/2019	dead-semi-fresh	1-3 days	no evidence of singe or collision.	unknown	NA	3	Powerblock	-115.4826, 35.5756	NA
2019_143_ISEGS	cactus wren	CACW	Incidental	8/16/2019	8/16/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4827, 35.5751	NA
2019_144_ISEGS	cliff swallow	CLSW	Incidental	8/16/2019	8/16/2019	dead-semi-fresh	3-7 days	singe to primaries.	Scorched or singed	1	3	ACC	-115.4829, 35.5759	NA
2019_145_ISEGS	tree swallow	TRES	Incidental	8/17/2019	8/17/2019	dead-fresh	0-0.33 days	curling to flight feathers, singe on right flank.	Scorched or singed	3	3	Powerblock	-115.483, 35.5758	NA
2019_146_ISEGS	yellow warbler	YWAR	Incidental	8/17/2019	8/17/2019	dead-semi-fresh	3-7 days	curling to flight feather in wings with tail singed off, singe to nape and body feathers.	Scorched or singed	3	3	ACC	-115.483, 35.5758	NA
2019_147_ISEGS	Costa's hummingbird	COHU	Incidental	8/17/2019	8/17/2019	dead-semi-fresh	3-7 days	singe to secondaries with rectrices singed off.	Scorched or singed	2	3	Powerblock	-115.4833, 35.5757	NA
2019_148_ISEGS	least sandpiper	LESA	Incidental	8/17/2019	8/17/2019	dead-fresh	0.33-1 days	curling to flight feathers, singe to body feathers.	Scorched or singed	1;3	3	Powerblock	-115.4835, 35.5754	NA
2019_149_ISEGS	Costa's hummingbird	COHU	Incidental	8/17/2019	8/17/2019	dead-fresh	0.33-1 days	singe to rectrices, tertials, head, and back.	Scorched or singed	2	2	Powerblock	-115.4708, 35.5562	NA
2019_150_ISEGS	cinnamon teal	CITE	Incidental	8/17/2019	8/17/2019	dead-semi-fresh	3-7 days	no evidence of singe or collision.	unknown	NA	2	Powerblock	-115.4709, 35.5565	NA
2019_151_ISEGS	house finch	HOFI	Incidental	8/17/2019	8/17/2019	dead-fresh	0.33-1 days	curling to tail and flight feathers in wings, singe to coverts and head.	Scorched or singed	2;3	2	Powerblock	-115.47, 35.5566	NA
2019_152_ISEGS	brown-headed cowbird	BHCO	Incidental	8/17/2019	8/17/2019	dead-fresh	0.33-1 days	curling to flight feathers in wings and tail, singe to body feathers.	Scorched or singed	3	3	Powerblock	-115.483, 35.5752	NA

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2019_153_ISEGS	yellow warbler	YWAR	Incidental	8/17/2019	8/17/2019	dead-semi-fresh	1-3 days	curling to tail, primaries, secondaries, and coverts., singe to back and head.	Scorched or singed	2;3	3	Powerblock	-115.4829, 35.5752	NA
2019_154_ISEGS	northern rough-winged swallow	NRWS	Incidental	8/18/2019	8/19/2019	dead-semi-fresh	1-3 days	singe to head.	Scorched or singed	1	3	Powerblock	-115.4827, 35.5754	NA
2019_155_ISEGS	tree swallow	TRES	Incidental	8/18/2019	8/19/2019	dead-fresh	0.33-1 days	singe to tail, head, and back.	Scorched or singed	2;3	3	Powerblock	-115.4827, 35.5754	NA
2019_156_ISEGS	lark sparrow	LASP	Incidental	8/21/2019	8/22/2019	dead-semi-fresh	3-7 days	singe to head, wings, and rects.	Scorched or singed	1;3	1	Powerblock	-115.4519, 35.5348	NA
2019_157_ISEGS	white-faced ibis	WFIB	Incidental	8/22/2019	8/22/2019	dead-semi-fresh	3-7 days	curling to flight feathers, singe to wings and body feathers.	Scorched or singed	2;3	1	Powerblock	-115.452, 35.5355	NA
2019_158_ISEGS	northern rough-winged swallow	NRWS	Incidental	8/22/2019	8/22/2019	dead-semi-fresh	1-3 days	singe to head and coverts.	Scorched or singed	1;3	1	Powerblock	-115.4514, 35.5351	NA
2019_159_ISEGS	brown-headed cowbird	BHCO	Incidental	8/22/2019	8/22/2019	dead-semi-fresh	3-7 days	singe to coverts.	Scorched or singed	1	2	Powerblock	-115.4704, 35.5568	NA
2019_160_ISEGS	northern rough-winged swallow	NRWS	Incidental	8/22/2019	8/22/2019	dead-semi-fresh	3-7 days	curling to all flight feathers in wings and tail, singe to coverts, head, breast, and belly.	Scorched or singed	2;3	2	Powerblock	-115.4702, 35.5565	NA
2019_161_ISEGS	Bullock's oriole	BUOR	Incidental	8/23/2019	8/24/2019	dead-fresh	0.33-1 days	singe to flight and tail feathers, top of head and breast.	Scorched or singed	2;3	1	Powerblock	-115.4513, 35.5354	NA
2019_162_ISEGS	unidentified bird (small)	UNID	Incidental	8/26/2019	8/26/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	1	Powerblock	-115.4516, 35.5351	NA
2019_163_ISEGS	American avocet	AMAV	Incidental	8/26/2019	8/26/2019	broken up	0.33-1 days	no evidence of singe or collision.	unknown	NA	1	Heliostat	-115.4556, 35.5397	NA
2019_164_ISEGS	house finch	HOFI	Incidental	8/26/2019	8/26/2019	mummified	31-60 days	curling to flight feathers in wings and tail, singe to head, back, breast.	Scorched or singed	2;3	2	Powerblock	-115.4705, 35.5568	NA
2019_165_ISEGS	brown-headed cowbird	BHCO	Incidental	8/26/2019	8/26/2019	dead-semi-fresh	3-7 days	curling to flight feathers in wings and tail, singe to head and back.	Scorched or singed	2;3	2	Powerblock	-115.4707, 35.5563	NA
2019_166_ISEGS	northern mockingbird	NOMO	Incidental	8/27/2019	8/27/2019	feather spot	8-14 days	no evidence of singe or collision.	unknown	NA	1	Powerblock	-115.4519, 35.5358	NA
2019_167_ISEGS	yellow warbler	YWAR	Incidental	8/27/2019	8/27/2019	dead-fresh	0-0.33 days	curling to flight feathers in both wings and tail, singe to head, nape, back, rump, and flanks.	Scorched or singed	2;3	1	Powerblock	-115.4514, 35.5352	NA
2019_168_ISEGS	tree swallow	TRES	Incidental	8/27/2019	8/27/2019	dead-fresh	0.33-1 days	curling to all flight feathers.	Scorched or singed	1;3	1	Powerblock	-115.452, 35.5357	NA
2019_169_ISEGS	Townsend's warbler	TOWA	Incidental	8/27/2019	8/27/2019	dead-fresh	0-0.33 days	singe to wings, tail, head, and back.	Scorched or singed	2;3	1	Powerblock	-115.4519, 35.5349	NA
2019_170_ISEGS	lesser nighthawk	LENI	Fatality Search	8/28/2019	8/28/2019	broken up	8-14 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4814, 35.5743	NA
2019_171_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-fresh	0.33-1 days	singe to wings, head, tail, and body.	Scorched or singed	2;3	3	ACC	-115.4824, 35.5757	NA

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2019_172_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	singe to primaries and secondaries.	Scorched or singed	2;3	3	ACC	-115.483, 35.576	NA
2019_173_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	1-3 days	singe to head, back, and in both wings with rects singed off.	Scorched or singed	2;3	3	ACC	-115.4823, 35.5758	NA
2019_174_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	1-3 days	singe to primaries and secondaries.	Scorched or singed	1	3	ACC	-115.4825, 35.5759	NA
2019_175_ISEGS	blue-gray gnatcatcher	BGGN	Fatality Search	8/28/2019	8/28/2019	dead-fresh	0.33-1 days	singe to tail, wings, head, and back.	Scorched or singed	2;3	3	ACC	-115.483, 35.5758	NA
2019_176_ISEGS	mourning dove	MODO	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	curling to 1 primary.	Scorched or singed	3	3	Heliostat	-115.4824, 35.5771	NA
2019_177_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	singe to wings, tail, head, chest, and back.	Scorched or singed	2;3	3	ACC	-115.483, 35.5758	NA
2019_178_ISEGS	tree swallow	TRES	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	curling to all flight feathers in wings and tail.	Scorched or singed	2	3	ACC	-115.4825, 35.5759	NA
2019_179_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	1-3 days	curling to flight feathers in wings.	Scorched or singed	Unknown	3	ACC	-115.4826, 35.5759	NA
2019_180_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	no evidence of singe or collision.	other (entrapment)	NA	3	ACC	-115.4825, 35.576	NA
2019_181_ISEGS	yellow warbler	YWAR	Fatality Search	8/28/2019	8/28/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4849, 35.5764	NA
2019_182_ISEGS	lesser nighthawk	LENI	Fatality Search	8/28/2019	8/28/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4852, 35.5759	NA
2019_183_ISEGS	unidentified warbler	UNWA	Incidental	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4829, 35.5756	NA
2019_184_ISEGS	unidentified bird (small)	UNID	Fatality Search	8/28/2019	8/28/2019	feather spot	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4855, 35.5759	NA
2019_185_ISEGS	yellow warbler	YWAR	Incidental	8/28/2019	8/28/2019	dead-fresh	0.33-1 days	singe to all flight feathers.	Scorched or singed	2;3	3	Powerblock	-115.4837, 35.575	NA
2019_186_ISEGS	house finch	HOFI	Fatality Search	8/28/2019	8/28/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	3	Powerblock	-115.483, 35.5753	NA
2019_187_ISEGS	black-throated sparrow	BTSP	Fatality Search	8/28/2019	8/28/2019	broken up	3-7 days	singe to several contour feathers.	Scorched or singed	3	3	Powerblock	-115.4829, 35.5754	NA
2019_188_ISEGS	unidentified swallow	UNSW	Fatality Search	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	no evidence of singe or collision.	unknown	NA	3	Powerblock	-115.4828, 35.5754	NA
2019_189_ISEGS	unidentified bird (small)	UNID	Fatality Search	8/28/2019	8/28/2019	broken up	8-14 days	singe to several contour feathers.	Scorched or singed	3	3	Powerblock	-115.4827, 35.5754	NA
2019_190_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	8/28/2019	8/28/2019	dead-fresh	0-0.33 days	singe to all flight feathers.	Scorched or singed	2	3	Powerblock	-115.4825, 35.5756	NA
2019_191_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	8/28/2019	8/28/2019	dead-fresh	0-0.33 days	curling to all flight feathers, singe to head and back.	Scorched or singed	2;3	3	Powerblock	-115.4825, 35.5757	NA
2019_192_ISEGS	black-throated sparrow	BTSP	Incidental	8/28/2019	8/28/2019	dead-semi-fresh	3-7 days	singe to tips of right wing.	Scorched or singed	1	1	Powerblock	-115.4513, 35.5352	NA
2019_193_ISEGS	bank swallow	BANS	Incidental	8/28/2019	8/28/2019	dead-fresh	0-0.33 days	singe to top of head, nape, back, rump, axillaries, upper breast with all flight feathers singed off.	Scorched or singed	2;3	1	Powerblock	-115.4515, 35.5352	NA

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2019_194_ISEGS	MacGillivray's warbler	MGWA	Incidental	8/28/2019	8/28/2019	dead-semi-fresh	1-3 days	curling to flight feathers in wings and tail, singe to cap and upper breast.	Scorched or singed	2	1	Powerblock	-115.451, 35.5352	NA
2019_195_ISEGS	MacGillivray's warbler	MGWA	Incidental	8/28/2019	8/28/2019	dead-fresh	0-0.33 days	singe to all flight feathers and coverts.	Scorched or singed	2;3	3	Powerblock	-115.4828, 35.5755	NA
2019_196_ISEGS	yellow warbler	YWAR	Incidental	8/29/2019	8/29/2019	dead-fresh	0-0.33 days	singe to head, wings, and tail.	Scorched or singed	2;3	3	Powerblock	-115.4832, 35.5751	NA
2019_197_ISEGS	Wilson's warbler	WIWA	Incidental	8/29/2019	8/29/2019	dead-fresh	0-0.33 days	singe to neck feathers.	Scorched or singed	3	3	Powerblock	-115.4839, 35.5759	NA
2019_198_ISEGS	brown-headed cowbird	BHCO	Incidental	9/1/2019	9/2/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4511, 35.5351	NA
2019_199_ISEGS	cliff swallow	CLSW	Incidental	9/1/2019	9/2/2019	dead-semi-fresh	3-7 days	curling to rectrices, singe to flight feathers in wings , left side of nape, coverts.	Scorched or singed	2;3	1	ACC	-115.4512, 35.5358	NA
2019_200_ISEGS	unidentified hummingbird	UNHU	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	curling to all flight feathers in wings and tail, singe to cap and body feathers.	Scorched or singed	1;3	2	ACC	-115.4701, 35.557	NA
2019_201_ISEGS	black-throated gray warbler	BTYW	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	curling to all flight feathers in wings and tail, singe to body feathers.	Scorched or singed	2;3	2	ACC	-115.4699, 35.557	NA
2019_202_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	singe to all of dorsal side with all flight feathers singed off.	Scorched or singed	2;3	2	ACC	-115.4704, 35.557	NA
2019_203_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	1-3 days	curling to all flight feathers with singe to top of head.	Scorched or singed	1;3	2	ACC	-115.4698, 35.5572	NA
2019_204_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to top of head, breast, and rump.	Scorched or singed	2;3	2	ACC	-115.4702, 35.5572	NA
2019_205_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	singe to left flank, nape, top of head with all flight feathers singed off.	Scorched or singed	2;3	2	ACC	-115.4704, 35.5572	NA
2019_206_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	broken up	8-14 days	curling to flight feathers.	Scorched or singed	Unknown	2	ACC	-115.4705, 35.5573	NA
2019_207_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4711, 35.5565	NA
2019_208_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4708, 35.5563	NA
2019_209_ISEGS	yellow warbler	YWAR	Fatality Search	9/3/2019	9/3/2019	dead-semi-fresh	3-7 days	all dorsal side singed, singe to left and right flank, all flight feathers singed off.	Scorched or singed	2;3	2	Powerblock	-115.471, 35.5566	NA
2019_210_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	feather spot	3-7 days	singe to tips of body feathers.	Scorched or singed	Unknown	2	Powerblock	-115.4708, 35.5572	NA
2019_211_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	feather spot	3-7 days	singe to several contour feathers.	Scorched or singed	Unknown	2	Powerblock	-115.4703, 35.5571	NA
2019_212_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	9/3/2019	9/3/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4704, 35.5568	NA

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2019_213_ISEGS	unidentified warbler	UNWA	Fatality Search	9/3/2019	9/3/2019	broken up	3-7 days	curling to flight feathers.	Scorched or singed	2	2	Powerblock	-115.4703, 35.5567	NA
2019_214_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4704, 35.5569	NA
2019_215_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/3/2019	9/3/2019	feather spot	3-7 days	singe to body feathers.	Scorched or singed	3	2	Powerblock	-115.4704, 35.5568	NA
2019_216_ISEGS	yellow warbler	YWAR	Fatality Search	9/4/2019	9/4/2019	dead-semi-fresh	1-3 days	curling to flight feathers in wings and tail, singe to body feathers and top of head.	Scorched or singed	2;3	1	ACC	-115.4517, 35.5354	NA
2019_217_ISEGS	yellow warbler	YWAR	Fatality Search	9/4/2019	9/4/2019	dead-semi-fresh	3-7 days	curling to flight feathers in wings and tail, singe to body feathers and top of head.	Scorched or singed	2;3	1	ACC	-115.4516, 35.5354	NA
2019_218_ISEGS	yellow warbler	YWAR	Fatality Search	9/4/2019	9/4/2019	dead-semi-fresh	1-3 days	curling to flight feathers in wings and tail, singe to body feathers and top of head.	Scorched or singed	2;3	1	ACC	-115.4514, 35.5354	NA
2019_219_ISEGS	yellow warbler	YWAR	Fatality Search	9/4/2019	9/4/2019	dead-semi-fresh	3-7 days	curling to flight feathers in wings and tail.	Scorched or singed	2	1	ACC	-115.4514, 35.5354	NA
2019_220_ISEGS	lesser nighthawk	LENI	Fatality Search	9/4/2019	9/4/2019	feather spot	8-14 days	no evidence of singe or collision.	unknown	NA	1	Powerblock	-115.4516, 35.5352	NA
2019_221_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/4/2019	9/4/2019	broken up	8-14 days	no evidence of singe or collision.	other (entrapment)	NA	1	ACC	-115.4518, 35.5356	NA
2019_222_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/4/2019	9/4/2019	feather spot	3-7 days	curling to primaries.	Scorched or singed	3	1	Powerblock	-115.4519, 35.5352	NA
2019_223_ISEGS	yellow warbler	YWAR	Fatality Search	9/4/2019	9/4/2019	feather spot	1-3 days	singe to flight feathers.	Scorched or singed	3	1	Powerblock	-115.4518, 35.535	NA
2019_224_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/4/2019	9/4/2019	broken up	3-7 days	singe to flight feathers.	Scorched or singed	Unknown	1	Powerblock	-115.4517, 35.5356	NA
2019_225_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/4/2019	9/4/2019	broken up	3-7 days	singe to 1 contour feather.	Scorched or singed	3	1	Powerblock	-115.4525, 35.5358	NA
2019_226_ISEGS	yellow warbler	YWAR	Fatality Search	9/5/2019	9/5/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	2	Heliostat	-115.469, 35.5563	NA
2019_227_ISEGS	northern mockingbird	NOMO	Fatality Search	9/5/2019	9/5/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	2	Heliostat	-115.4728, 35.5559	NA
2019_228_ISEGS	white-faced ibis	WFIB	Incidental	9/5/2019	9/5/2019	broken up	0.33-1 days	curling to flight feathers.	Scorched or singed	2;3	1	Heliostat	-115.4425, 35.5432	NA
2019_229_ISEGS	tree swallow	TRES	Fatality Search	9/6/2019	9/6/2019	broken up	8-14 days	curling to flight feathers.	Scorched or singed	2	1	Heliostat	-115.4542, 35.5359	NA
2019_230_ISEGS	blue-gray gnatcatcher	BGGN	Fatality Search	9/6/2019	9/6/2019	dead-fresh	0.33-1 days	singe to rectrices.	Scorched or singed	3	1	Heliostat	-115.452, 35.5341	NA
2019_231_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	9/6/2019	9/6/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	1	Heliostat	-115.4496, 35.5342	NA
2019_232_ISEGS	blue-gray gnatcatcher	BGGN	Fatality Search	9/6/2019	9/6/2019	broken up	1-3 days	singe to flight feathers and rectrices.	Scorched or singed	3	1	Heliostat	-115.4514, 35.5339	NA
2019_233_ISEGS	mourning dove	MODO	Incidental	9/6/2019	9/6/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.483, 35.5754	NA

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2019_234_ISEGS	northern mockingbird	NOMO	Incidental	9/6/2019	9/6/2019	mummified	31-60 days	singe to body feathers.	Scorched or singed	3	3	Powerblock	-115.4827, 35.5754	NA
2019_235_ISEGS	yellow warbler	YWAR	Incidental	9/10/2019	9/10/2019	dead-semi-fresh	1-3 days	singe to head.	Scorched or singed	3	3	ACC	-115.4826, 35.5757	NA
2019_236_ISEGS	warbling vireo	WAVI	Fatality Search	9/12/2019	9/12/2019	dead-fresh	0.33-1 days	curling to flight feathers and tail, singe to head.	Scorched or singed	1;3	3	Heliostat	-115.4822, 35.5736	NA
2019_237_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/12/2019	9/12/2019	feather spot	8-14 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.484, 35.5767	NA
2019_238_ISEGS	lesser nighthawk	LENI	Fatality Search	9/12/2019	9/12/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4853, 35.5761	NA
2019_239_ISEGS	verdin	VERD	Fatality Search	9/12/2019	9/12/2019	alive-injured	0-0.33 days	curling to flight feathers in wings and tail.	Scorched or singed	2;3	3	Heliostat	-115.483, 35.5742	NA
2019_252_ISEGS	yellow warbler	YWAR	Incidental	9/15/2019	9/18/2019	dead-semi-fresh	3-7 days	curling to flight feathers and tail, singe to body feathers.	Scorched or singed	2;3	1	Powerblock	-115.4519, 35.5348	NA
2019_253_ISEGS	black-tailed gnatcatcher	BTGN	Incidental	9/15/2019	9/18/2019	dead-semi-fresh	3-7 days	curling to flight feathers and tail.	Scorched or singed	2;3	1	Powerblock	-115.4521, 35.5349	NA
2019_240_ISEGS	barn swallow	BARS	Fatality Search	9/16/2019	9/16/2019	dead-fresh	0-0.33 days	curling to all flight feathers, singe to back, head, and neck.	Scorched or singed	2;3	3	ACC	-115.4829, 35.5757	NA
2019_241_ISEGS	Nashville warbler	NAWA	Fatality Search	9/16/2019	9/16/2019	dead-semi-fresh	3-7 days	curling to flight feathers and tail, singe to head.	Scorched or singed	2;3	2	ACC	-115.4699, 35.5573	NA
2019_242_ISEGS	unidentified gnatcatcher	UNGN	Fatality Search	9/16/2019	9/16/2019	dead-semi-fresh	3-7 days	curling to all flight feathers with rectrices singed off, singe to head and body feathers.	Scorched or singed	2;3	2	ACC	-115.4704, 35.5572	NA
2019_243_ISEGS	black-chinned hummingbird	BCHU	Fatality Search	9/16/2019	9/16/2019	dead-semi-fresh	1-3 days	curling to tail and primaries, singe to head, back, and breast.	Scorched or singed	2;3	3	ACC	-115.4828, 35.5759	NA
2019_244_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/16/2019	9/16/2019	broken up	3-7 days	no evidence of collision or singe.	other (entrapment)	NA	3	ACC	-115.4827, 35.576	NA
2019_245_ISEGS	yellow warbler	YWAR	Fatality Search	9/16/2019	9/16/2019	broken up	1-3 days	singe to flight feathers.	Scorched or singed	1;3	3	Powerblock	-115.4837, 35.5758	NA
2019_246_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/18/2019	9/18/2019	broken up	3-7 days	singe to flight feathers.	Scorched or singed	1	1	Powerblock	-115.4509, 35.5352	NA
2019_247_ISEGS	yellow warbler	YWAR	Fatality Search	9/18/2019	9/18/2019	dead-fresh	0-0.33 days	curling to all flight feathers, singe to head, back, and belly.	Scorched or singed	2;3	1	ACC	-115.4518, 35.5355	NA
2019_248_ISEGS	Brewer's sparrow	BRSP	Fatality Search	9/18/2019	9/18/2019	dead-fresh	0.33-1 days	curling to flight feathers and tail, singe to body feathers.	Scorched or singed	2;3	1	ACC	-115.4514, 35.5355	NA
2019_249_ISEGS	MacGillivray's warbler	MGWA	Fatality Search	9/18/2019	9/18/2019	dead-fresh	0.33-1 days	singe to rump.	Scorched or singed	1;3	1	ACC	-115.4513, 35.5355	NA
2019_250_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/18/2019	9/18/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4513, 35.535	NA
2019_251_ISEGS	unidentified large bird	UNLB	Fatality Search	9/18/2019	9/18/2019	feather spot	3-7 days	no evidence of collision or singe.	other (entrapment)	NA	1	ACC	-115.4511, 35.5358	NA

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2019_254_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	9/18/2019	9/18/2019	broken up	3-7 days	singe to wing.	Scorched or singed	1;3	1	Powerblock	-115.452, 35.5356	NA
2019_255_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/18/2019	9/18/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4534, 35.5366	NA
2019_256_ISEGS	barn swallow	BARS	Fatality Search	9/18/2019	9/18/2019	dead-fresh	0-0.33 days	curling to flight feathers and tail, singe to head and back.	Scorched or singed	2;3	1	Heliostat	-115.4504, 35.5338	NA
2019_257_ISEGS	barn swallow	BARS	Fatality Search	9/18/2019	9/18/2019	dead-fresh	0.33-1 days	curling to flight feathers and tail, singe to head and back.	Scorched or singed	2;3	1	Heliostat	-115.4527, 35.5335	NA
2019_258_ISEGS	unidentified teal	TEAL	Fatality Search	9/18/2019	9/18/2019	broken up	0-0.33 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4493, 35.5357	NA
2019_259_ISEGS	great-tailed grackle	GTGR	Fatality Search	9/18/2019	9/18/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Heliostat	-115.4516, 35.537	NA
2019_260_ISEGS	lazuli bunting	LAZB	Incidental	9/18/2019	9/18/2019	dead-fresh	0-0.33 days	curling to flight feathers and tail, singe to body feathers.	Scorched or singed	1;3	1	Powerblock	-115.4521, 35.5351	NA
2019_261_ISEGS	yellow warbler	YWAR	Incidental	9/18/2019	9/18/2019	dead-fresh	0-0.33 days	curling to flight feathers and tail, singe to body feathers.	Scorched or singed	2;3	1	Powerblock	-115.4516, 35.5353	NA
2019_262_ISEGS	blue-gray gnatcatcher	BGGN	Incidental	9/18/2019	9/18/2019	dead-fresh	0-0.33 days	curling to flight feathers and tail, singe to body feathers.	Scorched or singed	1;3	1	Powerblock	-115.4517, 35.5353	NA
2019_263_ISEGS	black-tailed gnatcatcher	BTGN	Incidental	9/20/2019	9/20/2019	dead-semi-fresh	3-7 days	curling to rectrices.	Scorched or singed	1	3	Powerblock	-115.4828, 35.5756	NA
2019_271_ISEGS	Lincoln's sparrow	LISP	Incidental	9/28/2019	9/30/2019	dead-fresh	0.33-1 days	no evidence of collision or singe.	unknown	NA	2	Powerblock	-115.4699, 35.5569	NA
2019_264_ISEGS	chipping sparrow	CHSP	Fatality Search	9/30/2019	9/30/2019	dead-fresh	0.33-1 days	curling to secondaries in right wing, singe to head, nape, and throat.	Scorched or singed	1	3	ACC	-115.4825, 35.5757	NA
2019_265_ISEGS	yellow warbler	YWAR	Fatality Search	9/30/2019	9/30/2019	dead-semi-fresh	1-3 days	curling to most of flight feathers, singe to top of head.	Scorched or singed	1	3	ACC	-115.4823, 35.5757	NA
2019_266_ISEGS	Lincoln's sparrow	LISP	Fatality Search	9/30/2019	10/1/2019	broken up	1-3 days	curling to primary flight feathers with evidence of external trauma.	Scorched or singed	1	3	ACC	-115.4829, 35.5757	NA
2019_267_ISEGS	orange-crowned warbler	OCWA	Fatality Search	9/30/2019	9/30/2019	dead-fresh	0.33-1 days	curling to all flight feathers in wings and tail, singe to nape.	Scorched or singed	2;3	2	ACC	-115.4703, 35.557	NA
2019_268_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	9/30/2019	9/30/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to nape, right flank and axillary.	Scorched or singed	2;3	2	ACC	-115.4704, 35.5573	NA
2019_269_ISEGS	yellow warbler	YWAR	Fatality Search	9/30/2019	9/30/2019	dead-semi-fresh	1-3 days	no evidence of collision or singe.	other (entrapment)	NA	2	ACC	-115.4704, 35.5566	NA
2019_270_ISEGS	unidentified bird (small)	UNID	Fatality Search	9/30/2019	9/30/2019	feather spot	3-7 days	curling to majority of flight feathers.	Scorched or singed	2	2	Powerblock	-115.4705, 35.5566	NA

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2019_272_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	9/30/2019	9/30/2019	dead-fresh	0-0.33 days	curling to all flight feathers, singe to head, nape, breast, rump, and axillaries.	Scorched or singed	2;3	2	Powerblock	-115.4711, 35.5569	NA
2019_273_ISEGS	calliope hummingbird	CAHU	Fatality Search	9/30/2019	9/30/2019	dead-semi-fresh	3-7 days	curling to tips of rectrices and wings.	Scorched or singed	3	2	Powerblock	-115.47, 35.5571	NA
2019_274_ISEGS	yellow-rumped warbler	YRWA	Incidental	9/30/2019	9/30/2019	dead-fresh	0-0.33 days	curling to all flight feathers in wings and tail, singe to contour feathers.	Scorched or singed	3	2	Powerblock	-115.4711, 35.5568	NA
2019_275_ISEGS	Costa's hummingbird	COHU	Fatality Search	10/1/2019	10/1/2019	dead-semi-fresh	1-3 days	singe to lower left flank and rump.	Scorched or singed	3	1	ACC	-115.4515, 35.5354	NA
2019_276_ISEGS	unidentified gnatcatcher	UNGN	Fatality Search	10/1/2019	10/1/2019	dead-semi-fresh	3-7 days	curling to all flight feathers with tail singed off, singe to top of head, nape, rump, and axillaries.	Scorched or singed	2;3	1	ACC	-115.4515, 35.5354	NA
2019_277_ISEGS	cliff swallow	CLSW	Fatality Search	10/1/2019	10/1/2019	dead-semi-fresh	1-3 days	curling to all flight feathers with many singed off, singe to head, rump, and throat.	Scorched or singed	2;3	1	ACC	-115.4518, 35.5354	NA
2019_278_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/1/2019	10/1/2019	feather spot	3-7 days	curling to all contour feathers.	Scorched or singed	3	1	Powerblock	-115.4517, 35.5352	NA
2019_279_ISEGS	MacGillivray's warbler	MGWA	Fatality Search	10/1/2019	10/1/2019	dead-semi-fresh	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4519, 35.5352	NA
2019_280_ISEGS	pine siskin	PISI	Incidental	10/2/2019	10/2/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to head, nape, back, and rump.	Scorched or singed	2;3	2	Powerblock	-115.4709, 35.5565	NA
2019_281_ISEGS	American pipit	AMPI	Incidental	10/3/2019	10/3/2019	alive-injured	0-0.33 days	curling to flight feathers in wings with tail singed off.	Scorched or singed	2	3	Perimeter Fence	-115.4837, 35.5842	NA
2019_282_ISEGS	yellow-rumped warbler	YRWA	Incidental	10/6/2019	10/7/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to all of dorsal side and breast.	Scorched or singed	2;3	2	Powerblock	-115.4705, 35.5571	NA
2019_283_ISEGS	blue-gray gnatcatcher	BGGN	Incidental	10/6/2019	10/7/2019	dead-fresh	0.33-1 days	curling to left side of rectrices, singe to rump.	Scorched or singed	1;3	2	ACC	-115.4706, 35.5567	NA
2019_284_ISEGS	tree swallow	TRES	Fatality Search	10/14/2019	10/14/2019	broken up	8-14 days	singe to primaries, head, and contour feathers.	Scorched or singed	1;3	2	Powerblock	-115.4711, 35.5565	NA
2019_285_ISEGS	house finch	HOFI	Fatality Search	10/14/2019	10/14/2019	alive-injured	0.33-1 days	curling to flight feathers, singe to head and contour feathers.	Scorched or singed	2;3	3	Powerblock	-115.4827, 35.5753	NA
2019_286_ISEGS	violet-green swallow	VGSW	Fatality Search	10/14/2019	10/14/2019	dead-semi-fresh	1-3 days	curling to all flight feathers, singe to majority of body.	Scorched or singed	2;3	1	ACC	-115.4518, 35.5356	NA
2019_287_ISEGS	ruby-crowned kinglet	RCKI	Fatality Search	10/14/2019	10/14/2019	dead-fresh	0-0.33 days	singe to primaries.	Scorched or singed	1	2	Powerblock	-115.4701, 35.5566	NA
2019_288_ISEGS	ruby-crowned kinglet	RCKI	Fatality Search	10/14/2019	10/14/2019	dead-semi-fresh	1-3 days	curling to rectrices, singe to head, nape, breast, and coverts.	Scorched or singed	1;3	1	ACC	-115.4517, 35.5354	NA
2019_289_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	10/14/2019	10/14/2019	dead-semi-fresh	1-3 days	singe to rectrices and primaries of left wing.	Scorched or singed	2;3	3	ACC	-115.4825, 35.5757	NA
2019_290_ISEGS	Townsend's warbler	TOWA	Fatality Search	10/14/2019	10/14/2019	dead-semi-fresh	1-3 days	singe to primaries, head, and contour feathers.	Scorched or singed	2;3	3	ACC	-115.483, 35.5758	NA

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2019_291_ISEGS	red-naped sapsucker	RNSA	Fatality Search	10/14/2019	10/14/2019	dead-fresh	0.33-1 days	singe to primaries and rectrices, contour feathers and chest.	Scorched or singed	2;3	3	ACC	-115.4828, 35.5759	NA
2019_292_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/14/2019	10/14/2019	broken up	1-3 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5351	NA
2019_293_ISEGS	house finch	HOFI	Fatality Search	10/14/2019	10/14/2019	dead-fresh	0.33-1 days	singe to contour feathers.	Scorched or singed	1	2	ACC	-115.4705, 35.5573	NA
2019_294_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	10/14/2019	10/14/2019	broken up	8-14 days	singe to primaries, contour feathers, and head.	Scorched or singed	3	3	Powerblock	-115.4831, 35.5755	NA
2019_295_ISEGS	unidentified warbler	UNWA	Fatality Search	10/14/2019	10/14/2019	feather spot	3-7 days	singe to secondaries.	Scorched or singed	1	3	Powerblock	-115.4831, 35.5756	NA
2019_296_ISEGS	white-crowned sparrow	WCSP	Fatality Search	10/14/2019	10/14/2019	dead-semi-fresh	3-7 days	no evidence of singe or collision.	unknown	NA	3	Powerblock	-115.4831, 35.5753	NA
2019_297_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	10/14/2019	10/14/2019	feather spot	3-7 days	singe to primaries.	Scorched or singed	3	3	Heliostat	-115.4851, 35.5746	NA
2019_298_ISEGS	tree swallow	TRES	Fatality Search	10/14/2019	10/14/2019	broken up	3-7 days	singe to primaries and scapulars.	Scorched or singed	3	2	Heliostat	-115.4727, 35.5562	NA
2019_299_ISEGS	unidentified warbler	UNWA	Fatality Search	10/14/2019	10/14/2019	broken up	0.33-1 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4851, 35.5749	NA
2019_300_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	10/14/2019	10/14/2019	feather spot	3-7 days	singe to rectrices.	Scorched or singed	1	3	Heliostat	-115.4849, 35.5766	NA
2019_301_ISEGS	unidentified sparrow	UNSP	Fatality Search	10/14/2019	10/14/2019	feather spot	1-3 days	singe to primaries and secondaries.	Scorched or singed	1	3	Heliostat	-115.4831, 35.5766	NA
2019_302_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/14/2019	10/14/2019	feather spot	0.33-1 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4841, 35.5768	NA
2019_303_ISEGS	unidentified sparrow	UNSP	Fatality Search	10/14/2019	10/14/2019	broken up	0.33-1 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4812, 35.5771	NA
2019_304_ISEGS	white-crowned sparrow	WCSP	Fatality Search	10/14/2019	10/14/2019	broken up	0.33-1 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4822, 35.5774	NA
2019_305_ISEGS	mourning dove	MODO	Fatality Search	10/14/2019	10/14/2019	feather spot	3-7 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4822, 35.5774	NA
2019_306_ISEGS	verdin	VERD	Incidental	10/15/2019	10/15/2019	dead-fresh	0.33-1 days	no evidence of singe or collision.	unknown	NA	2	Powerblock	-115.4705, 35.5564	NA
2019_307_ISEGS	greater roadrunner	GRRO	Incidental	10/16/2019	10/16/2019	feather spot	3-7 days	no evidence of singe or collision.	unknown	NA	3	Project Structure	-115.4964, 35.5665	NA
2019_308_ISEGS	yellow warbler	YWAR	Incidental	10/20/2019	10/21/2019	dead-fresh	0.33-1 days	curling to several primaries.	Scorched or singed	1	2	Powerblock	-115.4701, 35.5566	NA
2019_309_ISEGS	northern rough-winged swallow	NRWS	Incidental	10/20/2019	10/21/2019	dead-semi-fresh	8-14 days	curling to flight feathers in both wings, singe to coverts.	Scorched or singed	2;3	2	Powerblock	-115.4699, 35.5566	NA
2019_310_ISEGS	Townsend's warbler	TOWA	Fatality Search	10/28/2019	10/28/2019	dead-semi-fresh	3-7 days	curling to all flight feathers, majority of flight feather singed off, singe to back and head.	Scorched or singed	2;3	2	ACC	-115.4702, 35.5569	NA
2019_311_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	curling to all flight feathers, singe to contour feathers.	Scorched or singed	1;3	3	Powerblock	-115.4831, 35.5753	NA

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2019_312_ISEGS	unidentified sparrow	UNSP	Fatality Search	10/28/2019	10/28/2019	dead-semi-fresh	3-7 days	curling to flight feathers with majority singed off, singe to head and most of body.	Scorched or singed	2;3	2	Powerblock	-115.4704, 35.5568	NA
2019_313_ISEGS	yellow warbler	YWAR	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	singe to primaries.	Scorched or singed	1	2	Powerblock	-115.4701, 35.5566	NA
2019_314_ISEGS	unidentified warbler	UNWA	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	curling to most of flight feathers, singe to coverts.	Scorched or singed	1	2	Powerblock	-115.471, 35.5571	NA
2019_315_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	curling to several tips of contour feathers.	Scorched or singed	3	3	Powerblock	-115.483, 35.5753	NA
2019_316_ISEGS	Lincoln's sparrow	LISP	Fatality Search	10/28/2019	10/28/2019	dead-fresh	0-0.33 days	imprint on heliostat matching size and shape of species.	collision	NA	3	Heliostat	-115.4842, 35.5743	NA
2019_317_ISEGS	Lincoln's sparrow	LISP	Fatality Search	10/28/2019	10/28/2019	dead-fresh	0-0.33 days	imprint on heliostat matching size and shape of species.	collision	NA	3	Heliostat	-115.4842, 35.5743	NA
2019_318_ISEGS	unidentified swallow	UNSW	Fatality Search	10/28/2019	10/28/2019	broken up	8-14 days	curling to all flight feathers.	Scorched or singed	1	3	Heliostat	-115.4828, 35.5743	NA
2019_319_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/28/2019	10/28/2019	feather spot	3-7 days	curling to rectrices. imprint found.	Scorched or singed	1	3	Heliostat	-115.4851, 35.5748	NA
2019_320_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	imprint on heliostat matching size and shape of species.	collision	NA	3	Heliostat	-115.485, 35.5749	NA
2019_321_ISEGS	mourning dove	MODO	Fatality Search	10/28/2019	10/28/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4852, 35.5749	NA
2019_322_ISEGS	unidentified sparrow	UNSP	Fatality Search	10/28/2019	10/28/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4852, 35.575	NA
2019_323_ISEGS	cactus wren	CACW	Fatality Search	10/28/2019	10/28/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	3	Heliostat	-115.4853, 35.5754	NA
2019_324_ISEGS	unidentified warbler	UNWA	Fatality Search	10/28/2019	10/28/2019	feather spot	1-3 days	no evidence of collision or singe.	unknown	NA	3	Heliostat	-115.4836, 35.5769	NA
2019_325_ISEGS	white-crowned sparrow	WCSP	Fatality Search	10/29/2019	10/29/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.4722, 35.5578	NA
2019_326_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/29/2019	10/29/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	2	Heliostat	-115.4699, 35.5582	NA
2019_327_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/30/2019	10/30/2019	feather spot	3-7 days	curling to flight feathers, singe to 7 contour feathers.	Scorched or singed	1;3	1	Powerblock	-115.4524, 35.5348	NA
2019_328_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/30/2019	10/30/2019	feather spot	3-7 days	curling to both primaries.	Scorched or singed	1	1	Powerblock	-115.4513, 35.5349	NA
2019_329_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/30/2019	10/30/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4517, 35.5351	NA
2019_330_ISEGS	unidentified bird (small)	UNID	Fatality Search	10/30/2019	10/30/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4514, 35.5351	NA
2019_331_ISEGS	house finch	HOFI	Incidental	11/5/2019	11/5/2019	alive-injured	0-0.33 days	curling to primaries and rectrices. singe to breast, top of head, rump, and coverts.	Scorched or singed	1;3	3	Powerblock	-115.4833, 35.5756	NA

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2019_332_ISEGS	verdin	VERD	Incidental	11/5/2019	11/5/2019	dead-fresh	0.33-1 days	broken top of bill.	collision	NA	3	Powerblock	-115.4832, 35.5758	NA
2019_333_ISEGS	house finch	HOFI	Incidental	11/11/2019	11/11/2019	dead-fresh	0-0.33 days	curling to all flight feathers, singe to head, nape, breast, and rump.	Scorched or singed	2;3	3	Powerblock	-115.483, 35.5754	NA
2019_334_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/11/2019	11/11/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	3	HelioStat	-115.4813, 35.5768	NA
2019_335_ISEGS	house finch	HOFI	Fatality Search	11/13/2019	11/13/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to head, nape, breast, and back.	Scorched or singed	2;3	3	ACC	-115.483, 35.5757	NA
2019_336_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/13/2019	11/13/2019	dead-semi-fresh	3-7 days	curling to flight feathers in both wings with tail singed off, singe to all of dorsal side.	Scorched or singed	2;3	2	ACC	-115.47, 35.557	NA
2019_337_ISEGS	northern rough-winged swallow	NRWS	Fatality Search	11/13/2019	11/13/2019	feather spot	8-14 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4823, 35.5762	NA
2019_338_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/13/2019	11/13/2019	broken up	3-7 days	singe to coverts.	Scorched or singed	Unknown	3	Powerblock	-115.4831, 35.5755	NA
2019_339_ISEGS	unidentified warbler	UNWA	Fatality Search	11/13/2019	11/13/2019	feather spot	3-7 days	curling to several flight feathers.	Scorched or singed	1	2	Powerblock	-115.4706, 35.5567	NA
2019_340_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/13/2019	11/13/2019	feather spot	3-7 days	curling to tips of several contour feathers.	Scorched or singed	3	2	Powerblock	-115.4704, 35.5568	NA
2019_341_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/13/2019	11/13/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	3	Powerblock	-115.4836, 35.5759	NA
2019_342_ISEGS	American pipit	AMPI	Fatality Search	11/13/2019	11/13/2019	feather spot	3-7 days	no evidence of collision or singe.	unknown	NA	2	HelioStat	-115.4697, 35.5581	NA
2019_343_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/13/2019	11/13/2019	broken up	0.33-1 days	no evidence of collision or singe.	unknown	NA	2	HelioStat	-115.4711, 35.5582	NA
2019_344_ISEGS	house finch	HOFI	Incidental	11/14/2019	11/14/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to all upperparts.	Scorched or singed	2;3	1	Powerblock	-115.4523, 35.5352	NA
2019_345_ISEGS	yellow-rumped warbler	YRWA	Fatality Search	11/14/2019	11/14/2019	dead-fresh	0.33-1 days	curling to all flight feathers, singe to all upperparts.	Scorched or singed	2;3	1	ACC	-115.4518, 35.5354	NA
2019_346_ISEGS	unidentified sparrow	UNSP	Fatality Search	11/14/2019	11/14/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	1	HelioStat	-115.4493, 35.5362	NA
2019_347_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/14/2019	11/14/2019	broken up	3-7 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.451, 35.5354	NA
2019_348_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/14/2019	11/14/2019	broken up	31-60 days	no evidence of collision or singe.	unknown	NA	1	HelioStat	-115.4505, 35.5341	NA
2019_349_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/14/2019	11/14/2019	broken up	8-14 days	no evidence of collision or singe.	unknown	NA	1	Powerblock	-115.4527, 35.5356	NA
2019_350_ISEGS	European starling	EUST	Fatality Search	11/14/2019	11/14/2019	broken up	1-3 days	curling to primaries and secondaries, singe to upperparts.	Scorched or singed	2;3	1	Powerblock	-115.4521, 35.5356	NA
2019_351_ISEGS	western meadowlark	WEME	Fatality Search	11/14/2019	11/14/2019	broken up	1-3 days	no evidence of collision or singe.	unknown	NA	1	HelioStat	-115.4492, 35.5337	NA
2019_352_ISEGS	unidentified sparrow	UNSP	Fatality Search	11/14/2019	11/14/2019	broken up	1-3 days	no evidence of collision or singe.	unknown	NA	1	HelioStat	-115.4518, 35.5337	NA

USFWS #	Common Name	Species Code	How Found	Detection Date	Collection Date	Condition	Time Since Death/Injury	Description of Carcass/Injury	Cause of Death/Injury	Burn Grade	Unit	Nearest Project Feature	Coordinates	SPUT Revisions
2019_353_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/25/2019	11/25/2019	broken up	3-7 days	coverts curled on partial left wing	Scorched or singed	Unknown	2	Powerblock	-115.4699, 35.5575	NA
2019_354_ISEGS	American pipit	AMPI	Fatality Search	11/25/2019	11/25/2019	broken up	3-7 days	body feathers around neck area singed	Scorched or singed	3	2	Powerblock	-115.4705, 35.5573	NA
2019_355_ISEGS	lesser goldfinch	LEGO	Fatality Search	11/25/2019	11/25/2019	dead-semi-fresh	8-14 days	singe on left side of face and coverts	Scorched or singed	1;3	2	Powerblock	-115.4694, 35.5568	NA
2019_356_ISEGS	unidentified bird (small)	UNID	Fatality Search	11/26/2019	11/26/2019	broken up	3-7 days	no evidence of singe or collision.	unknown	NA	1	Powerblock	-115.452, 35.535	NA