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

2015 – 2016 ANNUAL REPORT



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Executive Summary

This Annual Report represents a summary of the avian and bat monitoring surveys conducted at the Ivanpah Solar Electric Generating System facility (referred to in this report as "Ivanpah" or "Project"), from December 16, 2015 to December 15, 2016. This is the third annual report, which documents the survey effort and results of the third year of avian and bat monitoring conducted in accordance with the Avian and Bat Monitoring and Management Plan (Plan).

Per the revised Plan (2015), potential flux effects are investigated by surveying 100 percent of the tower area in all three units, and collisions with facility structures (towers and heliostats) are evaluated by systematic sampling of 100 percent of the tower areas (154 acres) in each of the three units, and 20 percent of Unit 2 heliostat field (240 acres) as representative of the facility. The "tower area" consists of the power block and inner high-density (HD) heliostats surrounding each of the three power blocks, covering approximately 154 acres; and 2) the "heliostat area" consists of the inner and outer heliostat segments outside of the inner HD heliostats, covering approximately 2,991 acres.

All bird and bat fatalities and injuries, referred to as "detections" in this report, including those found incidentally and during standardized facility searches, were documented and categorized as singed, collision, other project causes, or unknown based on examination with a binocular microscope and evidence collected from the location of the detection. During the period 15 December 2015 – 16 December 2016, 18 bat detections and 706 avian detections (including 25 injured birds) were found.

According to the specifications of the Plan, the number of avian detections was categorized by facility structure and cause. These avian fatality search results, along with searcher efficiency and carcass removal rates from trials conducted onsite, were input into a fatality estimator model (Huso 2010) to provide an estimate of the fatalities for the facility.

Following the approach approved for the Year 2 annual report, this annual report provides fatality estimates using biologically informed monitoring seasons that correspond to observations and statistical analysis rather than to previously determined dates and season durations. While the winter (2015), spring (2016), summer (2016) and fall (2016) monitoring surveys and reports followed the seasonal schedules outlined in the Plan (2015), close inspection of the respective fall, winter, spring and summer monitoring data from 2014 - 2015 demonstrated a longer fall migratory season in fall 2014 (i.e., ending in December 14), resulting in a winter 2014 monitoring season correspondingly beginning on December 15.

Using the fatality estimator model, during the period 15 December 2015 – 16 December 2016, there were an estimated 2447 fatalities (34.8%) from known causes and 4582 fatalities (65.2%) from unknown causes. Of the known causes, 1438 fatalities (58.8%) were estimated for the 154-acre tower area; 1009 were estimated for the 2,991-acre heliostat area. Of the unknown causes, 518 fatalities (11.3%) were estimated for the tower area, and 4064 (88.7%) were estimated for the 2,991 acre heliostat area. The unknown fatality estimate in the heliostat area had low precision due to (i) smaller overall percentage of the heliostats that are searched under the Revision 13 of the Plan (2015); and (ii) large influence of small bird feather spots. There is limited inference in the fatality patterns of unknown cause fatality estimates

in the heliostat area as a result of the large variance associated with the estimate, the small number of detections, and the large adjustment for each detection (e.g., one small bird detection in the heliostat area in the summer accounted for approximately 224 estimated fatalities). Overall, based on the monitoring results and estimates for known causes for the 2015 – 2016 monitoring year, the effect of the Project on birds is “low” as defined in the Plan.

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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 proponent in collaboration with the Technical Advisory Committee (TAC) made up of 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. Revision 12 of the Plan (2013) was accepted by the TAC in November 2013 and required two years of monitoring, which were completed at the end of October 20, 2015. As determined by the TAC, the goals of the Plan (2013) were met, and in November 2015, the TAC-approved Revision 13 to the Plan (2015) to require a third year of monitoring to provide collision and flux mortality estimates. Revision 13 of the Plan (2015) reflects reduced monitoring requirements as informed by the first two years of intensive monitoring. Specifically, the Plan (2015) details the onsite and offsite surveys to be conducted and the 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 (2015):

Plan Goals

1. Provide Collision Mortality Estimates: Estimates of avian mortality from collision will be calculated from data obtained by monitoring and identifying avian mortality and injury associated with facility structure collisions.
2. Provide Solar Flux Mortality Estimates: Estimates of avian mortality from flux effects will be calculated from data obtained by monitoring and identifying avian mortality and injury associated with solar flux generated by the facility.
3. 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 generally 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. Therefore, as revised, this Plan has the following objectives:

1. Estimate collision-related avian mortality and injury with the following facility structures (Figure 2), using empirical data to calculate facility-wide mortality and injury rates:
 - a. Power towers
 - b. Heliostats
2. Estimate flux-related avian mortality and injury using empirical data to calculate facility-wide mortality and injury rates.
3. Document patterns of collision or flux-related mortality and injury associated with species, age/sex, season, weather, and visibility.
4. Document spatial patterns associated with collision- or flux-related mortality and injury.
5. Provide quantitative information for developing and implementing adaptive management responses commensurate with identified impacts.

The revised Plan (2015) continues to: 1) satisfy the BLM Right-of-Way (ROW) Permit requirement that the 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 (FESA), 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, FESA, and relevant state regulations (USFWS 2012).

1.3 Purpose of This Report

This report provides a summary of the detections (by cause and location), and the modeling inputs used to calculate an annual fatality estimate for known and unknown cause according to the biologically informed seasons (16 December 2015 – 15 December 2016) 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 2015 – 25 March 2016), spring (26 March – 24 May 2016), summer (25 May – 17 August 2016), and fall (18 August – 15 December 2016), and are collectively referred to as the 2015 – 2016 monitoring year or year 3 throughout this report. Fatality estimates for each season as defined in the Plan (2015) are provided in each quarterly report and are not re-estimated in this report. This report meets the requirements of CEC Condition of Certification BIO-21.

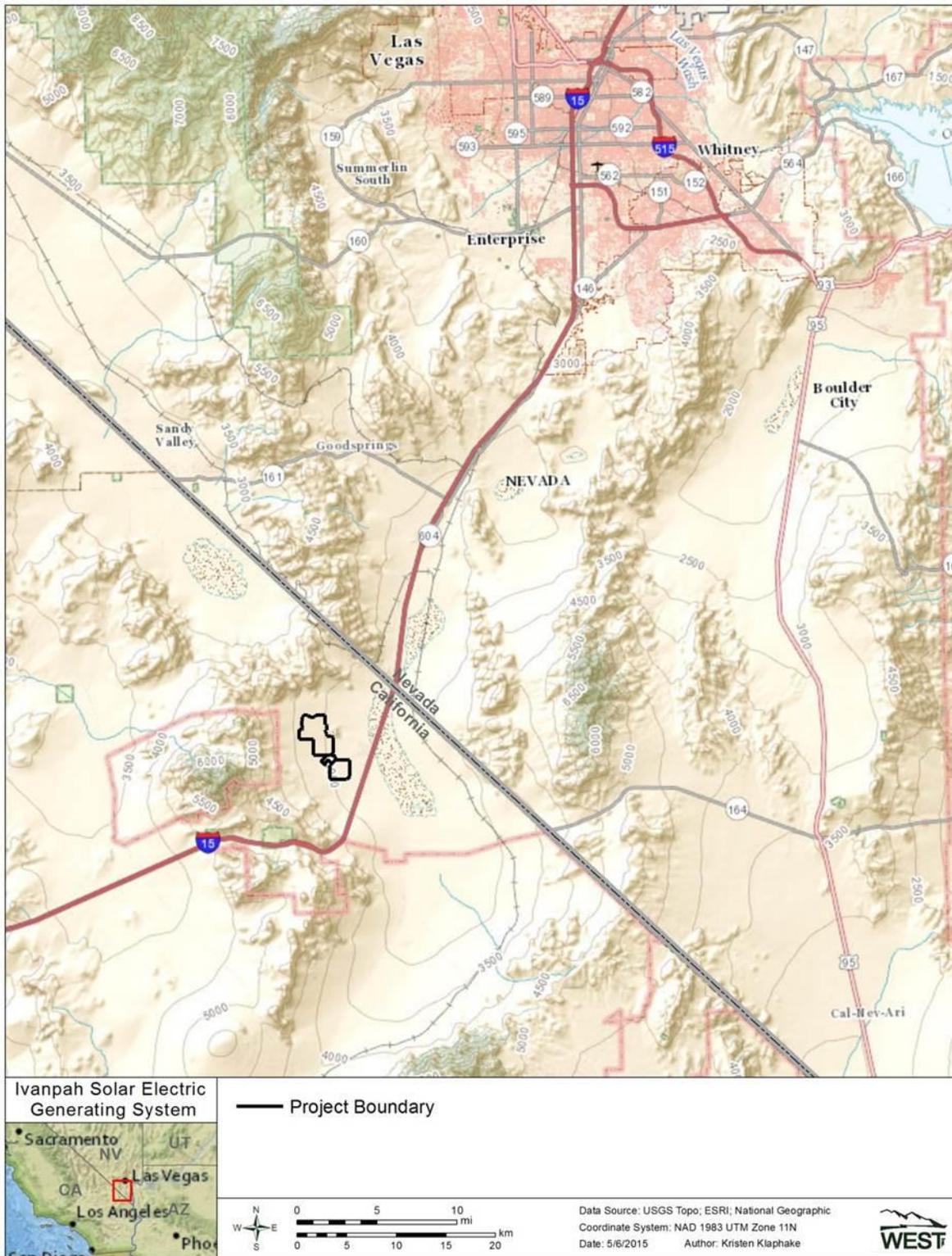


Figure 1. Ivanpah Vicinity Map.

Section 2.0 Methods

The Plan (2015) describes the methods by which monitoring and certain analyses, including compilation of the overall fatality estimate, will occur. Below is an abridged description, with greater detail provided where methods differ from original Plan (2013).

2.1 Facility Monitoring

This section describes areas surveyed, the timing and frequency 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 (2015), monitoring was conducted in the “tower area” and a sample of the “heliostat area”. The tower area is 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. The heliostat area is defined as the inner and outer heliostat segments outside of the inner HD heliostats. For year 3, 100% of the tower area at each unit was surveyed and 20% of the Unit 2 heliostat area (8% of the total heliostat area) was surveyed. Table 1a provides the acreage searched within each of the survey areas, as well as the percent of the facility comprised by these search areas. Overall, approximately 12.9% of the Project was searched (Figure 2).

To ensure a balanced distribution of heliostat field survey plots, Unit 2 was divided into inner and outer heliostat fields, and approximately 20% of each sub-area was randomly selected for monitoring. Arc plots used for monitoring in Unit 2 were the same as previous years. This stratified random sampling design ensures that survey plots will not be clustered or biased in any distance or direction from the tower.

Table 1a. Monitoring Areas, 2015 – 2016 Monitoring Year.

Area	Facility Locations Included	Acreage Searched	Percent of Facility
Tower Area	ACC, Power Block, Inner HD	154	4.80%
Heliostat Area	Unit 2 Inner and Outer Heliostat Segments	240	8.09%
Total		394	12.89%

*NA = Not applicable as offsite survey areas are located outside of the facility

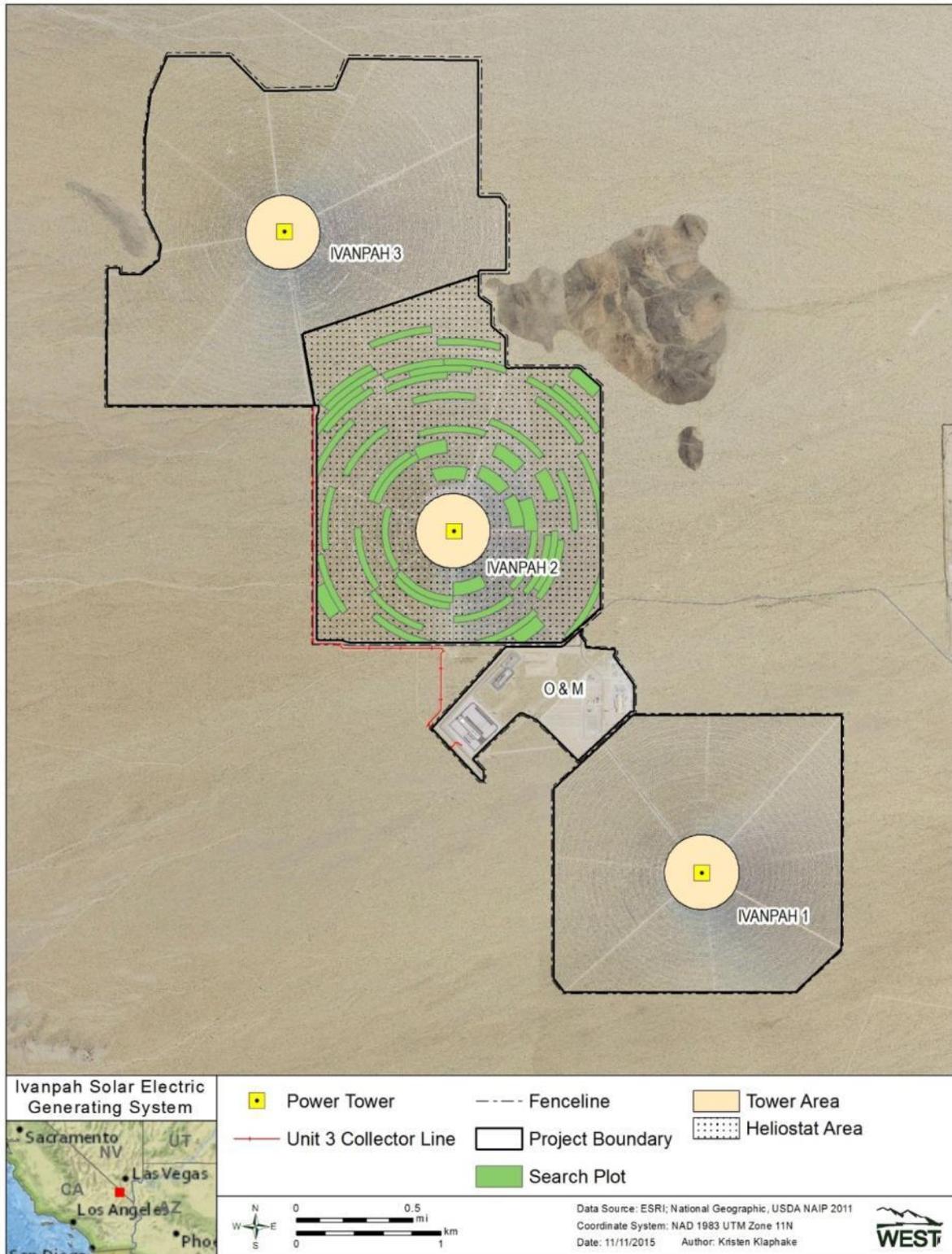


Figure 2. Ivanpah Search Areas.

2.1.1.2 Search Frequency and Timing

Standardized searches occurred at each unit on a 21-day interval through the 2015 – 2016 winter season and the 2016 summer season (Plan 2015). Standardized search frequency was increased in spring and fall 2016, occurring at each unit on a 7-day interval to accommodate an increase in bird activity due to migration (Plan 2015). Due to the longer biologically informed fall season compared to the fall season defined in the Plan (2015), the biologically informed winter season includes searches at a 7-day and 21-day interval. Variation in search interval was anticipated to occur due to the transition from a 21-day search interval to a 7-day search interval between seasons of differing length.

2.1.1.3 Search Methods

Biologists performed surveys in the tower area, and plots in the heliostat area. Standardized walking surveys for fatalities were performed by biologists approved by CEC and BLM, in accordance with the methods outlined in the Plan (2015). In the heliostat area, a pair of biologists walked a total of four transects oriented longitudinally along the complete length of each arc-plot, with the ring roads serving as the outer boundaries of each arc plot (Figure 3). While walking each transect, biologists walked a narrow search section approximately 10 meters (m) wide. Within the power block, biologists walked through and around the power tower and ACC unit looking 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 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.

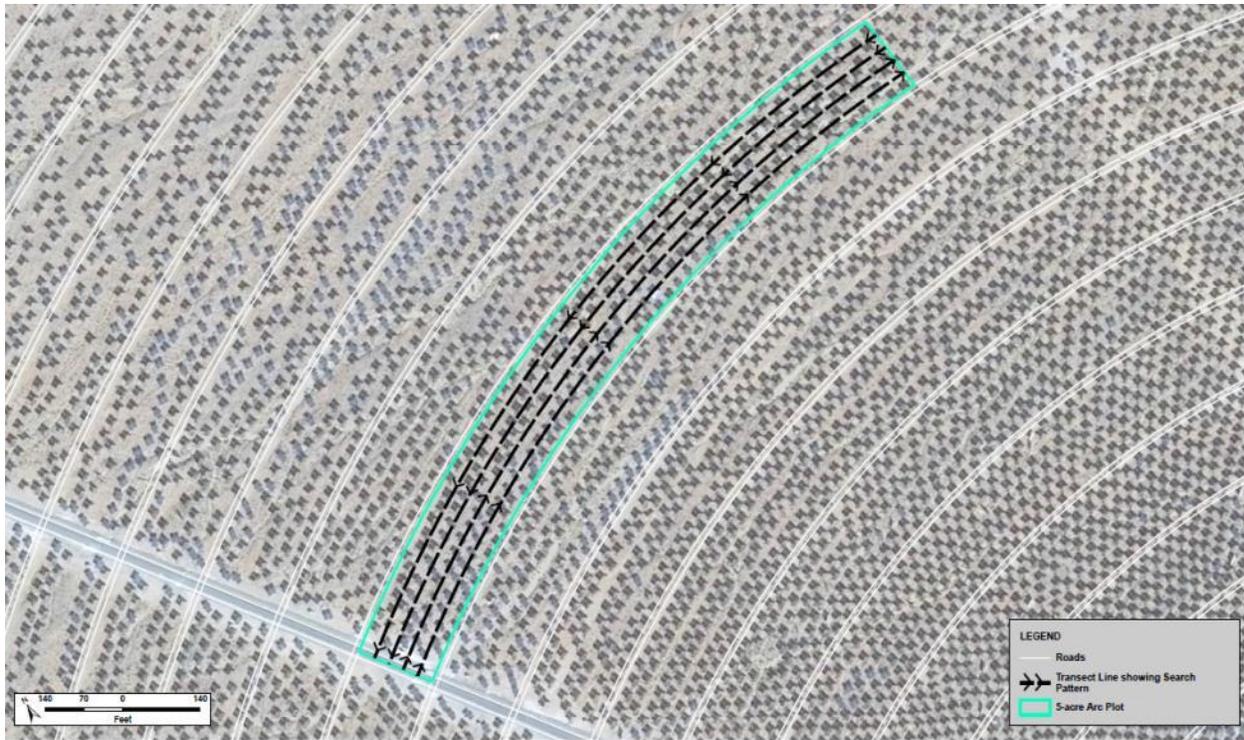


Figure 3. Monitoring Search Pattern for Arc Plots.

Carcass and Feather Spot Examination. Every carcass and feather spot was 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 were 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.

2.1.2 Carcass Persistence Trials

Carcass persistence trials were performed throughout the 2015 – 2016 monitoring year, with a total of 98 small bird trials conducted. The TAC approved discontinuing large bird carcass trials at the conclusion of the 2015 summer season due to the consistency of large bird persistence times collected over the previous seasons. In response to the previous TAC request of increased sample size, the number of small bird trials was increased relative to the 2013 summer monitoring season.

The facility contains vegetated and unvegetated areas that could affect the ability to detect a carcass or the amount of time a carcass persists until it is scavenged. The tower area (power block and inner HD heliostats), where most singed detections occur, is unvegetated; all other areas are considered vegetated. In order to examine carcass persistence times for vegetated and unvegetated areas, carcasses were distributed through the facility, with 44 carcasses placed in the unvegetated tower area, and 54 carcasses placed in the vegetated heliostat area. Non-native house sparrows (*Passer domesticus*) were used for small carcass trials conducted during the 2015 – 2016 monitoring year. A camera was placed at each carcass to record the time of scavenging and the scavenging species.

2.1.3 Searcher Efficiency Trials

A total of 283 searcher efficiency trials (122 small birds, 87 large birds, and 74 feather spots) were conducted during the 2015 – 2016 monitoring year. Carcasses and feather spots were placed in various vegetation heights and in areas that had different soil and vegetation colors and values to represent the range of conditions under which searches occur. Trials were placed in the tower areas of all three units and in the heliostat area of Unit 2; however, no trials were placed in the ACC building since detection probability is assumed to be 100% in this area of the power block. Each trial carcass was placed by a designated biologist prior to a scheduled search without knowledge of the searchers. For trial carcasses that were not detected by searchers, the designated biologist returned to the trial location to determine if the trial carcass was still available to be found. If the trial carcass was absent, it was assumed to have been removed prior to the search, and thus not available to be detected.

Overall, 132 trial carcasses/feather spots were placed in the unvegetated tower area and 151 trial carcasses were placed in vegetated areas of the heliostat area. Of the 283 trial carcasses placed, 244 (96 small carcasses, 75 large carcasses, and 73 feather spots) were available to be found; 39 carcasses (26 small carcasses, 12 large carcasses, and 1 feather spot) were removed (scavenged) from the trial location before searchers had an opportunity to find them.

2.1.4 Incidental Reporting

Some detections were made outside standardized search areas, or were within search areas but not during standardized searches. Detections at locations not searched under the Plan (2015) such as the fenceline and heliostat areas of Unit 1 and Unit 3, are considered incidental detections for this report. These detections were reported in accordance with the facility's Wildlife Incident Reporting System (described in Section 3.4 of the Plan (2015)) and were considered “incidental” detections. Data on these incidental detections were reported in the SPUT permit database. As described in Section 2.2.5, incidental is included in the fatality estimates when detections were found in areas covered during standardized surveys (e.g., tower area or heliostat area of Unit 2). Incidental detections from outside the survey areas were not included in the fatality estimates as discussed in Section 2.2.5; however, all detections regardless of the method or source of detection are reported in the SPUT permit database.

2.1.5 Fatality Estimator

Fatality rate estimation is a complex task due to several variables inherent to every fatality monitoring study. Carcasses may persist for variable amounts of time due to local scavenger activity or environmental conditions leading to carcass degradation over time. Carcasses and feather spots are also detected with varying levels of success based on carcass characteristics and ground cover (e.g., vegetated

areas underneath heliostats versus cleared areas around towers). For these reasons, it is generally inappropriate to draw conclusions based on the raw number of fatalities alone. The desire to estimate fatalities given these variables has driven the development of several statistical methods for estimating fatalities (e.g., Smallwood 2007, Huso 2010, Korner-Nievergelt 2011). All of these fatality estimation methods share a similar underlying model. Generally, the fatality estimation for a given site may be written as:

$$F=C/rp,$$

where F is the total number of fatalities, C is the number fatalities detected and included in fatality estimation, r is the probability a carcass is available to be found at the end of the search interval, and p is the probability of detecting a carcass (Huso 2010).

The bias correction factors r and p are estimated by covariates that may influence the detectability and persistence of each carcass, such as carcass size, presence of vegetation, and stage of decay or scavenging (i.e., feather spot versus carcass). For this study, the Huso estimator was used to correct for detection and scavenging bias; the estimator was demonstrated to perform well under a variety of conditions (Huso 2010). The Huso model was developed in the context of estimating fatalities for post-construction fatality studies at wind energy facilities; however, the Huso estimator is suitable for other sources of anthropogenic avian mortality, including power lines and utility scale solar facilities (Huso 2010).

All fatality estimates were calculated using the Huso estimator, as well as 90% confidence using bootstrapping (Manly 1997). Bootstrapping is a computer simulation technique that is useful for calculating variances, and confidence intervals for complicated test statistics. A total of 1,000 bootstrap replicates were used. The lower 5th and upper 95th percentiles of the 1,000 bootstrap estimates provide estimates of the lower limit and upper limit of an approximate 90% confidence interval on all estimates.

Estimating Carcass Persistence Times. Measurement of carcass persistence time is often subject to censoring. In this context, censoring refers to the fact that a value (e.g., days a carcass is present before being removed) may not be known exactly, but within a finite range. For example, suppose a carcass was checked on day 7 and was present, and was checked again on day 10, but was found to be missing. The exact time until removal is unknown; however, it is known that the carcass was available to be found for between 7 and 10 days. This carcass would be considered “interval censored”. Similarly, if a carcass lasts the entire six-week trial period, that carcass is “right censored”—we know the carcass lasted at least six weeks, but it could have persisted longer. Due to the fact that camera traps (e.g., cameras that automatically document activity at the trial carcass) were used for carcass removal trials, the majority of scavenging times can be known precisely, and data are not censored. However, when cameras fail to record the moment of scavenging, trials are treated as interval censored between the last time the carcass was visible on the camera, and the earliest time at which it was known to be removed.

Survival regressions models are well-suited to accommodate censored carcass persistence data and are typically used to generate the average probability of persistence for fatality estimation (Huso et. al 2012). There are four commonly used distributions implemented in the survival models used to estimate the value of r : exponential, Weibull, loglogistic, and lognormal. These four distributions exhibit varying degrees of flexibility in order to model a wide variety of removal time distributions. Akaike’s Information

Criterion adjusted for sample size (AICc; Akaike 1973) was used to rank the fit of each survival model fit to carcass removal data. The exact time of death for detected fatalities is usually unknown, so the probability of persistence cannot be calculated exactly for each carcass; however, it can be estimated from the selected survival model and bootstrapped to obtain the variation of r for the observed detection data.

Estimating Searcher Efficiency. Searcher efficiency, or the proportion of carcasses detected, p , is represented most simply by the following equation:

$$p = \frac{\text{Number of Carcass Observed}}{\text{Number of Carcasses available}}$$

Model Selection for Searcher Efficiency Trials. The Plan states that searcher efficiency trials will be conducted during each season in which vegetation differs from the prior season, because changes in vegetative cover may affect carcass detectability. *A priori* decisions were not made regarding whether vegetative cover would differ between seasons, but rather, searcher efficiency trials were conducted in all seasons. Following the completion of fall searcher efficiency trials, there was sufficient cumulative data for the year to assess whether searcher efficiency differed significantly by Project area (e.g., unvegetated tower area versus vegetated heliostat fields), season, and/or carcass size. The nearly complete lack of vegetation cover in the tower area suggested that searcher efficiency may be higher in the tower area than in other Project areas. If this hypothesis were true, accounting for this difference in searcher efficiency across Project areas would be important for producing accurate fatality estimates.

To evaluate various hypotheses regarding differences in carcass detectability among Project areas, seasons, and/or carcass size, logistic regression models were fit to searcher efficiency data and corrected Akaike's Information Criteria (AICc) was used to compare models. The Project area was defined using two categories to reflect the suspected differences in searcher efficiency due to differences in vegetation cover: the tower area, which consists of the power block and the inner HD heliostats, and other areas, which consists of all other Project areas not included in the tower area. Models were constructed for all combinations of year, season, carcass size, Project area, and compared to the null model (Table 8). The data for this analysis included all human searcher efficiency trials of carcasses from the beginning of trials in the winter 2013 – 2014 season through the 2015 – 2016 monitoring year.

Fatality Estimates. Estimates for the number of detections in the tower area components (i.e., the power block and inner HD heliostats) are reported combined, because 100% of these areas were searched. A separate estimate was produced for the heliostat area of all three Units (the inner and outer heliostat segments combined), in which 8% of the total area was searched. Fatality estimates reported in the inner/outer heliostat areas were adjusted to account for the unsearched area in the inner/outer heliostat areas (i.e., divided by 0.08).

The ACC buildings are only marginally accessible to scavengers from the outside; therefore, they act primarily as a closed system with a scavenging rate that approaches zero. Furthermore, carcasses are, generally, visible against the industrial backgrounds. Thus, the fatalities found in the ACC were not adjusted using the Huso estimator; rather, raw counts of ACC detections were added to fatality estimates for the tower area. All detections within the ACC buildings are considered facility related, whether or not

they showed evidence of singeing or collision; if there was no evidence of singeing or collision on a detection found in the ACC, the cause was assumed to be entrapment in some portion of the ACC unit.

Within the power block, during the 2015 – 2016 monitoring year, incidental detections accounted for 28.3% of the detections recorded. Thus, as previously modeled, incidentals found within the power block were included in estimates, but treated differently from other fatalities. Specifically, to reflect the high human activity in the power block—and frequent observation of the areas within the power block—the search interval for these detections was set to one day (Table 1b).

Outside the power block, in previous seasons, incidental detections found outside of the power block but within standardized search areas were partially processed in the field and left in place to give searchers the opportunity to discover the carcass on the next scheduled search. As approved by the TAC, this method was discontinued in the 2015 fall season to prevent the scenario where an incidental detection is recorded, left in place, but scavenged before the next standard search and no carcass is associated with the data. In the 2015 fall season, incidental detections found outside of the power block, but within standardized search areas, were removed from field and included in fatality estimates under the conservative assumption that the search interval was the time between the last search of the area and the time of incidental discovery (Table 1b).

Table 1b. Treatment of Incidental Detections by Location.

Location	Search Interval	Included in Analysis?
Power Block	1 Day	Yes, if carcass age is less than 24 hours
All Other Standardized Search Areas	Calculated days between date of detection and date of previous standard search in that location	Yes, if carcass age is less than calculated search interval

All fatality estimators have limitations, particularly when fatality counts are low. In particular, when detections are fewer than five, regardless of survey effort, estimates and confidence intervals can be unstable and must be interpreted with caution (Korner-Nievergelt et. al 2011). Rather than report estimates with little inferential value, no estimates were provided for combinations of covariates (e.g. size, location, cause) resulting in five or fewer detections.

The fatality estimator accounts for imperfect detection probability by using bias trials to estimate searcher efficiency. The Huso estimator is constructed under the assumption that searchers have a single opportunity to discover a carcass. Therefore, if a carcass is missed on the first search it was available, and then found on the next search, it will effectively be over-counted. The method typically used to overcome multiple-detection-bias is to exclude any detection determined to be older than the search interval (Huso et. al 2016). Each detection made during the 2015 – 2016 monitoring year was evaluated for exclusion from the estimator based on the observed time since death (i.e., the length of time between an animal’s death and when the detection was discovered), and the search interval associated with that detection. For example, if a detection determined to have been on the ground for > 1 month was made in the inner HD of Unit 2, which had been searched seven days earlier, that carcass would be excluded from analysis.

Determining the age of a carcass was based on detailed qualitative analysis of every detection (carcasses and feather spots) recovered onsite. Qualitative analysis began with in situ aging analysis in the field by biologists approved by the CEC and BLM, followed by a more detailed analysis in the lab. In the field, biologists noted the presence of rigor mortis, condition of eyes and feathers, and condition of blood or viscera (if present). In the lab, each carcass was further examined and compared to photographs of decomposed test carcasses. The test carcasses were used to document decomposition over time at Ivanpah to better inform biologist of site-specific characteristics of avian decomposition that could be expected at the Project.

Decomposition test carcasses were placed in tamper-proof containers, exposed to onsite environmental conditions, and allowed to decompose. Carcasses used in decomposition tests were placed to account for variation in space (e.g. underneath fans in the ACC unit versus shaded under a heliostat) and time (e.g. ephemeral weather patterns). As the test carcasses aged, the biologists photographed and recorded the condition of body tissue and fluids, eyes, feathers, and indications of rigor mortis. All decomposition specimens were placed during the 2015 spring monitoring season.

To correctly account for searcher efficiency in the fatality estimate model, when partial carcasses are initially identified as feather spots by the observer in the field, they are modeled (in the fatality estimates) as a feather spot. In other words, the primary means of identification of the detection (feather spot, small carcass, or large carcass) is the appropriate classification to utilize in the modeled estimates. The primary identification approach is appropriate since different searcher efficiency rates are estimated for feather spots as opposed to carcasses. Because searcher efficiency is an important component of the fatality estimator, what the surveyors detect first (i.e., feather spot versus a complete or partial carcass) influences how that detection should be included in the model. Such detections are noted in Appendix A as “partial carcass + feather spot” in the “Description of Carcass/Injury” column.

Biologically Informed Seasons. In an effort to address the annual variation in migration seasons for non-resident birds, a step-wise, data-driven process was used to define biologically informed seasons in association with the 2014 – 2015 Annual Report (Appendix D). 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, a decision was made to use December 15, as representing the end of the fall migration for the purposes of comparing seasonal fatality data among years.

2.1.6 Spatial Analysis of Unknown Cause Fatalities in the Heliostat Area

Unknown cause detections have been identified throughout the monitoring process, and have been discovered during all seasons of monitoring to date and in all areas of the facility being monitored. Although unknown cause detections were a minority of all detections during the 2015-2016 monitoring year (29.3%), they contribute to the overall fatality estimate, particularly in the heliostat area. We examined potential drivers of unknown cause fatalities in the heliostat area by conducting a spatial

analysis with detection data collected on fatality searches during the 2015 – 2016 monitoring year. To test for an overall spatial pattern, the distribution of unknown cause detections in heliostat area arc plots was compared to the expected distribution assuming a random (Poisson) spatial process, using a goodness-of-fit test (Hogg et. al 2005). If the results of the goodness-of-fit test showed deviation from a random spatial pattern, the same spatial data would be further analyzed using a Poisson regression model (Kutner et. al 2004), which predicts counts as a function of selected covariates. The model would be fit with covariates for carcass size, distance to Unit 2 tower, direction to Unit 2 tower, and distance to nearest observed kit fox (*Vulpes macrotis*) den; these covariates were chosen based on availability of data and potential to explain patterns in unknown cause detections, if any. A model with all potential covariates would be fit, and model parameters significant at the $\alpha = 0.10$ significance level would be considered significant predictors.

2.2 Best Management Practices

2.2.1 Avian Measures

Ivanpah commenced an investigation of the use of various deterrence measures to reduce avian mortality at the facility in 2013. These initial investigations combined with the results of the monitoring conducted during 2014 resulted in a list of potential deterrence measures for adaptive management. As monitoring has identified patterns of detections, additional measures have been identified, tested and if successful are ultimately deployed. This cycle of adaptive management provides a process where scientifically-based measures are identified and deployed that is effective in reducing avian mortality.

Based on the location of greater roadrunner detections along the fenceline, an adaptive management measure was developed in 2016 to allow roadrunners to escape through the unit fence. Hawks were observed to pursue and entrap roadrunners along the fence and depredate them. The measure deployed consisted of installing egress routes through the fence with an elevated platform. The elevated platform allows the egress route to be installed without impacting the desert tortoise fencing. The shade cloth was installed to increase visibility of the egress route. The measure was initially tested at Unit 1 and monitored with a game camera. Evidence of roadrunners use was captured on camera, and the measure is considered successful. This measure is now considered a best management practice and additional egress routes will be installed along fences for the respective units.

Several other deterrence measures have been implemented for birds at Ivanpah. Specifically, new ground-level LED lighting and spikes were installed at Unit 1 5 February 2015. As approved by the TAC, a chemosensory deterrence measure commercially known as BirdBuffer was deployed on 12 October 2014 at Unit 1, and a sonic deterrence measure commercially known as BirdGard, was deployed on 13 March 2015 at Unit 1. Bird Buffer was installed at Unit 2 and Unit 3 on 29 September 2015; BirdGard was installed at Unit 2 on 25 August 2015 and Unit 3 on 31 August 2015. The chemosensory deterrence measure is hypothesized to deter resident species, since the deterrent induces a conditioned response over time, and the sonic deterrence measure is hypothesized to deter transient and migrant species, as the sounds produced by the system are thought to startle and deter subjects. Together, the combination of BirdBuffer and BirdGard systems are intended to deter avian species from entering this area associated with elevated flux mortality.

Enhancements to BirdBuffer were designed in fall 2016 and include replacing the single output device at each Unit tower with two double output devices at each Unit tower. Enhancements to BirdGard were designed in fall and include upgrading each speaker device containing 20 speakers to 3 speaker devices containing 20 speakers. Each speaker device has 7 hyper-directional speakers, for a total of 21 directional speakers targeted towards a specific path. The four independent three-speaker-devices will remain positioned on the north, east, south, and west side of each tower area.

2.2.2 Bat Measures

Bat fatalities were detected primarily in the ACC, and as the ACC provides a roosting location, a Binary Acoustic Technology Ultrasonic Bat Deterrence was tested at Unit 3. The bat deterrence measure is not designed to elicit a fear response in bats, but is designed to interfere with the echolocation capabilities of bats. As bats navigate utilizing sonar, the method deployed “jams” the sonar signals and bats species avoid the area as a result of the inherent difficulties to navigate under these conditions. Although bats can adjust echolocation under jamming conditions, the use of broadband ultrasound requires bats to shift frequencies to avoid overlap that interferes with echolocation and therefore deters within the area subject to broadband ultrasound (Arnett, et al, 2013). As a result of the broadband ultrasonic signal and the inherent “jamming” effect, adaptation to the deterrence measure is minimal. The deterrence measure has been installed at all Units, and the installation dates are as follows: 10 September 2014 at Unit 1, 23 April 2015 at Unit 2, and 23 April 2015 at Unit 3. In November 2015, an ultrasonic testing protocol was implemented to ensure proper function of all deterrence units. Bat deterrence was tested in August and October during the 2016 fall season, and all systems were operating correctly.

Section 3.0 Monitoring Results

3.1 Summary of Avian Detections

During the 2015 – 2016 monitoring year, a total of 706 avian detections (including injured birds and incidentals) of 87 identified species (Table 2) were recorded. Approximately 63% of detections were songbirds, with 37% being other types of bird; 3% could not be identified to at least a species group. The most numerous detections were of unidentified small bird; the most frequent detection of an identified species was yellow warbler followed by yellow-rumped warbler and tree swallow. Most detections occurred in the tower area (Figures 4, 5, 6, and 7), where approximately 154 acres were surveyed, representing 100% of the total tower area.

Table 2. Number of Individual Bird Detections, by Species, 2015 – 2016 monitoring year.

Species	Scientific Name	Injuries	Fatalities	Songbird?
unidentified bird (small)	Unidentified	0	83	Unkown
yellow warbler	<i>Setophaga petechial</i>	4	70	Yes
yellow-rumped warbler	<i>Setophaga coronate</i>	0	28	Yes
tree swallow	<i>Tachycineta bicolor</i>	2	25	Yes
mourning dove	<i>Zenaida macroura</i>	1	23	No
unidentified sparrow	Unidentified	0	22	Yes
northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	0	21	Yes
costa's hummingbird	<i>Calypte costae</i>	0	20	No
Wilson's warbler	<i>Cardellina pusilla</i>	1	18	Yes
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	0	18	Yes
orange-crowned warbler	<i>Oreothlypis celata</i>	0	15	Yes
cliff swallow	<i>Petrochelidon pyrrhonota</i>	0	15	Yes
violet-green swallow	<i>Tachycineta thalassina</i>	1	15	Yes
unidentified swallow	Unidentified	0	15	Yes
unidentified hummingbird	Unidentified	0	14	No
black-throated sparrow	<i>Amphispiza bilineata</i>	0	9	Yes
American pipit	<i>Anthus rubescens</i>	1	9	Yes
Lincoln's sparrow	<i>Melospiza lincolni</i>	1	9	Yes
blue-gray gnatcatcher	<i>Polioptila caerulea</i>	0	9	Yes
black-throated gray warbler	<i>Setophaga nigrescens</i>	0	9	Yes
western meadowlark	<i>Sturnella neglecta</i>	0	9	Yes
unidentified grebe	Unidentified	0	8	No
horned lark	<i>Eremophila alpestris</i>	0	8	Yes
lazuli bunting	<i>Passerina amoena</i>	1	8	Yes
unidentified warbler	Unidentified	0	8	Yes
Anna's hummingbird	<i>Calypte anna</i>	0	8	No
Vaux's swift	<i>Chaetura vauxi</i>	0	8	No
lesser nighthawk	<i>Chordeiles acutipennis</i>	0	7	No

Species	Scientific Name	Injuries	Fatalities	Songbird?
brown-headed cowbird	<i>Molothrus ater</i>	1	7	Yes
greater roadrunner	<i>Geococcyx californianus</i>	0	6	No
loggerhead shrike	<i>Lanius ludovicianus</i>	0	6	Yes
cactus wren	<i>Campylorhynchus brunneicapillus</i>	0	5	Yes
house finch	<i>Haemorhous mexicanus</i>	0	5	Yes
ruby-crowned kinglet	<i>Regulus calendula</i>	0	5	Yes
lesser goldfinch	<i>Spinus psaltria</i>	0	5	Yes
rufous hummingbird	<i>Selasphorus rufus</i>	0	5	No
northern mockingbird	<i>Mimus polyglottos</i>	0	4	Yes
western tanager	<i>Piranga ludoviciana</i>	3	4	Yes
chipping sparrow	<i>Spizella passerine</i>	0	4	Yes
western kingbird	<i>Tyrannus verticalis</i>	0	4	Yes
black-chinned hummingbird	<i>Archilochus alexandri</i>	0	4	No
eared grebe	<i>Podiceps nigricollis</i>	0	3	No
sagebrush sparrow	<i>Artemisiospiza nevadensis</i>	0	3	Yes
verdin	<i>Auriparus flaviceps</i>	0	3	Yes
McGillivray's warbler	<i>Geothlypis tolmiei</i>	0	3	Yes
barn swallow	<i>Hirundo rustica</i>	3	3	Yes
Lucy's warbler	<i>Oreothlypis luciae</i>	1	3	Yes
savannah sparrow	<i>Passerculus sandwichensis</i>	0	3	Yes
black-tailed gnatcatcher	<i>Polioptila melanura</i>	0	3	Yes
hermit warbler	<i>Setophaga occidentalis</i>	0	3	Yes
brewer's sparrow	<i>Spizella breweri</i>	0	3	Yes
American avocet	<i>Recurvirostra americana</i>	0	3	No
calliope hummingbird	<i>Selasphorus calliope</i>	0	3	No
unidentified bird (unknown size)	Unidentified	0	3	Unknown
unidentified teal	<i>Anas spp</i>	0	3	No
rock pigeon	<i>Columba livia</i>	0	2	No
unidentified dove	<i>Columbina spp</i>	0	2	No
common raven	<i>Corvus corax</i>	0	2	No
brewer's blackbird	<i>Euphagus cyanocephalus</i>	0	2	Yes
dark-eyed junco	<i>Junco hyemalis</i>	0	2	Yes
say's phoebe	<i>Sayornis saya</i>	0	2	Yes
Townsend's warbler	<i>Setophaga townsendi</i>	1	2	Yes
unidentified flycatcher	Unidentified	0	2	Yes
unidentified oriole	Unidentified	0	2	Yes
killdeer	<i>Charadrius vociferous</i>	0	2	No
long-billed curlew	<i>Numenius americanus</i>	0	2	No
unidentified large bird	Unidentified	0	2	No
cinnamon teal	<i>Anas cyanoptera</i>	0	2	No
unidentified waterfowl	Unidentified	0	2	No
northern flicker	<i>Colaptes auratus</i>	0	2	No
unidentified sapsucker	<i>Sphyrapicus spp</i>	0	2	No

Species	Scientific Name	Injuries	Fatalities	Songbird?
ring-necked pheasant	<i>Phasianus colchicus</i>	0	1	No
western grebe	<i>Aechmophorus occidentalis</i>	0	1	No
northern saw-whet owl	<i>Aegolius acadicus</i>	0	1	No
hermit thrush	<i>Catharus guttatus</i>	0	1	Yes
lark sparrow	<i>Chondestes grammacus</i>	0	1	Yes
rusty blackbird	<i>Euphagus carolinus</i>	0	1	Yes
bullock's oriole	<i>Icterus bullockii</i>	0	1	Yes
swamp sparrow	<i>Melospiza georgiana</i>	0	1	Yes
Nashville warbler	<i>Oreothlypis ruficapilla</i>	0	1	Yes
black-headed grosbeak	<i>Pheucticus melanocephalus</i>	0	1	Yes
green-tailed towhee	<i>Pipilo chlorurus</i>	0	1	Yes
spotted towhee	<i>Pipilo maculatus</i>	0	1	Yes
summer tanager	<i>Piranga rubra</i>	0	1	Yes
bushtit	<i>Psaltriparus minimus</i>	0	1	Yes
unidentified kinglet	<i>Regulus spp</i>	0	1	Yes
bank swallow	<i>Riparia riparia</i>	0	1	Yes
rock wren	<i>Salpinctes obsoletus</i>	0	1	Yes
black phoebe	<i>Sayornis nigricans</i>	0	1	Yes
chestnut-sided warbler	<i>Setophaga pensylvanica</i>	0	1	Yes
crissal thrasher	<i>Toxostoma crissale</i>	0	1	Yes
house wren	<i>Troglodytes aedon</i>	0	1	Yes
American robin	<i>Turdus migratorius</i>	0	1	Yes
Cassin's kingbird	<i>Tyrannus vociferans</i>	0	1	Yes
unidentified gnatcatcher	Unidentified	0	1	Yes
American coot	<i>Fulica americana</i>	0	1	No
unidentified buteo	<i>Buteo spp</i>	0	1	No
semipalmated sandpiper	<i>Calidris pusilla</i>	0	1	No
unidentified sandpiper	Unidentified	0	1	No
unidentified shorebird	Unidentified	0	1	No
white-throated swift	<i>Aeronautes saxatalis</i>	0	1	No
unidentified swift	Unidentified	0	1	No
green-winged teal	<i>Anas crecca</i>	0	1	No
great horned owl	<i>Bubo virginianus</i>	1	0	No
yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	1	0	Yes
peregrine falcon	<i>Falco peregrinus</i>	1	0	No
American kestrel	<i>Falco sparverius</i>	1	0	No
Total		25	681	NA

*NA – Not Applicable

Twenty-five injured birds were detected during the 2015 – 2016 monitoring year (Table 3).

Table 3. Avian Injuries Detected 2015 – 2016 Monitoring Year.

Date	Species	Age	Sex	Cause of Injury	Flux Grade	Status
1/26/2016	great horned owl	Unknown	Unknown	Unknown	NA	Released off-site
4/4/2016	Lincoln's sparrow	Adult	Unknown	Collision	NA	Released off-site
4/13/2016	tree swallow	Adult	Male	Singed	1,3	Released by rehab
4/18/2016	American pipit	Unknown	Unknown	Collision	NA	Released off-site
4/18/2016	barn swallow	Adult	Male	Singed	2,3	Died at rehab
4/18/2016	barn swallow	Adult	Male	Singed	2,3	Died at rehab
4/19/2016	Lucy's warbler	Unknown	Unknown	Singed	2,3	Died at rehab
5/2/2016	barn swallow	Unknown	Unknown	Singed	2,3	Died on-site
5/2/2016	yellow-headed blackbird	Adult	Female	Unknown	NA	Not captured
5/8/2016	western tanager	Unknown	Male	Singed	2,3	Died at rehab
5/10/2016	Wilson's warbler	Unknown	Unknown	Singed	2,3	Not captured
5/10/2016	yellow warbler	Adult	Male	Collision	NA	Released off-site
5/11/2016	Townsend's warbler	Adult	Unknown	Singed	2,3	Died on-site
7/22/2016	Tree swallow	Adult	Male	Singed	2,3	Died at rehab
8/9/2016	Yellow warbler	Juvenile	Male	Singed	1	Died on-site
8/29/2016	mourning dove	Immature	Unknown	Unknown	NA	Released on-site
8/31/2016	western tanager brown-headed	NA	NA	Singed	2,3	Released at rehab
9/5/2016	cowbird	NA	NA	Unknown	2,3	Released at rehab
9/5/2016	western tanager	NA	NA	Unknown	2,3	Released at rehab
9/5/2016	yellow warbler	Immature	Unknown	Singed	2,3	Died on-site
9/5/2016	yellow warbler	NA	NA	Unknown	2,3	Released at rehab
9/6/2016	lazuli bunting	Immature	Female	Singed	1,3	Died on-site
9/13/2016	peregrine falcon	Immature	Male	Singed	2,3	Died on route to rehab
9/19/2016	violet-green swallow	Adult	Male	Singed	2,3	Died at rehab
12/9/2016	American kestrel	Adult	Male	Singed	2,3	At rehab

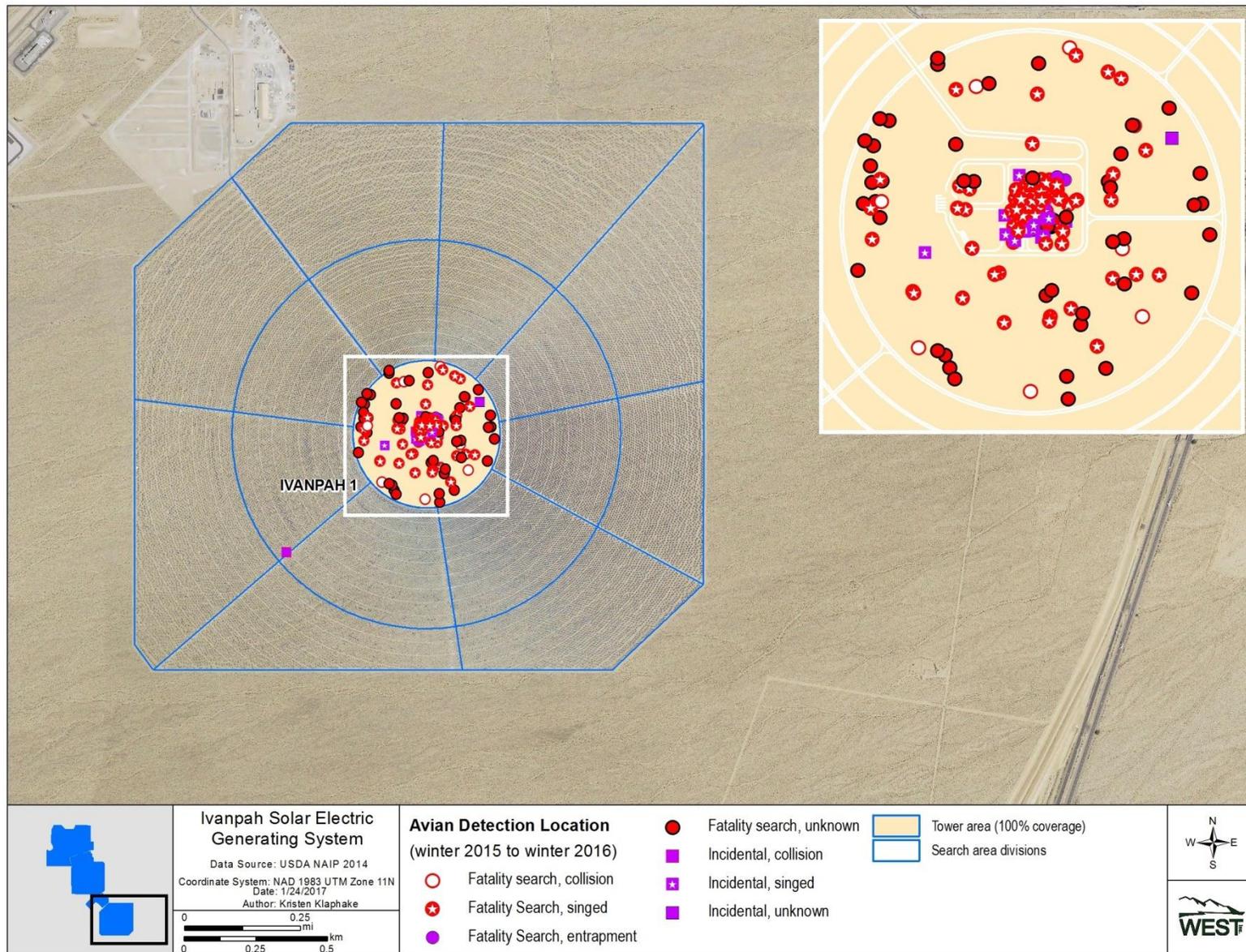


Figure 4. Ivanpah 1 Detections.

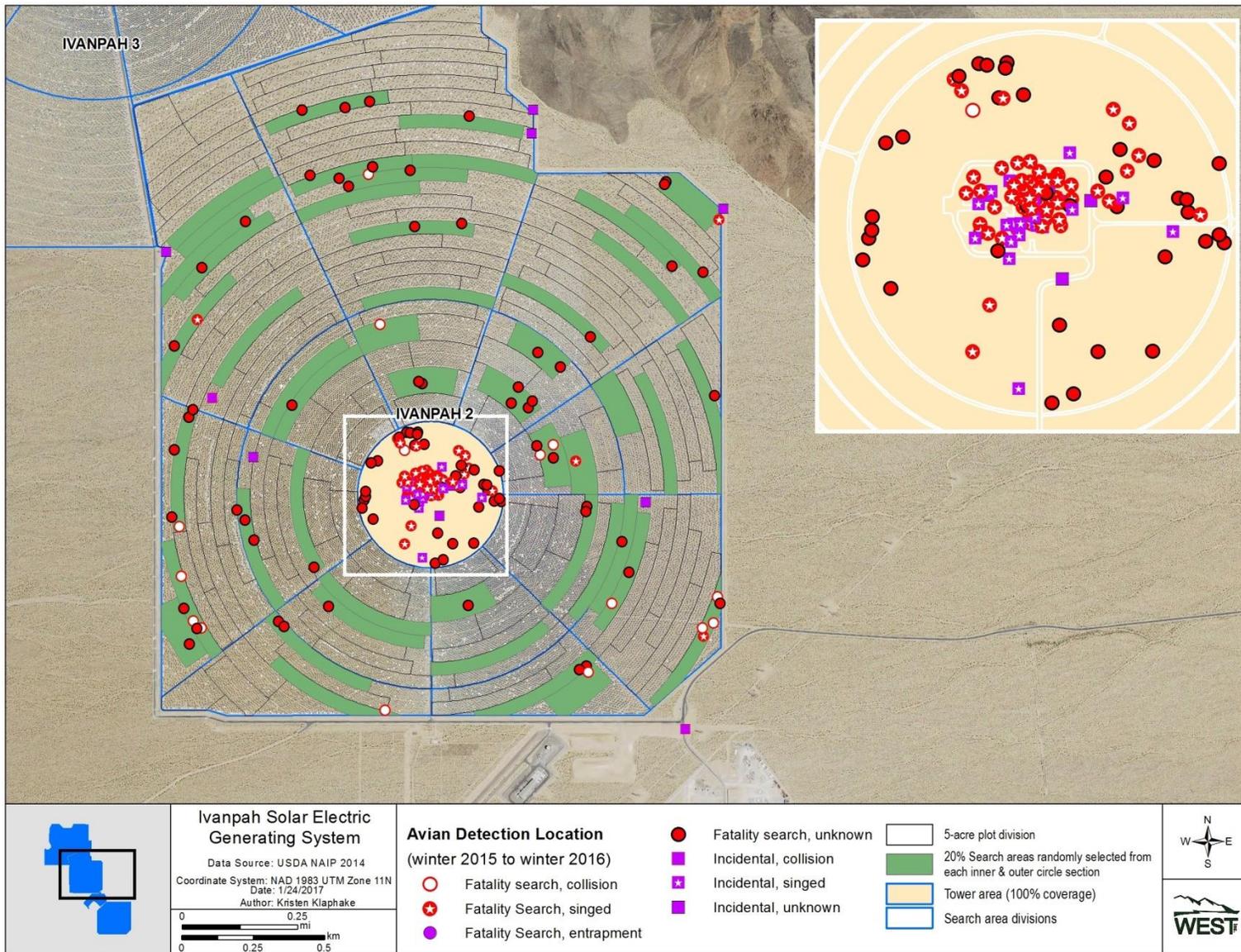


Figure 5. Ivanpah 2 Detections.

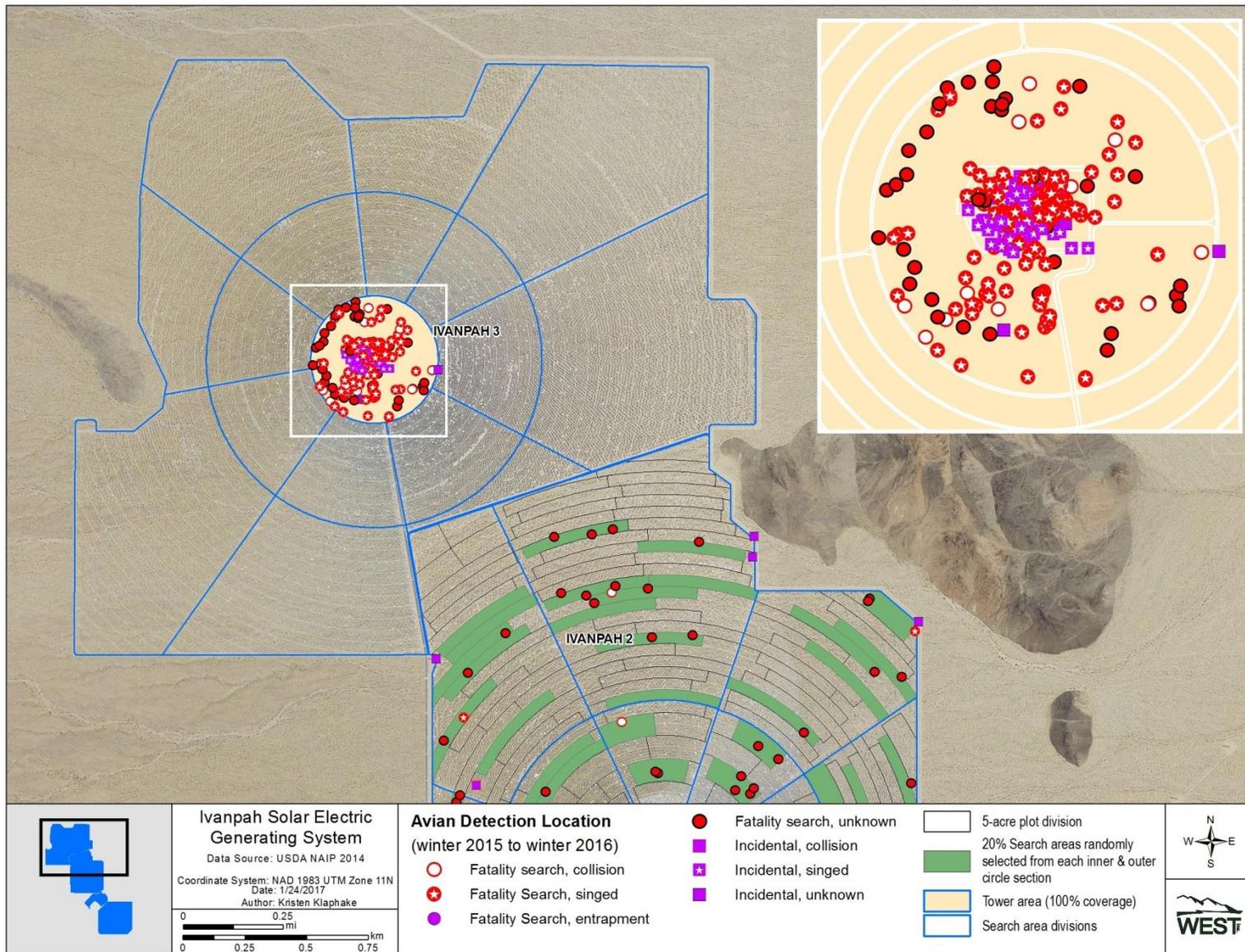


Figure 6. Ivanpah 3 Detections.

3.1.1 Temporal Patterns of Avian Detections

The number of detections reported per day varied during the 2015 – 2016 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. Thus, to better understand if search interval or the area that was searched influences the number of detections reported per day, the tower area and heliostat area were examined separately (Figure 7a-b). Detections per day in the tower area showed a strong seasonal pattern with detections highest in the 2016 fall season. Detections per day at the heliostat area were lower than that of the tower area and generally reflected the seasonal pattern of the tower area.

The pattern of detections was influenced by unplanned forced outages spring the 2016 spring and early summer season. Unit 1 was offline and not producing flux from 19 April – 3 May (25% of spring season), Unit 2 was offline from 6 April – 19 June (82% of spring season), and Unit 3 was offline from 19 May – 24 June 2016 (10% of spring season). The unplanned forced outages are reflected in the pattern of signed detections per day where the higher number of signed detections from April 16 through the end of the season occurred at Unit 3, which had the fewest days of unplanned forced outages. Data from BirdCast suggests that the 2015 spring season captured the spring migration. During the 2016 spring season, movements were described as light to moderate in California and Desert Southwest each week with ‘more intense’ movements the week of 18 April and locally heavy movements noted the week of 23 April.

During fall, peaks in the number of detections per day were noted from 27 August – 17 September. Historic weather data from Henderson, NV (approximately 40 miles northeast of the Project) was examined for storm patterns that could have resulted in migrant birds being grounded in the vicinity of the Project. During this period, two thunderstorms were noted in the region and would not explain the peaks in detections during this period. Data from BirdCast suggests that the 2016 fall season captured the entire period of fall migration. The BirdCast West regional migration summaries were available from 26 August – 21 October 2015. During the 2016 fall season, movements were described as light to moderate in California and Desert Southwest each week with locally moderate movements in the Central Valley of California noted on October 7 – 8. Detections per day had begun to decrease, and did not show a peak after October 7.

3.1.2 Spatial Analysis of Unknown Cause Detections in the Heliostat Area

The location of unknown cause fatalities was examined to determine if there were any non-random patterns in the distribution of unknown cause fatalities in the heliostat area. As described in Section 2.1.6, a goodness-of-fit test was performed on the distribution of unknown cause detections within heliostat area arc plots. Using the mean unknown cause detection density in the heliostat area (1.125 detections/acre), the null hypothesis was that the distribution of unknown cause detection counts (by arc plot) in the heliostat area does not differ from random spatial process with equal density (Poisson process with rate parameter 1.125). The chi-squared test statistics was $\chi^2 = 4.45$ (degrees of freedom = 10), which resulted in a p-value of 0.925. Based on the analysis, there is insufficient evidence to assert the observed distribution of unknown cause detections is different from a random spatial process. Therefore, no further analyses of spatial data (i.e. Poisson regression) in relation to potential covariates are presented.

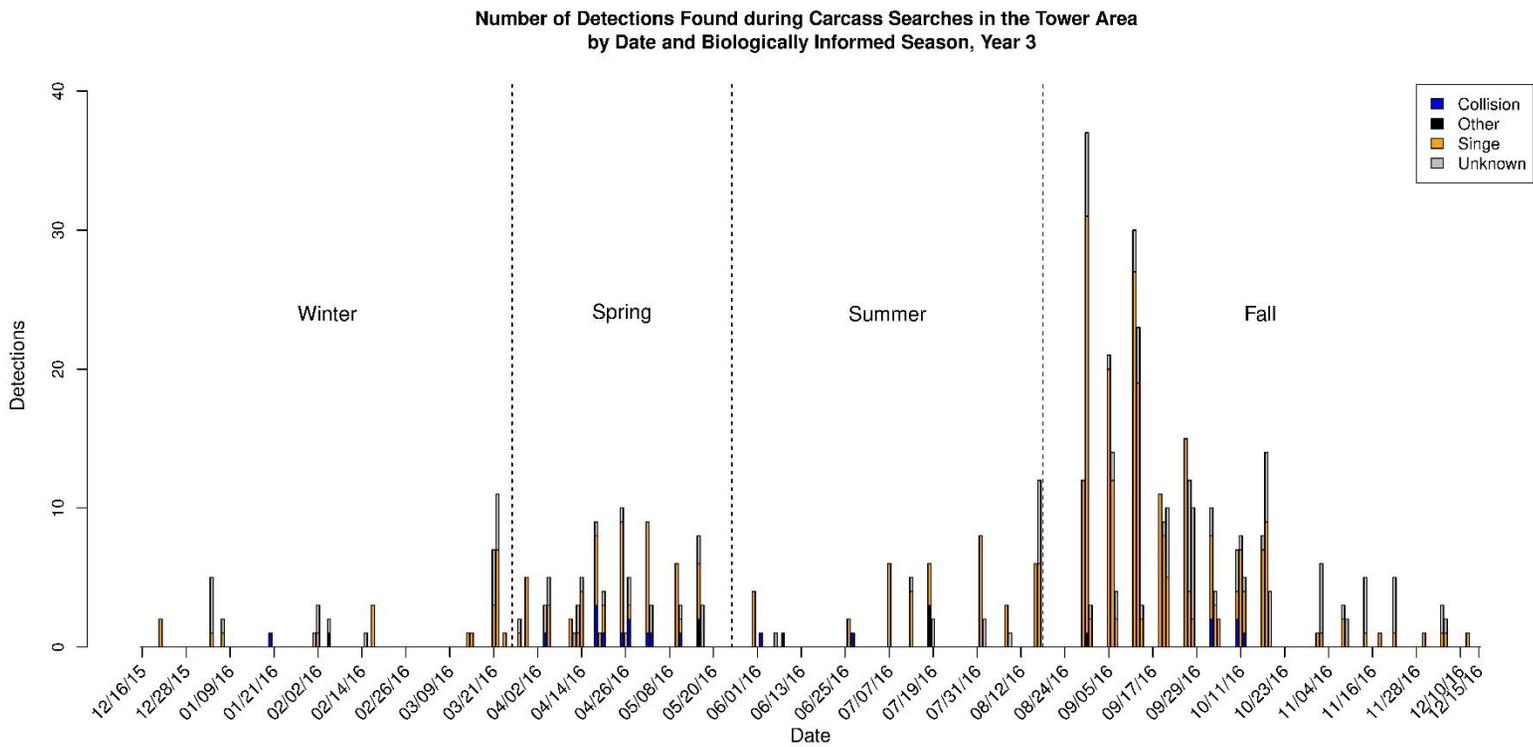


Figure 7a. Number of Detections on Each Survey Date in the Tower Area, 2015 – 2016 Monitoring Year.

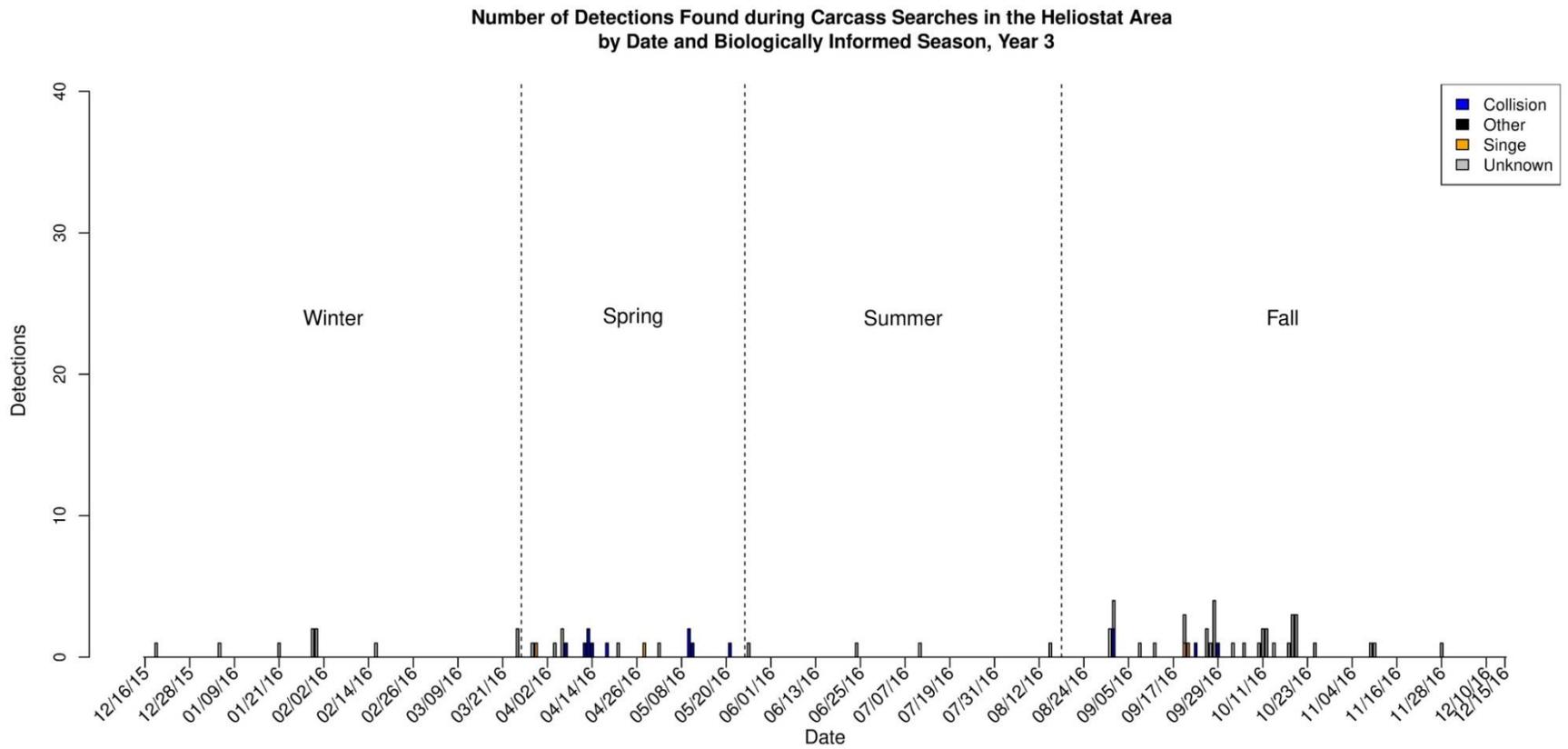


Figure 7b. Number of Detections on Each Survey Date in the Unit 2 Heliostat Area, 2015 – 2016 Monitoring Year.

3.1.3 Summary of Bat Detections

Eighteen bats representing four species and one unidentified species were detected during the 2015 – 2016 monitoring year. Ten detections (56%) were found in the ACC unit, the remaining detections were found in the power block in the tower area (39%) or other building in the tower area (5%).

3.2 Locations of Avian Detections

3.2.1 Detections by Project Area

During the 2015 – 2016 monitoring year, of the 706 total detections, 625 detections (88.5%) were recorded at the tower area and 77 detections (10.9%) were recorded over the heliostat area (Table 4). Of the 706 avian detections, 198 (28%) were detected in Unit 1, 226 (32%) in Unit 2, and 282 (40%) in Unit 3.

Table 4. Locations of Avian Detections, 2015 – 2016 Monitoring Year.

Location	Carcasses	Injuries	Percent of Total
Tower Area	603	22	88.5%
Heliostat Area	75	2	10.9%
Other Project Lands	3	1	0.6%
Total	681	25	100.0%

3.3 Cause of Injury or Fatality

The following section describes the number of detections with evidence of singeing or collision; the number from other known causes; the number for which cause of injury or fatality is unknown; and the spatial distributions of detections with these causes. Figure 8 shows the distribution of detections by cause. Percent composition results should not be compared between years because of changes to the study design between the Plan Revision 12 (2012-2014) and Revision 13 (2015-2016).

3.3.1 Singeing Effects

Of the 706 avian detections during the 2015 – 2016 monitoring year, 455 detections (64.4%) showed signs of singed feather damage, and 451 (99%) of singed detections were recorded in the tower area (Table 5).

3.3.2 Collisions

Of the 706 avian detections, evidence of collision was observed in the case of 36 (5.1%). Of collision detections, 19 (52.8%) with evidence of collision with heliostats were located in the tower area and 15 detections (41.7%) were located in the heliostat area. As described in Section 2.2.1.3, the evidence that was used to classify these detections as collisions was obvious physical trauma, proximity to heliostats that had smudge marks, body imprints, and/or feathers on or near the surface of the mirror (although birds that collide with structures do not always leave visible evidence).

3.3.2 Other Known Cause

Of the 706 avian detections, 8 (1.1%) were found within the ACC with no evidence of singeing or collision. These birds were determined to have been entrapped in the ACC, which resulted in fatality.

3.3.4 Detections of Unknown Cause

Of the 706 avian detections, evidence of singeing, collision, or other cause could not be assigned for 207 detections (29.3%; Table 5). Per the Plan (2015) section 2.1, these detections cannot be presumed with or presumed without a reasonable doubt to be caused by the facility; see Section 6.2 of this report for further discussion. Of the unknown cause detections, 58 (28.0%) were recorded in the heliostat area, and 147 (71.0%) were recorded in the tower area.

Table 5. Locations of Bird Detections, 2015 – 2016 Monitoring Year.

Location	Singeing	Collision	Other	Unknown	Total
Tower Area	451	19	8*	147	625
Heliostat Area	4	15	0	58	77
Other Project Lands	0	2	0	2	4
Total	455	36	8	207	706

*These carcasses were found in the ACC unit with no sign of collision or singe and are attributed to entrapment.

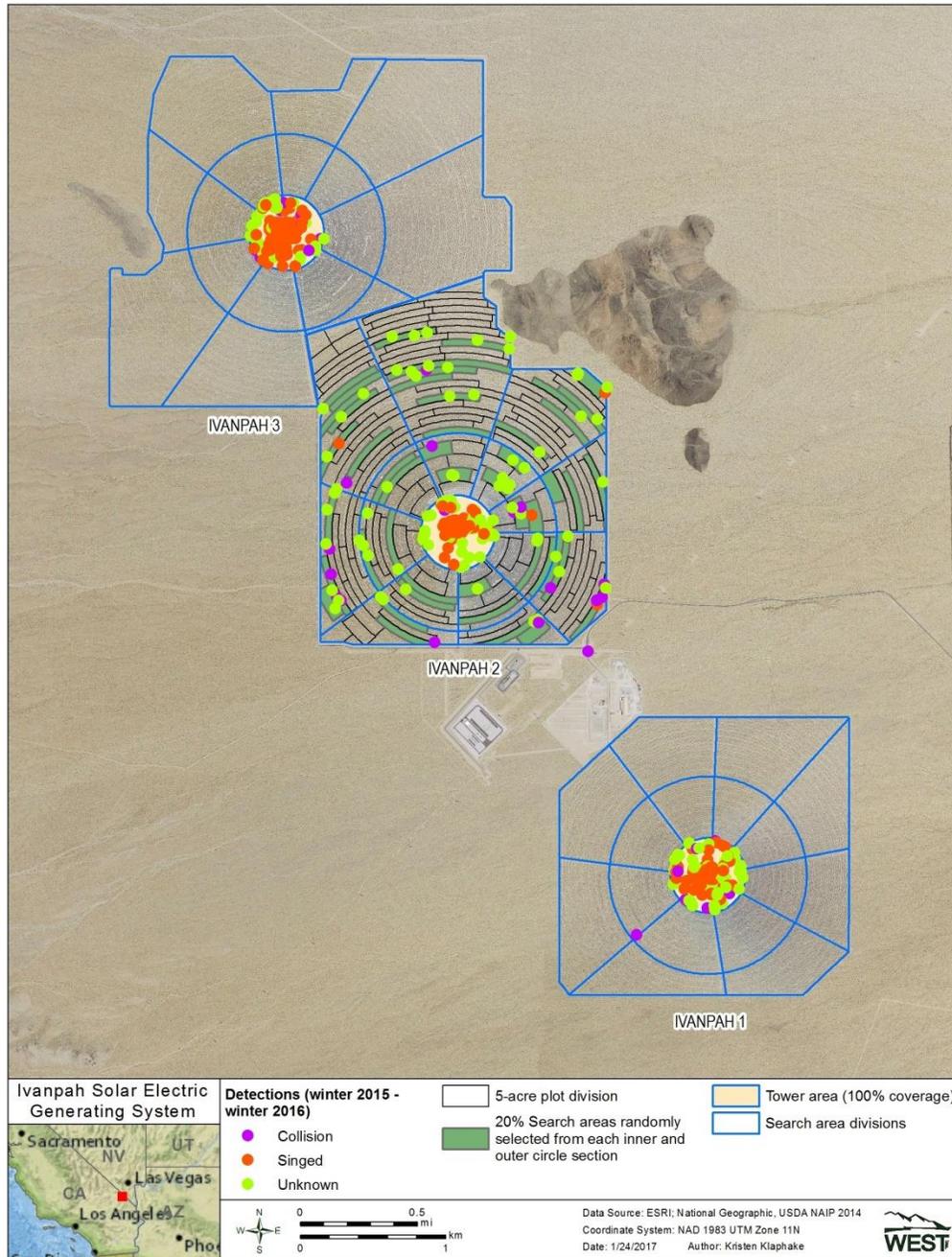


Figure 8. Locations of Detections, by Cause, within Solar Units during the 2015 – 2016 Monitoring Year.

3.4 Types of Detections

Two hundred eighty-seven (40.7%) of the 706 detections consisted of only feather spots (Table 6a). Feather spots accounted for 70.1% of detections in the heliostats area, and 37.1% of detections in the tower area. Evidence of singeing was noted through direct and microscopic examination on 113 of these 287 feather spots; evidence of collision (i.e., an impact imprint on a nearby mirror) was noted in the case of nine feather spots. Otherwise, the causes of the feather spots for the other 164 (79.2%) detections are unknown (Table 6b).

Table 6a. Percent Composition Feather Spots to Carcasses Relative to Site Locations.

Location	Carcasses	Feather Spots	Total	Percent Feather Spot
Tower Area	393	232	625	37.1%
Heliostat Area	23	54	77	70.1%
Other Project Lands	3	1	4	25.0%
Total	419	287	706	40.7%

Table 6b. Percent Composition Feather Spots to Carcasses Relative to Cause.

Cause	Carcasses	Feather Spots	Total	Percent Feather Spot
Singed	342	113	455	24.8%
Collision	27	9	36	25.0%
Other	7*	1	8	12.5%
Unknown	43	164	207	79.2%
Total	419	287	706	40.7%

*These carcasses were found in the ACC unit with no sign of collision or singe and are attributed to entrapment.

Section 4.0 Fatality Estimation

This section utilizes the detection data as described in Section 3 to develop an overall fatality estimate in accordance with the Plan (2015). The total estimate for the entire facility is presented separately for fatalities with evidence of singeing or collision effects, or for detections in the ACC buildings, and fatalities of unknown cause. Following presentation of the total fatality estimates, estimates are provided separately for the tower area and heliostat area.

4.1 Estimating Model Parameters

4.1.1 Carcass persistence Trials

A total of 98 small bird carcass persistence trials were conducted during the 2015 – 2016 monitoring year. Trials were distributed throughout the facility. Consistent with previous years, scavengers included common raven (*Corvus corax*, N=29), desert kit fox (*Vulpes macrotis*, N=41), white-tailed antelope squirrel (*Ammospermophilus leucurus*, N=11), desert woodrat (*Neotoma lepida*, N=2), greater roadrunner (*Geococcyx californianus*, N = 1), and loggerhead shrike (*Lanius ludovicianus*, N=1). In 13 instances the scavenger could not be identified. Small bird carcass persistence ranged from less than one day in the case of 42 carcasses to 47 days in the case of one carcass (Figure 9). Large bird carcass persistence trials were discontinued beginning fall 2015 per TAC approval because no seasonal effects were found in previous large bird models and most trial carcasses persisted at least 42 days (Figure 10).

In addition to the 2015 – 2016 monitoring year trials described above, carcass persistence trials from monitoring prior to December 16, 2015 were also used in the model. Carcass persistence data from 8 small birds trials (four each in tower area and heliostat area) conducted during winter 2015-2016 prior to December 16, 2015, 127 carcass persistence trials conducted during the 2014 - 2015 monitoring year (97 small birds and 30 large birds distributed throughout the facility) and 87 trials (57 small birds and 30 large birds distributed throughout the facility) performed during the 2013-2014 monitoring year were used to model carcass persistence time. Details on carcass persistence times can be found in each respective seasonal report.

**Persistence Duration of Small Carcasses
Year 3 December 16,2015–December 15,2016
(N = 98)**

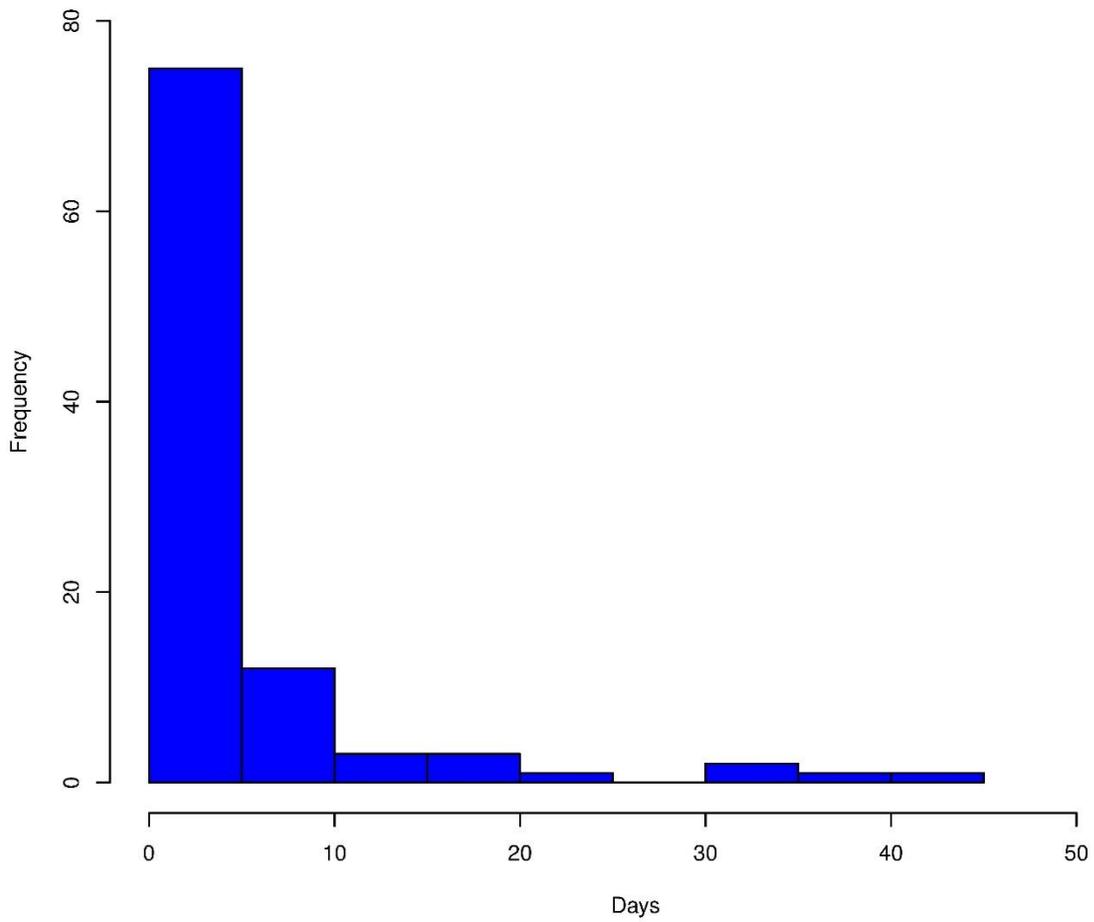


Figure 9. Persistence Durations for Small Carcasses Placed for 2015 – 2016 Monitoring Year Carcass Persistence Trials (N = 92).

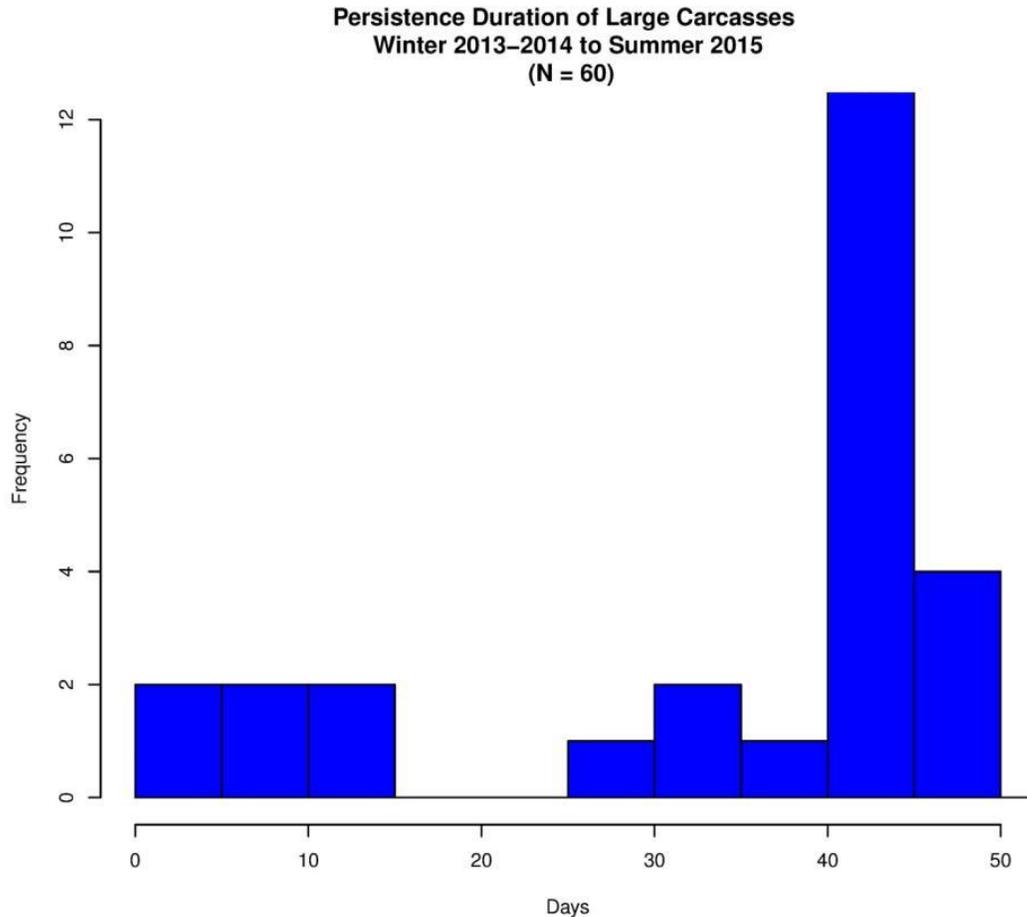


Figure 10. Persistence Durations for Large Carcasses Placed for All Carcass Persistence Trials.

4.1.2 Model Selection for Carcass Persistence Distribution

Consistent with the second year of monitoring and the findings that the removal process for small birds and large birds has been markedly different, two separate carcass persistence models were fit to this dataset: one for small birds and one for large birds. Specifically, large birds consistently persist for long periods of time (typically greater than six weeks), while small birds tend to be removed with days or hours, and exhibit seasonal variability. Fitting separate models by size allows for more flexibility, enabling different distributions with different shapes to be fit to the small bird and large bird data, respectively.

Based on the carcass persistence data from the cumulative trials, 24 and 16 survival models were compared for the small bird and large bird datasets, respectively. Models were compared for relative explanatory power using the corrected Akaike information criterion (AICc) score (Akaike 1973), as suggested in Huso (2010). AICc provides a relative measure of model fit and parsimony among a selection of candidate models. Season was considered as a possible covariate due to cyclical variation in scavenging pressure and environmental conditions associated with seasons. Year was also incorporated as a potential covariate to assess whether respective seasons could be pooled across years (i.e. does persistence time vary by season *and* year, just year, just season, or neither). Finally, project area

(unvegetated tower area or the vegetated heliostat area) was considered a potential covariate to understand if carcass persistence in the tower area and heliostat area was different.

The model with lowest AICc is typically chosen as the “best-fit” model relative to other models tested; however, any model within two AICc point of the best model is considered strongly supported (Burnham and Anderson 2004). For small birds the loglogistic and lognormal models that included season had $\Delta AICc$ values ≤ 2 ; for large birds, the exponential, Weibull, loglogistic, and lognormal models with intercept only had $\Delta AICc$ values ≤ 2 (Tables 7a and 7b). Ultimately, a loglogistic model with season and year covariates was chosen for small birds, and an exponential model with no covariates was chosen for large birds. Thus, the selected model for small birds can be interpreted to treat as separate the persistence probability for each season and year. For large birds, the top model does not have any temporal covariates, and thus uses all large bird data collected to date to estimate persistence probability. The chosen models predicted 96.5% to 98.8% of large carcasses persisted for the nominal search intervals, and 13.5% to 48.1% of small bird carcasses persisted for the nominal search intervals during the 2015 – 2016 monitoring year (Table 7c).

Table 7a. AICc Values for the Top 10 Small Bird Carcass Persistence Models.

Small Bird Trials			
Covariates	Distribution	AICc	$\Delta AICc$
Year + Season	loglogistic	1298.40	0
Year + Season	lognormal	1300.15	1.75
Season + Year + Project Area	loglogistic	1300.48	2.08
Season	loglogistic	1300.74	2.34
Season	lognormal	1301.53	3.13
Season + Year + Project Area	lognormal	1302.17	3.77
Season + Project Area	loglogistic	1302.82	4.42
Season + Project Area	lognormal	1303.62	5.22
Season + Year + Project Area	weibull	1304.80	6.40
Year + Season + Year*Season	loglogistic	1305.09	6.69

Table 7b. AICc Values for All Large Bird Carcass Persistence Models.

Large Bird Trials			
Covariates	Distribution	AICc	Δ AICc
Intercept	Exponential	97.00	0
Intercept	Weibull	97.96	0.96
Intercept	Loglogistic	98.03	1.03
Intercept	Lognormal	98.15	1.15
Season	Exponential	98.34	1.34
Season	Weibull	99.62	2.62
Year + Season	Exponential	99.64	2.64
Season	Loglogistic	99.75	2.75
Season	Lognormal	99.87	2.87
Year + Season	Lognormal	100.68	3.68
Year + Season	Loglogistic	100.98	3.98
Year + Season	Weibull	101.08	4.08
Year + Season + Year*Season	Exponential	107.36	10.36
Year + Season + Year*Season	Lognormal	108.69	11.69
Year + Season + Year*Season	Loglogistic	109.00	12.00
Year + Season + Year*Season	Weibull	109.09	12.09

Table 7c. Average Probability of Carcass Persistence by Size and Season, Based on the Nominal Search Interval.

Size	Season (Nominal Search Interval)			
	Winter (21 day)	Spring (7 day)	Summer (21 day)	Fall (7 day)
Small Bird	0.25	0.48	0.13	0.34
Large Bird	0.97	0.99	0.97	0.99

4.1.3 Searcher Efficiency Trials

During the 2015 – 2016 monitoring year, 283 searcher efficiency trials (122 small birds, 87 large birds, and 74 feather spots) were placed. Trials were placed in locations with various vegetation heights and with a range of contrast between the soil and vegetation to represent the various conditions under which searches occur. Carcasses were placed in most areas where searches occurred (tower area and heliostat area). Twenty-six small birds, 12 large birds, and 1 feather spot were removed (scavenged) prior to a searcher having the opportunity to detect the carcass.

In addition to the 2015 – 2016 monitoring year trials described above, carcass persistence trials from monitoring prior to December 16, 2015 were also used to fit the best searcher efficiency model. Additional searcher efficiency data from 18 trials (10 small birds trials, 7 large bird trials, and 1 feather spot trial) conducted during the winter 2015-2016 season prior to December 16, 2015, 320 searcher efficiency trials (129 small birds, 96 large birds, and 95 feather spots) from the 2014 - 2015 monitoring

year, and 154 searcher efficiency trials (52 small birds, 44 large birds, 57 feather spots) from the first year of study were used to model searcher efficiency. Of the 18 winter trials conducted prior to December 16, 2015, 13 carcasses (9 small birds, 3 large birds, and 1 feather spot) were available to be found; 5 carcasses (1 small bird, 4 large birds, and 0 feather spots) were removed from the trial location before searchers had an opportunity to detect the carcass. Of the 320 trial carcasses placed in the 2014 – 2015 monitoring year, 268 (129 small birds, 96 large birds, and 95 feather spots) were available to be found; 52 carcasses (42 small birds, 8 large birds, and 2 feather spots) were removed from the trial location before searchers had an opportunity to detect the carcass. Finally, of 154 trials from the first year of monitoring, 144 (48 small birds, 39 large birds, and 57 feather spots) were not removed and thus available to be found by a searcher. Details about searcher efficiency trials can be found in the respective quarterly reports.

Table 8. Covariates, AICc Values, and Δ AICc values for the top ten searcher efficiency models. Data consist of all human searcher efficiency trials for carcasses from the initiation of trials through December 15, 2016.

Covariates	AICc	Δ AICc
Size + Project Area + Year	826.56	0.00
Size + Project Area	826.69	0.13
Size + Project Area + Year + Size*Project Area	827.17	0.60
Size + Project Area + Size*Project Area	827.55	0.99
Size + Project Area + Year + Project Area*Year	828.89	2.32
Size + Project Area + Year + Size*Project Area + Project Area*Year	829.07	2.50
Size + Project Area + Season + Year	829.24	2.67
Size + Project Area + Season + Year + Size*Project Area	829.78	3.21
Size + Project Area + Season	830.38	3.82
Size + Project Area + Season + Year + Project Area*Year	831.16	4.59

The model selected for searcher efficiency included carcass size and project area, with an AICc value within 0.13 AICc points of the model with lowest AICc score (Table 8). The selected model produces searcher efficiency estimates based on carcass size and project area (unvegetated tower area and vegetated heliostat area). Searcher efficiency values used to adjust detections to calculate a fatality estimate are provided in Table 9 and are based on all searcher efficiency data collected.

Table 9. Human Searcher Efficiency Sample Sizes Used for Modeling, and Model Predictions for Size and Project Area Categories Winter Year 1 – Year 3.

Size	Location	Found	Available	Placed	Predicted Searcher Efficiency (90% CI)
Feather spot	Tower area (Unvegetated)	81	115	119	0.74 (0.69-0.79)
Small bird	Tower area (Unvegetated)	91	119	157	0.73 (0.67-0.78)
Large bird	Tower area (Unvegetated)	90	103	116	0.88 (0.84-0.91)
Feather spot	Heliostat area (Vegetated)	56	121	123	0.43 (0.36-0.49)
Small bird	Heliostat area (Vegetated)	44	120	159	0.41 (0.34-0.47)
Large bird	Heliostat area (Vegetated)	71	110	124	0.64 (0.58-0.71)

4.2 Fatality Estimates of Known Causes for 2015 – 2016 Monitoring Year

Fatality estimates were calculated separately for the tower area (power block and inner HD heliostats) and heliostat area. Note that estimates are not provided for factor combinations with five or fewer detections; thus, marginal totals (e.g. total singed, total known cause in the heliostat area, etc.) for the tables below may not reflect the sum of estimates within a given row or column (and are generally higher).

4.3.1 Total Fatality Estimates for Known Causes

There were 499 bird detections where the cause of death or injury could be determined and were facility related, of which 420 were included in the fatality estimate model (Tables 10a and 10b); of these 420 detections, 89 were from the ACC that were added unadjusted to the estimator output, to produce the total fatality estimate of known cause (Tables 11 and 12). There were 79 detections that were not included in the fatality estimates; eight were excluded because they were outside the standardized survey areas and 71 were excluded because they were determined to be older than the search interval.

Table 10a. Number of Bird Detections Based on Known Causes in Each Project Element Included or Excluded from Fatality Estimates, by Cause.

Location	Included			Excluded			Total
	Collision	Singed	Other*	Collision	Singed	Other	
Tower Area	19	376	8	0	75	0	478
Heliostat Area	13	4	0	2	0	0	19
Other Project Lands	0	0	0	2	0	0	2
Total	32	380	8	4	75	0	499

*These carcasses were found in the ACC unit with no sign of collision or singe and are attributed to entrapment.

Table 10b. Number of Bird Detections Based on Known Causes in Each Project Element Included or Excluded from Fatality Estimates, by Carcass Size.

Location	Included			Excluded			Total
	Large Birds	Small Birds	Raptors*	Large Birds	Small Birds	Raptors*	
Tower Area	15	388	3	4	71	0	478
Heliostat Area	4	13	0	1	1	0	19
Other Project Lands	0	0	0	2	0	0	2
Total	19	401	3	7	72	0	499

* All raptors are considered “Large Birds”; therefore the number of raptor detections in a row or column is not added to the total.

Table 11. 2015 – 2016 Monitoring Year Avian Fatality Estimates by Cause and Project Element (with Lower and Upper 90% Confidence Intervals) Based on Detections of Known Causes Included in the Model.

Location	Collision	Singed	Other*	Total Known Cause
Tower Area	74 (65-89)	1356 (1178-1651)	8	1438 (1253-1749)
Heliostat Area	773 (366-1305)	236 (46-488)	0	1009 (546-1607)
Total	847 (441-1386)	1592 (1333-2023)	8	2447 (1919-3192)

*These carcasses were found in the ACC unit with no sign of collision or singe and are attributed to entrapment.

Table 12. 2015 – 2016 Monitoring Year Avian Fatality Estimates by Carcass Size and Project Element (with Lower and Upper 90% Confidence Intervals) Based on Detections of Known Causes Included in the Model.

Location	Large Birds	Small Birds	Raptors	Total
Tower Area	19 (18-20)	1418 (1234-1728)	N ≤ 5*	1438 (1253-1749)
Heliostat Area	N ≤ 5	911 (446-1481)	0	1009 (546-1607)
Total	117 (19-276)	2329 (1793-3056)	N ≤ 5	2447 (1919-3192)

* N ≤ 5 indicates 5 or fewer detections and no fatality estimate is provided

4.3.2 Fatality Estimate for Tower Area and Heliostat Area

Tables 11 and 12 present the fatality estimates for known causes within the tower area, broken down by cause or bird size, respectively. A subset of the incidental detections in the power block were included within the tower area total estimate, due to the assumption of a daily search interval; those incidental detections in the power block which were determined to be older than 24 hours were not included in the fatality estimator. Estimates from the tower area should be interpreted with caution due to the inclusion of numerous incidental discoveries in the power block.

During the period 16 December 2015 – 15 December 2016, there were an estimated 2447 fatalities (90% confidence interval 1919-3192) based on detections from known causes (i.e., singeing, collision; Table 11). An estimated 1438 (90% confidence interval 1253-1749) were in the tower area. An estimated 1009 (90% confidence interval 546-1607) were in the heliostat area. There were 2329 estimated small bird fatalities (90% confidence interval 1793-3056; Table 12), and fewer estimated large bird fatalities (117, 90% confidence interval 19-276).

4.4 Fatality Estimates from Unknown Causes

Per Section 3.1 of the Plan (2015), fatality estimates are also to be provided based on detections of birds that were injured or that died of unknown causes. Because no observable evidence of known causes (i.e., singeing, collision, entrapment, or predation) was noted in the case of these unknown detections, they cannot be clearly included in an estimate attributed to a specific cause. The methods for determining

fatality estimates for these unknown detections are the same as those described in Section 5.2 for detections with direct evidence of the cause of the fatality (i.e., singeing, collision, or other).

There were 207 detections where the cause of death could not be determined, of which 169 were included in the fatality estimator (Tables 13a and 13b). Of the 38 detections of unknown cause excluded from the fatality estimator, all detections were determined to be older than the search interval.

Table 13a Number of Detections from Unknown Causes in Each Project Element, and Number Included in Fatality Estimates, by Cause.

Location	Included	Excluded	Total
Tower Area	122	25	147
Heliostat Area	47	11	58
Other Project Lands	0	2	2
Total	169	38	207

Table 13b. Number of Detections from Unknown Causes in Each Project Element, and Number Included in Fatality Estimates, by Carcass Size.

Location	Included			Excluded			Total
	Large Birds	Small Birds	Raptors*	Large Birds	Small Birds	Raptors*	
Tower Area	26	96	0	6	19	0	147
Heliostat Area	11	36	0	5	6	0	58
Other Project Lands	0	0	0	2	0	0	2
Total	37	132	0	13	25	0	207

* All raptors are considered “Large Birds”; therefore the number of raptor detections in a row or column is not added to the total.

4.4.1 Total Fatality Estimates from Unknown Causes

During the period of 16 December 2015 – 15 December 2016, the total estimate of fatalities from unknown cause was 4582 (90% confidence interval 3441-6574; Table 14). An estimated 518 (90% confidence interval 453-628) were in the tower area, and an estimated 4064 (90% confidence interval 2928-5926) were in the heliostat area. Of the estimated unknown cause fatalities, small birds accounted for 88.6% of the estimated fatalities (Table 15).

Table 14. 2015 – 2016 Monitoring Year Estimates from Unknown Causes by Location.

Project Area	Estimate (90% CI)
Tower Area	518 (453-628)
Heliostat Area	4064 (2928-5926)
Total	4582 (3441-6574)

Table 15. 2015 – 2016 Monitoring Year Fatality Estimates from Unknown Causes by Size and Location.

Location	Large Birds	Small Birds	Raptors	Total
Tower Area	35 (33-37)	483 (419-591)	0	518 (453-628)
Heliostat Area	297 (152-472)	3766 (2639-5630)	0	4064 (2928-5926)
Total	332 (187-508)	4249 (3097-6174)	0	4582 (3441-6574)

4.6 Total Fatality Estimates for Top Ten Detected Species

Fatality estimates were calculated for the ten most frequently detected species groups using a species composition approach (Table 16). These species group account for 45.8% of the estimated fatalities during the 2015 – 2016 monitoring year. Of fatality estimates, the ten most frequently detected species group account for 46.8% of fatalities of known cause, and 45.3% of those of unknown cause. The top two unidentified species groups (unidentified small bird and unidentified sparrow) account for 10.6% of fatalities of known cause, and 32.9% of those of unknown cause. The species composition of the remaining 8 detected identified species consists of two ground dwelling birds (white-crowned sparrow and mourning dove); the remaining six species are aerial insectivores. For the six aerial insectivores, the known cause estimate is higher than the unknown cause estimate as these species are at risk of flux effects.

Table 16. 2015 – 2016 Monitoring Year Fatality Estimates for Top 10 Species-groups Detected and Included in Analysis (with 90% Confidence Interval).

Species	Known Cause	Unknown Cause	Total Estimate (90% CI) †
Unidentified small bird	236 (157-358)	854 (419-1664)	1090 (636-1895)
Unidentified sparrow	N ≤ 5	652 (261-1200)	675 (284-1229)
white-crowned sparrow	N ≤ 5	344 (115-809)	424 (164-906)
yellow warbler	287 (201-425)	N ≤ 5	304 (217-443)
costa's hummingbird	254 (64-523)	0	254 (64-523)
mourning dove	8 (8-9)	118 (40-215)	126 (48-223)
tree swallow	58 (51-69)	N ≤ 5	121 (53-258)
orange-crowned warbler	98 (31-228)	N ≤ 5	101 (34-230)
yellow-rumped warbler	53 (46-62)	N ≤ 5	79 (67-90)
violet-green swallow	47 (43-62)	0	47 (43-62)

* N ≤ 5 indicates 5 or fewer detections and no fatality estimate is provided.

† Rows and columns may not sum to estimated totals since estimates are not provided when 5 or fewer detections are recorded in a fatality category; however, detections from these categories *are included* in the total estimates.

Section 5.0 Regional Awareness Monitoring

During the 2015 – 2016 monitoring year, 25 injured birds were taken to rehab. Neither the facility nor its designated biologist was contacted by any veterinarian or rehab center about singed birds brought in by non-project staff. In addition, Dr. Craig Himmelwright, who performs periodic raven surveys across the Ivanpah Valley, has not reported singed detections occurring outside of the Project. Finally, the facility has requested eagle survey information as collected by BLM, and that request is pending.

Section 6.0 Discussion

The 2015 – 2016 monitoring year represented the continuation of standardized monitoring of avian and bat detections and avian use of the Ivanpah site as revised per the Avian & Bat Monitoring and Management Plan (2015). Fatality estimates for winter (2015 – 2016), spring (2016), summer (2016) and fall (2016) following the seasonal schedules outlined in the Plan (2015) are presented in the respective seasonal report. With the completion of the Year 3 monitoring and this 2015 – 2016 monitoring year report, the goals of the Plan (2015) have been met as follows.

1. Provide Collision Mortality Estimates: Estimates of avian mortality from collision were calculated from data obtained by monitoring and identifying avian mortality and injury associated with facility structure collisions.
2. Provide Solar Flux Mortality Estimates: Estimates of avian mortality from flux effects were calculated from data obtained by monitoring and identifying avian mortality and injury associated with solar flux generated by the facility.
3. Provide a Framework for Management and Response to Risks: The TAC has continued to provide advice and oversight and the project has identified and implemented a variety of adaptive management measures.

Furthermore, the Plan (2015) objectives require fatality estimates associated with facility structures, by cause of mortality, and documentation of the temporal, spatial and other patterns that may be identified from the estimates. This quantitative information is presented in the report above and patterns within the data are discussed below. Specific data required, such as the age/sex, species, season, weather and visibility is provided in Appendix A.

6.1 Temporal Patterns in Detections

During the 2015 – 2016 monitoring year the highest numbers of detections and fatality estimates were associated with seasonal migration. An increase in the number of detections in the tower area during spring and fall aligns with general patterns of bird migration in the Western US as reported by BirdCast. However, peaks in detections per day within spring and fall were not associated with migratory pulses as described by BirdCast, nor were they associated with weather events in fall. Thus, based on the third year of monitoring, anticipating local bird movements and the potential for daily peaks in detections is not feasible using BirdCast because the scale at which BirdCast reports migration patterns. The patterns in the number of singed detections per day in spring were likely influenced by the unplanned forced outages at all units for varying amounts of time. However, the unplanned forced outage has little influence on the overall conclusion of temporal patterns as only Unit 2 was in outage for the majority of the spring season.

6.2 Spatial Patterns in Detections and Fatality Estimates

The 706 detections from known causes showed variation in their distribution by facility area. Of collision detections, a relatively similar number of detections showing signs of collision with heliostats or other structures were located in the heliostat area and tower area, consistent with the presence of

structures that pose collision risk to birds. Of singed detections, 99% occurred in the tower area indicating that singed birds rarely transition outside of the tower area and that tower area monitoring detects almost all singed detections. Eight detections of birds determined to be entrapped in the ACC were also discovered during monitoring.

The highest fatality estimate was for unknown cause detections in the heliostat area. While unknown cause detections accounted for approximately 29.3% of all detections, the unknown cause fatality estimate accounted for 65.3% of all estimated fatalities during the 2015 – 2016 monitoring year. The high unknown cause fatality estimate in the heliostat area had low precision (2928-5926 90% CI) resulting from the fact that (i) a smaller overall percentage of the heliostats are searched under the Revision 13 of the Plan and (ii) the estimate being driven by unidentified small bird feather spots. An analysis of the spatial distribution of unknown cause detections in the heliostat area did not detect any significant spatial patterns, suggesting that fatalities of unknown cause occur as a random spatial process throughout the heliostat area.

To understand if the unknown fatality estimate is an accurate representation of the effects of the Project on birds, it is important to understand the composition of unknown cause detections, as they represent a low proportion of the overall detections but account for a majority of the fatality estimate. Here, two unidentified species groups (unidentified small bird and unidentified sparrow) accounted for 32.9% (1506 of 4582) of the unknown cause fatality estimate. In Year 3, approximately 21.3% of small bird searcher efficiency trial carcasses were not relocated and are assumed to have been scavenged, and approximately 97.8% of small bird carcass persistence trials were removed entirely. Thus, an unknown proportion of house sparrow bias trial carcasses could have entered the detection dataset as unknown small bird or unknown sparrow carcasses or feather spots. It is unknown how the unidentified small bird and unidentified sparrow fatality estimate is influenced by house sparrow bias trial carcasses.

In addition, of the unknown cause detections, 70.1% were feather spots, and feather spots introduce uncertainty into the fatality estimate. Determining a cause of mortality from a feather spot or partial carcass is challenging because sources of mortality such as collision or predation would rarely leave visible evidence on the feathers, in contrast to flux effects. It should be noted that the conservative assumption that one feather spot (defined as: at least two or more primary flight feathers, five or more tail feathers, or 10 or more feathers of any type concentrated together in an area 1 m² or smaller, or if any skin, flesh, or bone was attached to the feathers) represents one or more carcasses was used to calculate fatality estimates. Carcass persistence time for small birds was low during some seasons in year 3 (e.g., average 1 day in fall 2016) suggesting scavengers were actively creating the potential for more feather spots than if scavengers were inactive. It is also unknown if scavengers have learned to associate a trial carcass with a biologist or monitoring equipment; thus, the assumption that persistence time of trial carcasses represent persistence time of natural carcasses is uncertain due to the decreasing persistence time over the years. Further, the large proportion of feather spots among the detections for the Project as a whole may inflate the fatality estimate when unknown cause detections are included based on the potential for multiple feather spots resulting from one fatality, feather spots resulting from predation not associated with the facility, or other causes. For example, a feather spot of an unidentified species found in the heliostat area represents approximately 51 estimated fatalities in spring and 224 fatalities in summer. There is no certainty to the species, if the detection was caused by the facility, or if

another feather spot from the same carcass had also been included, but this one detection makes a large contribution to the fatality estimate.

In sum, feather spots of unidentified small birds and unidentified sparrows introduce uncertainty into the conclusions that can be reached from the unknown cause fatality estimate, which is further complicated by the high scavenger activity creating the potential for multiple feather spots from one carcass. The result is limited inference in the fatality patterns of unknown cause fatality estimates in the heliostat area as a result of the large variance associated with the estimate, the small number of detections and the large adjustment to each detection. Thus, the unknown cause heliostat area fatality estimate is not an accurate representation of the effects of the Project on birds.

6.3 Comparison of the Three Years of Fatality Estimates

Bat fatalities occurred in low numbers during the three years of monitoring. The total number of bat detections was 32 in Year 1, 17 in Year 2, and 18 in Year 3. The number of bat detections was consistent in Year 2 and Year 3, and was lower than Year 1. These patterns reflect the benefit of the acoustic bat deterrence at the ACC units.

Fatality estimates for known cause detections were similar among years and confidence intervals overlapped widely, and estimates likely do not differ as the point estimate for each year falls within the 90% confidence interval of each other year (Figure 11). The unplanned forced outage in spring resulted in no flux risk to birds during the outage, which could have resulted in fewer single detections during the outage period. However, adjusting the single detection fatality estimate to account for the unplanned forced outage is inappropriate because flux effects did not occur; thus, the fatality estimate for the 2015 – 2016 monitoring year reflects the operating conditions of the Project during these time periods.

Confidence intervals for unknown cause overlapped widely in year 1 and year 2, and the lower bound of the 90% confidence interval in year 3 overlapped the upper bound of the 90% confidence interval for years 1 and 2 suggesting that the fatality estimates may not differ among years (Figure 11). As discussed Section 5.2 above, there is limited inference in the fatality patterns of unknown cause fatality estimates in the heliostat area as a result of the large variance associated with the estimate, the small number of detections, the impact of small bird feather spots and the large adjustment to each detection. Therefore, it should not be concluded that there were definitively more unknown cause fatalities in year 3 compared to year 2 in the heliostat area. As described above, unknown cause detections in the heliostat area do not accurately characterize the impact of the facility on birds.

**Annual Estimated Fatalities
with 90% Confidence Intervals
using Biologically Informed Seasons
Years 1-3**

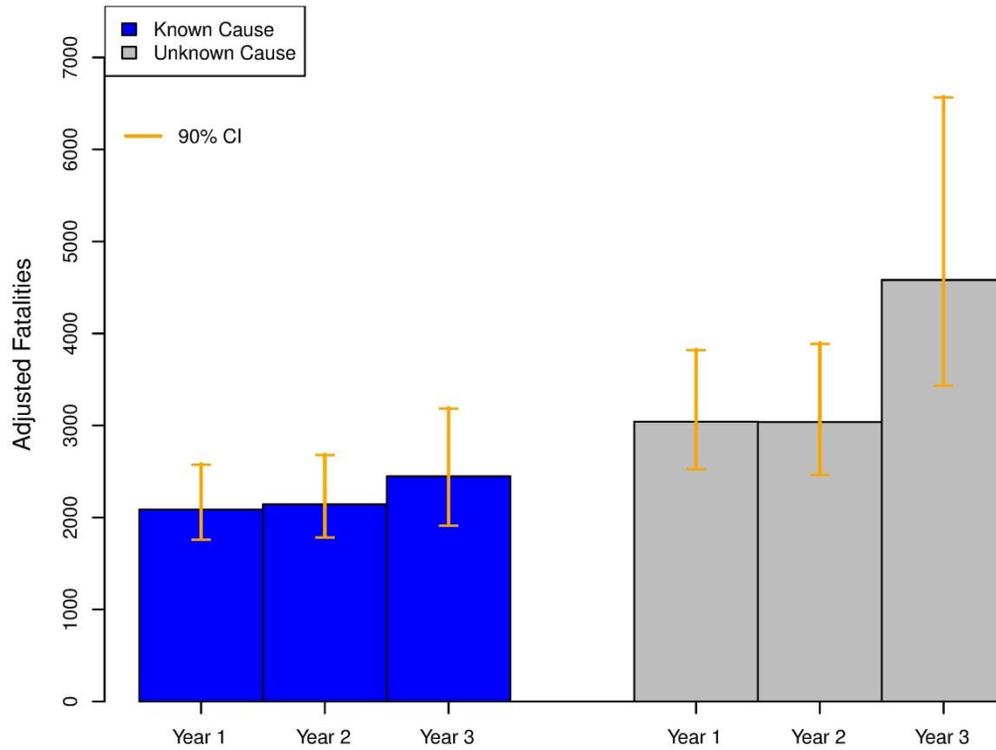


Figure 11. Fatality Estimates for Biologically Informed Seasons Years 1 – 3 by Cause.

Section 7.0 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.”

Results from the 2015 – 2016 monitoring year indicate that the potential migratory bird mortality by species or groups of species from this project would be categorized as low. Approximately 66% of the detections were songbirds, and in general songbirds are short-lived, have high reproductive output, and their population growth rates are less sensitive to changes in survival rates than to changes in reproductive rates (Stahl and Oli 2006). Therefore, mortality of most songbird species is expected to have negligible effects on population dynamics as is the case with impacts from wind energy on songbirds (Erickson et al. 2014).

None of the 35 identifiable species represented by more than three detections (see Table 2) is particularly rare locally, regionally, or nationally. Rather, all 35 species are relatively abundant and widespread either regionally or nationally. Eight special status species were detected during the 2015 – 2016 monitoring year (Table 17). The impact of the Project on special status species is described for yellow warbler (California species of special concern), bank swallow (California threatened species), and peregrine falcon (California fully protected species). The remaining five California species of special concern are not discussed further because the Project is determined to have a low effect on these species at all relevant scales based on the few detections and that fatalities have limited effects on population dynamics for small birds.

Table 17. Status, Fatalities, and Injuries of Top10 Identifiable Species Detected During the 2015 – 2016 Monitoring Year at Ivanpah.

Species	Status*	Fatalities	Injuries	Total
yellow warbler	SSC	70	4	74
Vaux’s swift	SSC	8	0	8
loggerhead shrike	SSC	6	0	6
Lucy’s warbler	SSC	3	1	4
bank swallow	ST	1	0	1
yellow-headed blackbird	SSC	0	1	1
peregrine falcon	FP	0	1	1
crissal thrasher	SSC	1	0	0
Total	SSC	89	7	95

*SSC = California species of special concern, ST = State threatened, FP = California fully protected species

Yellow warblers are one of the most abundant warblers in North America and occur as both migrants and summer residents in California (Shuford and Gardali 2008). Yellow warblers occur in the Mojave Desert as common migrants, but they typically do not breed there and thus, there is no local population for evaluation. An estimated 600,000 yellow warblers occur regionally within California and an estimated 34,000,000 occur nationally in the United States (Partners in Flight Science Committee 2013). The estimated 304 yellow warbler fatalities represented a very small proportion of these populations (e.g., 0.05% of the California population); thus, the estimated yellow warbler fatalities during the 2015 – 2016 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).

The bank swallow is listed as California state threatened 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 Project area does not contain bank swallow nesting habitat, there is no location population for evaluation. The detection likely result 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 estimated bank swallow fatalities during the 2015 – 2016 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).

The peregrine falcon is a California fully protected species, and was federally delisted in 1999 (64 FR 46542–46558) and state delisted in 2009 (California Fish and Game Commission 2009). According to the USFWS Peregrine Falcon Fact Sheet, “In August 1999, the U.S. Fish and Wildlife Service removed the American peregrine falcon from the list of endangered and threatened species, marking one of the most dramatic successes of the Endangered Species Act” (USFWS 2006). According to the CDFW status review in 2008 that supported the state delisting, the peregrine falcon had recovered in California sufficiently to support delisting, finding that the breeding population size increased dramatically by 2008, as the threat by pesticides has been largely removed, though some hotspots remain (Comrack and Longdon 2008). Per the status review, the Project is not located in the breeding range (see Table 1 and

Figure 1, Comrack and Longdon 2008); therefore, there is no local population. Currently, the CDFW California Natural Diversity Database (2015) ranks peregrine falcon in California as “G4T4 S3S4”. G4 indicates that at the global level, the species is “Apparently Secure”, which is defined as “Uncommon but not rare; some cause for long-term concern due to declines or other factors”. T4 indicates that at the subspecies level, the global condition is also “Apparently Secure.” The S3S4 designation means that at the state level, the species falls in between Vulnerable and Apparently Secure. It is unclear if the individual bird that died at the rehab facility was from the Nevada or California population. Nationwide, results show that there are about 3,000 breeding pairs (Green et al. 2006). No separate peregrine falcon population estimate is provided in California. Regardless, the increasing population overall and a state ranking that rises to Apparently Secure indicate that the loss of one individual from the population is unlikely to affect the regional or national population and does not rise above the “low” category.

Section 8.0 Recommendations

Based on the results on the Year 3 monitoring, the following recommendations are provided.

1. **Discontinue heliostat area monitoring after the 2017 spring season.** Fatality patterns in the heliostat area from known cause have been well described over Years 1 – 3, and the objective to provide heliostat area fatality estimates has been met. Discontinuing monitoring in the heliostat area will allow all goals of the Plan (2015) to be met. Tower area monitoring should continue through the end of the 2017 fall season. This recommendation is consistent with the TAC direction provided in the 19 October 2016 letter.
2. **Discontinue small bird searcher efficiency trials.** Twenty-six small bird searcher efficiency trial carcasses were scavenged during the Year 3 monitoring potentially introducing unidentified small bird or unidentified sparrow feather spots into the fatality dataset, which could inflate the fatality estimate. As the predicted searcher efficiency value for small birds and feather spots does not differ, feather spot searcher efficiency trials will continue and will be representative of small birds.
3. **Modify bat monitoring.** Only 18 bats (average 6 per unit) were detected during the Year 3 monitoring. No analysis has been provided for bat detections since the beginning of Year 2 monitoring based on the small sample size. Bat carcasses should still be documented through the wildlife incidence reporting system or coincidentally in other onsite surveys at the site.
4. **Implement enhanced deterrence measures.** Enhancements to avian deterrence have been developed and should be implemented accordingly.

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	UTM Coordinates	SPUT Revisions
2015_857_ISEGS	Cactus Wren	CACW	Carcass Survey	12/19/2015	12/19/2015	Feather spot	2 days	Feather size small consisting of 12 rectrices, 15 primaries, 3 secondaries, and 300 body feathers. No evidence of singeing or collision.	Unknown		2	Heliostat	639201, 3935248	NA
2015_858_ISEGS	Dark-Eyed Junco	DEJU	Incidental	12/20/2015	12/20/2015	Dead, semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. No evidence of singeing or collision.	Unknown		3	Powerblock	637492, 3937916	NA
2015_859_ISEGS	Unknown Small Bird	UNID	Carcass Survey	12/21/2015	12/21/2015	Feather spot	3-6 days	Feather Spot Size = Small. 35 body feathers, all with singe at tips.	Scorched or singed	Unk	1	Powerblock	640376, 3933495	NA
2015_860_ISEGS	Unknown Small Bird	UNID	Carcass Survey	12/21/2015	12/21/2015	Feather spot	2 weeks	Feather Spot Size = small. 1 retrace, 30+ body feathers. Singe on tips of body feathers and retrace.	Scorched or singed	Unk	1	Powerblock	640377, 3933495	NA
2016_001_ISEGS	Western Grebe	WEGR	Carcass Survey	1/4/2016	1/4/2016	Feather spot	3-6 days	Feather spot size large, consisting of 8 secondaries, 1 primary, 100 body feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637677, 3937816	NA
2016_002_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	1/4/2016	1/4/2016	Feather spot	3-6 days	Feather spot size large, consisting of 5 rectrices, 9 primaries, 3 secondaries, 300 body feathers. Evidence of singe on several body feathers.	Scorched or singed	3	3	Heliostat	637644, 3937863	NA
2016_003_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	1/4/2016	1/4/2016	Feather spot	3-6 days	Feather spot size small, consisting of 9 rectrices, 9 primaries, 11 secondaries, 100+ body feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637410, 3938079	NA

2016_004_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	1/4/2016	1/4/2016	Feather spot	2 weeks	Feather spot size small, consisting of 2 rectrices, 9 primaries, 3 secondaries, 25 body feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637411, 3938087	NA
2016_005_ISEGS	Cactus Wren	CACW	Carcass Survey	1/4/2016	1/4/2016	Feather spot	2 weeks	Feather spot size small, consisting of 4 rectrices, 1 primary, 1 secondary. No evidence of collision or singe.	Unknown		3	Heliostat	637416, 3938095	NA
2016_006_ISEGS	Cactus Wren	CACW	Carcass Survey	1/5/2016	1/5/2016	Feather spot	8-24 hours	Feather spot size small, consisting of 12 rectrices, 6 primaries, 16 secondaries, 250+ body feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638788, 3935459	NA
2016_007_ISEGS	Ruby-crowned Kinglet	RCKI	Carcass Survey	1/7/2016	1/7/2016	Mummified	1 month +	Whole carcass. Evidence of curling to all remaining flight feathers, singeing to face, chest, and back.	Scorched or singed	2~3	2	ACC Building	638630, 3935907	NA
2016_008_ISEGS	Northern Mockingbird	NOMO	Carcass Survey	1/7/2016	1/7/2016	Feather spot	2 weeks	Feather spot size small, consisting of 6 rectrices, 1 alula, 10 primaries, 11 secondaries, 50+ body feathers. No evidence of singeing or collision.	Unknown		2	Powerblock	638657, 3935870	NA
2016_009_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	1/20/2016	1/20/2016	Dead, semi-fresh (eyes desiccated, rigor mortis)	0-8 hours	Carcass. No visible trauma, but shows fresh blood and proximity to heliostat. No singe	Collision with solar panel/heliostat		3	Heliostat	637359, 3937806	NA
2016_010_ISEGS	Yellow Warbler	YWAR	Incidental	1/20/2016	1/21/2016	Mummified	1 month +	Whole carcass found. Evidence of singeing to head, neck, back, rump, breast, and all major flight feathers.	Scorched or singed	2~3	2	Solar Concentrating Tower	638629, 3935849	NA
2016_011_ISEGS	Horned Lark	HOLA	Carcass Survey	1/21/2016	1/21/2016	Feather spot	1 month +	Feather spot size small, consisting of 7 rectrices, 11 secondaries, 10 primaries, 4 undertail coverts, 50 body feathers, and 6 broken feathers. No evidence of singe or collision.	Unknown		2	Heliostat	639203, 3935806	NA

2016_012_ISEGS	Great Horned Owl	GHOW	Incidental	1/26/2016	1/26/2016	Alive, injured	0-8 hours	Alive. No visible trauma or external injuries. No singe. Disoriented but alert	Unknown	2	Fence	639680, 3936848	NA	
2016_013_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	1/30/2016	1/30/2016	Feather spot	2 weeks	Feather spot size small, consisting of 5 primaries, 1 secondary, and 30 body feathers. No evidence of singe or collision.	Unknown	2	Heliostat	638246, 3935594	NA	
2016_014_ISEGS	Unknown Small Bird	UNID	Carcass Survey	1/30/2016	1/30/2016	Feather spot	3-6 days	Feather spot size small, consisting 1 primary, 50 body feathers. No evidence of singe or collision.	Unknown	2	Heliostat	637977, 3935794	NA	
2016_015_ISEGS	Unknown Small Bird	UNID	Carcass Survey	1/31/2016	1/31/2016	Feather spot	3-6 days	Feather spot size small, consisting of 3 rectrices, 3 primaries, 2 secondaries, 2 body feathers. No evidence of collision or singe.	Unknown	2	Heliostat	639670, 3935467	NA	
2016_016_ISEGS	Cactus Wren	CACW	Carcass Survey	1/31/2016	1/31/2016	Feather spot	3-6 days	Feather spot size large, consisting of 5 primaries, 2 rectrices, and 200+ body feathers. No evidence of collision or singe.	Unknown	2	Heliostat	639177, 3935235	NA	
2016_017_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	2/1/2016	2/1/2016	Broken up	3-6 days	Broken up carcass consisting of lower half of torso including legs and tail. No evidence of singe or collision.	Unknown	2	Powerblock	638663, 3935890	NA	
2016_018_ISEGS	Unknown Small Bird	UNID	Carcass Survey	2/2/2016	2/2/2016	Broken up	3-6 days	Broken up carcass 2 primaries connected by tissue, 5 retricies and 4 body feathers. No evidence of singe or collision	Unknown	2	Heliostat	638453, 3935761	NA	
2016_019_ISEGS	Western Meadowlark	WEME	Carcass Survey	2/2/2016	2/2/2016	Feather spot	3-6 days	Feather Spot size large with 5 secondaries, 2 primaries, 2 retricies and 75+ body. No evidence of collision or singe.	Unknown	2	Heliostat	638428, 3935858	NA	
2016_020_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	2/2/2016	2/2/2016	Dead; fresh (eyes moist)	0-8 hours	Whole Carcass found. Evidence of singe on rump, nape and left side of breast and face. Three retricies singed.	Scorched or singed	2~3	2	Heliostat	638773, 3935920	NA

2016_021_ISEGS	Black-Throated Sparrow	BTSP	Carcass Survey	2/5/2016	2/5/2016	Dead, semi-fresh (eyes desiccated, rigor mortis)	NA	Whole carcass, not able to be retrieved during survey due to location.	Unknown		1	ACC Building	640416, 3933547	NA
2016_022_ISEGS	Unknown Grebe	UNGR	Carcass Survey	2/5/2016	2/5/2016	Feather spot	2 weeks	Feather spot size small, consisting of 100 body feathers. No evidence of singe or collision.	Unknown		1	Powerblock	640361, 3933486	NA
2016_023_ISEGS	Greater Roadrunner	GRRO	Incidental	2/14/2016	2/14/2016	Feather spot	2 weeks	Feather spot size large, consisting of 2 rectrices, 5 primaries, 1 secondary, and 9 body feathers. No evidence of singe or collision.	Unknown		2	Fence	639014, 3937194	NA
2016_024_ISEGS	Northern Flicker	NOFL	Carcass Survey	2/15/2016	2/15/2016	Feather spot	3-6 days	Feather spot size small consisting of 150 body feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637253, 3937967	NA
2016_025_ISEGS	Anna's Hummingbird	ANHU	Incidental	2/15/2016	2/15/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling on flight feathers of right wing and rectrices, singeing to nape, back, and rump.	Scorched or singed	1~3	3	Powerblock	637488, 3937893	NA
2016_026_ISEGS	Western Meadowlark	WEME	Carcass Survey	2/16/2016	2/16/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing. No evidence of singe or collision.	Unknown		2	Heliostat	639031, 3936344	NA
2016_027_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	2/17/2016	2/17/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Curl/singe on all major flight feathers, singe on head, nape, throat, breast and axillaries.	Scorched or singed	2~3	2	Powerblock	638644, 3935849	NA
2016_028_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	2/17/2016	2/17/2016	Feather spot	3-6 days	Feather spot size = large. 5 primaries, 4 secondaries, 20+body feathers. Tips of body feathers with singe.	Scorched or singed	Unk	2	Powerblock	638641, 3935860	NA
2016_029_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	2/17/2016	2/17/2016	Dead, fresh (eyes moist)	0-8 hours	Carcass. Singe on flank and rump.	Scorched or singed	3	2	Powerblock	638594, 3935871	NA

2016_030_ISEGS	Costa's Hummingbird	COHU	Incidental	3/10/2016	3/10/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Carcass. Singe on right side of face, back and rump.	Scorched or singed	3	1	Powerblock	640354, 3933553	NA
2016_031_ISEGS	House Finch	HOFI	Carcass Survey	3/14/2016	3/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Curling present on both wings, rectrices, and rump; singed on upper breast, top of head, and axillaries.	Scorched or singed	2~3	2	ACC Building	638644, 3935895	NA
2016_032_ISEGS	Violet-green Swallow	VGSW	Incidental	3/14/2016	3/14/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Singe on face and rump. Tips of primaries and secondaries curled. Flux grade 1&3.	Scorched or singed	1~3	3	Powerblock	637498, 3937896	NA
2016_033_ISEGS	Violet-green Swallow	VGSW	Incidental	3/14/2016	3/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Singe on entirety of ventral, dorsal and flight feathers. Grade 2 & 3.	Scorched or singed	2~3	3	Powerblock	637443, 3937951	NA
2016_034_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	3/15/2016	3/15/2016	Mummified	2 weeks	Whole carcass. Curling present in both wings and tail; singeing to sides of face, throat, breast, flanks, and rump.	Scorched or singed	2~3	1	ACC Building	640395, 3933547	NA
2016_035_ISEGS	Tree Swallow	TRES	Incidental	3/18/2016	3/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Curling present on primaries, secondaries, and tail; singeing to head, nape, and back.	Scorched or singed	2~3	2	Powerblock	638695, 3935944	NA
2016_036_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	3/21/2016	3/21/2016	Broken up	3-6 days	Broken up carcass consisting of partial right and left wing connected by tissue, body feathers clumped and connected by skin. Evidence of curling to primaries and secondaries.	Scorched or singed	Unk	3	Heliostat	637441, 3937747	NA
2016_037_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	3/21/2016	3/21/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Curling to primaries, singeing present on head, back, and rump.	Scorched or singed	3	3	Heliostat	637366, 3937790	NA

2016_038_ISEGS	Horned Lark	HOLA	Carcass Survey	3/21/2016	3/21/2016	Feather spot	3-6 days	Feather spot size large, consisting of 5 rectrices. No evidence of singe or collision.	Unknown		3	Heliostat	637299, 3938046	NA
2016_039_ISEGS	Horned Lark	HOLA	Carcass Survey	3/21/2016	3/21/2016	Feather spot	3-6 days	Feather spot size small, consisting of 2 rectrices and 8 body feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637395, 3938084	NA
2016_040_ISEGS	Unknown Swallow	UNSW	Carcass Survey	3/21/2016	3/21/2016	Broken up	3-6 days	Broken up carcass, consisting of partial left and right wing, pelvic region including both legs, and 50 body feathers. Evidence of singeing to tip of flight feathers and coverts.	Scorched or singed	Unk	3	Heliostat	637504, 3938113	NA
2016_041_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	3/21/2016	3/21/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. No evidence of singe or collision.	Unknown		3	Heliostat	637568, 3937720	NA
2016_042_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/21/2016	3/21/2016	Broken up	2 weeks	Broken up carcass consisting of 100 body feathers and part of top of skull contained in animal scat. No evidence of singe or collision.	Unknown		3	Heliostat	637329, 3938112	NA
2016_043_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass found. Curling to central rectrices; singeing to nape, back, and rump.	Scorched or singed	1~3	3	Powerblock	637451, 3937934	NA
2016_044_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to left wing and central rectrices; singeing to throat and right side of face, back, nape, and rump.	Scorched or singed	1~3	3	Powerblock	637432, 3937952	NA
2016_045_ISEGS	Tree Swallow	TRES	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Curling to primaries, secondaries, and tail; singeing to rump, back, breast, sides of face and top of head.	Scorched or singed	2~3	2	ACC Building	638636, 3935881	NA

2016_046_ISEGS	Tree Swallow	TRES	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Curling to all flight feathers in wings and tail, singeing to sides of face, left flank, and rump.	Scorched or singed	2~3	2	ACC Building	638650, 3935893	NA
2016_047_ISEGS	Tree Swallow	TRES	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Curling to primaries, secondaries, and coverts in wings, and in tail, singeing to face, head, nape, breast, back and rump.	Scorched or singed	2~3	2	ACC Building	638642, 3935905	NA
2016_048_ISEGS	Tree Swallow	TRES	Carcass Survey	3/22/2016	3/22/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries, secondaries, and coverts on both wings and in tail, singeing to sides of face.	Scorched or singed	2~3	2	ACC Building	638679, 3935915	NA
2016_049_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/22/2016	3/22/2016	Broken up	3-6 days	Broken up carcass consisting of body feathers held together by sinew. No evidence of collision or singe.	Unknown		2	Heliostat	638897, 3935930	NA
2016_050_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/22/2016	3/22/2016	Feather spot	1 month +	Feather spot size small, consisting of 6 primaries, 6 secondaries, and 2 rectrices. Evidence of singeing on tail feather.	Scorched or singed	Unk	3	Powerblock	637507, 3937944	NA
2016_051_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/22/2016	3/22/2016	Feather spot	3-6 days	Feather spot size small, consisting of 11 body feathers. No evidence of collision or singe (checked under microscope.)	Unknown		3	Powerblock	637478, 3937905	NA
2016_052_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/22/2016	3/22/2016	Broken up	3-6 days	Broken up carcass consisting of 5 rectrices of which 2 were held together by sinew, 1 primary, 9 body feathers, 1 secondary. No evidence of collision or singe.	Unknown		2	Heliostat	638897, 3935834	NA
2016_053_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	3/22/2016	3/22/2016	Feather spot	3-6 days	Broken up carcass consisting of 35 body feathers, 1 primary, 1 rectrice, 3 secondaries connected to coverts on left wing by tissue. No evidence of singe or	Unknown		2	Heliostat	638733, 3935676	NA

collision.

2016_054_ISEGS	Horned Lark	HOLA	Carcass Survey	3/24/2016	3/24/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass Flight feathers singed off. Singe covering 80% of body Grade 2 and 3	Scorched or singed	2~3	1	Powerblock	640379, 3933506	NA
2016_055_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	3/25/2016	3/25/2016	Feather spot	2 weeks	Feather spot small, consisting of 2 rectrices, 50 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638367, 3936925	NA
2016_056_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/25/2016	3/25/2016	Feather spot	3-6 days	Feather spot size large, consisting of 13 body feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638791, 3937171	NA
2016_057_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	3/28/2016	3/28/2016	Broken up	3-6 days	Broken up carcass consisting of part of lower torso including part of pelvis, connective tissue, and body feathers. Evidence of singeing on several body feathers.	Scorched or singed	3	3	Heliostat	637255, 3937802	NA
2016_058_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/28/2016	3/28/2016	Broken up	3-6 days	Broken up carcass consisting of clump of 15 body feathers held together by connective tissue. No evidence of collision or singe.	Unknown		3	Heliostat	637527, 3938114	NA
2016_059_ISEGS	Northern Saw-whet Owl	NSWO	Carcass Survey	3/29/2016	3/29/2016	Broken up	3-6 days	Broken up carcass, consisting of 8 primaries, 12 secondaries, 5 rectrices, and 16 body; 6 of the primaries and 3 of the rects were held together by connective tissue. No evidence of collision or singe.	Unknown		2	Heliostat	637790, 3935450	NA
2016_060_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	3/30/2016	3/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass, curling to rectrices and back, singeing on primaries, secondaries, cheek, and crown.	Scorched or singed	2~3	3	Powerblock	637442, 3937965	NA

2016_061_ISEGS	Rufous Hummingbird	RUHU	Carcass Survey	3/30/2016	3/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling and singeing on left cheek, throat, chest, and belly of bird, singe present on both alulas.	Scorched or singed	1~3	1	Powerblock	640354, 3933511	NA
2016_062_ISEGS	American Coot	AMCO	Carcass Survey	3/30/2016	3/30/2016	Feather spot	2 days	Feather spot size large, consisting of 500+ body feathers, three rectrices, 3 undertail coverts. Evidence of curling on tip of tail feather.	Scorched or singed	Unk	2	Heliostat	639613, 3935353	NA
2016_063_ISEGS	Dark-eyed Junco	DEJU	Carcass Survey	3/30/2016	3/30/2016	Feather spot	3-6 days	Feather spot carcass consisting of 3 primaries, 3 secondaries, 1 rectrice, 3 body feathers. Evidence of singe on 2 primaries.	Scorched or singed	Unk	1	Powerblock	640421, 3933514	NA
2016_064_ISEGS	Unknown Warbler	UNWA	Carcass Survey	3/30/2016	3/30/2016	Broken up	3-6 days	Broken up carcass consisting of partial outer wing, 5 primaries, and 3 body feathers. Evidence of singe on tips of primaries.	Scorched or singed	Unk	1	Powerblock	640354, 3933502	NA
2016_065_ISEGS	Unknown Small Bird	UNID	Carcass Survey	3/30/2016	3/30/2016	Broken up	1 month +	Broken up carcass consisting of 9 primaries, 3 secondaries connected together by bone. Evidence of curling and singe present on primaries.	Scorched or singed	Unk	1	Powerblock	640344, 3933506	NA
2016_066_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	4/4/2016	4/4/2016	Alive, injured	0-8 hours	Alive, injured. Evidence of collision by body feathers on heliostat mirror and close proximity to heliostat.	Collision with solar panel/heliostat		3	Heliostat	637327, 3937766	NA
2016_067_ISEGS	Unknown Small Bird	UNID	Carcass Survey	4/4/2016	4/4/2016	Broken up	8-24 hours	Broken up carcass consisting of 11 body feathers attached by small section of flesh. No evidence of singe or collision.	Unknown		3	Powerblock	637454, 3937946	NA
2016_068_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	4/4/2016	4/4/2016	Feather spot	3-6 days	Feather spot size small, consisting of 1 trailing secondary, 12 body feathers. No evidence of collision or singe.	Unknown		2	Powerblock	638637, 3935873	NA

2016_069_ISEGS	Black-Throated Sparrow	BTSP	Carcass Survey	4/4/2016	4/4/2016	Feather spot	2 days	Feather spot size large, consisting of 10 primaries, 17 secondaries, 10 rectrices, and 50 body feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638600, 3936786	NA
2016_070_ISEGS	Unknown Small Bird	UNID	Carcass Survey	4/5/2016	4/5/2016	Feather spot	3-6 days	Feather spot size small, consisting of 12 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638423, 3935829	NA
2016_071_ISEGS	Western Meadowlark	WEME	Carcass Survey	4/5/2016	4/5/2016	Feather spot	3-6 days	Feather spot size large, consisting of 12 body feathers, 2 rectrices. No evidence of collision or singe.	Unknown		2	Heliostat	638427, 3935840	NA
2016_072_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/5/2016	4/5/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling on tail feathers, singeing on right nape and rump.	Scorched or singed	1~3	2	Heliostat	638754, 3936003	NA
2016_073_ISEGS	Tree Swallow	TRES	Carcass Survey	4/5/2016	4/5/2016	Feather spot	2 days	Feather spot size large, consisting of 52 body, 5 primaries, 6 secondaries, and 4 coverts. Evidence of curling on 3 primaries and 4 secondaries.	Scorched or singed	Unk	1	Powerblock	640321, 3933420	NA
2016_074_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/5/2016	4/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evience of singeing on breast and belly, tail feathers, and rump.	Scorched or singed	1~3	2	Heliostat	638789, 3935941	NA
2016_075_ISEGS	House Finch	HOFI	Incidental	4/5/2016	4/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to rectrices, singeing on rump and left cheek extending to nape.	Scorched or singed	1~3	3	Powerblock	637443, 3937901	NA
2016_076_ISEGS	Spotted Towhee	SPTO	Carcass Survey	4/6/2016	4/6/2016	Feather spot	3-6 days	Feather spot size large, consisting of 5 retricies. No evidence of collision or singe.	Unknown		2	Heliostat	638004, 3935758	NA
2016_077_ISEGS	Crissal Thrasher	CRTH	Carcass Survey	4/6/2016	4/6/2016	Feather spot	2 weeks	Large featherspot consisting of 6 retricies and 1 body feather. No evidence of singe or collision.	Unknown		2	Heliostat	638169, 3936161	NA

2016_078_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	4/7/2016	4/7/2016	Feather spot	3-6 days	Large featherspot consisting of 3 primary, 6 secondary, 2 retricies and 50+ body. Evidence of collision by imprint on heliostat and feather still attached to mirror.	Collision with solar panel/heliostat	2		Heliostat	639086, 3936022	NA
2016_079_ISEGS	Wilson's Warbler	WIWA	Incidental	4/10/2016	4/10/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass with evidence of singeing to primary feathers and tail (singed off), back and head.	Scorched or singed	2~3	2	Powerblock	638659, 3935844	NA
2016_080_ISEGS	Hermit Thrush	HETH	Carcass Survey	4/11/2016	4/11/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass with evidence of curling to some barbs of the left outer primaries.	Scorched or singed	1	3	Powerblock	637451, 3937955	NA
2016_081_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	4/11/2016	4/11/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass with evidence of singeing to tips of primaries and secondaries.	Scorched or singed	1	3	Powerblock	637433, 3937900	NA
2016_082_ISEGS	Eared Grebe	EAGR	Incidental	4/11/2016	4/11/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass with upper mandible of bill broken at tip to show evidence of collision.	Collision (other)		2	Project Structure	639548, 3935028	NA
2016_083_ISEGS	Horned Lark	HOLA	Carcass Survey	4/12/2016	4/12/2016	Feather spot	3-6 days	Feather spot size small, consisting of 7 rectrices. No evidence of collision or singe.	Unknown		3	Heliostat	637272, 3938018	NA
2016_084_ISEGS	Unknown Small Bird	UNID	Carcass Survey	4/12/2016	4/12/2016	Feather spot	8-24 hours	Feather spot size small, consisting of 25 body feathers. Evidence of collision by heliostat imprint.	Collision with solar panel/heliostat		2	Heliostat	639208, 3935226	NA
2016_085_ISEGS	Unknown Grebe	UNGR	Carcass Survey	4/13/2016	4/13/2016	Broken up	8-24 hours	Broken up carcass consisting of 37 body feathers and 3 pieces of connective tissue. No evidence of collision or singe.	Unknown		1	Heliostat	640380, 3933704	

2016_086_ISEGS	Unknown Grebe	UNGR	Carcass Survey	4/13/2016	4/13/2016	Feather spot	3-6 days	Feather spots size large, consisting of 500 body feathers. No evidence of singe or collision.	Unknown		1	Heliostat	640590, 3933513	NA
2016_087_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/13/2016	4/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No evidence of singe but placement under mirror suggests probable collision.	Collision with solar panel/heliostat		2	Heliostat	637852, 3935381	
2016_088_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/13/2016	4/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of collision by broken upper section of bill.	Collision with solar panel/heliostat		2	Heliostat	637823, 3935406	NA
2016_089_ISEGS	Tree Swallow	TRES	Carcass Survey	4/13/2016	4/13/2016	Alive, injured	0-8 hours	Injured bird captured. Evidence of heavy singeing on primaries, greater coverts, and secondaries, singeing on side of face, nape, and rump feathers.	Scorched or singed	1~3	1	Heliostat	640278, 3933388	NA
2016_090_ISEGS	Ruby-crowned Kinglet	RCKI	Carcass Survey	4/14/2016	4/14/2016	Dead, fresh (eyes moist)	8-24 hours	Singe on head, neck, back, rump, and undertail. Curling on primaries, secondaries, retrices.	Scorched or singed	2~3	1	Powerblock	640369, 3933511	NA
2016_091_ISEGS	Ruby-crowned Kinglet	RCKI	Carcass Survey	4/14/2016	4/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Singe on cheek, crown, nape, neck and lower back. Primary and secondary flight feathers curled and singed. Tail absent due to singe damage.	Scorched or singed	2~3	1	ACC Building	640355, 3933521	NA
2016_092_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	4/14/2016	4/14/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. Curling of retricies and primaries. Singeing present on throat, belly and breast.	Scorched or singed	2~3	1	Project Structure	640227, 3933449	NA
2016_093_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/14/2016	4/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No singe. Found directly below heliostat.	Collision with solar panel/heliostat		2	Heliostat	639040, 3935987	NA
2016_094_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	4/14/2016	4/14/2016	Dead, Semi-fresh (eyes desiccated, rigor)	2 days	Whole Carcass. No sign of singe or collision damage.	Unknown		1	Powerblock	640417, 3933497	NA

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2016_095_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	4/14/2016	4/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole Carcass. Evidence of singe. Culring in primaries, secondaires and retricies. Most tail feathers singed off. Singeing on head, nape, back, breast and flanks.	Scorched or singed	2~3	1	Powerblock	640394, 3933487	NA
2016_096_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	4/14/2016	4/14/2016	Dead, fresh (eyes moist)	8-24 hours	Singe apparent on crown and nape, and one tail feather. Singe on crown and nape heavy.	Scorched or singed	1~3	1	Powerblock	640390, 3933461	NA
2016_097_ISEGS	Mourning Dove	MODO	Incidental	4/15/2016	4/15/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Bill damaged and opened to extreme angle. Found near heliostat with matching imprint.	Collision with solar panel/heliostat		1	Heliostat	639883, 3933078	NA
2016_098_ISEGS	Tree Swallow	TRES	Carcass Survey	4/18/2016	4/18/2016	Broken up	3-6 days	Two wings found. Singe on flight feathers of both wings.	Scorched or singed	2	3	Heliostat	637350, 3937698	NA
2016_099_ISEGS	American Pipit	AMPI	Carcass Survey	4/18/2016	4/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass in addition to 4 body feathers. Evidence of collision by location of carcass at base of heliostat with matching imprint of size and shape of species and feathers on face of mirror.	Collision with solar panel/heliostat		3	Heliostat	637266, 3937786	NA
2016_100_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	4/18/2016	4/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Upper mandible chipped, lower mandible with broken tip. No singe.	Collision with solar panel/heliostat		2	Heliostat	638438, 3936967	NA
2016_101_ISEGS	American Pipit	AMPI	Carcass Survey	4/18/2016	4/18/2016	Alive, injured	0-8 hours	Injured, alive. Imprint on nearby heliostat with matching size and attached body feathers.	Collision with solar panel/heliostat		3	Heliostat	637406, 3937782	NA
2016_102_ISEGS	Barn Swallow	BARS	Carcass Survey	4/18/2016	4/18/2016	Alive, injured	0-8 hours	Alive, injured. Curling on all major flight feathers in wings/tail. Singe on top of head, nape, right side face.	Scorched or singed	2~3	3	Heliostat	637373, 3937787	NA

2016_103_ISEGS	Unknown Sparrow	UNSP	Incidental	4/18/2016	4/18/2016	Broken up	2 days	Broken up carcass consisting of piece of wing held together by connective tissue in addition to 4 retrices held together by tissue, 6 primaries, 50 body feathers, 6 coverts, 5 refts. No evidence of collision or singe.	Unknown	2		Heliostat	639009, 3937111	NA
2016_104_ISEGS	Barn Swallow	BARS	Carcass Survey	4/18/2016	4/18/2016	Alive, injured	0-8 hours	Alive, injured. Singe and curl on majority of flight feathers in both wing/tail.	Scorched or singed	2~3	3	Heliostat	637257, 3937893	NA
2016_105_ISEGS	House Finch	HOFI	Carcass Survey	4/18/2016	4/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Singe on nape.	Scorched or singed	1~3	3	Powerblock	637421, 3937970	NA
2016_106_ISEGS	Rufous Hummingbird	RUHU	Carcass Survey	4/18/2016	4/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing on right side of face, nape, back, rump, and right lower flank.	Scorched or singed	3	3	Powerblock	637458, 3937945	NA
2016_107_ISEGS	Black Phoebe	BLPH	Carcass Survey	4/18/2016	4/18/2016	Broken up	3-6 days	Torso, 2 legs, partial shoulder. No singe or evidence of collision.	Unknown		3	Powerblock	637538, 3937965	NA
2016_108_ISEGS	American Pipit	AMPI	Carcass Survey	4/18/2016	4/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Collision imprint on heliostat with six adhered body feathers. No singe.	Collision with solar panel/heliostat		3	Heliostat	637709, 3937866	NA
2016_109_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	4/19/2016	4/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to all major flight feathers in wings and tail, singeing to head, nape, axillaries, breast, back, and rump.	Scorched or singed	2~3	3	Powerblock	637438, 3937954	NA
2016_110_ISEGS	Unknown Hummingbird	UNHU	Incidental	4/19/2016	4/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Curling of all remaining flight feathers, most no longer present. Singeing of almost all other body feathers.	Scorched or singed	2~3	1	Powerblock	640389, 3933505	NA

2016_111_ISEGS	Violet-green Swallow	VGSW	Incidental	4/19/2016	4/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass. Curling to all flight feathers. Singe present on head, nape, back, rump and flanks.	Scorched or singed	2~3	3	Powerblock	637376, 3937907	NA
2016_112_ISEGS	Lucy's Warbler	LUWA	Incidental	4/19/2016	4/19/2016	Alive, injured	0-8 hours	Alive, injured. Curling on all major flight feathers in wings/tail. Singe on top of head.	Scorched or singed	2~3	3	Powerblock	637391, 3937899	NA
2016_113_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/19/2016	4/16/2016	Mummified	2 weeks	Whole carcass. Curling of all flight feathers. Singe on head, nape, back and rump.	Scorched or singed	2~3	2	Powerblock	638685, 3935878	NA
2016_114_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	4/20/2016	4/20/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to primaries, secondaries, coverts, and retrices, singeing to sides of head, top of head, axillaries, breast, back, and rump.	Scorched or singed	2~3	1	ACC Building	640360, 3933528	NA
2016_115_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	4/20/2016	4/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to all major flight feathers in wings and tail, singeing to breast, chin, sides of face, and rump.	Scorched or singed	2~3	1	Powerblock	640391, 3933505	NA
2016_116_ISEGS	Savannah Sparrow	SAVS	Carcass Survey	4/20/2016	4/20/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Probable evidence of collision by placement of carcass under heliostat mirror.	Collision with solar panel/heliostat		1	Heliostat	640520, 3933363	NA
2016_117_ISEGS	Unknown Small Bird	UNID	Carcass Survey	4/20/2016	4/20/2016	Broken up	3-6 days	Broken up carcass consisting of 4 primaries and 2 secondaries held together by a piece of dried flesh. No evidence of collision or singe.	Unknown		1	Powerblock	640370, 3933509	NA
2016_118_ISEGS	Lesser Nighthawk	LENI	Incidental	4/20/2016	4/20/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. No evidence of collision or singe.	Unknown		2	Powerblock	638724, 3935880	NA
2016_119_ISEGS	Unknown Kinglet	UNKL	Incidental	4/20/2016	4/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 5 primaries, 8 secondaries and tertials. Evidence of singe to tertials and primary tips.	Scorched or singed	Unk	3	Powerblock	637402, 3937955	NA

2016_120_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	4/20/2016	4/20/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing on all rectrices and flight feathers, head, nape, and breast.	Scorched or singed	2~3	3	Powerblock	640374, 3933486	NA
2016_121_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	4/20/2016	4/20/2016	Feather spot	3-6 days	Feather spot size small consisting of 1 body feather, 3 primaries, and 3 rectrices. Evidence of curling and singeing on all feathers collected.	Scorched or singed	3	3	Powerblock	637471, 3937902	NA
2016_122_ISEGS	Tree Swallow	TRES	Carcass Survey	4/21/2016	4/21/2016	Broken up	3-6 days	Broken Up. Right Wing & Part of upper thoracic. Not evidence of collision or singe.	Unknown		2	Heliostat	639502, 3936646	NA
2016_123_ISEGS	Calliope Hummingbird	CAHU	Carcass Survey	4/25/2016	4/25/2016	Dead, fresh (eyes moist)	8-24 hr	Whole carcass. Evidence of singeing on two rectrices.	Scorched or singed	1	3	Heliostat	637499, 3938080	NA
2016_124_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/25/2016	4/25/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Probable evidence of collision by placement of carcass under heliostat mirror.	Collision with solar panel/heliostat		3	Heliostat	637436, 3938061	NA
2016_125_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	4/25/2016	4/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singe on dorsal plumage.	Scorched or singed	2~3	3	Powerblock	637473, 3937930	NA
2016_126_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	4/25/2016	4/25/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Singe on majority of dorsal, ventral, and flight feathers, and crown. Tail destroyed from singe, absent.	Scorched or singed	2~3	3	Powerblock	637451, 3937928	NA
2016_127_ISEGS	Lesser Goldfinch	LEGO	Carcass Survey	4/25/2016	4/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to nape, back, secondaries, primaries, and tail feathers.	Scorched or singed	2	3	ACC Building	637473, 3937982	NA
2016_128_ISEGS	Black-chinned Hummingbird	BCHU	Carcass Survey	4/25/2016	4/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling on primaries and secondaries, singeing to back, head, nape, and throat.	Scorched or singed	1~3	3	ACC Building	637485, 3937969	NA

2016_129_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	4/25/2016	4/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of singeing to all flight feathers, back, and head.	Scorched or singed	2~3	3	ACC Building	637472, 3937942	NA
2016_130_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/25/2016	4/25/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to central retrices, singeing to right rump and lower flank and present on right tail feathers.	Scorched or singed	1~3	3	ACC Building	637483, 3937942	NA
2016_131_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	4/25/2016	4/25/2016	Broken up	3-6 days	Broken up carcass consisting of whole right wing. No evidence of singe or collision.	Unknown		3	Powerblock	637376, 3937945	NA
2016_132_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/25/2016	4/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of singeing on right side of face and body, right side of breast, and to tips of flight feathers.	Scorched or singed	1~3	3	Powerblock	637370, 3937859	NA
2016_133_ISEGS	American Pipit	AMPI	Carcass Survey	4/26/2016	4/26/2016	Broken up	3-6 days	Broken up carcass, consisting of clumps of body feathers held together by connective tissue, 2 retrices, 2 tertials, and 37 loose body feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638855, 3935864	NA
2016_134_ISEGS	Eared Grebe	EAGR	Carcass Survey	4/27/2016	4/27/2016	Broken up	3-6 days	Broken up carcass consisting of 9 tertials and 4 secondaries held together by connective tissue, 3 primaries, 6 body feathers. No evidence of singe or collision.	Unknown		1	Heliostat	640611, 3933473	NA
2016_135_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	4/27/2016	4/27/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 weeks	Whole carcass. Evidence of singe on right auricular, belly, and right side of rump.	Scorched or singed	2~3	1	Heliostat	640424, 3933374	NA
2016_136_ISEGS	Horned Lark	HOLA	Carcass Survey	4/27/2016	4/27/2016	Mummified	3-6 days	Whole carcass. Evidence of collision with structural damage to bill and proximity to heliostat	Collision with solar panel/heliostat		1	Heliostat	640218, 3933321	NA

mirror.

2016_137_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	4/27/2016	4/27/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Possible evidence of collision with heliostat based on whole carcass and proximity to heliostat mirror.	Collision with solar panel/heliostat		1	Heliostat	640369, 3933262	NA
2016_138_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	4/27/2016	4/27/2016	Broken up	3-6 days	Broken up carcass consisting of partial right wing, 25 body feathers held together by connective tissue, 8 primaries, 4 secondaries. No evidence of collision or singe.	Unknown		1	Heliostat	640166, 3933496	NA
2016_139_ISEGS	Barn Swallow	BARS	Incidental	4/27/2016	4/27/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to majority of all flight feathers, singeing to crown, nape, throat. back, and rump.	Scorched or singed	2~3	3	Powerblock	637540, 3937872	NA
2016_140_ISEGS	Common Raven	CORA	Carcass Survey	4/28/2016	4/28/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of singeing to flight feathers, back, and nape.	Scorched or singed	2~3	2	Project Structure	639666, 3936810	NA
2016_141_ISEGS	Summer Tanager	SUTA	Carcass Survey	5/2/2016	5/2/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Broken neck with fresh wound. No singe.	Collision (other)		3	Powerblock	637514, 3937964	NA
2016_142_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	5/2/2016	5/2/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to retrices, singeing to back of crown, nape, back, and rump.	Scorched or singed	1~3	3	Heliostat	637571, 3938012	NA
2016_143_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	5/2/2016	5/2/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Primaries, secondaries, retrices curled. Most of head and upperparts singed.	Scorched or singed	2~3	3	Powerblock	637400, 3937874	NA
2016_144_ISEGS	Unknown Small Bird	UNID	Carcass Survey	5/2/2016	5/2/2016	Broken up	2 weeks	Broken up feather spot consisting of 7 flight feathers held together by dried connective tissue, 2 separate flight and body	Scorched or singed	Unk	3	Powerblock	637423, 3937888	NA

									feathers . Evidence of curling to all flight feathers.						
2016_145_ISEGS	Tree Swallow	TRES	Carcass Survey	5/2/2016	5/2/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to primaries, secondaries, retrices, and back of crown on head.	Scorched or singed	2~3	3	Powerblock	637449, 3937932	NA	
2016_146_ISEGS	Calliope Hummingbird	CAHU	Carcass Survey	5/2/2016	5/2/2016	Mummified	3-6 days	Whole carcass. Evidence of curling to remaining primaries and secondaries, singeing to rear of head, nape, back, and rump with retrices being singed off.	Scorched or singed	2~3	3	Powerblock	637449, 3937931	NA	
2016_147_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	5/2/2016	5/2/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to both wing coverts and tertials and in retrices, singeing to tips of primaries, right axillary, left lower flank, top of head, nape, back, and rump.	Scorched or singed	1~3	3	Heliostat	637271, 3937895	NA	
2016_148_ISEGS	Ruby-crowned Kinglet	RCKI	Carcass Survey	5/2/2016	5/2/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. All primaries, secondaries, retrices singed to point of absence. Singe on over 80% of body.	Scorched or singed	2~3	3	Powerblock	637432, 3937877	NA	
2016_149_ISEGS	Common Raven	CORA	Carcass Survey	5/2/2016	5/2/2016	Feather spot	3-6 days	Feather spot consisting of 2 primaries. Evidence of singeing on outer barbs of 1 primary.	Scorched or singed	Unk	3	Powerblock	637545, 3937986	NA	
2016_150_ISEGS	Barn Swallow	BARS	Incidental	5/2/2016	5/2/2016	Alive, injured	0-8 hours	Alive bird. Later perished in office. Evidence of curling to all flight feathers, singeing to entirety of dorsal and flanks.	Scorched or singed	2~3	3	Powerblock	637456, 3937901	NA	
2016_151_ISEGS	Yellow-headed Blackbird	YHBL	Carcass Survey	5/2/2016	5/2/2016	Alive, injured	0-8 hours	Alive. Disoriented and unable to maintain strong flight, however bird was healthy enough to avoid capture. Capture not possible without severely stressing the bird, so it	Unknown		2	Heliostat	639028, 3936018	NA	

								was left in place. No singe.						
2016_152_ISEGS	American Avocet	AMAV	Carcass Survey	5/3/2016	5/3/2016	Dead, fresh (eyes moist)	8-24 hours	Broken up. Lower part of carcass intact includes legs, wings and lower thoracic cavity. Missing head, neck and most internal organs. Evidence of scavenging. No evidence of singe or collision.	Unknown		1	Heliostat	640471, 3933293	NA
2016_153_ISEGS	Lark Sparrow	LASP	Carcass Survey	5/3/2016	5/3/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Probable collision due to the location of the whole carcass found at base of heliostat intact and without external injuries	Collision with solar panel/heliostat		1	Heliostat	640493, 3933454	NA
2016_154_ISEGS	Unknown Small Bird	UNID	Carcass Survey	5/3/2016	5/3/2016	Feather spot	3-6 days	Featherspot size small consisting of 7 primaries, 1 retrix, 3 secondaries, 2 body and 3 wing coverts. No evidence of singe or collision.	Unknown		1	Heliostat	640556, 3933644	NA
2016_155_ISEGS	Western Tanager	WETA	Incidental	5/8/2016	5/8/2016	Alive, injured	0-8 hours	Alive bird. Evidence of curling to flight feathers in right wing and in tail.	Scorched or singed	2~3	1	Powerblock	640373, 3933480	NA
2016_156_ISEGS	Yellow Warbler	YWAR	Carcass Survey	5/10/2016	5/10/2016	Alive, injured	0-8 hours	Alive, injured bird found under heliostat. No evidence of singe. Placement under heliostat and drooping of right wing suggests collision.	Collision with solar panel/heliostat		2	Heliostat	638495, 3935093	NA
2016_157_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/10/2016	5/10/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. All retrices, back and head with severe singe. Curling of 90% of primary and secondary feathers.	Scorched or singed	2	3	ACC Building	637448, 3937956	NA
2016_158_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/10/2016	5/10/2016	Alive, injured	0-8 hours	Alive and injured bird could not able to be captured. Evidence of singeing to flight feathers in both wings and in tail.	Scorched or singed	3-Feb	3	Powerblock	637509, 3937925	NA

2016_159_ISEGS	Black-chinned Hummingbird	BCHU	Carcass Survey	5/10/2016	5/10/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Placement under heliostat indicates probable collision. No evidence of singe.	Collision with solar panel/heliostat		2	Heliostat	639661, 3935490	NA
2016_160_ISEGS	Unknown Swallow	UNSW	Carcass Survey	5/10/2016	5/10/2016	Mummified	3-6 days	Whole skeleton consisting of 31 flight feathers, 30 body feathers attached and unattached to skeletal frame. Evidence of curling to all flight feathers and some body feathers.	Scorched or singed	3-Feb	3	Powerblock	637450, 3937936	NA
2016_161_ISEGS	Unknown Small Bird	UNID	Carcass Survey	5/10/2016	5/10/2016	Feather spot	3-6 days	Feather spot size small consisting of 28 body feathers. Evidence of singeing and curling to 24 of the feathers.	Scorched or singed	3	3	Powerblock	637440, 3937939	NA
2016_162_ISEGS	Calliope Hummingbird	CAHU	Carcass Survey	5/10/2016	5/10/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to right rump and several right retrices.	Scorched or singed	3-Jan	3	Powerblock	637359, 3937950	NA
2016_163_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	5/10/2016	5/10/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of singeing on primaries and to right nape.	Scorched or singed	3-Jan	1	ACC Building	640406, 3933534	NA
2016_164_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/10/2016	5/10/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to nape, back, and rump.	Scorched or singed	3-Feb	1	Powerblock	640387, 3933471	NA
2016_165_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/10/2016	5/10/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Singe on crown, nape, back, coverts, retrices, remiges and underside of left wing. Majority of flight feathers curled from singe.	Scorched or singed	3-Feb	1	Powerblock	640391, 3933495	NA
2016_166_ISEGS	Townsend's Warbler	TOWA	Incidental	5/11/2016	5/11/2016	Alive, injured	0-8 hours	Injured bird. Evidence of curling to flight feathers in both wings and tail.	Scorched or singed	3-Feb	1	Powerblock	640335, 3933499	NA

2016_167_ISEGS	Orange-crowned Warbler	OCWA	Incidental	5/11/2016	5/11/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole bird. Evidence of curling to flight feathers, with tail singed off, singeing to body feathers.	Scorched or singed	3-Feb	1	Powerblock	640364, 3933483	NA
2016_168_ISEGS	Unknown Warbler	UNWA	Carcass Survey	5/11/2016	5/11/2016	Broken up	3-6 days	Broken up carcass consisting of partial tail and rump connected to one full leg. No evidence of collision or singe.	Unknown		1	Powerblock	640372, 3933550	NA
2016_169_ISEGS	Townsend's Warbler	TOWA	Carcass Survey	5/11/2016	5/11/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing in head, face, throat, nape, belly, rump, legs and back, both wings singed off to coverts as well as tail .	Scorched or singed	3-Feb	1	Powerblock	640327, 3933422	NA
2016_170_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	5/11/2016	5/11/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of collision by ant scavenged carcass in close proximity to heliostat.	Collision with solar panel/heliostat		2	Heliostat	637782, 3935561	NA
2016_171_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/11/2016	5/11/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of collision with close proximity and abrasion to head.	Collision with solar panel/heliostat		1	Heliostat	640168, 3933518	NA
2016_172_ISEGS	Wilson's Warbler	WIWA	Incidental	5/13/2016	5/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to rump and head, singeing to crown.	Scorched or singed	3-Jan	1	Powerblock	640336, 3933473	NA
2016_173_ISEGS	Lazuli Bunting	LAZB	Incidental	5/13/2016	5/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling on all flight feathers in wings, singeing to head, face, nape, back, rump, throat, and tail.	Scorched or singed	3-Feb	3	Powerblock	637432, 3937939	NA
2016_174_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	5/16/2016	5/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all major flight feathers in wings with tail singed off, singeing to all major parts of body.	Scorched or singed	3-Feb	3	ACC Building	637473, 3937983	NA
2016_175_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	5/16/2016	5/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2days	Whole carcass. No evidence of singe or collision.	Unknown		3	ACC Building	637505, 3937960	NA

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2016_176_ISEGS	Northern Mockingbird	NOMO	Carcass Survey	5/16/2016	5/16/2016	Broken up	2 days	Broken up carcass consisting of partial right and left wing, clumps of body feathers attached by skin, 100 body feathers and 1 rectrice. No evidence of singe or collision.	Unknown	3	Heliostat	637315, 3937770	NA	
2016_177_ISEGS	Unknown Warbler	UNWA	Carcass Survey	5/16/2016	5/16/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing, 8 body feathers, 14 secondaries, 1 primary, 1 rect. Singeing present on all flight feathers.	Scorched or singed	Unk	3	Heliostat	637315, 3937720	NA
2016_178_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/16/2016	5/16/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No evidence of singe or collision.	Unknown	3	ACC Building	637447, 3937952	NA	
2016_179_ISEGS	Mourning Dove	MODO	Carcass Survey	5/16/2016	5/16/2016	Feather spot	2 days	Feather spot size large consisting of 7 retricies, 8 primaries, 3 secondaries, and 40 body feathers. No evidence of singe or collision.	Unknown	3	Heliostat	637264, 3937871	NA	
2016_180_ISEGS	Eared Grebe	EAGR	Incidental	5/16/2016	5/16/2016	Broken up	0-8 hours	Broken up carcass consisting of head and part of neck. No evidence of singe or collision.	Unknown	2	Powerblock	638685, 3935774	NA	
2016_181_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/16/2016	5/16/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing on head, face, nape, back, rump, tail, both wings, and flanks.	Scorched or singed	3-Feb	1	ACC Building	640383, 3933530	NA
2016_182_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	5/16/2016	5/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to retrices, singeing to flight feathers in wings, and top of head.	Scorched or singed	Unk	1	ACC Building	640372, 3933519	NA
2016_183_ISEGS	Mourning Dove	MODO	Carcass Survey	5/17/2016	5/17/2016	Broken up	3-6 days	Feather spot size = large. 13 primaries, 4 seconds, mixed body and covert feathers. Wing contains bits of attached flesh. No	Unknown	2	Heliostat	638904, 3935823	NA	

singe.

2016_184_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	5/17/2016	5/17/2016	Feather spot	0-8 hours	Feather spot size = small. 15 mixed flight feathers (including 6 primary, 3 tail) and 2 uppertail coverts. No singe.	Unknown		1	Powerblock	640400, 3933493	NA	
2016_185_ISEGS	Savannah Sparrow	SAVS	Carcass Survey	5/17/2016	5/17/2016	Broken up	2 weeks	Feathers spot size = large. 12 retrices, 4 secondaries, 7 body feathers with attached flesh. No singe.	Unknown		2	Heliostat	638879, 3935825	NA	
2016_186_ISEGS	Unknown Sparrow	UNSP	Incidental	5/18/2016	5/18/2016	Mummified	1 month +	Whole carcass. Evidence of singeing to all major body parts including all major flight feathers singed off.	Scorched or singed	3-Feb	2	Powerblock	637407, 3937907	NA	
2016_187_ISEGS	Wilson's Warbler	WIWA	Incidental	5/18/2016	5/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Left in place due to placement on beam of solar concentrating tower.	Unknown		2	Powerblock	637426, 3937906	NA	
2016_188_ISEGS	Black-chinned Hummingbird	BCHU	Carcass Survey	5/21/2016	5/21/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole Carcass. Left wing broken at scapular, right wing with 1 broken primary. No singe.	Collision with solar panel/heliostat		2	Heliostat	638478, 3936443	NA	
2016_189_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	5/26/2016	5/26/2016	Broken up	3-6 days	Broken up. Partial right wing with connective tissue at the base. No evidence of singe.	Unknown		2	Heliostat	639651, 3936194	NA	
2016_190_ISGES	Unknown Small Bird	UNID	Carcass Survey	5/31/2016	5/31/2016	Mummified	2 weeks	Mummified broken up carcass consisting of whole bird minus head. Evidence of singe to entire body with wings and tail singed off.	Scorched or singed	3-Feb	3	ACC Building	637454, 3937968	NA	
2016_191_ISEGS	Unknown Warbler	UNWA	Carcass Survey	5/31/2016	5/31/2016	Broken up	2 weeks	Exposed skeleton including rib cage, skull, neck and legs with most of flight feathers attached to wings, 2 secondaries, 5 loose primaries, and 84	Scorched or singed		2	3	Powerblock	637442, 3937928	NA

									body feathers. Evidence of curling to primaries and secondaries in both wings.						
2016_192_ISEGS	Cliff Swallow	CLSW	Carcass Survey	5/31/2016	5/31/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass, missing leg. Evidence of curling and singeing to all flight feathers.	Scorched or singed	3-Feb	1	ACC Building	640396, 3933533	NA	
2016_193_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	5/31/2016	5/31/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling on flight feathers in both wings and in retrices, singeing on head, nape, back, and right flank.	Scorched or singed	3-Feb	1	Powerblock	640431, 3933519	NA	
2016_194_ISEGS	MacGillivray's Warbler	MGWA	Carcass Survey	6/2/2016	6/2/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of probable collision with placement of fresh carcass in proximity of heliostat.	Collision with solar panel/heliostat		2	Heliostat	638564, 3936002	NA	
2016_195_ISEGS	Unknown Grebe	UNGR	Carcass Survey	6/6/2016	6/6/2016	Feather spot	3-6 days	Feather spot size large, consisting of 3 secondaries, 50+ body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640587, 3933395	NA	
2016_196_ISEGS	Unknown Large Bird	UNLB	Carcass Survey	6/8/2016	6/8/2016	Broken up	2 weeks	Broken up carcass consisting (originally) of a pellet comprised of 200 contour feathers and 5 pieces of bone. No evidence of singe or collision.	Unknown		2	ACC Building	638667, 3935895	NA	
2016_197_ISEGS	Greater Roadrunner	GRRO	Carcass Survey	6/24/2016	6/24/2016	Broken up	2 weeks	Broken up carcass consisting of a partial left wing with dried flesh and 5 clumps of body feathers comprising of 120 feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638962, 3936223	NA	
2016_198_ISEGS	Cliff Swallow	CLSW	Incidental	6/24/2016	6/24/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to all major flight feathers, singeing present on head, back, and rump.	Scorched or singed	2~3	3	Powerblock	637459, 3937894	NA	

2016_199_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	6/26/2016	6/26/2016	Mummified	2 weeks	Whole Carcass. All flight feathers curled or singed off. Singe present on over 90% of carcass	Scorched or singed	2~3	1	ACC Building	640411, 3933521	NA
2016_200_ISEGS	Black-Throated Sparrow	BTSP	Carcass Survey	6/26/2016	6/26/2016	Broken up	2 weeks	Broken up (detached head). Primaries, Secondaries and retricies curled. Singe present on head and neck.	Scorched or singed	2~3	1	ACC Building	640360, 3933536	NA
2016_201_ISEGS	Unknown Small Bird	UNID	Carcass Survey	6/27/2016	6/27/2016	Feather spot	0-8 hours	Featherspot size large comprised of 50+ crown/body feathers. All feather stuck to mirror with visible imprint indicating a collision.	Collision with solar panel/heliostat		1	Heliostat	640296, 3933673	NA
2016_202_ISEGS	Black-tailed Gnatcatcher	BTGN	Carcass Survey	7/7/2016	7/7/2016	Mummified	2 weeks	Whole carcass with all tail feathers showing signs of singe.	Scorched or singed	1	3	ACC Building	637449, 3937956	NA
2016_203_ISEGS	Verdin	VERD	Carcass Survey	7/7/2016	7/7/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Primaries, secondaries, retrices curled. Most of upperparts singed.	Scorched or singed	2~3	3	Powerblock	637454, 3937933	NA
2016_204_ISEGS	Unknown Swallow	UNSW	Carcass Survey	7/7/2016	7/7/2016	Feather spot	3-6 days	Featherspot size small comprised of 3 primaries and 10+ body feathers. 1 primary curled, 2 singed and several singed body feathers.	Scorched or singed	Unk	3	Powerblock	637437, 3937928	NA
2016_205_ISEGS	Tree Swallow	TRES	Carcass Survey	7/7/2016	7/7/2016	Mummified	2 weeks	Whole Carcass, four primaries curled the majority of all other flight feathers singed. Singe also present on both sides of face.	Scorched or singed	2~3	3	Powerblock	637422, 3937916	NA
2016_206_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	7/7/2016	7/7/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass, Tail feathers partially curled. Singe present on nape, back and rump.	Scorched or singed	1~3	3	Powerblock	637475, 3937944	NA
2016_207_ISEGS	Costa's Hummingbird	COHU	Carcass Survey	7/7/2016	7/7/2016	Mummified	2 weeks	Whole carcass, Retricies and throat singed.	Scorched or singed	1	3	Powerblock	637403, 3937969	NA

2016_208_ISEGS	Long-billed Curlew	LBCU	Carcass Survey	7/11/2016	7/11/2016	Broken up	3-6 days	Broken up carcass consisting of partial right wing, 9 primaries, 6 secondaries, and 35 contour feathers. No evidence of collision or singe.	Unknown	2		Heliostat	638122, 3935403	NA
2016_209_ISEGS	Black-Throated Sparrow	BTSP	Incidental	7/12/2016	7/12/2016	Mummified	3-6 days	Whole carcass. Evidence of curling to all flight feathers, with the majority of the upperparts of breast singed.	Scorched or singed	2~3	3	Powerblock	638656, 3935877	NA
2016_210_ISEGS	Black-tailed Gnatcatcher	BTGN	Incidental	7/12/2016	7/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to flight feathers on left wing and in tail, singeing to head, neck, chest, and belly.	Scorched or singed	2~3	1	Powerblock	640378, 3933479	NA
2016_211_ISEGS	Unknown Hummingbird	UNHU	Incidental	7/12/2016	7/12/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe on rump, flanks, and entire ventral portion of body, with majority of flight feathers singed off.	Scorched or singed	2~3	1	Powerblock	640384, 3933469	NA
2016_212_ISEGS	Rufous Hummingbird	RUHU	Incidental	7/12/2016	7/12/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe on several retrices.	Scorched or singed	2	1	Powerblock	640388, 3933469	NA
2016_213_ISEGS	Unknown Hummingbird	UNHU	Incidental	7/12/2016	7/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers, singeing to majority of upperparts, right side of head and right side of body.	Scorched or singed	2~3	1	Powerblock	640348, 3933465	NA
2016_214_ISEGS	Lucy's Warbler	LUWA	Carcass Survey	7/13/2016	7/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass with singe on primaries, secondaries, and retrices curled/singed off. Part of cap, back, rump singed.	Scorched or singed	2~3	2	ACC Building	638669, 3935881	NA
2016_215_ISEGS	Unknown Small Bird	UNID	Carcass Survey	7/13/2016	7/13/2016	Feather spot	2 weeks	Feather spot size large, consisting of 14 secondaries, 14 primaries, and 75 body feathers. Evidence of singe on the tips of primaries and secondaries.	Scorched or singed	Unk	2	Powerblock	638679, 3935877	NA

2016_216_ISEGS	White-throated Swift	WTSW	Carcass Survey	7/13/2016	7/13/2016	Broken up	3-6 days	Feather spot size = large. With intact flesh. 8 primaries, 4 secondaries, 1 retrix, 8+ contour, 4 wing coverts. Singe on majority of collected feathers.	Scorched or singed	Unk	2	Powerblock	638658, 3935845	NA
2016_217_ISEGS	Lesser Nighthawk	LENI	Carcass Survey	7/13/2016	7/13/2016	Feather spot	2 weeks	Feather spot size = large. 3 primaries, 3 retrices, 2 secondaries, 1 tertial, 100+ body feathers. No singe.	Unknown		2	Heliostat	638469, 3935966	NA
2016_218_ISEGS	Rufous Hummingbird	RUHU	Carcass Survey	7/13/2016	7/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass with singe on right side of face, partial retrices (singed, not curled)	Scorched or singed	1~3	2	Powerblock	638575, 3935838	NA
2016_219_ISEGS	Tree Swallow	TRES	Incidental	7/13/2016	7/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, retrices, and wing coverts, singeing to top of head and left side of face.	Scorched or singed	2~3	3	Powerblock	637431, 3937966	NA
2016_220_ISEGS	Cliff Swallow	CLSW	Incidental	7/14/2016	7/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, retrices, and head, face, nape, back, rump, and throat.	Scorched or singed	2~3	3	Powerblock	637361, 3937929	NA
2016_221_ISEGS	Tree Swallow	TRES	Incidental	7/15/2016	7/15/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to both wings and tail, singeing to top of head.	Scorched or singed	1~3	3	Powerblock	637395, 3937878	NA
2016_222_ISEGS	Cliff Swallow	CLSW	Incidental	7/15/2016	7/15/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries; singeing to rump, back, and top of head.	Scorched or singed	2~3	3	Powerblock	637427, 3937964	NA
2016_223_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	7/15/2016	7/15/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of slight singeing on tips of primaries.	Scorched or singed	1	3	Powerblock	637512, 3937927	NA
2016_224_ISEGS	Unknown Hummingbird	UNHU	Incidental	7/15/2016	7/15/2016	Broken up	3-6 days	Broken up carcass consisting of all pieces of body and ran over by a vehicle. Evidence of singe on tips of primaries.	Scorched or singed	1	3	Powerblock	637411, 3937875	NA

2016_225_ISEGS	Cliff Swallow	CLSW	Carcass Survey	7/18/2016	7/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. No evidence of collision or singe.	Unknown		1	ACC Building	640390, 3933521	NA
2016_226_ISEGS	Bank Swallow	BANS	Carcass Survey	7/18/2016	7/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries, secondaries, coverts in wings, tail singed off, singeing to lower left flank.	Scorched or singed	2~3	1	ACC Building	640383, 3933527	NA
2016_227_ISEGS	Cliff Swallow	CLSW	Carcass Survey	7/18/2016	7/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. No evidence of collision or singe.	Unknown		1	ACC Building	640350, 3933531	NA
2016_228_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	7/18/2016	7/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries, secondaries in both wings, tail singed off, singeing to both sides of face, rump, right and left lower flanks.	Scorched or singed	2~3	1	ACC Building	640384, 3933548	NA
2016_229_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	7/18/2016	7/19/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. No evidence of singe or collision.	Unknown		1	ACC Building	640405, 3933551	NA
2016_230_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	7/18/2016	7/18/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to every feature of carcass, with wings and tail feathers singed off.	Scorched or singed	2~3	1	Powerblock	640347, 3933485	NA
2016_231_ISEGS	Tree Swallow	TRES	Incidental	7/18/2016	7/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to retrices and along wings coverts, singe on left side of rump and nape.	Scorched or singed	1~3	3	Powerblock	637458, 3937955	NA
2016_232_ISEGS	Costa's Hummingbird	COHU	Incidental	7/18/2016	7/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to both wings and in tail, siniging to right side of face, right flank, and rump.	Scorched or singed	2~3	3	Powerblock	637469, 3937909	NA

2016_233_ISEGS	Tree Swallow	TRES	Incidental	7/18/2016	7/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries and coverts in both wings, singeing to tail and left upper back.	Scorched or singed	1~3	3	Powerblock	637435, 3937885	NA
2016_234_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	7/19/2016	7/19/2016	Feather spot	2 days	Feather spot size = large. 7 retrices, 12 remiges found in 2 clumps. No singe	Unknown		1	Heliostat	640136, 3933425	NA
2016_235_ISEGS	Unknown Swallow	UNSW	Carcass Survey	7/19/2016	7/19/2016	Broken up	3-6 days	Feather spot size = small. Partial right wing (outer primaries) with flesh at base, holding primaries together. No singe.	Unknown		1	Heliostat	640437, 3933352	NA
2016_236_ISEGS	Black-Throated Sparrow	BTSP	Incidental	7/21/2016	8/2/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole bird. Evidence of curling to all tail feathers, singeing to primaries and belly.	Scorched or singed	1~3	2	Powerblock	638651, 3935846	NA
2016_237_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	7/21/2016	7/21/2016	Broken up	2 days	Broken up carcass consisting of partial right wing, 4 primaries connected by dried tissue. Evidence of singeing to primaries, secondaries and coverts in both pieces of wings.	Scorched or singed	1	2	Powerblock	638626, 3935901	NA
2016_238_ISEGS	Costa's Hummingbird	COHU	Incidental	7/21/2016	7/21/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to several outer retrices, singeing to lower right flank and right side of face.	Scorched or singed	1~3	2	Powerblock	638613, 3935801	NA
2016_239_ISEGS	Tree Swallow	TRES	Incidental	7/22/2016	7/22/2016	alive, injured	0-8 hours	Alive when collected with singe present of right side of face. Curling and Singeing present on primaries, secondaries and retricies. Died in office of injuries later the same day of injuries.	Scorched or singed	2~3	2	Powerblock	638627, 3935833	NA
2016_240_ISEGS	Bullok's Oriole	BUOR	Incidental	7/25/2016	7/25/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass, Primaries and secondaries on right wing curled. Head and left side singed.	Scorched or singed	2~3	3	Powerblock	637456, 3937878	NA

2016_241_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	7/25/2016	7/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass with no evidence of singe or collision.	Unknown	3	Powerblock	637474, 3937961	NA	
2016_242_ISEGS	Cliff Swallow	CLSW	Incidental	7/25/2016	7/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. All primaries, secondaries and tail feathers curled. Sides, back, head and underparts singed.	Scorched or singed	2~3	3	Powerblock	637438, 3937979	NA
2016_243_ISEGS	Tree Swallow	TRES	Incidental	7/25/2016	7/25/2016	Mummified	2 weeks	Whole carcass, all secondaries, 80% of retricies and 60% of primaries curled. Rump and left side of head show signs of singeing.	Scorched or singed	2~3	3	Powerblock	637436, 3937948	NA
2016_244_ISEGS	Verdin	VERD	Incidental	7/25/2016	7/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Retricies and primary flight feathers curled. Back feathers singed.	Scorched or singed	2~3	3	Powerblock	637414, 3937905	NA
2016_245_ISEGS	Tree Swallow	TRES	Incidental	7/25/2016	7/25/2016	Mummified	2 weeks	Whole carcass, with all flight feathers curled or singed off. All parts on upperside of body show signs of singe.	Scorched or singed	2~3	3	Powerblock	637414, 3937893	NA
2016_246_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	7/25/2016	7/25/2016	Mummified	2 weeks	Whole carcass. All flight feathers curled or singed off. Singeing on the right and left side of body. Left side of face is singed.	Scorched or singed	2~3	3	Powerblock	637471, 3937901	NA
2016_247_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	7/25/2016	7/25/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Singeing present on primaries, secondaries and retricies. Left & Right Side of body singed	Scorched or singed	2~3	2	Powerblock	638653, 3935852	NA
2016_248_ISEGS	Unknown Hummingbird	UNHU	Incidental	7/28/2016	7/28/2016	Broken up	3-6 days	Broken up carcass. Mostly intact but head is detached from body. Tail feathers curled. Rump and secondaries singed.	Scorched or singed	1	3	Powerblock	637432, 3937883	NA

2016_249_ISEGS	Unknown Swallow	UNSW	Incidental	7/28/2016	7/28/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. All primaries & secondaries curled. Head, upperparts and underparts singed. Tail singed off.	Scorched or singed	2~3	3	Powerblock	637434, 3937925	NA
2016_250_ISEGS	Tree Swallow	TRES	Incidental	7/29/2016	7/29/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singe on primary 9 of left wing.	Scorched or singed	1	3	Powerblock	637385, 3937914	NA
2016_251_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	8/1/2016	8/1/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to ends of primaries and tail.	Scorched or singed	1	3	Powerblock	637421, 3937907	NA
2016_252_ISEGS	Cliff Swallow	CLSW	Carcass Survey	8/1/2016	8/1/2016	Broken up	2 weeks	Body cavity and head with right wing attached. Evidence of curling to primaries and secondaries on wing, singeing to head and left side of body.	Scorched or singed	2~3	3	Powerblock	637385, 3937938	NA
2016_253_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/1/2016	8/1/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singe on left side of nape.	Scorched or singed	1	3	Powerblock	637413, 3937983	NA
2016_254_ISEGS	Unknown Oriole	UNOR	Carcass Survey	8/1/2016	8/1/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries, secondaries, and in retrices, singeing to top of head.	Scorched or singed	1~3	3	Powerblock	637502, 3937937	NA
2016_255_ISEGS	Unknown Swallow	UNSW	Carcass Survey	8/1/2016	8/1/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to all flight feathers in both wings and in tail, singe to rump, upper back, and nape.	Scorched or singed	2~3	3	ACC Building	637476, 3937956	NA
2016_256_ISEGS	Cliff Swallow	CLSW	Carcass Survey	8/1/2016	8/1/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to several tertials in right wing.	Scorched or singed	1	3	ACC Building	637505, 3937963	NA
2016_257_ISEGS	House Finch	HOFI	Carcass Survey	8/1/2016	8/1/2016	Broken up	2 weeks	2 partial wings with the keel attached to the right wing. Evidence of curling present in flight feathers	Scorched or singed	Unk	3	Powerblock	637452, 3937862	NA

in both wings.

2016_258_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	8/1/2016	8/1/2016	Mummified	2 weeks	Whole carcass. Evidence of curling to primaries, secondaries, and in tail, singe present in top of head and upperparts.	Scorched or singed	2~3	3	Powerblock	637364, 3937991	NA
2016_259_ISEGS	Unknown Swallow	UNSW	Carcass Survey	8/2/2016	8/2/2016	Broken up	2 weeks	Broken up carcass consisting of 4 primaries held together by a piece of dried flesh, 10 individual primaries, 12 secondaries, and 5 body feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637397, 3938121	NA
2016_260_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	8/2/2016	8/2/2016	Broken up	3-6 days	Broken up carcass consisting of 3 primaries and 4 secondaries held together by flesh, 6 individual primaries, 7 secondaries, and 3 tertials. No evidence of singe or collision.	Unknown		3	Heliostat	637353, 3937755	NA
2016_261_ISEGS	Cliff Swallow	CLSW	Incidental	8/3/2016	8/3/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. No evidence of singe or collision.	Unknown		2	Powerblock	638584, 3935887	NA
2016_262_ISEGS	Cliff Swallow	CLSW	Carcass Survey	8/8/2016	8/8/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. All flight and tail feathers curled. Head, dorsal, and breast singed.	Scorched or singed	2~3	2	Powerblock	638663, 3935864	NA
2016_263_ISEGS	Lucy's Warbler	LUWA	Carcass Survey	8/8/2016	8/8/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. All flight feathers (excepting one right wing primary) singed to point of severe damage. Head, flanks, rump with singe.	Scorched or singed	2~3	2	ACC Building	638671, 3935907	NA
2016_264_ISEGS	Tree Swallow	TRES	Carcass Survey	8/8/2016	8/8/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. All primaries, secondaries, and tail feathers curled and singed. Rump, and	Scorched or singed	2~3	2	Powerblock	638575, 3935893	NA

								flanks, and top of head with singe.							
2016_265_ISEGS	Unknown Bird	UNBD	Carcass Survey	8/9/2016	8/9/2016	Broken up	3-6 days	Broken up carcass consisting of 10 contour feathers attached by skin. No evidence of collision or singe.	Unknown	2		Heliostat	638842, 3935883	NA	
2016_266_ISEGS	Yellow Warbler	YWAR	Incidental	8/9/2016	8/9/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to tail feathers and in right wing, singeing to left primaries and rump.	Scorched or singed	2	3	Powerblock	637441, 3937902	NA	
2016_267_ISEGS	Yellow Warbler	YWAR	Incidental	8/9/2016	8/9/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to primaries, secondaries, and in retrices, singeing to top of head.	Scorched or singed	1	3	Powerblock	637410, 3937912	NA	
2016_268_ISEGS	Black-Throated Sparrow	BTSP	Incidental	8/9/2016	8/9/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all remaining flight feathers, singeing to head and upper parts.	Scorched or singed	2~3	3	Powerblock	637451, 3937947	NA	
2016_269_ISEGS	Yellow Warbler	YWAR	Incidental	8/9/2016	8/9/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to head, face, nape, back, rump, and left axillary with all flight feathers in both wings and tail singed off.	Scorched or singed	2~3	3	Powerblock	637442, 3937958	NA	
2016_270_ISEGS	Yellow Warbler	YWAR	Incidental	8/9/2016	8/9/2016	alive, injured	0-8 hours	Whole Carcass. Evidence of curling to secondaries in left wing, singeing to primary coverts in right wing and in tail.	Scorched or singed	1	3	Powerblock	637463, 3937913	NA	
2016_271_ISEGS	Tree Swallow	TRES	Incidental	8/10/2016	8/10/2016	Mummified	1 month +	Whole carcass. Evidence of curling on primaries and secondaries of left wing, singeing to upper parts of body.	Scorched or singed	1	3	Powerblock	637382, 3937913	NA	
2016_272_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	8/15/2016	8/15/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing. No evidence of collision or singe.	Unknown	2		Heliostat	638006, 3936802	NA	

2016_273_ISEGS	Tree Swallow	TRES	Incidental	8/15/2016	8/15/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to secondaries and tertials in both wings and in tail, singeing to rump and left lower flank.	Scorched or singed	1~3	1	Powerblock	640417, 3933491	NA
2016_274_ISEGS	Mourning Dove	MODO	Incidental	8/15/2016	8/15/2016	Broken up	2 weeks	Broken up carcass consisting of body without head. Evidence of singeing to body feathers.	Scorched or singed	3	1	Powerblock	640361, 3933477	NA
2016_275_ISEGS	Tree Swallow	TRES	Incidental	8/15/2016	8/15/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to left side of rump, singeing to edges of secondaries, tertials in left wing.	Scorched or singed	1~3	1	Powerblock	640361, 3933490	NA
2016_276_ISEGS	Unknown Flycatcher	UNFL	Incidental	8/15/2016	8/15/2016	Feather spot	3-6 days	Feather spot size large, consisting of 2 primaries, 3 rectrices, 3 secondaries, 5 flight feathers, and 6 body feathers. Evidence of singe on all the flight feathers.	Scorched or singed	Unk	1	Powerblock	640364, 3933478	NA
2016_277_ISEGS	Unknown Small Bird	UNID	Incidental	8/15/2016	8/15/2016	Feather spot	3-6 days	Feather spot size large, consisting of 6 retrices, 5 contour feathers. Evidence of curling to all retrices.	Scorched or singed	Unk	1	Powerblock	640361, 3933478	NA
2016_278_ISEGS	Northern Mockingbird	NOMO	Incidental	8/15/2016	8/15/2016	Feather spot	3-6 days	Feather spot size large consisting of 4 primaries, 1 secondary, 1 retrix, 10 body feathers. No evidence of collision or singe.	Unknown		1	Powerblock	640367, 3933480	NA
2016_279_ISEGS	Unknown Small Bird	UNID	Incidental	8/15/2016	8/15/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing. Evidence of curling to all major flight feathers, singeing to coverts.	Scorched or singed	Unk	1	Powerblock	640360, 3933484	NA
2016_280_ISEGS	Unknown Swallow	UNSW	Incidental	8/15/2016	8/15/2016	Feather spot	3-6 days	Feather spot size small, consisting of 2 primaries. Evidence of curling to all feathers.	Scorched or singed	Unk	1	Powerblock	640364, 3933478	NA
2016_281_ISEGS	MacGillivray's Warbler	MGWA	Carcass Survey	8/16/2016	8/16/2016	Dead, Semi-fresh (eyes desiccated, rigor	3-6 days	Whole carcass. Evidence of singeing to all upperparts and breast, all flight feathers in wings and tail singed off.	Scorched or singed	2~3	1	ACC Building	640372, 3933524	NA

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2016_282_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/16/2016	8/16/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to retrices, flight feathers in wings singed off, singeing to head, nape, and rump.	Scorched or singed	2~3	1	ACC Building	640357, 3933521	NA
2016_283_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	8/16/2016	8/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers (singed off), singeing to all upperparts of body.	Scorched or singed	2~3	1	ACC Building	640349, 3933522	NA
2016_284_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/16/2016	8/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries, secondaries and retrices, singeing to head, neck, back, and rump.	Scorched or singed	2~3	1	ACC Building	640391, 3933543	NA
2016_285_ISEGS	Tree Swallow	TRES	Carcass Survey	8/16/2016	8/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers in wing and tail, singeing to top of head and back.	Scorched or singed	2~3	1	ACC Building	640368, 3933547	NA
2016_286_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	8/16/2016	8/16/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to tips of primaries on left wing, and top of head.	Scorched or singed	Unk	1	Powerblock	640274, 3933539	NA
2016_287_ISEGS	Western Kingbird	WEKI	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 4 retrices, 3 primaries, and 3 secondaries. No evidence of collision or singe.	Unknown		1	Heliostat	640507, 3933621	NA
2016_288_ISEGS	Unknown Swallow	UNSW	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size small, consisting of 4 primaires, 1 secondary, 1 retrix, and 5 body feathers. Evidence of singe on all flight feathers.	Scorched or singed	Unk	1	Heliostat	640481, 3933555	NA
2016_289_ISEGS	Killdeer	KILL	Carcass Survey	8/17/2016	8/17/2016	Feather spot	2 weeks	Feather spot size large, consisting of 6 retrices, 30 body feathers. No evidence of collision or	Unknown		1	Heliostat	640474, 3933545	NA

singe.

2016_290_ISEGS	Tree Swallow	TRES	Incidental	8/17/2016	8/17/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 weeks	Whole carcass. Evidence of singe on primaries of left wing.	Scorched or singed	1	3	Powerblock	637405, 3937946	NA
2016_291_ISEGS	Lesser Nighthawk	LENI	Incidental	8/17/2016	8/17/2016	Mummified	2 weeks	Whole carcass. No evidence of collision or singe.	Unknown		3	Powerblock	637462, 3937940	NA
2016_292_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/17/2016	8/17/2016	Broken up	2 weeks	Broken up carcass consisting of intact tail, sternum, 9 secondaries, 6 primaries, and 50 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640267, 3933279	NA
2016_293_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 5 retrices, 9 primaries, 6 secondaries, and 50 body feathers. Evidence of curling and singeing to secondaries and some body feathers.	Scorched or singed	Unk	1	Heliostat	640211, 3933397	NA
2016_294_ISEGS	Northern Mockingbird	NOMO	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size small, consisting of 3 primaries, 1 secondary. Evidence of curling on tips of flight feathers.	Scorched or singed	Unk	1	Heliostat	640212, 3933395	NA
2016_295_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/17/2016	8/17/2016	Feather spot	2 days	Feather spot size small, consisting of 1 primary, 2 flight feathers, and 16 body feathers. Evidence of curling to all flight feathers.	Scorched or singed	Unk	1	Heliostat	640212, 3933395	NA
2016_296_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 75 body feathers. Evidence of singe on several body feathers.	Scorched or singed	3	1	Heliostat	640156, 3933467	NA

2016_297_ISEGS	Killdeer	KILL	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 7 primaries, 2 secondaries, 30 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640144, 3933515	NA
2016_298_ISEGS	Lesser Nighthawk	LENI	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 8 primaries, 8 retrices, 6 secondaries, and 6 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640155, 3933544	NA
2016_299_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/17/2016	8/17/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No evidence of collision or singe.	Unknown		1	Heliostat	640146, 3933600	NA
2016_300_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/17/2016	8/17/2016	Feather spot	3-6 days	Feather spot size large, consisting of 2 retrices, 2 primaries, 4 secondaries, and 2 tertials. Evidence of singe on retrices.	Scorched or singed	Unk	1	Heliostat	640211, 3933397	NA
2016_301_ISEGS	Cliff Swallow	CLSW	Incidental	8/19/2016	8/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to all flight feathers; singeing to head, nape, and back.	Scorched or singed	2~3	2	Powerblock	638642, 3935880	NA
2016_302_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	8/20/2016	8/20/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to tail feathers and in right wing.	Scorched or singed	1	2	Powerblock	638640, 3935861	NA
2016_303_ISEGS	Northern Rough-winged Swallow	NRWS	Incidental	8/20/2016	8/20/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. No evidence of collision or singe.	Unknown		2	Powerblock	638646, 3935862	NA
2016_304_ISEGS	Unknown Small Bird	UNID	Incidental	8/24/2016	8/24/2016	Broken up	2 weeks	Broken up carcass consisting of partial left wing. Evidence of curling and singeing to all flight feathers.	Scorched or singed	Unk	3	Powerblock	637476, 3937931	NA
2016_305_ISEGS	Wilson's Warbler	WIWA	Incidental	8/26/2016	8/26/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Tail and tip of some primaries and secondaries curled. Nape, rump, and flanks singed.	Scorched or singed	1~3	3	Powerblock	637442, 3937890	NA

2016_306_ISEGS	Yellow Warbler	YWAR	Incidental	8/26/2016	8/26/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Singe on all primaries on right wing, left wing. Curling of secondaries on left wing, singe and curl on tail feathers, crown feathers, and contour feathers.	Scorched or singed	2	3	Powerblock	637428, 3937866	NA
2016_307_ISEGS	Yellow Warbler	YWAR	Incidental	8/26/2016	8/26/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Singe behind left eye, on nape. Rump with singe. Left wing with singe.	Scorched or singed	1~3	3	Powerblock	637433, 3937954	NA
2016_308_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, and tail, singeing to head, nape.	Scorched or singed	2~3	3	ACC Building	637465, 3937942	NA
2016_309_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Broken up	3-6 days	Broken up carcass consisting of 2 feet and legs, partial wings, 2 partial retrices, and 70 body feathers. Evidence of singe of flight feathers of partial wings.	Scorched or singed	Unk	3	Powerblock	637460, 3937873	NA
2016_310_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	8/29/2016	8/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Singe to tips of primaries in left wing.	Scorched or singed	1	3	Powerblock	637442, 3937896	NA
2016_311_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers in wings with tail being singed off, singeing to contour feathers.	Scorched or singed	2~3	3	Powerblock	637449, 3937913	NA
2016_312_ISEGS	Unknown Warbler	UNWA	Carcass Survey	8/29/2016	8/29/2016	Broken up	3-6 days	Broken up carcass consisting of body with detached head. Evidence of all flight feathers being singed off, singeing to majority of body feathers.	Scorched or singed	2~3	3	Powerblock	637448, 3937921	NA
2016_313_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/29/2016	8/26/2016	Broken up	2 weeks	Partial carcass, with partial skull, right leg, wings attached to sternum with partial ribs. Singe and curling present on all remaining feathers.	Scorched or singed	2~3	3	Powerblock	637436, 3937943	NA

2016_314_ISEGS	Rufous Hummingbird	RUHU	Carcass Survey	8/29/2016	8/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Tail singed off, curling in flight feathers in both wings. Singe on right and left side of face, on throat, back, and entire underside of body/	Scorched or singed	2~3	3	Powerblock	637401, 3937924	NA
2016_315_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	8/29/2016	8/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primary feathers.	Scorched or singed	1	3	Powerblock	637455, 3937939	NA
2016_316_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Broken up	2 days	Broken up carcass consisting of skull, both legs, part of lower torso, 95 body feathers, ten retrices, partial left and right wing. Evidence of singeing to head, flight feathers in left and right wing, and retrices.	Scorched or singed	2~3	3	Powerblock	637528, 3937929	NA
2016_317_ISEGS	Mourning Dove	MODO	Incidental	8/29/2016	8/29/2016	alive, injured	0-8 hours	Alive. Bird was found unable to fly, and was brought back to office for observation and rehab. No apparent injuries, possible fatigue and stress.	Unknown		3	Heliostat	637735, 3937868	CJM updated outcome and notes on 31 August 2016
2016_318_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. All flight feathers curled or singed off. Singe on all upperparts.	Scorched or singed	2~3	3	Powerblock	637550, 3937919	NA
2016_319_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/29/2016	8/29/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Curling on tips of primaries and secondaries. Singe on nape and back.	Scorched or singed	1~3	3	Powerblock	637442, 3937963	NA
2016_320_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	8/29/2016	8/29/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Head feathers singed. Some singe to flight feathers observed through microscope.	Scorched or singed	1~3	3	Berm	637357, 3937828	NA

2016_321_ISEGS	Unknown Swallow	UNSW	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Feather spot size small, consisting of 5 primaries, and 1 secondary. Evidence of curling to 3 primaries, singeing to other 2.	Scorched or singed	Unk	1	Powerblock	640291, 3933455	NA
2016_322_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to all major flight feathers in both wings and in tail, singeing to top of head and in left axillary.	Scorched or singed	2~3	1	ACC Building	640385, 3933520	NA
2016_323_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of singeing to throat, top of head, both sides of face, both axillaries, left flank, and all feathers in both wings and in tail singed off.	Scorched or singed	2~3	1	ACC Building	640380, 3933519	NA
2016_324_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to both wings, singe to head and body.	Scorched or singed	3	2	Powerblock	638635, 3935879	NA
2016_325_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	8/30/2016	8/30/2016	Mummified	2 weeks	Whole carcass. Evidence of curling to tail feathers and left primaries, singe to right primaries.	Scorched or singed	2~3	2	Powerblock	638683, 3935846	NA
2016_326_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to primaries, secondaries in both wings and in central rects, singeing to top of head and left side of face, left upper breast.	Scorched or singed	2~3	1	ACC Building	640378, 3933528	NA
2016_327_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, and in rectrices; singe on back and head, and in wing coverts.	Scorched or singed	2~3	1	ACC Building	640384, 3933531	NA
2016_328_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to flight feathers in right wing and several rects, singeing to greater/median coverts in	Scorched or singed	1	1	ACC Building	640358, 3933528	NA

left wing.

2016_329_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/30/2016	8/30/2016	Broken up	3-6 days	Feather spot size = small. Two left wing primaries and greater coverts intact with flesh. Singe present on primaries.	Scorched or singed	1	2	Powerblock	638681, 3935854	NA
2016_330_ISEGS	MacGillivray's Warbler	MGWA	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to all flight feathers in wings and tail, singe to right side of face.	Scorched or singed	2~3	1	ACC Building	640350, 3933534	NA
2016_331_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	9/6/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to primaries in left wing.	Scorched or singed	1	1	ACC Building	640405, 3933540	NA
2016_332_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to primaries and secondaries on right wing, tertials of left wing, and chin.	Scorched or singed	2~3	2	Heliostat	638539, 3936044	NA
2016_333_ISEGS	Mourning Dove	MODO	Carcass Survey	8/30/2016	8/30/2016	Broken up	3-6 days	Feather spot size = small. Left wing with 3 primaries, 2 coverts, right wing with 6 primaries, 4 coverts. 8 body feathers, 2 primaries, 5 rectrices. Singe on rectrices, secondaries, body feathers.	Scorched or singed	Unk	2	Powerblock	638645, 3935884	NA
2016_334_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Entire carcass singed with curling on wings and tail.	Scorched or singed	2~3	1	Powerblock	640372, 3933500	NA
2016_335_ISEGS	Black-Throated Sparrow	BTSP	Carcass Survey	8/30/2016	8/30/2016	Mummified	3-6 days	Whole carcass, head missing. Singe on all primaries, rectrices curled.	Scorched or singed	2~3	2	Powerblock	638639, 3935876	NA
2016_336_ISEGS	Verdin	VERD	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor)	3-6 days	Whole carcass. Evidence of curling to all flight feathers and rects with some particular feathers singed off, singe to wing	Scorched or singed	2~3	1	Powerblock	640376, 3933499	NA

						mortis)		coverts.						
2016_337_ISEGS	Unknown Grebe	UNGR	Carcass Survey	8/30/2016	8/30/2016	Feather spot	2 weeks	Feather spot size = large. 1000-2000 contour feathers. No singe.	Unknown	1		Powerblock	640369, 3933503	NA
2016_338_ISEGS	House Wren	HOWR	Carcass Survey	8/30/2016	8/30/2016	Broken up	1 month +	Broken up carcass consisting of partial left wing, 1 detached leg, exposed rib cage, skull, sternum, right wing, 50 body feathers. No evidence of collision or singe.	Unknown	2		Heliostat	638610, 3936066	NA
2016_339_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to secondaries and coverts in right wing.	Scorched or singed	1	2	ACC Building	638680, 3935913	NA
2016_340_ISEGS	Cliff Swallow	CLSW	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to flight feathers in wings and tail; singe to head and face.	Scorched or singed	2~3	2	ACC Building	638669, 3935881	NA
2016_341_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/30/2016	8/30/2016	Feather spot	3-6 days	Feather spot size small, consisting of 100+ body feathers. No evidence of collision or singe.	Unknown	1		Powerblock	640392, 3933484	NA
2016_342_ISEGS	Mourning Dove	MODO	Carcass Survey	8/30/2016	8/30/2016	Feather spot	3-6 days	Feather spot size small, consisting of 3 retrices, 1 body feather, 3 primaries, and 1 secondary. Evidence of singe to 1 of the primaries.	Scorched or singed	1	1	Powerblock	640390, 3933484	NA
2016_343_ISEGS	Black-Headed Grosbeak	BHGR	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Curling to flight feathers, with singeing to contour feathers.	Scorched or singed	2~3	2	ACC Building	638667, 3935907	NA

2016_344_ISEGS	Lucy's Warbler	LUWA	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. No evidence of collision or singe.	Unknown	2	ACC Building	638661, 3935895	NA	
2016_345_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers and tips of retrices, singe to head and back.	Scorched or singed	2~3	2	ACC Building	638653, 3935895	NA
2016_346_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singe to nape, back, and belly.	Scorched or singed	2~3	2	ACC Building	638637, 3935891	NA
2016_347_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to flight feathers in left wing with right wing and tail singed off, singeing to breast and rump.	Scorched or singed	2~3	2	ACC Building	638678, 3935881	NA
2016_348_ISEGS	Black-chinned Hummingbird	BCHU	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to tail feathers, singe to left side of face and right breast.	Scorched or singed	1~3	1	Powerblock	640287, 3933535	NA
2016_349_ISEGS	Yellow Warbler	YWAR	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Singe and curl on all flight feathers, and majority of head/dorsal area.	Scorched or singed	2~3	2	Powerblock	638617, 3935885	NA
2016_350_ISEGS	Mourning Dove	MODO	Carcass Survey	8/30/2016	8/30/2016	Feather spot	2 weeks	Feather spot size small, consisting of 2 primaries, 4 secondaries, 1 retrix, and 30 body feathers. No evidence of collision or singe.	Unknown		1	Powerblock	640361, 3933498	NA
2016_351_ISEGS	Unknown Swallow	UNSW	Carcass Survey	8/30/2016	8/30/2016	Broken up	2 days	Right wing, separated from carcass (not found). Singe and curl present on underwing primaries.	Scorched or singed	Unk	2	Powerblock	638565, 3935912	NA
2016_352_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	8/30/2016	8/30/2016	Dead, Semi-fresh (eyes desiccated,	3-6 days	Whole carcass, singed on tips of retrices.	Scorched or singed	1	1	Powerblock	640364, 3933500	NA

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2016_353_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/30/2016	8/30/2016	Feather spot	2 days	Feather spot size small consisting of 2 primaries. Evidence of singe on both primaries.	Scorched or singed	Unk	1	Powerblock	640355, 3933497	NA	
2016_354_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/30/2016	8/30/2016	Feather spot	2 days	Feather spot size = small. 1 secondary, 15 body feathers, 1 trailing secondary. Singe on secondary, visible under scope.	Scorched or singed	1	1	Powerblock	640354, 3933497	NA	
2016_355_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	8/30/2016	8/30/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primary and secondary covert feathers.	Scorched or singed	1	1	Powerblock	640271, 3933509	NA	
2016_356_ISEGS	Cinnamon Teal	CITE	Carcass Survey	8/30/2016	8/30/2016	Feather spot	3-6 days	Feather spot size large consisting of 8 secondaries, 5 tail feathers, and 50 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638583, 3936063	NA	
2016_357_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/30/2016	8/30/2016	Broken up	2 weeks	Broken up carcass consisting of partial wing composed of 4 primaries and 4 coverts. No evidence of collision or singe.	Unknown		2	Heliostat	638853, 3935881	NA	
2016_358_ISEGS	Unknown Teal	TEAL	Carcass Survey	8/31/2016	8/31/2016	Broken up	8-24 hours	Broken up carcass consisting of wing and part of breast, 9 retrices, and 25 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638233, 3936964	NA	
2016_359_ISEGS	Unknown Small Bird	UNID	Carcass Survey	8/31/2016	8/31/2016	Broken up	3-6 days	Feather spot size = small. Secondary feather with coverts and attached flesh. Singe on tip of secondary.	Scorched or singed	Unk	1	Heliostat	640334, 3933355	NA	
2016_360_ISEGS	Tree Swallow	TRES	Carcass Survey	8/31/2016	8/31/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass with singe present on entirety of body. Witnessed passing through flux by surveyors.	Scorched or singed	Unk	2	Powerblock	638680, 3935878	NA	

2016_361_ISEGS	Western Tanager	WETA	Incidental	8/31/2016	8/31/2016	alive, injured	0-8 hours	Alive. Singe on majority of body, flight feathers, tail.	Scorched or singed	2~3	2	Heliostat	638835, 3935838	NA
2016_362_ISEGS	Mourning Dove	MODO	Carcass Survey	8/31/2016	8/31/2016	Feather spot	3-6 days	Feather spot size = large. Six secondaries, 100+ body feathers. No singe.	Unknown		1	Heliostat	640600, 3933515	NA
2016_363_ISEGS	Rock Pigeon	ROPI	Carcass Survey	8/31/2016	8/31/2016	Feather spot	2 weeks	Feather spot size = large. 2 primaries, 10 secondary, 100+ body. Singe on tips of secondaries and majority of body feathers.	Scorched or singed	Unk	1	Heliostat	640525, 3933587	NA
2016_364_ISEGS	Unknown Teal	TEAL	Carcass Survey	8/31/2016	8/31/2016	Broken up	3-6 days	Broken up carcass consisting of right wing, partial left wing, 11 trailing secondaries, 20 secondaries, 23 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638334, 3936954	NA
2016_365_ISEGS	Cinnamon Teal	CITE	Carcass Survey	9/1/2016	9/1/2016	Broken up	3-6 days	Broken up carcass consisting of head only. Evidence of collision by beak being cracked and bent.	Collision with solar panel/heliostat		2	Heliostat	639647, 3935399	NA
2016_366_ISEGS	Western Tanager	WETA	Carcass Survey	9/1/2016	9/1/2016	Broken up	2 days	Broken up carcass consisting of entire body with exception of head, 109 body feathers. No evidence of collision of singe.	Unknown		2	Heliostat	639351, 3935576	NA
2016_367_ISEGS	Greater Roadrunner	GRRO	Carcass Survey	9/1/2016	9/1/2016	Feather spot	1 month +	Feather spot consisting of 6 retrices, 40 body feathers. Evidence of collision with broken shafts on feathers all pinned at one point in the heliostat worm drive.	Collision with solar panel/heliostat		2	Heliostat	637774, 3935735	NA
2016_368_ISEGS	Mourning Dove	MODO	Carcass Survey	9/1/2016	9/1/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. No evidence of collision or singe.	Unknown		2	Heliostat	637810, 3935325	NA
2016_369_ISEGS	Unknown Small Bird	UNID	Incidental	9/1/2016	9/1/2016	Broken up	2 weeks	Broken up carcass consisting of a partial left wing. No evidence of collision or singe.	Unknown		2	Heliostat	639409, 3935821	NA

2016_370_ISEGS	Semipalmated Sandpiper	SESA	Incidental	9/4/2016	9/4/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass, Singeing present on crown, nape, scapulars, and back	Scorched or singed	2~3	2	Powerblock	638635, 3935888	NA
2016_371_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	alive, injured	NA	NA	Scorched or singed	2~3	NA	NA	637483, 3937771	NA
2016_372_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	9/5/2016	9/5/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass, Primaries, secondaries and retricies show curling with some singed off. All body feathers show some singeing.	Scorched or singed	2~3	3	ACC Building	637483, 3937955	NA
2016_373_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass, 70% of primaries and secondaries curled. Retricies curled at tip. Top of head singed.	Scorched or singed	2~3	3	ACC Building	637501, 3937979	NA
2016_374_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass, singe on head, neck and flight feathers.	Scorched or singed	1~3	3	ACC Building	637479, 3937979	NA
2016_375_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	8-24 hours	Whole Carcass, Singeing on tips of all primaries and on 6 retricies.	Scorched or singed	2	3	ACC Building	637455, 3937980	NA
2016_376_ISEGS	Western Tanager	WETA	Carcass Survey	9/5/2016	9/5/2016	alive, injured	NA	NA	Scorched or singed	2~3	NA	NA	637477, 3937848	NA
2016_377_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass, All flight feathers curled/singed. Singeing to nape, crown, back.	Scorched or singed	2~3	3	Heliostat	637418, 3937809	NA
2016_378_ISEGS	Lesser Goldfinch	LEGO	Carcass Survey	9/5/2016	9/5/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole Carcass, Curling on tertial feathers. Singeing on inner retricies.	Scorched or singed	1	3	Heliostat	637250, 3937888	NA

2016_379_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Broken up	0-8 hours	Broken up, 2 legs, 35 body feathers, partial left wing with 5 primaries a cluster of connected body feathers, Nine primaries from right wing, 8 retricies, 18 secondaries and 7 coverts. Singeing to primaries.	Scorched or singed	1~3	3	Heliostat	637391, 3937819	NA
2016_380_ISEGS	Western Tanager	WETA	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass, all primaries, secondaries and tail feathers singed off. Most of upper and underparts singed.	Scorched or singed	2~3	3	Powerblock	637479, 3937936	NA
2016_381_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	9/5/2016	9/5/2016	alive, injured	NA	NA	Scorched or singed	2~3	NA	NA	637520, 3937932	NA
2016_382_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass, Curling of Primaries, secondaries and retricies. Singed contour feathers on head and breast	Scorched or singed	2~3	3	Powerblock	637529, 3937922	NA
2016_383_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass, curling and singe of flight feathers and body feathers.	Scorched or singed	2~3	3	Powerblock	637487, 3937934	NA
2016_384_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	alive, injured	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to crown, nape, and flanks.	Scorched or singed	2~3	3	Powerblock	637477, 3937924	NA
2016_385_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass, all primaries and secondaries curled. Tail singed off. Head, back and rump is singed.	Scorched or singed	2~3	3	Powerblock	637427, 3937876	NA
2016_386_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Primaries, secondaries and retricies singed off. Singed on majority of upperparts and underparts.	Scorched or singed	2~3	3	Powerblock	637437, 3937879	NA
2016_387_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Primaries, secondaries and retricies singed off. Singed on all of upperparts. Head and Face singed.	Scorched or singed	2~3	3	Powerblock	637466, 3937867	NA

2016_388_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Right wing primaries and secondaries singed. 6th and 7th secondary curled. One tail feather singed.	Scorched or singed	1	3	Heliostat	637584, 3937982	NA
2016_389_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass. All primaries, secondaries and retricies curled. Rump, back, and nape singed.	Scorched or singed	2~3	3	Heliostat	637579, 3937942	NA
2016_390_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/5/2016	9/5/2016	Feather spot	3-6 days	Featherspot, 35 body feathers with no singe present.	Unknown		3	Powerblock	637385, 3937943	NA
2016_391_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	9/5/2016	9/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass, singeing present on nape.	Scorched or singed	1~3	3	Berm	637464, 3938062	NA
2016_392_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to tertials with tail singed off and flight feathers in wings nearly singed off, singeing to all dorsal contour feathers and face.	Scorched or singed	2~3	2	ACC Building	638679, 3935907	NA
2016_393_ISEGS	Tree Swallow	TRES	Carcass Survey	9/6/2016	9/6/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers in wings with tail singed off, singeing present on back, face, cap, and gape.	Scorched or singed	2~3	2	ACC Building	638677, 3935884	NA
2016_394_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/6/2016	9/6/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singeing to head and breast with all flight feathers in wings and tail singed off.	Scorched or singed	2~3	2	ACC Building	638641, 3935883	NA
2016_395_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/6/2016	9/6/2016	Broken up	1 month +	Broken up carcass consisting of right side of rib cage, vertebrae, skin and contour feathers. No evidence of collision or singe.	Unknown		2	Powerblock	638695, 3935873	NA

2016_396_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/6/2016	9/6/2016	Feather spot	3-6 days	Feather spot size large, consisting of 3 primaries, 6 secondaries, and a cluster of body feathers and 1 wing covert. Evidence of singeing to primary in right wing.	Scorched or singed	Unk	1	Powerblock	640354, 3933478	NA
2016_397_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to head, nape, back, and rump, with majority of flight feathers singed off.	Scorched or singed	2~3	2	Powerblock	638664, 3935868	NA
2016_398_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/6/2016	9/6/2016	Feather spot	2 days	Feather spot size small, consisting of 3 primaries, 1 outer rect, 10 contour feathers. Evidence of singe on primaries, curling to retrice.	Scorched or singed	Unk	1	Powerblock	640353, 3933479	NA
2016_399_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries and retrices, singeing to wing coverts, breast and head.	Scorched or singed	2~3	2	Powerblock	638626, 3935881	NA
2016_400_ISEGS	Mourning Dove	MODO	Carcass Survey	9/6/2016	9/6/2016	Feather spot	3-6 days	Feather spot size large consisting of 3 primaries, 1 secondary, 11 retrices, 2 clumps of body feathers. Evidence of singeing to retrices.	Scorched or singed	Unk	1	Powerblock	640358, 3933487	NA
2016_401_ISEGS	Nashville Warbler	NAWA	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to nape.	Scorched or singed	2~3	2	Powerblock	638603, 3935924	NA
2016_402_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	9/6/2016	9/6/2016	alive, injured	0-8 hours	Whole carcass. Evidence of curling to retrices, singeing to breast, neck, and head.	Scorched or singed	1~3	1	Powerblock	640282, 3933507	NA
2016_403_ISEGS	Unknown Bunting	UNBU	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to majority of flight feathers, singeing to head, belly, nape, rump, and chest.	Scorched or singed	2~3	2	Powerblock	638659, 3935873	NA
2016_404_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	9/6/2016	9/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass in addition to 4 retrices. Evidence of curling to tail feathers, singeing to primary and secondary flight feathers,	Scorched or singed	2~3	2	Powerblock	638574, 3935848	NA

on 2 body feathers.

2016_413_ISEGS	Unknown Waterfowl	UNWF	Carcass Survey	9/7/2016	9/7/2016	Broken up	2 days	Feather spot size large, consisting of 50 body feathers. No evidence of collision or singe.	Unknown	1	Heliostat	640480, 3933464	NA	
2016_414_ISEGS	Lazuli Bunting	LAZB	Incidental	9/7/2016	9/7/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to tail feathers, singeing to top of head and rump.	Scorched or singed	Unk	2	Powerblock	638676, 3935883	NA
2016_415_ISEGS	American Avocet	AMAV	Carcass Survey	9/8/2016	9/8/2016	Broken up	2 weeks	Broken up carcass consisting of partial wing, 5 primaries, 10 secondaries, and 75 contour feathers. No evidence of collision or singe.	Unknown	2	Heliostat	639481, 3936942	NA	
2016_416_ISEGS	Yellow Warbler	YWAR	Incidental	9/8/2016	9/8/2016	Broken up	2 days	Broken up carcass consisting of partial left wing. Evidence of slight singeing to edge of inner webs of secondaries.	Scorched or singed	Unk	3	Powerblock	638626, 3935626	NA
2016_417_ISEGS	Yellow Warbler	YWAR	Incidental	9/8/2016	9/8/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to right side or rectrices, singeing to tips of primaries and right flank.	Scorched or singed	1~3	3	Powerblock	638567, 3935829	NA
2016_418_ISEGS	Hermit Warbler	HEWA	Incidental	9/8/2016	9/8/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all major flight feathers, singeing to all parts of body except abdomen and flanks.	Scorched or singed	2~3	3	Powerblock	638589, 3935892	NA
2016_419_ISEGS	Brown-headed cowbird	BHCO	Incidental	9/9/2016	9/9/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 weeks	Whole carcass. Evidence of curling to rectrices, secondaries, and rectrices, singeing to head and body.	Scorched or singed	2~3	2	Powerblock	638656, 3935854	NA
2016_420_ISEGS	Blue-Gray Gnatcatcher	BGGN	Incidental	9/9/2016	9/9/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe on 1 primary in right wing.	Scorched or singed	Unk	1	Powerblock	640382, 3933503	NA

2016_421_ISEGS	Black-Throated Sparrow	BTSP	Incidental	9/9/2016	9/9/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. No evidence of singe or collision.	Unknown	1		Powerblock	640354, 3933490	NA
2016_422_ISEGS	Orange-crowned Warbler	OCWA	Incidental	9/10/2016	9/10/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, and rectrices. Singeing to back, head, and left flank.	Scorched or singed	2~3	2	Powerblock	638619, 3935848	NA
2016_423_ISEGS	Cliff Swallow	CLSW	Incidental	9/11/2016	9/11/2016	Mummified	2 weeks	Whole carcass. Evidence of singe on most flight feathers.	Scorched or singed	2	3	Powerblock	637417, 3937958	NA
2016_424_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to primaries and secondaries, retrices singed off, singeing to head, back, and on wings.	Scorched or singed	2~3	3	ACC Building	637470, 3937943	NA
2016_425_ISEGS	Say's Phoebe	SAPH	Carcass Survey	9/12/2016	9/12/2016	Mummified	3-6 days	Whole carcass. Evidence of singeing to retrices and upper chest area.	Scorched or singed	1	3	ACC Building	637454, 3937955	NA
2016_426_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe to head nape, and right side of face.	Scorched or singed	1	3	ACC Building	637490, 3937977	NA
2016_427_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to retrices.	Scorched or singed	1	3	Powerblock	637485, 3937960	NA
2016_428_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 days	Broken up carcass consisting of partial left wing comprised of 9 primaries and coverts. Evidence of singe on primaries.	Scorched or singed	Unk	3	Powerblock	637431, 3937926	NA
2016_429_ISEGS	Unknown Warbler	UNWA	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of 2 wings, 15 primaries, and 6 secondaries. Evidence of curling to seven primaries.	Scorched or singed	Unk	3	Powerblock	637437, 3937917	NA

2016_430_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. No evidence of singe or collision.	Unknown		3	Heliostat	637269, 3937982	NA
2016_431_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of 3 different portions of a wing. Curling to all flight feathers.	Scorched or singed	Unk	3	Powerblock	637411, 3937918	NA
2016_432_ISEGS	Mourning Dove	MODO	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing. No evidence of collision or singe.	Unknown		3	Powerblock	637489, 3937852	NA
2016_433_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries in left wing with right wing and tail singed off, singeing to crown, breast, legs, flanks, belly, and face.	Scorched or singed	2~3	3	Powerblock	637447, 3937849	NA
2016_434_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers, singeing to body and rump.	Scorched or singed	2	3	Powerblock	637421, 3937911	NA
2016_435_ISEGS	Horned Lark	HOLA	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 weeks	Broken up carcass consisting of partial left wing comprised of seven primaries, four secondaries, and wing coverts. No evidence of singe or collision.	Unknown		3	Powerblock	637415, 3937926	NA
2016_436_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 days	Broken up carcass consisting of partial wing portion and 1 primary. Evidence of singe on 3 primaries.	Scorched or singed	Unk	3	Powerblock	637438, 3937930	NA
2016_437_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 weeks	Broken up carcass consisting of base of 2 flight feathers still attached to underwing coverts by dried skin, 3 primaries, 2 retrices, 2 contour feathers. No evidence of singe or collision.	Unknown		2	Heliostat	639012, 3936175	NA

2016_438_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to all flight feathers, extensive singeing on head, back, and rump.	Scorched or singed	2	3	Powerblock	637458, 3937926	NA
2016_439_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to tips of tail feathers and right side of face.	Scorched or singed	1	3	Heliostat	637316, 3938079	NA
2016_440_ISEGS	Chestnut-sided Warbler	CSWA	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to all flight feathers in wings, singeing to crown, nape, back, and rump.	Scorched or singed	2~3	3	Powerblock	637458, 3937929	NA
2016_441_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries and retrices, secondaries on right wing curled, singeing to back.	Scorched or singed	2~3	3	Powerblock	637470, 3937926	NA
2016_442_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 days	Broken up carcass consisting of base of right wing. Evidence of curling to secondaries, singeing to coverts.	Scorched or singed	Unk	3	Powerblock	637472, 3937926	NA
2016_443_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of body and head together, left wing, and right wing detached from each other. Evidence of curling to flight feathers and wing coverts, singeing to head and back.	Scorched or singed	3	3	Powerblock	637481, 3937918	NA
2016_444_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of head, 2 detached wings. Evidence of curling to primaries in left wing, singeing to crown, and in flight feathers.	Scorched or singed	2~3	3	Powerblock	637467, 3937920	NA
2016_445_ISEGS	Unknown Dove	UNDV	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of right tarsus, 15 body feathers. Evidence of singe on 3 contour feathers.	Scorched or singed	Unk	3	Powerblock	637468, 3937912	NA

2016_446_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	9/12/2016	9/12/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to crown, face, back, and rump, with all flight feathers singed off.	Scorched or singed	2~3	3	Powerblock	637459, 3937913	NA
2016_447_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of body with tail but without head and wings, partial detached left wing consisting of 5 primaries. Evidence of singe on 2 retrices.	Scorched or singed	1	3	Powerblock	637393, 3037884	NA
2016_448_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/12/2016	9/12/2016	Broken up	2 weeks	Broken up carcass consisting of left side of torso with leg and tail. Evidence of curling to edges of rects and singeing to back.	Scorched or singed	3	3	Heliostat	637561, 3937787	NA
2016_449_ISEGS	Say's Phoebe	SAPH	Carcass Survey	9/12/2016	9/12/2016	Mummified	1 month +	Whole carcass. Evidence of singeing to tips of all primaries.	Scorched or singed	1	3	Powerblock	637400, 3937949	NA
2016_450_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Mummified	2 weeks	Whole carcass. Evidence of singe with both wings and tail singed off, and singeing to body.	Scorched or singed	2~3	3	Powerblock	637405, 3937951	NA
2016_451_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of both wings, 6 retrices, two legs, and a partial skeleton. Evidence of curling to primaries in both wings, singeing to tail.	Scorched or singed	2~3	3	Powerblock	637395, 3937960	NA
2016_452_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/12/2016	9/12/2016	Feather spot	3-6 days	Feather spot size small consisting of 25 body feathers. Evidence of singeing to body feathers.	Scorched or singed	3	3	Powerblock	637397, 3937959	NA
2016_453_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	9/12/2016	9/12/2016	Broken up	3-6 days	Broken up carcass consisting of head and body cavity with right wing and both legs attached, left wing. Evidence of singe to crown above bill on head.	Scorched or singed	3	3	Powerblock	637379, 3937981	NA

2016_454_ISEGS	Unknown Gnatcatcher	UNGN	Carcass Survey	9/12/2016	9/12/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries and secondaries, retrices singed off, singeing to head, breast, and wings.	Scorched or singed	2~3	3	Powerblock	637452, 3937945	NA
2016_455_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. Singeing on left wing and extensive singeing on the tail.	Scorched or singed	1	2	Powerblock	638625, 3935841	NA
2016_456_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Curling to left wing with right wing and tail singed off. Singe on all ventral plumage, left axillary, right and left side of face.	Scorched or singed	2~3	1	ACC Building	640408, 3933521	NA
2016_457_ISEGS	Brewer's Sparrow	BRSP	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to retrices and primaries in both wings, singe to side of face.	Scorched or singed	1~3	2	Powerblock	638555, 3935890	NA
2016_458_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to right wing, retracts and left wing singed off, singe to left face, nape, left and right flanks, back, and rump.	Scorched or singed	2~3	1	ACC Building	640387, 3933521	NA
2016_459_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to remaining of retrices, singe to tips of primaries and in both flanks and axillaries.	Scorched or singed	1~3	2	Powerblock	638642, 3935933	NA
2016_460_ISEGS	Hermit Warbler	HEWA	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to tail feathers, primaries, and secondaries, singeing to head, rump, and breast.	Scorched or singed	2~3	1	ACC Building	640397, 3933530	NA
2016_461_ISEGS	Chipping Sparrow	CHSP	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling on tips of tail feathers and primaries. breast and head singed.	Scorched or singed	2~3	1	ACC Building	640366, 3933528	NA

2016_462_ISEGS	Brewer's Sparrow	BRSP	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole Carcass. Breast, throat, and head singed. Retricies curled.	Scorched or singed	1~3	1	ACC Building	640373, 3933542	NA
2016_463_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole Carcass. All primaries and secondaries show some curling. Retricies singed off. Rump Singed.	Scorched or singed	2~3	2	ACC Building	638643, 3935881	NA
2016_464_ISEGS	Wilson's Warbler	WIWA	Carcass Survey	9/13/2016	9/13/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Evidence of singeing to all flight feathers including primaries, secondaries, and tail feathers, back, and rump.	Scorched or singed	2~3	2	ACC Building	638635, 3935881	NA
2016_465_ISEGS	Peregrine Falcon	PEFA	Carcass Survey	9/13/2016	9/13/2016	alive, injured	0-8 hours	Whole carcass. Bird was brought in as an injury and later processed as a SPUT. Evidence of curling to primaries, secondaries, and rects, singeing to left side of breast, face, and eye.	Scorched or singed	2~3	1	Powerblock	640410, 3933484	NA
2016_466_ISEGS	Unknown Flycatcher	UNFL	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole Carcass. All primaries on right wing and part of left wing curled. Tip of tail singed. Left flank and breast singed.	Scorched or singed	2~3	2	Powerblock	638620, 3935900	NA
2016_467_ISEGS	House Finch	HOFI	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to retrices and secondaries, and primaries, singeing to head, back, rump, and breast.	Scorched or singed	2~3	2	Powerblock	638625, 3935931	NA
2016_468_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe to right side of breast.	Scorched or singed	1~3	2	Powerblock	638733, 3935893	NA
2016_469_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	9/13/2016	9/13/2016	Broken up	8-24 hours	Broken up. Partial right wing with two primaries. 6 unattached primaries, 4 greater coverts, 20 body feathers and 2	Unknown		2	Heliostat	638700, 3935619	NA

								secondaries. No evidence of collision or flux effect.							
2016_470_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Feather spot	2 days	Feather spot. 5 secondaries from left wing, 2 secondaries from right wing, 3 retricies and 3 contour feathers. Contour feathers singed. Secondaries and retricies curled.	Scorched or singed	Unk	1	Powerblock	640351, 3933507	NA	
2016_471_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/13/2016	9/13/2016	Feather spot	3-6 days	Feather Spot size small consisting of 1 secondary, 10 contour feathers. Evidence of singe on some contour feathers.	Scorched or singed	Unk	1	Powerblock	640365, 3933509	NA	
2016_472_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/13/2016	9/13/2016	Broken up	3-6 days	Broken up. 20 body feathers held together by a piece of flesh. Tips of body feathers singed.	Scorched or singed	3	1	Powerblock	640365, 3933506	NA	
2016_473_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/13/2016	9/13/2016	Feather spot	3-6 days	Feather spot size small, consisting of 2 flight feathers, 10 contour feathers. Evidence of curling to both flight feathers, singeing to contour feathers.	Scorched or singed	3	1	Powerblock	640380, 3933507	NA	
2016_474_ISEGS	Lesser Nighthawk	LENI	Carcass Survey	9/13/2016	9/13/2016	Feather spot	2 days	Featherspot. 9 primaries, 7 retricies, 8 secondaries and 12 contour feathers. No evidence of collision or flux.	Unknown		1	Powerblock	640397, 3933484	NA	
2016_475_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	9/13/2016	9/13/2016	Feather spot	2 weeks	Feather spot size small consisting of 3 primaries. No evidence of collision or singe.	Unknown		1	Powerblock	640372, 3933481	NA	
2016_476_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/13/2016	9/13/2016	Feather spot	3-6 days	Feather spot, cluster of 15 contour feathers. No evidence of collision or flux.	Unknown		3	Powerblock	637457, 3937979	NA	
2016_477_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Broken up	2 weeks	Broken up carcass consisting of head, wings, and ribcage. Evidence of curling to left wing, singe to top of head.	Scorched or singed	Unk	2	Heliostat	638776, 3935984	NA	

2016_478_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/13/2016	9/13/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Primaries, secondaries and retricies curled. Head, face, back and left flank singed.	Scorched or singed	2~3	1	Powerblock	640394, 3933495	NA
2016_479_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	9/14/2016	9/14/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to retrices, singeing to flight feathers in left wing, crown, face, breast, and belly.	Scorched or singed	2~3	1	Heliostat	640269, 3933669	NA
2016_480_ISEGS	Lesser Nighthawk	LENI	Carcass Survey	9/14/2016	9/14/2016	Feather spot	0-8 hours	Feather spot size small consisting of 1 secondary, 70 contour feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640398, 3933398	NA
2016_481_ISEGS	Western Kingbird	WEKI	Carcass Survey	9/14/2016	9/14/2016	Feather spot	2 days	Feather spot size small, consisting of 7 secondaries, 23 contour feathers, 3 retrices. Evidence of curling to 1 secondary, singeing to secondaries, and rects.	Scorched or singed	3	1	Heliostat	640154, 3933509	NA
2016_482_ISEGS	Orange-crowned Warbler	OCWA	Incidental	9/14/2016	9/14/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries and secondaries and to retrices, singeing to head, flanks, rump.	Scorched or singed	2~3	2	Powerblock	638616, 3935824	NA
2016_483_ISEGS	Brewer's Sparrow	BRSP	Incidental	9/14/2016	9/14/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to head, and breast.	Scorched or singed	2~3	3	Powerblock	637422, 3937870	NA
2016_484_ISEGS	Cassin's Kingbird	CAKI	Incidental	9/15/2016	9/15/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. Secondaries and retricies curled. Primaries, back, head and breast singed.	Scorched or singed	1~3	2	Powerblock	638657, 3935845	NA
2016_485_ISEGS	Lesser Goldfinch	LEGO	Incidental	9/15/2016	9/15/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. No evidence of singe of collision.	Unknown		3	Powerblock	637506, 3937909	NA
2016_486_ISEGS	Yellow Warbler	YWAR	Incidental	9/15/2016	9/15/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to left axillary, nape, both sides of head, crown, wing coverts, with	Scorched or singed	2~3	3	Powerblock	637424, 3937886	NA

								all major flight feathers singd off.							
2016_487_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	9/16/2016	9/16/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to flight feathers in left wing and tail and tertial in right wing, singe to top of head.	Scorched or singed	1~2	3	Powerblock	637437, 3937889	NA	
2016_488_ISEGS	Townsend's Warbler	TOWA	Incidental	9/16/2016	9/16/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. No evidence of collision or singe.	Unknown		3	Heliostat	637414, 3937750	NA	
2016_489_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	9/19/2016	9/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries in left wing and in tail. Singeing to head and left side of face, nape, upper back, and upper tail coverts.	Scorched or singed	1~3	3	ACC Building	637501, 3937943	NA	
2016_490_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	9/19/2016	9/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to all flight feathers, singe to rump, shoulders and crown.	Scorched or singed	2~3	3	ACC Building	637494, 3937942	NA	
2016_491_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/19/2016	9/19/2016	Feather spot	3-6 days	Feather spot size large consisting of 5 retrices, 5 primaries, 3 secondaries, 3 coverts, and 8 contour feathers. Evidence of curling to retrices.	Scorched or singed	Unk	3	Heliostat	637468, 3937788	NA	
2016_492_ISEGS	Black-throated Gray Warbler	BTYW	Carcass Survey	9/19/2016	9/19/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to all major flight feathers, singe to rump, head, and coverts in both wings.	Scorched or singed	1~2	3	ACC Building	637468, 3937954	NA	
2016_493_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	9/19/2016	9/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to head, face, and back.	Scorched or singed	2~3	3	ACC Building	637485, 3937954	NA	
2016_494_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	9/19/2016	9/19/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to majority of flight feathers, singe to head, back, and rump.	Scorched or singed	2~3	3	ACC Building	637499, 3937967	NA	

2016_495_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	9/19/2016	9/19/2016	alive, injured	0-8 hours	Alive bird. Evidence of curling to primaries, secondaries, and retrices, singeing to crown and nape.	Scorched or singed	2~3	3	Powerblock	637497, 3937926	NA
2016_496_ISEGS	Red-necked Phalarope	RNPH	Carcass Survey	9/19/2016	9/19/2016	Broken up	3-6 days	Broken up carcass consisting of partial right wing comprised of primaries, and head with exposed neck. Evidence of curling to primaries.	Scorched or singed	3	3	Powerblock	637415, 3937842	NA
2016_497_ISEGS	Black-tailed Gnatcatcher	BTGN	Carcass Survey	9/19/2016	9/19/2016	Broken up	3-6 days	Broken up carcass consisting of skeleton, 30 body feathers, 18 primaries, 6 secondaries, 3 retrices. Evidence of curling to 4 primaries.	Scorched or singed	Unk	3	Powerblock	637507, 3937942	NA
2016_498_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/19/2016	9/19/2016	Broken up	3-6 days	Broken up carcass consisting of partial wing portion with 9 additional primaries. Evidence of singe on tips of 2 primaries.	Scorched or singed	Unk	3	Powerblock	637446, 3937977	NA
2016_499_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/19/2016	9/19/2016	Broken up	2 days	Broken up carcass consisting of partial wing piece comprised of 2 flight feathers, 3 coverts, and 3 body feathers held together by skin. Evidence of singe to both flight feathers.	Scorched or singed	Unk	3	Powerblock	637445, 3937973	NA
2016_500_ISEGS	Western Tanager	WETA	Carcass Survey	9/20/2016	9/20/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Evidence of curling to majority of flight feathers.	Scorched or singed	2	2	Heliostat	639165, 3935966	NA
2016_501_ISEGS	Orange-crowned Warbler	OCWA	Carcass Survey	9/20/2016	9/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to all major flight feathers, singeing to head, back, rump and belly.	Scorched or singed	2~3	1	ACC Building	640359, 3933529	NA
2016_502_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	9/20/2016	9/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to rectx, left wing coverts, breast and crown.	Scorched or singed	1~3	2	ACC Building	638654, 3935919	NA

2016_503_ISEGS	Vaux's swift	VASW	Carcass Survey	9/20/2016	9/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to flight feathers in left wing, singeing to primary and secondaries in right wing, neck, back, rump, and crown.	Scorched or singed	2~3	2	ACC Building	638647, 3935900	NA
2016_504_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/20/2016	9/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 6 primaries, 1 secondary, 3 body feathers/ Evidence of singeing to flight feathers and body feathers.	Scorched or singed	1	1	Powerblock	640412, 3933461	NA
2016_505_ISEGS	Chipping Sparrow	CHSP	Carcass Survey	9/20/2016	9/20/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. No evidence of collision or singe.	Unknown		2	Powerblock	638648, 3935869	NA
2016_506_ISEGS	Greater Roadrunner	GRRO	Carcass Survey	9/20/2016	9/20/2016	Feather spot	1 month +	Feather spot size large consisting of 6 primaries, 3 secondaries, 1 wing coverts, 3 retrices. No evidence of collision or singe.	Unknown		2	Heliostat	638998, 3936151	NA
2016_507_ISEGS	Mourning Dove	MODO	Carcass Survey	9/20/2016	9/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 3 secondaries, 2 flight feathers, 20 wing coverts, and 20 contour feathers. Evidence of curling to secondary, singeing to coverts and flight feathers.	Scorched or singed	Unk	1	Powerblock	640357, 3933500	NA
2016_508_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/20/2016	9/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 1 primary, 7 flight feathers. Evidence of curling to all flight feathers.	Scorched or singed	Unk	1	Powerblock	640359, 3933499	NA
2016_509_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	9/20/2016	9/20/2016	Broken up	3-6 days	Broken up carcass consisting of partial carcass with missing head and abdomen. Evidence of curling to primaries and secondaries and retrices, singeing to wing coverts.	Scorched or singed	2~3	2	Powerblock	638604, 3935829	NA

2016_510_ISEGS	Yellow Warbler	YWAR	Incidental	9/20/2016	9/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, and retrices, singeing to head and left flank.	Scorched or singed	2~3	3	ACC Building	637450, 3937954	NA
2016_511_ISEGS	Horned Lark	HOLA	Carcass Survey	9/20/2016	9/20/2016	Feather spot	3-6 days	Feather spot size small, consisting of 8 primaries, 11 secondaries, 4 rects, 1 wing coverts and 1 contour feather. Evidence of singeing to edge of rects and secondaries.	Scorched or singed	Unk	1	Powerblock	640432, 3933520	NA
2016_512_ISEGS	Violet-green Swallow	VGSW	Incidental	9/20/2016	9/20/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries and secondaries, retrices singed off, head and back singed.	Scorched or singed	2~3	3	Powerblock	637461, 3937930	NA
2016_513_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	9/20/2016	9/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 9 retrices, 6 primaries, 12 secondaries, 100 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638614, 3936242	NA
2016_514_ISEGS	Green-winged Teal	GWTE	Incidental	9/21/2016	9/21/2016	Feather spot	3-6 days	Feather spot size small, consisting of 5 secondaries, 1 trailing secondaries, 3 wing coverts, 1 underwing covert. No evidence of collision or singe.	Unknown		2	Heliostat	637727, 3936698	NA
2016_515_ISEGS	Rock Pigeon	ROPI	Carcass Survey	9/21/2016	9/21/2016	Feather spot	3-6 days	Feather spot size large consisting of 20 secondaries, 12 primaries, 6 retrices, and 200 body feathers. Evidence of curling to retrices and some secondaries.	Scorched or singed	1	1	Heliostat	640492, 3933684	NA
2016_516_ISEGS	Vaux's swift	VASW	Carcass Survey	9/21/2016	9/21/2016	Feather spot	2 days	Feather spot size large consisting of 3 left primaries, 1 left secondary, 1 rect, 5 flight feathers, and 20 contour feathers. Evidence of curling to flight feathers, singeing to retrice and wing coverts.	Scorched or singed	Unk	1	Heliostat	640480, 3933414	NA

2016_517_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/21/2016	9/21/2016	Feather spot	1 month +	Feather spot size small consisting of 2 primaries. No evidence of collision or singe.	Unknown	1		Heliostat	640491, 3933582	NA
2016_518_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	9/21/2016	9/21/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singe on edge of rects and primaries.	Scorched or singed	1	2	Heliostat	637838, 3936460	NA
2016_519_ISEGS	Unknown Waterfowl	UNWF	Carcass Survey	9/21/2016	9/21/2016	Feather spot	3-6 days	Feather spot size large consisting of 100 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640495, 3933468	NA
2016_520_ISEGS	Vaux's swift	VASW	Carcass Survey	9/21/2016	9/21/2016	Broken up	3-6 days	Broken up carcass consisting of right wing, tip of left wing, 18 contour feathers. Evidence of singeing to flight feathers, wing coverts, and some contour feathers.	Scorched or singed	1~3	1	Heliostat	640512, 3933420	NA
2016_521_ISEGS	Vaux's swift	VASW	Carcass Survey	9/21/2016	9/21/2016	Broken up	3-6 days	Broken up carcass consisting of 2 partial wings. No evidence of collision or singe.	Unknown		1	Heliostat	640480, 3933464	NA
2016_522_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/21/2016	9/21/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 primaries, 3 secondaries, and 50 body feathers. Evidence of curling to primaries, singeing to secondaries and contour feathers.	Scorched or singed	Unk	1	Heliostat	640396, 3933363	NA
2016_523_ISEGS	Unknown Grebe	UNGR	Carcass Survey	9/21/2016	9/21/2016	Feather spot	2 days	Feather spot size large, consisting of 3 primaries, 2 secondaries, and 200 contour feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640254, 3933311	NA
2016_524_ISEGS	Wilson's Warbler	WIWA	Incidental	9/21/2016	9/21/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of singe to tips of primaries and secondaries.	Scorched or singed	1	3	Powerblock	637459, 3937946	NA

2016_525_ISEGS	Green-Tailed Towhee	GTTO	Carcass Survey	9/21/2016	9/21/2016	Feather spot	0-8 hours	Feather spot size large consisting of 5 primaries, 13 secondaries, 5 retrices, 210 contort feathers, 5 crown feathers. No evidence of collision or singe.	Unknown	1		Heliostat	640160, 3933518	NA
2016_526_ISEGS	Western Kingbird	WEKI	Carcass Survey	9/21/2016	9/21/2016	Feather spot	2 days	Feather spot size small consisting of 3 primaries, 2 secondaries, and 1 unknown feather. Evidence of curling to secondaries, singe to primaries.	Scorched or singed	1	1	Heliostat	640167, 3933548	NA
2016_527_ISEGS	Western Tanager	WETA	Carcass Survey	9/23/2016	9/23/2016	Broken up	3-6 days	Broken up carcass consisting of head, scapulars, body feathers. Evidence of collision by cracked and bent bill.	Collision with solar panel/heliostat		2	Heliostat	639291, 3935467	NA
2016_528_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/26/2016	9/26/2016	Mummified	2 weeks	Whole carcass. Evidence of curling to all contour feathers with flight feathers singed off.	Scorched or singed	2~3	3	ACC Building	637483, 3937943	NA
2016_529_ISEGS	Unknown Teal	TEAL	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size small consisting of 1 primary. 6 secondaries, 4 trailing edge secondaries, 47 contour feathers. No evidence of collision or singe.	Unknown		2	Heliostat	637748, 3935768	NA
2016_530_ISEGS	Hermit Warbler	HEWA	Carcass Survey	9/26/2016	9/26/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries and retrices, singe to head and rump.	Scorched or singed	1~3	3	ACC Building	637446, 3937969	NA
2016_531_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/26/2016	9/26/2016	Broken up	3-6 days	Broken up carcass consisting of body without head. Evidence of curling to primaries and secondaries, singeing to wing coverts.	Scorched or singed	2~3	3	Powerblock	637424, 3937925	NA
2016_532_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size small consisting of 4 primaries, 3 secondaries, 7 retrices, 2 tertials, 40 contour feathers. Evidence of	Scorched or singed	Unk	3	Heliostat	637342, 3937782	NA

								curling to retrices, singeing to primaries and secondaries.							
2016_533_ISEGS	Unknown Swift	SWIF	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size large consisting of 2 primaries, 1 retrix, 2 contour feathers. Evidence of singe to all feathers present.	Scorched or singed	Unk	3	Heliostat	637367, 3937775	NA	
2016_534_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	9/26/2016	9/26/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to primaries, secondaries, and tail feathers, singeing to right side of head and left flank.	Scorched or singed	2~3	3	Heliostat	637471, 3937798	NA	
2016_535_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 secondaries, 2 primaries, and 15 contour feathers. Evidence of singe to primaries.	Scorched or singed	Unk	3	Heliostat	637471, 3937804	NA	
2016_536_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/26/2016	9/26/2016	Broken up	3-6 days	Broken up carcass consisting of 5 primaries, partial wing consisting of secondaries, 1 tertials, and 1 uppertail covert. Evidence of singeing to secondaries.	Scorched or singed	1	3	Powerblock	637468, 3937905	NA	
2016_537_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size small consisting of 1 primary and 30 contour feathers. Evidence of curling to primary, singeing to contour feathers.	Scorched or singed	Unk	3	Powerblock	637468, 3937915	NA	
2016_538_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/26/2016	9/26/2016	Broken up	3-6 days	Broken up carcass consisting of detached wings, head, and rump. Evidence of singe to tips of primaries.	Scorched or singed	1	3	Powerblock	637487, 3937931	NA	
2016_539_ISEGS	Unknown Warbler	UNWA	Carcass Survey	9/26/2016	9/26/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Evidence of curling to all contour feathers with flight feathers singed off.	Scorched or singed	2~3	3	Powerblock	637464, 3937924	NA	

2016_540_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/26/2016	9/26/2016	Feather spot	3-6 days	Feather spot size small consisting of base of 5 retrices, 3 pieces of secondaries, 2 pieces of flight feathers. Evidence of curling to flight feathers and secondaries.	Scorched or singed	Unk	3	Powerblock	637412, 3937944	NA
2016_541_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	9/26/2016	9/26/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No evidence of collision or singe.	Unknown		2	Heliostat	639611, 3936625	NA
2016_542_ISEGS	Mourning Dove	MODO	Carcass Survey	9/26/2016	9/26/2016	Broken up	3-6 days	Broken up carcass consisting of 2 wings, 10 retrices, 50 body feathers, sternum, and bone piece. Evidence of singe to retrices.	Scorched or singed	1	3	Powerblock	637376, 3937952	NA
2016_543_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/26/2016	9/26/2016	Broken up	1 month +	Broken up carcass consisting of partial left wing, 1 rect, 2 contour feathers. Evidence of curling to primaries and secondaries in partial wing, retrices.	Scorched or singed	Unk	3	Heliostat	637611, 3938030	NA
2016_544_ISEGS	Anna's Hummingbird	ANHU	Incidental	9/26/2016	9/26/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to retrices, singeing to tips of primaries in both wings, ventral contour feathers.	Scorched or singed	2~3	3	Powerblock	637359, 3937949	NA
2016_545_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/26/2016	9/26/2016	Broken up	1 month +	Broken up carcass consisting of partial right wing. Evidence of singe to tailing edge in primaries.	Scorched or singed	1	3	Heliostat	637536, 3937676	NA
2016_546_ISEGS	Orange-crowned Warbler	OCWA	Incidental	9/26/2016	9/26/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to retrices with tail singed off, singeing to primaries and secondaries, head, and breast.	Scorched or singed	2~3	2	Powerblock	638572, 3935875	NA
2016_547_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	9/27/2016	9/27/2016	Feather spot	2 days	Feather spot size large consisting of 1 retrice, 6 secondaries, 2 wing coverts, 185 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638625, 3936235	NA

2016_548_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	9/27/2016	9/27/2016	Feather spot	3-6 days	Feather spot size small consisting of 12 primaries, 6 secondaries, 6 retrices, 100 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638415, 3935800	NA
2016_549_ISEGS	Unknown Swallow	UNSW	Carcass Survey	9/27/2016	9/27/2016	Broken up	2 weeks	Broken up carcass consisting of partial right wing, 4 primaries and 2 secondaries. Primaries and secondaries are singed.	Scorched or singed	Unk	2	Powerblock	638585, 3935836	NA
2016_550_ISEGS	Unknown Small Bird	UNID	Carcass Survey	9/27/2016	9/27/2016	Feather spot	3-6 days	Feather spot size consisting of 10 body feathers and 3 flight feathers. No evidence of collision or singe.	Unknown		2	Powerblock	638655, 3935854	NA
2016_551_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	9/27/2016	9/27/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing, partial right wing, 2 primaries, 5 secondaries, and 6 retrices. No evidence of collision or singe.	Unknown		2	Heliostat	638632, 3936023	NA
2016_552_ISEGS	Unknown Swallow	UNSW	Carcass Survey	9/27/2016	9/27/2016	Feather spot	2 weeks	Feather spot size small consisting of 12 primaries, 10 secondaries, 10 coverts, and 12 contour feathers. Curling to primaries and singeing to secondaries.	Scorched or singed	Unk	2	Heliostat	638605, 3936018	NA
2016_553_ISEGS	Chipping Sparrow	CHSP	Carcass Survey	9/27/2016	9/27/2016	Dead, fresh (eyes moist)	0-8 hours	Whole Carcass. Singed on crown, cheek, nape, back and underparts. Retricies curled and the primaries and secondaries are singed with secondaries of the right wing curled.	Scorched or singed	2~3	1	Powerblock	640346, 3933463	NA
2016_554_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	9/27/2016	9/27/2016	Broken up	2 weeks	Broken up carcass consisting of partial left wing. No evidence of collision or flux.	Unknown		2	Heliostat	638599, 3936019	NA
2016_555_ISEGS	Vaux's swift	VASW	Carcass Survey	9/27/2016	9/27/2016	Feather spot	3-6 days	Feather spot size small consisting of 4 primaries. Evidence of curling to 1 primary.	Scorched or singed	Unk	2	Powerblock	638646, 3935861	NA

2016_556_ISEGS	Western Kingbird	WEKI	Carcass Survey	9/27/2016	9/27/2016	Feather spot	2 weeks	Feather spot size large consisting of 1 primary, 1 retrice, 6 secondaries, 20 body feathers. No evidence of collision of singe.	Unknown		2	Heliostat	638807, 3935677	NA
2016_557_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	9/27/2016	9/27/2016	Feather spot	2 days	Feather spot size small consisting of 6 retrices, 3 undertail coverts, 6 contour feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638608, 3936059	NA
2016_558_ISEGS	Yellow Warbler	YWAR	Carcass Survey	9/27/2016	9/27/2016	Feather spot	3-6 days	Featherspot size small consisting of of 50+ body feathers, 2 primaries and several broken retricies.	Unknown		2	Heliostat	638809, 3935934	NA
2016_559_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	9/27/2016	9/27/2016	Feather spot	3-6 days	Feather spot size large consisting of 100 body feathers, 3 secondaries, 2 primaries. No evidence of collision or singe.	Unknown		2	Heliostat	638671, 3935607	NA
2016_560_ISEGS	Mourning Dove	MODO	Carcass Survey	9/28/2016	9/28/2016	Feather spot	2 weeks	Feather spot size large consisting of 1 tertial and 42 contour feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640157, 3933593	NA
2016_561_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	9/28/2016	9/28/2016	Feather spot	2 days	Feather spot consisting of 1 primary, 4 coverts, 50 body feathers. Evidence of singeing to tips of body feathers.	Scorched or singed	Unk	1	Heliostat	640181, 3033465	NA
2016_562_ISEGS	American Pipit	AMPI	Carcass Survey	9/28/2016	9/28/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing, 71 contour feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638452, 3936994	NA
2016_563_ISEGS	Lesser Nighthawk	LENI	Carcass Survey	9/28/2016	NA	Feather spot	3-6 days	Feather spot size small consisting of 14 contour feathers, 1 tertial. No evidence of collision or singe.	Unknown		1	Heliostat	640390, 3933391	NA
2016_564_ISEGS	Unknown Grebe	UNGR	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size large consisting of 1 undertail covert and 34 contour feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640244, 3933317	NA

2016_565_ISEGS	Western Meadowlark	WEME	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size large consisting of 4 primaries, 2 secondaries, 2 retrices, 50 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638441, 3937223	NA
2016_566_ISEGS	Mourning Dove	MODO	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size large consisting 1 primary, 2 secondaries, 2 retrices, 10 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	638204, 3937193	NA
2016_567_ISEGS	Unknown Grebe	UNGR	Carcass Survey	9/28/2016	9/28/2016	Broken up	1 month +	Feather spot size = small. Right wing portion. No singe.	Unknown		1	Heliostat	640420, 3933252	NA
2016_568_ISEGS	Vaux's swift	VASW	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot = small. 2 primaries, 1 secondary, 1 retrix. No singe.	Unknown		1	Heliostat	640496, 3933407	NA
2016_569_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size large consisting of 5 primaries, 4 secondaries, 2 retrices, 50 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640477, 3933537	NA
2016_570_ISEGS	Vaux's swift	VASW	Carcass Survey	9/28/2016	9/28/2016	Broken up	3-6 days	Feather spot = small. 3 primaries, 1 covert. Singe on all feathers.	Scorched or singed	Unk	1	Heliostat	640379, 3933663	NA
2016_571_ISEGS	Rock Wren	ROWR	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size large consisting of 1 retrice feather, 4 primaries, 4 secondaries, 50 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640244, 3933711	NA
2016_572_ISEGS	Mourning Dove	MODO	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size small consisting of 1 secondary, 1 trailing secondary, tip of flight feather, and 40 contour feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640244, 3933703	NA

2016_573_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	9/28/2016	9/28/2016	Feather spot	3-6 days	Feather spot size small consisting of 12 rects, 13 damaged feathers, 19 contour feathers, and 3 secondaries. No evidence of collision or singe.	Unknown	2		Heliostat	638452, 3936994	NA
2016_574_ISEGS	Lazuli Bunting	LAZB	Carcass Survey	9/28/2016	9/28/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass Primaries and secondaries on both wings curled. Retricies curled. Singed on face, crown and nape	Scorched or singed	2~3	2	Powerblock	638657, 3935864	NA
2016_575_ISEGS	Northern Rough-winged Swallow	NRWS	Carcass Survey	9/29/2016	9/29/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole Carcass. Primaries and secondaries curled on right wing. Left wing singed. Retricies curled. Head, nape, back and rump singed.	Scorched or singed	2~3	2	Powerblock	638650, 3935847	NA
2016_576_ISEGS	Greater Roadrunner	GRRO	Carcass Survey	9/29/2016	9/29/2016	Feather spot	3-6 days	Feather spot size large consisting of 100+ body feathers. Feathers found stuck and wedged in piston of worm drive.	Collision with solar panel/heliostat		2	Heliostat	639609, 3935381	NA
2016_577_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/3/2016	10/3/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 primaries. Evidence of singe to 1 primary.	Scorched or singed	Unk	3	Heliostat	637475, 3937755	NA
2016_578_ISEGS	Unknown Sandpiper	UNSA	Carcass Survey	10/3/2016	10/3/2016	Broken up	3-6 days	Broken up carcass consisting of partial right and left wing, 1 primary, 2 wing coverts, 1 flight feather. Evidence of curling and singeing to primaries in partial wing.	Scorched or singed	Unk	3	Heliostat	637481, 3937760	NA
2016_579_ISEGS	Unknown Hummingbird	UNHU	Carcass Survey	10/3/2016	10/3/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass. Evidence of curling to primaries and secondaries, retrices singed off, singeing to head, nape, back, rump, throat, and breast.	Scorched or singed	Unk	3	ACC Building	637474, 3937947	NA
2016_580_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/3/2016	10/3/2016	Feather spot	3-6 days	Feather spot size small consisting of 4 retrices, 5 secondaries, 1 primary, and 91 contour feathers. No evidence of collision or singe.	Unknown		2	Heliostat	639199, 3935788	NA

2016_581_ISEGS	Unknown Warbler	UNWA	Carcass Survey	10/3/2016	10/3/2016	Feather spot	3-6 days	Feather spot size small consisting of 8 retrices, 16 primaries, 3 secondaries, 50 body feathers. Evidence of curling to 3 primaries.	Scorched or singed	Unk	3	Heliostat	637392, 3937801	NA
2016_582_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/3/2016	10/3/2016	Broken up	3-6 days	Broken up carcass consisting of clump of primaries held together by flesh, 6 primaries, 4 retrices, 2-4 tertials, 1 covert, and 50 body feathers. Evidence of curling to flight feathers, singeing to contour feathers.	Scorched or singed	Unk	3	Heliostat	637387, 3937804	NA
2016_583_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	10/3/2016	10/3/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass, Evidence of curling to all major flight feathers in both wings and tail, singe to top of head and upper back.	Scorched or singed	2~3	3	Powerblock	637446, 3937975	NA
2016_584_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	10/3/2016	10/3/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of collision of 3 crown feathers stuck on heliostat mirror.	Collision with solar panel/heliostat		3	Heliostat	637580, 3938034	NA
2016_585_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	10/3/2016	10/3/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. No evidence of collision or singe.	Unknown		3	Heliostat	637610, 3937979	NA
2016_586_ISEGS	Western Meadowlark	WEME	Carcass Survey	10/3/2016	10/3/2016	Feather spot	3-6 days	Feather spot size large, consisting of 11 primaries, 3 tail feathers, 9 secondaries, 10 trailing secondaries, 50 body feathers. Evidence of collision with heliostat impression comprised of feathers, blood, and excrement.	Collision with solar panel/heliostat		3	Heliostat	637629, 3937789	NA
2016_587_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/3/2016	10/3/2016	Broken up	3-6 days	Broken up carcass consisting of 4 retrices, 4 primaries, 5 secondaries, and 75 contour feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637574, 3937745	NA

2016_588_ISEGS	Ruby-crowned Kinglet	RCKI	Carcass Survey	10/4/2016	10/4/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Curling on rectx, singe to top of head, upper breast, and secondaries and throat.	Scorched or singed	1~3	1	ACC Building	640388, 3933528	NA
2016_589_ISEGS	Unknown Swallow	UNSW	Carcass Survey	10/4/2016	10/4/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	3-6 days	Whole carcass, Evidence of curling to flight feathers, singeing to body feathers.	Scorched or singed	2~3	1	ACC Building	640370, 3933542	NA
2016_590_ISEGS	Cliff Swallow	CLSW	Carcass Survey	10/4/2016	10/4/2016	Broken up	3-6 days	Broken up carcass consisting of left with attached to partial torso. Evidence of singe of primaries and body feathers.	Scorched or singed	1~3	2	Powerblock	638697, 3935901	NA
2016_591_ISEGS	Unknown Bird	UNBD	Carcass Survey	10/4/2016	10/4/2016	Feather spot	3-6 days	Feather spot size = small. 12 body feathers. No singe.	Unknown		1	Powerblock	640293, 3933545	NA
2016_592_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/5/2016	10/5/2016	Feather spot	8-24 hours	Feather spot size large consisting 3 retrices, 1 primary, 4 secondaries, 100 body feathers. Evidence of singe on 1 primary.	Scorched or singed	Unk	1	Heliostat	640474, 3933693	NA
2016_593_ISEGS	Mourning Dove	MODO	Carcass Survey	10/5/2016	10/5/2016	Feather spot	2 days	Feather spot size large consisting of 1 secondary, 20 body feathers. Evidence of singe on body feathers.	Scorched or singed	Unk	1	Heliostat	640431, 3933715	NA
2016_594_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	10/6/2016	10/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to wing coverts and retrices, primaries.	Scorched or singed	2	3	Powerblock	637515, 3937872	NA
2016_595_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	10/6/2016	10/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to flight feathers in both wings, singe to back, nape, and crown.	Scorched or singed	2~3	3	Powerblock	637426, 3937946	NA
2016_596_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	10/6/2016	10/5/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to tail, singeing to primaries in both wings and nape.	Scorched or singed	2~3	3	Powerblock	637442, 3937970	NA

2016_597_ISEGS	Lesser Goldfinch	LEGO	Incidental	10/6/2016	10/6/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of singeing to primaries, secondaries, and retrices, nape, back, and rump.	Scorched or singed	2~3	2	Powerblock	638614, 3935906	NA
2016_598_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/6/2016	10/6/2016	Feather spot	2 days	Feather spot size large consisting of 3 primaries, 3 secondaries, 1 trailing secondary, 100 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	637836, 3935379	NA
2016_599_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	10/10/2016	10/10/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of collision with 1 contour feathers stuck to heliostat mirror and imprint of bird in addition to close proximity to heliostat.	Collision with solar panel/heliostat		3	Heliostat	637297, 3937740	NA
2016_600_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/10/2016	10/10/2016	Broken up	3-6 days	Broken up carcass consisting of 16 body feathers held together by a piece of dried flesh. No evidence of collision or singe.	Unknown		3	Heliostat	637393, 3937744	NA
2016_601_ISEGS	Lincoln's Sparrow	LISP	Carcass Survey	10/10/2016	10/10/2016	Feather spot	2 days	Feather spot size large consisting of 13 primaries, 10 secondaries, 7 retrices, and 200 body feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637239, 3937959	NA
2016_602_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	10/10/2016	10/10/2016	Broken up	3-6 days	Broken up carcass consisting of partial right wing. Evidence of singe to primaries and secondaries.	Scorched or singed	1	3	Heliostat	637584, 3938061	NA
2016_603_ISEGS	Mourning Dove	MODO	Carcass Survey	10/10/2016	10/10/2016	Feather spot	3-6 days	Feather spot size large consisting of 5 primaries, 8 secondaries, 3 tail feathers, and 100 body feathers. No evidence of collision or singe.	Unknown		2	Heliostat	637757, 3936004	NA
2016_604_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/10/2016	10/10/2016	Broken up	3-6 days	Broken up carcass consisting of partial left and right wing, 12 rects, 6 primaries, 3 secondaries, 200 contour feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637317, 3938088	NA

2016_605_ISEGS	Yellow Warbler	YWAR	Carcass Survey	10/10/2016	10/10/2016	Feather spot	3-6 days	Feather spot size large consisting of 6 retrices, 5 contour feathers. Evidence of singe to tips of rects.	Scorched or singed	Unk	3	Heliostat	637334, 3938100	NA
2016_606_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/10/2016	10/10/2016	Feather spot	3-6 days	Feather spot size small consisting of 18 body feathers. Evidence of collision with clump of feathers stuck to heliostat mirror.	Collision with solar panel/heliostat		3	Heliostat	637452, 3938118	NA
2016_607_ISEGS	Rusty Blackbird	RUBL	Carcass Survey	10/11/2016	10/11/2016	Broken up	8-24 hours	Broken up carcass consisting of 1 detached leg, 3 primaries, 14 secondaries, 6 retrices, and 200 contour feathers. Evidence of singeing on barbs at tips of flight feathers.	Scorched or singed	Unk	2	Heliostat	638564, 3935676	NA
2016_608_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	10/11/2016	10/11/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 clumps of mantle feathers, 1 tail feather. Evidence of curling to tail feather.	Scorched or singed	Unk	2	Heliostat	638587, 3935739	NA
2016_609_ISEGS	Mourning Dove	MODO	Carcass Survey	10/11/2016	10/11/2016	Broken up	3-6 days	Broken up carcass consisting of several contour feathers held together by skin, 6 primaries, 7 retrices, 8 secondaries, and 200 contour feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638938, 3936167	NA
2016_610_ISEGS	Blue-Gray Gnatcatcher	BGGN	Carcass Survey	10/11/2016	10/11/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	8-24 hours	Whole carcass. Evidence of curling to tail. Singeing on contour feathers of neck and edges of primaries.	Scorched or singed	1~3	2	ACC Building	638652, 3935894	NA
2016_611_ISEGS	Yellow Warbler	YWAR	Carcass Survey	10/11/2016	10/11/2016	Feather spot	3-6 days	Feather spot size small consisting of 5 primaries. Evidence of singe on 3 primaries.	Scorched or singed	Unk	2	Powerblock	638644, 3935869	NA
2016_612_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/11/2016	10/11/2016	Broken up	3-6 days	Broken up carcass missing the tail and left wing. No evidence of singe or collision.	Unknown		2	Heliostat	638763, 3935949	NA

2016_613_ISEGS	Mourning Dove	MODO	Carcass Survey	10/11/2016	10/11/2016	Feather spot	2 weeks	Feather spot size small consisting of 1 secondary and 4 retricies. Curling to tail feathers.	Scorched or singed	Unk	2	Powerblock	638644, 3935869	NA
2016_614_ISEGS	Unknown Sapsucker	UNSS	Carcass Survey	10/11/2016	10/11/2016	Broken up	3-6 days	Broken up, primaries attached by skin. 1 primary, 6 flight feathers and 13 contour feathers. Singe on majority of flight feathers.	Scorched or singed	Unk	1	Powerblock	640363, 3933495	NA
2016_615_ISEGS	Greater Roadrunner	GRRO	Carcass Survey	10/11/2016	10/11/2016	Feather spot	3-6 days	Feather spot size large consisting of 5 primaries, 1 secondary and 30 body feathers	Unknown		2	Heliostat	639086, 3935976	NA
2016_616_ISEGS	Unknown Swallow	UNSW	Carcass Survey	10/11/2016	10/11/2016	Feather spot	2 weeks	Feather spot consisting of 2 primaries and 3 secondaries. Primaries and secondaries are singed.	Scorched or singed	Unk	2	Powerblock	638644, 3935869	NA
2016_617_ISEGS	Brewer's Blackbird	BRBL	Carcass Survey	10/12/2016	10/12/2016	Feather spot	8-24 hours	Feather spot size large consisting of 12 primaries, 14 secondaries, and 320 body feathers. Evidence of collision by heliostat imprint matching size of species near feather spot location.	Collision with solar panel/heliostat		1	Heliostat	640422, 3933725	NA
2016_618_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/12/2016	10/12/2016	Broken up	8-24 hours	Broken up carcass consisting of intact rump and rects, tips of both wings, 4 primaries, 8 secondaries, 100 contour feathers. No evidence pf collision or singe.	Unknown		2	Heliostat	638765, 3936795	NA
2016_619_ISEGS	Vaux's swift	VASW	Carcass Survey	10/12/2016	10/12/2016	Feather spot	3-6 days	Feather spot small consisting of 3 primaries, 4 pieces of unidentified flight feathers, 1 rectrice, and 1 contour feather. Evidence of curling to the primary and 2 other flight feathers, singeing to rest of feather spot.	Scorched or singed	Unk	1	Heliostat	640510, 3933620	NA

2016_620_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	10/12/2016	10/12/2016	Broken up	3-6 days	Broken up. Lower mandible with 9 primaries, 6 secondaries, 1 retrix and 30 body feathers. Evidence of singe on 11 flight feathers. 30% of body feathers singed.	Scorched or singed	Unk	1	Heliostat	640478, 3933520	NA
2016_621_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/12/2016	10/12/2016	Feather spot	3-6 days	Feather spot consisting of 2 primaries, 3 secondaries and 2 retricies. No evidence of singe or collision	Unknown		2	Heliostat	637757, 3936368	NA
2016_622_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/12/2016	10/12/2016	Feather spot	3-6 days	Feather spot size large consisting of 1 secondary, 2 flight feathers, and 40 contour feathers. Evidence of curling on all flight feathers and some singeing to contour feathers.	Scorched or singed	Unk	1	Heliostat	640395, 3933357	NA
2016_623_ISEGS	Sagebrush Sparrow	SAGS	Carcass Survey	10/12/2016	10/12/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Impact imprint on Heliostat. Neck very limp.	Collision with solar panel/heliostat		2	Heliostat	637889, 3936187	NA
2016_624_ISEGS	Savannah Sparrow	SAVS	Carcass Survey	10/12/2016	10/12/2016	Feather spot	2 days	Feather spot size large consisting of 8 primaries, 7 secondaries, 3 coverts, and 30 body feathers. No evidence of collision or singe.	Unknown		1	Heliostat	640260, 3933294	NA
2016_625_ISEGS	Loggerhead Shrike	LOSH	Carcass Survey	10/14/2016	10/14/2016	Broken up	3-6 days	Broken up carcass consisting of 5 retricies, 2 primaries, 50+ contour feathers. 2 of retricies and undertail coverts held together by flesh.	Unknown		2	Heliostat	638036, 3935688	NA
2016_626_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	10/15/2016	10/15/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of singeing to crown and left side of face.	Scorched or singed	3	2	Powerblock	638699, 3935868	NA
2016_627_ISEGS	Barn Swallow	BARS	Carcass Survey	10/17/2016	10/17/2016	Broken up	3-6 days	Broken up carcass consisting of partial wing with 2 primaries and coverts held together, 2 contour feathers. Evidence of singe on inner	Scorched or singed	Unk	3	Heliostat	637450, 3937681	NA

								web of primaries and on contour feathers.						
2016_628_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/17/2016	10/17/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. With evidence of singeing on rump and breast.	Scorched or singed	3	3	ACC Building	637465, 3937951	NA
2016_629_ISEGS	Unknown Shorebird	UNSB	Carcass Survey	10/17/2016	10/17/2016	Broken up	2 days	Broken up carcass consisting of piece of partial wing and carpometacarpal. Evidence of singeing to primaries and coverts.	Scorched or singed	Unk	3	Heliostat	637478, 3937765	NA
2016_630_ISEGS	Unknown Bird	UNBD	Carcass Survey	10/17/2016	10/17/2016	Broken up	2 weeks	Broken up carcass consisting of 7 coverts connected by dried flesh. No evidence of collision or singe.	Unknown		3	Heliostat	637466, 3937804	NA
2016_631_ISEGS	Lesser Goldfinch	LEGO	Carcass Survey	10/17/2016	10/17/2017	Broken up	3-6 days	Broken up carcass consisting of clumps of tail feathers, primaries and coverts held together by skin. 50+body feathers. Body feathers and flight feathers singed.	Scorched or singed	Unk	3	Heliostat	637474, 3937808	NA
2016_632_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/17/2016	10/17/2016	Feather spot	3-6 days	Feather spot size small consisting of 50 body feathers. Evidence of singe on several body feathers.	Scorched or singed	3	3	Powerblock	637456, 3937925	NA
2016_633_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/17/2016	10/17/2016	Broken up	3-6 days	Broken up carcass consisting of a chunk of 10 contour feathers held together by skin. Singe present on covert feathers.	Scorched or singed	3	3	Heliostat	637582, 3937790	NA
2016_634_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	10/17/2016	10/17/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Primaries, secondaries and retricies curled. Left flank, left side of face, back and rump singed.	Scorched or singed	2~3	3	ACC Building	637444, 3937943	NA
2016_635_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/18/2016	10/18/2016	Feather spot	8-24 hours	Feather spot size large consisting of 2 primaries, 10 secondaries, 7 retricies and 300+ body feathers.	Unknown		2	Heliostat	637821, 3936145	NA

2016_636_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 weeks	Feather spot size large consisting of 20 body feathers. Curling on 50% of body feathers.	Scorched or singed	3	1	Powerblock	640390, 3933493	NA
2016_637_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Feather spot	3-6 days	Feather spot size small consisting of 50 body feathers, 4 primaries and 1 secondary. No evidence of singe or collision.	Unknown		2	Heliostat	638446, 3935958	NA
2016_638_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 weeks	Feather spot size large consisting of 9 primaries, 2 secondaries, and 3 body feathers. Tips of secondary feather is singed.	Scorched or singed	Unk	1	Powerblock	640413, 3933478	NA
2016_639_ISEGS	Violet-green Swallow	VGSW	Carcass Survey	10/18/2016	10/18/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Singeing to nape, rump and greater wing coverts. Primaries, secondaries and tail curled and singed.	Scorched or singed	2~3	1	ACC Building	640367, 3933522	NA
2016_640_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/18/2016	10/18/2016	Feather spot	3-6 days	Feather spot size large consisting of 100 body feathers, 8 primaries, 4 secondaries and 2 tail feathers. No evidence of singe or collision	Unknown		2	Heliostat	638545, 3936048	NA
2016_641_ISEGS	Unknown Sapsucker	UNSS	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 days	Feather spot size large consisting of 2 secondaries, 2 retricies and 175 body feathers. Flight feathers singed with some body feathers curled.	Scorched or singed	3	1	Powerblock	640372, 3933596	NA
2016_642_ISEGS	Yellow Warbler	YWAR	Carcass Survey	10/18/2016	10/18/2016	Feather spot	3-6 days	Feather spot size small consisting of 3 primaries, 2 retricies, 2 rumps and 2 mantle feathers. Primaries and retricies singed on edges and tips of barbs.	Scorched or singed	Unk	2	Heliostat	638549, 3936028	NA
2016_643_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 weeks	Feather spot size large consisting of 1 primary, 4 secondaries, 1 retrix and 2 body feathers. All feather are singed.	Scorched or singed	3	1	Powerblock	640369, 3933507	NA

2016_644_ISEGS	American Pipit	AMPI	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 days	Feather spot size small consisting of 100+ body feathers, 3 retricies and 4 secondaries. No evidence of singe or collision.	Unknown		2	Heliostat	638572, 3936065	NA
2016_645_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing with 5 secondaries and 4 covert. One retrix. Presence of singeing on tip of retrix.	Scorched or singed	Unk	1	Powerblock	640370, 3933508	NA
2016_646_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	10/18/2016	10/18/2016	Feather spot	3-6 days	Feather spot size large consisting of 2 retricies, 2 primaries, 1 trailing secondary and 25+ body feathers. No evidence of collision or singe.	Unknown		1	Powerblock	640279, 3933546	NA
2016_647_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/18/2016	10/18/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 primaries, 1 secondary, 1 retricies, 1 trailing secondary and 8 contour feathers. No evidence of singe or collision.	Unknown		2	Heliostat	638744, 3935912	NA
2016_648_ISEGS	American Pipit	AMPI	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 days	Feather spot size large consisting of 2 primaries, 5 secondaries and 75 body feathers. Singeing on tip of primary.	Scorched or singed	1	2	Heliostat	638749, 3935879	NA
2016_649_ISEGS	Swamp Sparrow	SWSP	Carcass Survey	10/18/2016	10/18/2016	Feather spot	2 days	Feather spot size large consisting of 11 retricies, 3 tertials, 9 secondaries, 10 primaries and 50+ body feathers. Singeing on barbules of flight feathers.	Scorched or singed	Unk	2	Heliostat	638872, 3935861	NA
2016_650_ISEGS	Yellow Warbler	YWAR	Carcass Survey	10/18/2016	10/18/2016	Mummified	2 weeks	Whole carcass. Tail partially singed off. Wings curled with singeing on rump feathers and crown.	Scorched or singed	2~3	2	Powerblock	638648, 3935858	NA
2016_651_ISEGS	Anna's Hummingbird	ANHU	Carcass Survey	10/18/2016	10/18/2016	Mummified	1 month +	Whole carcass. All flight feathers singed or singed off. Back and breast singed.	Scorched or singed	2~3	2	Powerblock	638648, 3935848	NA

2016_652_ISEGS	Unknown Small Bird	UNID	Carcass Survey	10/19/2016	10/19/2016	Feather spot	2 weeks	Feather spot size small consisting of 12 contour feathers. No evidence of collision or singe.	Unknown	1	Heliostat	640153, 3933566	NA
2016_653_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/19/2016	10/19/2016	Feather spot	3-6 days	Feather spot large consisting of 6 primaries, 1 retrice, 51 body feathers. No evidence of collision or singe.	Unknown	1	Heliostat	640418, 3933282	NA
2016_654_ISEGS	Black-Throated Sparrow	BTSP	Carcass Survey	10/19/2016	10/19/2016	Feather spot	3-6 days	Feather spot size small consisting of 4 primaries, 1 retrice, and 20 body feathers. No evidence of singe or collision.	Unknown	2	Heliostat	637854, 3936641	NA
2016_655_ISEGS	American Avocet	AMAV	Carcass Survey	10/19/2016	10/19/2016	Broken up	2 weeks	Broken up carcass consisting of partial wing piece with secondaries and coverts, 6 secondaries, 7 tertials, and 50 body feathers. No evidence of collision or singe.	Unknown	2	Heliostat	639475, 3936932	NA
2016_656_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/19/2016	10/19/2016	Feather spot	3-6 days	Feather spot size large consisting of 4 primaries, 11 secondaries, 10 rects, and 50 contour feathers. No evidence of collision or singe.	Unknown	1	Heliostat	640598, 3933556	NA
2016_657_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/19/2016	10/19/2016	Broken up	3-6 days	Broken up carcass consisting of 6 body feathers held together by dried flesh. No evidence of collision or singe.	Unknown	2	Heliostat	639216, 3936399	NA
2016_658_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/19/2016	10/19/2016	Feather spot	2 days	Feather spot size small consisting of 5 primaries, 8 secondaries, and 7 retrices. No evidence of collision or singe.	Unknown	1	Heliostat	640598, 3933556	NA
2016_659_ISEGS	Long-billed Curlew	LBCU	Carcass Survey	10/20/2016	10/20/2016	Feather spot	1 month +	Feather spot size small consisting of 2 primary flight feathers. No evidence of singe or collision.	Unknown	2	Heliostat	638141, 3935386	NA
2016_660_ISEGS	Sagebrush Sparrow	SAGS	Carcass Survey	10/20/2016	10/20/2016	Broken up	3-6 days	Broken up carcass consisting of partial left wing, 8 primaries, 3 secondaries, 4 trailing	Unknown	2	Heliostat	638584, 3936982	NA

								secondaries, 9 retricies and 20 contour feathers. No evidence of collision or singe.						
2016_661_ISEGS	Western Meadowlark	WEME	Carcass Survey	10/20/2016	10/20/2016	Feather spot	3-6 days	Feather spot size large consisting of 190 contour feathers and one primary. No evidence of singe or collision.	Unknown		2	Heliostat	638356, 3937202	NA
2016_662_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	10/25/2016	10/25/2016	Broken up	8-24 hours	Broken up carcass consisting of partial right wing. No evidence of collision or singe.	Unknown		2	Heliostat	639327, 3935683	NA
2016_663_ISEGS	Barn Swallow	BARS	Carcass Survey	11/1/2016	11/1/2016	Broken up	2 weeks	Broken up carcass consisting of body cavity and wings without head, tail, and legs. Evidence of curling to primaries and secondaries in both wings, singeing to rump.	Scorched or singed	2~3	3	Powerblock	637447, 3937958	NA
2016_664_ISEGS	American Pipit	AMPI	Carcass Survey	11/2/2016	11/2/2016	Feather spot	3-6 days	Feather spot size small consisting of 8 tail feathers and 30 body feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637273, 3937819	NA
2016_665_ISEGS	Brown-headed cowbird	BHCO	Carcass Survey	11/2/2016	11/2/2016	Feather spot	2 days	Feather spot size large consisting of 9 primaries, 10 secondaries, 2 undertail coverts, several wing coverts, and 100 body feathers. No evidence of collision or singe.	Unknown		3	Heliostat	637281, 3937844	NA
2016_666_ISEGS	Sagebrush Sparrow	SAGS	Carcass Survey	11/2/2016	11/2/2016	Feather spot	3-6 days	Feather spot size large consisting of 2 right primaries, 2 right secondaries, 7 rectrices, 25 contour feathers. Evidence of curling to 1 rect with others rects being singed.	Scorched or singed	Unk	3	Heliostat	637334, 3938095	NA
2016_667_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	11/2/2016	11/2/2016	Feather spot	2 days	Feather spot size large consisting of 7 retrices, 10 primaries, 3 tertials, 7 secondaries, and 50 contour feathers. No evidence of singe or	Unknown		3	Heliostat	637361, 3938120	NA

collision.

2016_668_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/2/2016	11/2/2016	Feather spot	3-6 days	Feather spot size small consisting of 3 right primaries. No evidence of collision or singe.	Unknown	3		Heliostat	637399, 3938143	NA
2016_669_ISEGS	American Pipit	AMPI	Carcass Survey	11/2/2016	11/2/2016	Broken up	3-6 days	Broken up carcass consisting of partial right wing held together by dried flesh, 4 wing coverts, 7 secondaries, and 2 primaries. No evidence of collision or singe.	Unknown	3		Heliostat	637671, 3937802	NA
2016_670_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	11/5/2016	11/5/2016	Dead, fresh (eyes moist)	8-24 hours	Whole carcass. Evidence of curling to flight feathers in left wing and rectx, singe to flight feathers in right wing, crown, and back.	Scorched or singed	2~3	2	Powerblock	638610, 3935847	NA
2016_671_ISEGS	Western Meadowlark	WEME	Incidental	11/7/2016	11/7/2016	Broken up	3-6 days	Broken up carcass consisting of piece of upper mandible of bill and 30 body feathers. No evidence of collision or singe.	Unknown	2		Heliostat	638033, 3935980	NA
2016_672_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	11/8/2016	11/8/2016	Broken up	2 days	Broken up carcass consisting of body cavity but missing head, legs, and wings. No evidence of collision or singe.	Unknown	2		Powerblock	638598, 3935812	NA
2016_673_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	11/8/2016	11/8/2016	Dead, Semi-fresh (eyes desiccated, rigor mortis)	2 days	Whole carcass. Evidence of curling to all tail feathers, primaries, and secondaries, singeing to head, breast, and rump.	Scorched or singed	2~3	2	ACC Building	638664, 3935907	NA
2016_674_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/8/2016	11/8/2016	Mummified	2 weeks	Partial carcass with detached left wing, 6 secondaries, 4 primaries, 4 rectx, 2 unknown flight feathers. Evidence of singeing to 8 flight feathers and some back contour feathers, bill	Scorched or singed	2~3	2	Powerblock	638662, 3935854	NA

broken.

2016_675_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/9/2016	11/9/2016	Broken up	2 days	Partial wing consisting of 3 primaries and 3 wing coverts. No evidence of collision or singe.	Unknown	2	Heliostat	637807, 3936118	NA	
2016_676_ISEGS	American Pipit	AMPI	Carcass Survey	11/9/2016	11/9/2016	Broken up	2 days	Broken up carcass consisting of partial leg, piece of dried flesh of wing at bend, 1 undertail covert, 2 rects, 6 secondaries, wing coverts, and 75 body feathers. No evidence of singe or collision.	Unknown	2	Heliostat	638759, 3935872	NA	
2016_677_ISEGS	American Robin	AMRO	Carcass Survey	11/9/2016	11/9/2016	Feather spot	0-8 hours	Feather spot size large consisting of 1 central rect, 6 secondaries, 3 trailing edge secondaries, and 200 contour feathers. No evidence of collision or singe.	Unknown	2	Heliostat	638681, 3935712	NA	
2016_678_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/10/2016	11/10/2016	Feather spot	3-6 days	Feather spot size small consisting of 30 body feathers. No evidence of singe or collision.	Unknown	2	Heliostat	639111, 3936293	NA	
2016_679_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	11/10/2016	11/10/2016	Dead, fresh (eyes moist)	0-8 hours	Whole carcass. Evidence of curling to primaries, secondaries, rects, singe to all of upper breast, both sides of face and top of head.	Scorched or singed	2~3	2	Powerblock	638647, 3935878	NA
2016_680_ISEGS	Western Meadowlark	WEME	Carcass Survey	11/14/2016	11/14/2016	Feather spot	3-6 days	Feather spot size small consisting of 16 flight and 20 body feathers. No evidence of singe or collision.	Unknown	1	Heliostat	640313, 3933677	NA	
2016_681_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	11/14/2016	11/14/2016	Feather spot	8-24 hours	Feather spot size large consisting of 10 rects, 9 primaries, 5 secondaries, and 79 body feathers. No evidence of collision or singe.	Unknown	1	Heliostat	640440, 3933367	NA	

2016_682_ISEGS	Unknow Large Bird	UNLB	Carcass Survey	11/14/2016	11/14/2016	Feather spot	3-6 days	Feather spot size small consisting of 13 contour feathers. Evidence of singe on several tips of the feathers.	Scorched or singed	3	1	Powerblock	640367, 3933512	NA
2016_683_ISEGS	Yellow-rumped Warbler	YRWA	Carcass Survey	11/14/2016	11/14/2016	Feather spot	2 days	Feather spot size small consisting of 6 primaries. No evidence of collision or singe.	Unknown		1	Powerblock	640268, 3933595	NA
2016_684_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/14/2016	11/14/2016	Feather spot	3-6 days	Feather spot size = large. 30 body feathers, no singe present.	Unknown		1	Heliostat	640169, 3933546	NA
2016_685_ISEGS	Yellow Warbler	YWAR	Carcass Survey	11/18/2016	11/18/2016	Broken up	1 month +	Broken up carcass consisting of partial left wing. Evidence of curling to many of flight feathers.	Scorched or singed	Unk	3	Powerblock	637394, 3937967	NA
2016_686_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/22/2016	11/22/2016	Feather spot	3-6 days	Large feather spot consisting of 9 retricies with no evidence of singe or collision	Unknown		3	Heliostat	637306, 3937796	NA
2016_687_ISEGS	White-Crowned Sparrow	WCSP	Carcass Survey	11/22/2016	11/22/2016	Feather spot	3-6 days	Large feather spot consisting of 2 retricies, 4 secondaries, 2 primaries and 7 body feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637227, 3937888	NA
2016_688_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/22/2016	11/22/2016	Feather spot	3-6 days	Small feather spot consisting of 6 retricies and 3 body reathers with no evidence of singe or collision.	Unknown		3	Heliostat	637675, 3937786	NA
2016_689_ISEGS	Western Meadowlark	WEME	Carcass Survey	11/22/2016	11/22/2016	Feather spot	3-6 days	Large feather spot consisting of 1 primary, 4 secondaries and 5 contour feathers. No evidence of singe or collision.	Unknown		3	Heliostat	637630, 3937791	NA
2016_690_ISEGS	Unknown Small Bird	UNID	Carcass Survey	11/22/2016	11/22/2016	Broken up	1 month +	Broken up carcass consisting of tail feathers and undercoverts with attached skin. Singe is present on the inner retricies.	Scorched or singed	Unk	3	Heliostat	637536, 3937679	NA

2016_691_ISEGS	Mourning Dove	MODO	Incidental	11/26/2016	11/26/2016	Broken up	2 weeks	Broken up carcass consisting of partial right wing with coverts and primary flight feather connected by tissue. No evidence of singe or collision.	Unknown	1	Heliostat	640560, 3933603	NA	
2016_692_ISEGS	Black-throated Gray Warbler	BTYW	Incidental	11/27/2016	11/28/2016	Mummified	1 month +	Whole carcass. Evidence of singe to head, back, rump, neck, and breast, with primaries, secondaries, and rects singed off.	Scorched or singed	2~3	3	Powerblock	637448, 3937933	NA
2016_693_ISEGS	Yellow Warbler	YWAR	Incidental	11/27/2016	11/28/2016	Mummified	1 month +	Whole carcass. Evidence of curling to primaries and secondaries, singe to face.	Scorched or singed	2~3	3	Powerblock	637445, 3937933	NA
2016_694_ISEGS	Northern Flicker	NOFL	Carcass Survey	11/28/2016	11/28/2016	Broken up	3-6 days	Broken up carcass consisting of 2 secondaries attached by dried skin, 1 contour feather. No evidence of collision or singe.	Unknown		2	Heliostat	638298, 3935456	NA
2016_695_ISEGS	Unknown Sparrow	UNSP	Carcass Survey	11/30/2016	11/30/2016	Feather spot	3-6 days	Feather spot size small consisting of 1 primary and 25 body feathers. Evidence of singing to both primary and body feathers.	Scorched or singed	Unk	2	Powerblock	638632, 3935871	NA
2016_696_ISEGS	Unknown Small Bird	UNID	Carcass Survey	12/5/2016	12/5/2016	Broken up	1 month +	Broken up carcass consisting of skull and partial neck vertebrae, partial wing, and 3 primaries. Evidence of singe to all flight feathers.	Scorched or singed	Unk	1	Powerblock	640378, 3933495	NA
2016_697_ISEGS	Mourning Dove	MODO	Carcass Survey	12/5/2016	12/5/2016	Feather spot	2 weeks	Feather spot size small consisting of 1 primary covert and 20 body feathers. No evidence of collision or singe.	Unknown		1	Powerblock	640367, 3933489	NA
2016_698_ISEGS	Bushtit	BUSH	Carcass Survey	12/5/2016	12/5/2016	Feather spot	3-6 days	Feather spot size small consisting of 2 primaries. No evidence of collision or singe.	Unknown		1	Powerblock	640367, 3933489	NA

2016_699_ISEGS	American Kestrel	AMKE	Incidental	12/6/2016	12/6/2016	alive, injured	8-24 hours	Alive bird. Evidence of curling to primaries, secondaries, and retrices, singeing to coverts and left eye.	Scorched or singed	2~3	2	Powerblock	638698, 3935882	NA
2016_700_ISEGS	Brewer's Blackbird	BRBL	Carcass Survey	12/6/2016	12/6/2016	Broken up	3-6 days	Feather spot size = small. Partial right wing held together by flesh. No singe, no evidence collision.	Unknown		1	Heliostat	640178, 3933627	NA
2016_701_ISEGS	Unknown Small Bird	UNID	Carcass Survey	12/12/2016	12/12/2016	Feather spot	3-6 days	Feather spot size = small. 17 body feathers, 5 retrices, 2 primaries. Singe on flight feathers visible with microscope.	Scorched or singed	Unk	1	Powerblock	637486, 3937917	NA
2016_702_ISEGS	Yellow-rumped Warbler	YRWA	Incidental	12/13/2016	12/14/2016	Mummified	2 weeks	Mummified Whole Carvass. Flight feathers singed off. Extensive singe to head, upper and lower back.	Scorched or singed	2~3	3	Project Structure	637470, 3937919	NA

Appendix B. Additional Detection Data for Fatality Estimates and Documentation of Fatality Estimates in Which Each Detection Was Included.

USFWS #	Species Code	Location	Distance from Tower (m)	Bird Size	Model Size	Cause of Death	How Found	Time Since Last Survey (days)	Used in Estimator	Tower Area	Power Block	Inner HD	Heliostat Area	Estimator Notes
2015_857_ISEGS	CACW	Outer Segment	807	Small	Feather Spot	unknown	Fatality Search	27	Yes				X	
2015_858_ISEGS	DEJU	Power Block	22	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X			Older than Search Interval
2015_859_ISEGS	UNID	Power Block	8	Small	Feather Spot	singed	Fatality Search	17	Yes	X	X			
2015_860_ISEGS	UNID	Power Block	9	Small	Feather Spot	singed	Fatality Search	17	Yes	X	X			
2016_001_ISEGS	WEGR	Inner HD	225	Large	Feather Spot	unknown	Fatality Search	29	Yes	X		X		
2016_002_ISEGS	WCSP	Inner HD	179	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X		
2016_003_ISEGS	WCSP	Inner HD	182	Small	Feather Spot	unknown	Fatality Search	29	Yes	X		X		
2016_004_ISEGS	WCSP	Inner HD	195	Small	Feather Spot	unknown	Fatality Search	29	Yes	X		X		
2016_005_ISEGS	CACW	Inner HD	190	Small	Feather Spot	unknown	Fatality Search	29	Yes	X		X		
2016_006_ISEGS	CACW	Inner Segment	404	Small	Feather Spot	unknown	Fatality Search	29	Yes				X	
2016_007_ISEGS	RCKI	ACC	69	Small	Small Carcass	singed	Fatality Search	24	No	X	X			Older than Search Interval
2016_008_ISEGS	NOMO	Power Block	25	Small	Feather Spot	unknown	Fatality Search	24	Yes	X	X			
2016_009_ISEGS	WCSP	Inner HD	146	Small	Small Carcass	collision	Fatality Search	16	Yes	X		X		
2016_010_ISEGS	YWAR	Outside Search - Tower	33	Small	Small Carcass	singed	Incidental	NA	No					Outside Standard Search Area
2016_011_ISEGS	HOLA	Inner Segment	547	Small	Feather Spot	unknown	Fatality Search	16	No				X	Older than Search Interval
2016_012_ISEGS	GHOW	Unit Fence	1445	Large	Large Carcass	unknown	Incidental	97	No					Older than Search Interval
2016_013_ISEGS	WCSP	Inner Segment	484	Small	Feather Spot	unknown	Fatality Search	22	Yes				X	
2016_014_ISEGS	UNID	Inner Segment	687	Small	Feather Spot	unknown	Fatality Search	22	Yes				X	
2016_015_ISEGS	UNID	Outer Segment	1084	Small	Feather Spot	unknown	Fatality Search	24	Yes				X	

2016_016_ISEGS	CACW	Outer Segment	800	Small	Feather Spot	unknown	Fatality Search	24	Yes				X
2016_017_ISEGS	UNSP	Power Block	45	Small	Small Carcass	unknown	Fatality Search	25	Yes	X	X		
2016_018_ISEGS	UNID	Inner HD	208	Small	Feather Spot	unknown	Fatality Search	27	Yes	X		X	
2016_019_ISEGS	WEME	Inner HD	215	Small	Feather Spot	unknown	Fatality Search	27	Yes	X		X	
2016_020_ISEGS	ANHU	Inner HD	137	Small	Small Carcass	singed	Fatality Search	27	Yes	X		X	
2016_021_ISEGS	BTSP	ACC	72	Small	Small Carcass	other (entrapment)	Fatality Search	17	Yes	X	X		
2016_022_ISEGS	UNGR	Power Block	10	Large	Feather Spot	unknown	Fatality Search	17	Yes	X	X		
2016_023_ISEGS	GRRO	Unit Fence	1401	Large	Feather Spot	unknown	Incidental	116	No				Older than Search Interval
2016_024_ISEGS	NOFL	Inner HD	225	Large	Feather Spot	unknown	Fatality Search	26	Yes	X		X	
2016_025_ISEGS	ANHU	Power Block	30	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_026_ISEGS	WEME	Inner Segment	623	Small	Feather Spot	unknown	Fatality Search	26	Yes				X
2016_027_ISEGS	COHU	Power Block	16	Small	Small Carcass	singed	Fatality Search	16	Yes	X	X		
2016_028_ISEGS	UNSP	Power Block	28	Small	Feather Spot	singed	Fatality Search	16	Yes	X	X		
2016_029_ISEGS	COHU	Power Block	71	Small	Small Carcass	singed	Fatality Search	16	Yes	X	X		
2016_030_ISEGS	COHU	Power Block	63	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_031_ISEGS	HOFI	ACC	52	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X		
2016_032_ISEGS	VGSW	Power Block	51	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_033_ISEGS	VGSW	Power Block	27	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_034_ISEGS	ANHU	ACC	63	Small	Small Carcass	singed	Fatality Search	20	Yes	X	X		
2016_035_ISEGS	TRES	Power Block	80	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_036_ISEGS	VGSW	Inner HD	163	Small	Feather Spot	singed	Fatality Search	21	Yes	X		X	
2016_037_ISEGS	VGSW	Inner HD	155	Small	Small Carcass	singed	Fatality Search	21	Yes	X		X	
2016_038_ISEGS	HOLA	Inner HD	219	Small	Feather	unknown	Fatality	21	Yes	X		X	

					Spot		Search					
2016_039_ISEGS	HOLA	Inner HD	190	Small	Feather Spot	unknown	Fatality Search	21	Yes	X		X
2016_040_ISEGS	UNSW	Inner HD	209	Small	Small Carcass	singed	Fatality Search	21	Yes	X		X
2016_041_ISEGS	LISP	Inner HD	210	Small	Small Carcass	unknown	Fatality Search	21	Yes	X		X
2016_042_ISEGS	UNID	Inner HD	218	Small	Small Carcass	unknown	Fatality Search	21	Yes	X		X
2016_043_ISEGS	COHU	Power Block	51	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_044_ISEGS	COHU	Power Block	25	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_045_ISEGS	TRES	ACC	43	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_046_ISEGS	TRES	ACC	50	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_047_ISEGS	TRES	ACC	63	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_048_ISEGS	TRES	ACC	73	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_049_ISEGS	UNID	Inner HD	252	Small	Feather Spot	unknown	Fatality Search	10	Yes	X		X
2016_050_ISEGS	UNID	Power Block	50	Small	Feather Spot	singed	Fatality Search	25	No	X	X	Older than Search Interval
2016_051_ISEGS	UNID	Power Block	5	Small	Feather Spot	unknown	Fatality Search	25	Yes	X	X	
2016_052_ISEGS	UNID	Inner HD	237	Small	Feather Spot	unknown	Fatality Search	10	Yes	X		X
2016_053_ISEGS	UNSP	Inner HD	184	Small	Feather Spot	unknown	Fatality Search	10	Yes	X		X
2016_054_ISEGS	HOLA	Power Block	13	Small	Small Carcass	singed	Fatality Search	9	Yes	X	X	
2016_055_ISEGS	LOSH	Outer Segment	1117	Small	Feather Spot	unknown	Fatality Search	24	Yes			X
2016_056_ISEGS	UNID	Outer Segment	1342	Small	Feather Spot	unknown	Fatality Search	24	Yes			X
2016_057_ISEGS	VGSW	Inner HD	245	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X
2016_058_ISEGS	UNID	Inner HD	219	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X
2016_059_ISEGS	NSWO	Outer Segment	950	Small	Feather Spot	unknown	Fatality Search	5	Yes			X
2016_060_ISEGS	VGSW	Power Block	65	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	

2016_061_ISEGS	RUHU	Power Block	30	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X		
2016_062_ISEGS	AMCO	Outer Segment	1075	Large	Feather Spot	singed	Fatality Search	9	Yes			X	
2016_063_ISEGS	DEJU	Power Block	55	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X		
2016_064_ISEGS	UNWA	Power Block	23	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X		
2016_065_ISEGS	UNID	Power Block	33	Small	Feather Spot	singed	Fatality Search	6	No	X	X	Older than Search Interval	
2016_066_ISEGS	LISP	Inner HD	197	Small	Small Carcass	collision	Fatality Search	5	Yes	X		X	
2016_067_ISEGS	UNID	Power Block	42	Small	Feather Spot	unknown	Fatality Search	5	Yes	X	X		
2016_068_ISEGS	WCSP	Power Block	36	Small	Feather Spot	unknown	Fatality Search	6	Yes	X	X		
2016_069_ISEGS	BTSP	Outer Segment	941	Small	Feather Spot	unknown	Fatality Search	7	Yes			X	
2016_070_ISEGS	UNID	Inner HD	236	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_071_ISEGS	WEME	Inner HD	231	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_072_ISEGS	COHU	Inner HD	184	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_073_ISEGS	TRES	Power Block	80	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X		
2016_074_ISEGS	COHU	Inner HD	162	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_075_ISEGS	HOFI	Power Block	5	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_076_ISEGS	SPTO	Inner Segment	660	Small	Feather Spot	unknown	Fatality Search	8	Yes			X	
2016_077_ISEGS	CRTH	Inner Segment	582	Small	Feather Spot	unknown	Fatality Search	8	No			X	Older than Search Interval
2016_078_ISEGS	WCSP	Inner Segment	462	Small	Feather Spot	collision	Fatality Search	7	Yes			X	
2016_079_ISEGS	WIWA	Outside Search - TOWER, TURBINE DECK	0	Small	Small Carcass	singed	Incidental	NA	No				Outside Standard Search Area
2016_080_ISEGS	HETH	Power Block	52	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_081_ISEGS	YRWA	Power Block	38	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		

2016_082_ISEGS	EAGR	Outside Search - DRAINAGE WASH	1202	Large	Large Carcass	collision	Incidental	NA	No						Outside Standard Search Area
2016_083_ISEGS	HOLA	Inner HD	229	Small	Feather Spot	unknown	Fatality Search	8	Yes	X			X		
2016_084_ISEGS	UNID	Outer Segment	819	Small	Feather Spot	collision	Fatality Search	7	Yes					X	
2016_085_ISEGS	UNGR	Inner HD	198	Large	Feather Spot	unknown	Fatality Search	7	Yes	X			X		
2016_086_ISEGS	UNGR	Inner HD	221	Large	Feather Spot	unknown	Fatality Search	7	Yes	X			X		
2016_087_ISEGS	COHU	Outer Segment	931	Small	Small Carcass	collision	Fatality Search	7	Yes					X	
2016_088_ISEGS	COHU	Outer Segment	946	Small	Small Carcass	collision	Fatality Search	7	Yes					X	
2016_089_ISEGS	TRES	Inner HD	122	Small	Small Carcass	singed	Fatality Search	7	Yes	X			X		
2016_090_ISEGS	RCKI	Power Block	23	Small	Small Carcass	singed	Fatality Search	9	Yes	X		X			
2016_091_ISEGS	RCKI	ACC	37	Small	Small Carcass	singed	Fatality Search	9	Yes	X		X			
2016_092_ISEGS	UNHU	Inner HD	148	Small	Small Carcass	singed	Incidental	8	Yes	X			X		
2016_093_ISEGS	COHU	Inner Segment	404	Small	Small Carcass	collision	Fatality Search	7	Yes					X	
2016_094_ISEGS	WCSP	Power Block	45	Small	Small Carcass	unknown	Fatality Search	9	Yes	X		X			
2016_095_ISEGS	UNHU	Power Block	20	Small	Small Carcass	singed	Fatality Search	9	Yes	X		X			
2016_096_ISEGS	YRWA	Power Block	31	Small	Small Carcass	singed	Fatality Search	9	Yes	X		X			
2016_097_ISEGS	MOD0	Outer Segment	640	Large	Large Carcass	collision	Incidental	NA	No					X	Older than Search Interval
2016_098_ISEGS	TRES	Inner HD	242	Small	Feather Spot	singed	Fatality Search	6	Yes	X			X		
2016_099_ISEGS	AMPI	Inner HD	238	Small	Small Carcass	collision	Fatality Search	6	Yes	X			X		
2016_100_ISEGS	LISP	Outer Segment	1107	Small	Small Carcass	collision	Fatality Search	7	Yes					X	
2016_101_ISEGS	AMPI	Inner HD	135	Small	Small Carcass	collision	Fatality Search	6	Yes	X			X		
2016_102_ISEGS	BARS	Inner HD	155	Small	Small Carcass	singed	Fatality Search	6	Yes	X			X		
2016_103_ISEGS	UNSP	Outer Segment	1320	Small	Feather Spot	unknown	Incidental	NA	No					X	Older than Search Interval

2016_104_ISEGS	BARS	Inner HD	212	Small	Small Carcass	singed	Fatality Search	6	Yes	X		X
2016_105_ISEGS	HOFI	Power Block	79	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_106_ISEGS	RUHU	Power Block	39	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_107_ISEGS	BLPH	Power Block	87	Small	Small Carcass	unknown	Fatality Search	7	Yes	X	X	
2016_108_ISEGS	AMPI	Inner HD	243	Small	Small Carcass	collision	Fatality Search	6	Yes	X		X
2016_109_ISEGS	YRWA	Power Block	56	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_110_ISEGS	UNHU	Power Block	25	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_111_ISEGS	VGSW	Power Block	94	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_112_ISEGS	LUWA	Power Block	80	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_113_ISEGS	COHU	Power Block	42	Small	Small Carcass	singed	Fatality Search	7	No	X	X	Older than Search Interval
2016_114_ISEGS	YRWA	ACC	42	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_115_ISEGS	NRWS	Power Block	25	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_116_ISEGS	SAVS	Inner HD	190	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X
2016_117_ISEGS	UNID	Power Block	21	Small	Feather Spot	unknown	Fatality Search	6	Yes	X	X	
2016_118_ISEGS	LENI	Power Block	73	Small	Small Carcass	unknown	Incidental	1(1)	Yes	X	X	
2016_119_ISEGS	UNKL	Power Block	84	Small	Feather Spot	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_120_ISEGS	YRWA	Power Block	5	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_121_ISEGS	YRWA	Power Block	6	Small	Feather Spot	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_122_ISEGS	TRES	Outer Segment	1165	Small	Small Carcass	unknown	Fatality Search	7	Yes			X
2016_123_ISEGS	CAHU	Inner HD	181	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X
2016_124_ISEGS	COHU	Inner HD	160	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X
2016_125_ISEGS	BGGN	Power Block	21	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	

2016_126_ISEGS	VGSW	Power Block	28	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_127_ISEGS	LEGO	ACC	75	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_128_ISEGS	BCHU	ACC	63	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_129_ISEGS	OCWA	ACC	35	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_130_ISEGS	COHU	ACC	35	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_131_ISEGS	YRWA	Power Block	102	Small	Feather Spot	unknown	Fatality Search	7	Yes	X	X		
2016_132_ISEGS	COHU	Power Block	112	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_133_ISEGS	AMPI	Inner HD	196	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_134_ISEGS	EAGR	Inner HD	239	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_135_ISEGS	COHU	Inner HD	121	Small	Small Carcass	singed	Fatality Search	7	No	X		X	Older than Search Interval
2016_136_ISEGS	HOLA	Inner HD	224	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X	
2016_137_ISEGS	OCWA	Inner HD	221	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X	
2016_138_ISEGS	LISP	Inner HD	206	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_139_ISEGS	BARS	Power Block	78	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_140_ISEGS	CORA	Outer Segment	1434	Large	Large Carcass	singed	Fatality Search	7	Yes				X
2016_141_ISEGS	SUTA	Power Block	75	Small	Small Carcass	collision	Fatality Search	7	Yes	X	X		
2016_142_ISEGS	COHU	Inner HD	144	Small	Small Carcass	singed	Fatality Search	7	Yes	X			X
2016_143_ISEGS	OCWA	Power Block	79	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_144_ISEGS	UNID	Power Block	51	Small	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_145_ISEGS	TRES	Power Block	32	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_146_ISEGS	CAHU	Power Block	31	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_147_ISEGS	YRWA	Inner HD	200	Small	Small Carcass	singed	Fatality Search	7	Yes	X			X
2016_148_ISEGS	RCKI	Power Block	49	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		

2016_149_ISEGS	CORA	Power Block	107	Large	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_150_ISEGS	BARS	Power Block	15	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_151_ISEGS	YHBL	Inner Segment	246	Small	Small Carcass	unknown	Fatality Search	6	Yes			X
2016_152_ISEGS	AMAV	Inner HD	219	Large	Large Carcass	unknown	Fatality Search	6	Yes	X		X
2016_153_ISEGS	LASP	Inner HD	121	Small	Small Carcass	collision	Fatality Search	6	Yes	X		X
2016_154_ISEGS	UNID	Inner HD	248	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X
2016_155_ISEGS	WETA	Power Block	5	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_156_ISEGS	YWAR	Outer Segment	757	Small	Small Carcass	collision	Fatality Search	6	Yes			X
2016_157_ISEGS	WIWA	ACC	53	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_158_ISEGS	WIWA	Power Block	43	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_159_ISEGS	BCHU	Outer Segment	1061	Small	Small Carcass	collision	Fatality Search	6	Yes			X
2016_160_ISEGS	UNSW	Power Block	35	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_161_ISEGS	UNID	Power Block	45	Small	Feather Spot	singed	Fatality Search	8	Yes	X	X	
2016_162_ISEGS	CAHU	Power Block	119	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_163_ISEGS	OCWA	ACC	56	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_164_ISEGS	WIWA	Power Block	20	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_165_ISEGS	WIWA	Power Block	19	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_166_ISEGS	TOWA	Power Block	28	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_167_ISEGS	OCWA	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_168_ISEGS	UNWA	Power Block	60	Small	Small Carcass	unknown	Fatality Search	9	Yes	X	X	
2016_169_ISEGS	TOWA	Power Block	69	Small	Small Carcass	singed	Fatality Search	9	Yes	X	X	
2016_170_ISEGS	OCWA	Outer Segment	921	Small	Small Carcass	collision	Fatality Search	7	Yes			X
2016_171_ISEGS	WIWA	Inner HD	200	Small	Small	collision	Fatality	8	Yes	X		X

					Carcass	Search							
2016_172_ISEGS	WIWA	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_173_ISEGS	LAZB	Power Block	50	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_174_ISEGS	UNHU	ACC	75	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_175_ISEGS	LAZB	ACC	62	Small	Small Carcass	other (entrapment)	Fatality Search	14	Yes	X	X		
2016_176_ISEGS	NOMO	Inner HD	208	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_177_ISEGS	UNWA	Inner HD	208	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_178_ISEGS	WIWA	ACC	50	Small	Small Carcass	other (entrapment)	Fatality Search	14	Yes	X	X		
2016_179_ISEGS	MODO	Inner HD	211	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_180_ISEGS	EAGR	Power Block	74	Large	Large Carcass	unknown	Incidental	1(1)	Yes	X	X		
2016_181_ISEGS	WIWA	ACC	45	Small	Small Carcass	singed	Fatality Search	5	Yes	X	X		
2016_182_ISEGS	WIWA	ACC	32	Small	Small Carcass	singed	Fatality Search	5	Yes	X	X		
2016_183_ISEGS	MODO	Inner HD	246	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_184_ISEGS	OCWA	Power Block	28	Small	Feather Spot	unknown	Fatality Search	6	Yes	X	X		
2016_185_ISEGS	SAVS	Inner HD	220	Small	Feather Spot	unknown	Fatality Search	7	No	X		X	Older than Search Interval
2016_186_ISEGS	UNSP	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_187_ISEGS	WIWA	Power Block	0	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X		Older than Search Interval
2016_188_ISEGS	BCHU	Inner Segment	621	Small	Small Carcass	collision	Fatality Search	10	Yes			X	
2016_189_ISEGS	NRWS	Outer Segment	1111	Small	Feather Spot	unknown	Fatality Search	6	Yes			X	
2016_190_ISGES	UNID	ACC	96	Small	Small Carcass	singed	Fatality Search	15	Yes	X	X		
2016_191_ISEGS	UNWA	Power Block	65	Small	Small Carcass	singed	Fatality Search	15	Yes	X	X		
2016_192_ISEGS	CLSW	ACC	46	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_193_ISEGS	OCWA	Power Block	58	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_194_ISEGS	MGWA	Inner HD	183	Small	Small	collision	Fatality	16	Yes	X		X	

					Carcass		Search					
2016_195_ISEGS	UNGR	Inner HD	232	Large	Feather Spot	unknown	Fatality Search	19	Yes	X		X
2016_196_ISEGS	UNLB	ACC	51	Large	Feather Spot	other (entrapment)	Fatality Search	21	Yes	X	X	
2016_197_ISEGS	GRRO	Inner Segment	485	Large	Large Carcass	unknown	Fatality Search	25	Yes			X
2016_198_ISEGS	CLSW	Power Block	10	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_199_ISEGS	UNHU	ACC	50	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X	
2016_200_ISEGS	BTSP	ACC	47	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X	
2016_201_ISEGS	UNID	Inner HD	200	Small	Feather Spot	collision	Fatality Search	21	Yes	X		X
2016_202_ISEGS	BTGN	ACC	47	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_203_ISEGS	VERD	Power Block	20	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_204_ISEGS	UNSW	Power Block	25	Small	Feather Spot	singed	Fatality Search	21	Yes	X	X	
2016_205_ISEGS	TRES	Power Block	45	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_206_ISEGS	COHU	Power Block	35	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_207_ISEGS	COHU	Power Block	90	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_208_ISEGS	LBCU	Outer Segment	668	Large	Feather Spot	unknown	Fatality Search	34	Yes			X
2016_209_ISEGS	BTSP	Power Block	30	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_210_ISEGS	BTGN	Power Block	10	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_211_ISEGS	UNHU	Power Block	27	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_212_ISEGS	RUHU	Power Block	28	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_213_ISEGS	UNHU	Power Block	28	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_214_ISEGS	LUWA	ACC	35	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_215_ISEGS	UNID	Power Block	37	Small	Feather Spot	singed	Fatality Search	14	No	X	X	Older than Search Interval
2016_216_ISEGS	WTSW	Power Block	0	Small	Feather Spot	singed	Fatality Search	14	Yes	X	X	

2016_217_ISEGS	LENI	Inner HD	221	Small	Feather Spot	unknown	Fatality Search	14	No	X		X	Older than Search Interval
2016_218_ISEGS	RUHU	Power Block	71	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_219_ISEGS	TRES	Power Block	62	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_220_ISEGS	CLSW	Power Block	114	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_221_ISEGS	TRES	Power Block	79	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_222_ISEGS	CLSW	Power Block	69	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_223_ISEGS	NRWS	Power Block	43	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_224_ISEGS	UNHU	Power Block	68	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_225_ISEGS	CLSW	ACC	39	Small	Small Carcass	other (entrapment)	Fatality Search	22	Yes	X	X		
2016_226_ISEGS	BANS	ACC	39	Small	Small Carcass	singed	Fatality Search	22	Yes	X	X		
2016_227_ISEGS	CLSW	ACC	50	Small	Small Carcass	other (entrapment)	Fatality Search	22	Yes	X	X		
2016_228_ISEGS	NRWS	ACC	60	Small	Small Carcass	singed	Fatality Search	22	Yes	X	X		
2016_229_ISEGS	NRWS	ACC	68	Small	Small Carcass	other (entrapment)	Fatality Search	22	Yes	X	X		
2016_230_ISEGS	UNHU	Power Block	29	Small	Small Carcass	singed	Fatality Search	22	Yes	X	X		
2016_231_ISEGS	TRES	Power Block	50	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_232_ISEGS	COHU	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_233_ISEGS	TRES	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_234_ISEGS	LOSH	Inner HD	245	Small	Feather Spot	unknown	Fatality Search	22	Yes	X		X	
2016_235_ISEGS	UNSW	Inner HD	148	Small	Feather Spot	unknown	Fatality Search	22	Yes	X		X	
2016_236_ISEGS	BTSP	Outside Search - Power Block/Level 6	0	Small	Small Carcass	singed	Incidental	NA	No				Outside Standard Search Area
2016_237_ISEGS	NRWS	Power Block	59	Small	Feather Spot	singed	Incidental	1(1)	No	X	X		Older than Search Interval

2016_238_ISEGS	COHU	Power Block	60	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_239_ISEGS	TRES	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_240_ISEGS	BUOR	Power Block	32	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_241_ISEGS	NRWS	Power Block	51	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X	Older than Search Interval
2016_242_ISEGS	CLSW	Power Block	76	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_243_ISEGS	TRES	Power Block	51	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_244_ISEGS	VERD	Power Block	55	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_245_ISEGS	TRES	Power Block	24	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_246_ISEGS	NRWS	Power Block	10	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_247_ISEGS	NRWS	Outside Search - Tower	0	Small	Small Carcass	singed	Incidental	NA	No			Outside Standard Search Area
2016_248_ISEGS	UNHU	Power Block	44	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_249_ISEGS	UNSW	Power Block	38	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_250_ISEGS	TRES	Power Block	84	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_251_ISEGS	VGSW	Power Block	46	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_252_ISEGS	CLSW	Power Block	86	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_253_ISEGS	YWAR	Power Block	94	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_254_ISEGS	UNOR	Power Block	43	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_255_ISEGS	UNSW	ACC	57	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_256_ISEGS	CLSW	ACC	68	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_257_ISEGS	HOFI	Power Block	94	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_258_ISEGS	NRWS	Power Block	128	Small	Small Carcass	singed	Fatality Search	25	Yes	X	X	
2016_259_ISEGS	UNSW	Inner HD	227	Small	Feather	unknown	Fatality	25	Yes	X		X

				Spot			Search						
2016_260_ISEGS	NRWS	Inner HD	194	Small	Feather Spot	unknown	Fatality Search	25	Yes	X		X	
2016_261_ISEGS	CLSW	Power Block	79	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X		Older than Search Interval
2016_262_ISEGS	CLSW	Power Block	20	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X		
2016_263_ISEGS	LUWA	ACC	64	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X		
2016_264_ISEGS	TRES	Power Block	88	Small	Small Carcass	singed	Fatality Search	26	Yes	X	X		
2016_265_ISEGS	UNBD	Inner HD	195	Large	Feather Spot	unknown	Fatality Search	27	Yes	X		X	
2016_266_ISEGS	YWAR	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_267_ISEGS	YWAR	Power Block	50	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_268_ISEGS	BTSP	Power Block	35	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_269_ISEGS	YWAR	Power Block	48	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_270_ISEGS	YWAR	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_271_ISEGS	TRES	Power Block	88	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_272_ISEGS	UNSP	Outer Segment	1150	Small	Small Carcass	unknown	Fatality Search	20	Yes			X	
2016_273_ISEGS	TRES	Power Block	51	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_274_ISEGS	MOD0	Power Block	5	Large	Large Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_275_ISEGS	TRES	Power Block	11	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_276_ISEGS	UNFL	Power Block	4	Small	Feather Spot	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_277_ISEGS	UNID	Power Block	6	Small	Feather Spot	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_278_ISEGS	NOMO	Power Block	6	Small	Feather Spot	unknown	Incidental	1(1)	No	X	X		Older than Search Interval
2016_279_ISEGS	UNID	Power Block	16	Small	Feather Spot	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_280_ISEGS	UNSW	Power Block	4	Small	Feather Spot	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_281_ISEGS	MGWA	ACC	38	Small	Small	singed	Fatality	29	Yes	X	X		

					Carcass		Search					
2016_282_ISEGS	YWAR	ACC	38	Small	Small Carcass	singed	Fatality Search	29	Yes	X	X	
2016_283_ISEGS	BHCO	ACC	42	Small	Small Carcass	singed	Fatality Search	29	Yes	X	X	
2016_284_ISEGS	YWAR	ACC	62	Small	Small Carcass	singed	Fatality Search	29	Yes	X	X	
2016_285_ISEGS	TRES	ACC	63	Small	Small Carcass	singed	Fatality Search	29	Yes	X	X	
2016_286_ISEGS	UNHU	Power Block	109	Small	Small Carcass	singed	Fatality Search	29	Yes	X	X	
2016_287_ISEGS	WEKI	Inner HD	195	Small	Feather Spot	unknown	Fatality Search	29	Yes	X		X
2016_288_ISEGS	UNSW	Inner HD	132	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_289_ISEGS	KILL	Inner HD	NA	Large	Feather Spot	unknown	Fatality Search	29	Yes	X		X
2016_290_ISEGS	TRES	Power Block	77	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_291_ISEGS	LENI	Power Block	36	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X	Older than Search Interval
2016_292_ISEGS	UNID	Inner HD	231	Small	Small Carcass	unknown	Fatality Search	29	Yes	X		X
2016_293_ISEGS	LAZB	Inner HD	184	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_294_ISEGS	NOMO	Inner HD	179	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_295_ISEGS	YWAR	Inner HD	180	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_296_ISEGS	UNID	Inner HD	212	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_297_ISEGS	KILL	Inner HD	227	Large	Feather Spot	unknown	Fatality Search	29	Yes	X		X
2016_298_ISEGS	LENI	Inner HD	221	Small	Feather Spot	unknown	Fatality Search	29	Yes	X		X
2016_299_ISEGS	YWAR	Inner HD	248	Small	Small Carcass	unknown	Fatality Search	29	Yes	X		X
2016_300_ISEGS	UNID	Inner HD	184	Small	Feather Spot	singed	Fatality Search	29	Yes	X		X
2016_301_ISEGS	CLSW	Power Block	48	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_302_ISEGS	NRWS	Power Block	15	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_303_ISEGS	NRWS	Power Block	15	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X	Older than Search Interval
2016_304_ISEGS	UNID	Power Block	25	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval

2016_305_ISEGS	WIWA	Power Block	31	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X
2016_306_ISEGS	YWAR	Power Block	57	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X
2016_307_ISEGS	YWAR	Power Block	62	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X
2016_308_ISEGS	YWAR	ACC	38	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_309_ISEGS	YWAR	Power Block	33	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_310_ISEGS	ANHU	Power Block	29	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_311_ISEGS	YWAR	Power Block	23	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_312_ISEGS	UNWA	Power Block	28	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_313_ISEGS	UNID	Power Block	53	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_314_ISEGS	RUHU	Power Block	72	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_315_ISEGS	WIWA	Power Block	37	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_316_ISEGS	YWAR	Power Block	62	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_317_ISEGS	MODD	Inner HD	269	Large	Large Carcass	unknown	Incidental	27	Yes	X	X
2016_318_ISEGS	YWAR	Power Block	81	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_319_ISEGS	YWAR	Power Block	64	Small	Small Carcass	singed	Fatality Search	28	Yes	X	X
2016_320_ISEGS	WIWA	Inner HD	136	Small	Small Carcass	singed	Fatality Search	27	Yes	X	X
2016_321_ISEGS	UNSW	Power Block	86	Small	Feather Spot	singed	Fatality Search	14	Yes	X	X
2016_322_ISEGS	YWAR	ACC	37	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X
2016_323_ISEGS	BTYW	ACC	35	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X
2016_324_ISEGS	BTYW	Power Block	41	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X
2016_325_ISEGS	BHCO	Power Block	41	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X
2016_326_ISEGS	YWAR	ACC	44	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X
2016_327_ISEGS	YWAR	ACC	47	Small	Small	singed	Fatality	14	Yes	X	X

							Carcass	Search				
2016_328_ISEGS	BTYW	ACC	48	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_329_ISEGS	UNID	Power Block	47	Small	Feather Spot	singed	Fatality Search	21	Yes	X	X	
2016_330_ISEGS	MGWA	ACC	54	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_331_ISEGS	YWAR	ACC	65	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_332_ISEGS	BTYW	Inner HD	216	Small	Small Carcass	singed	Fatality Search	21	Yes	X		X
2016_333_ISEGS	MOD0	Power Block	55	Large	Feather Spot	singed	Fatality Search	21	Yes	X	X	
2016_334_ISEGS	BGGN	Power Block	13	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_335_ISEGS	BTSP	Power Block	45	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_336_ISEGS	VERD	Power Block	16	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_337_ISEGS	UNGR	Power Block	15	Large	Feather Spot	unknown	Fatality Search	14	No	X	X	Older than Search Interval
2016_338_ISEGS	HOWR	Inner HD	231	Small	Small Carcass	unknown	Fatality Search	21	No	X		X Older than Search Interval
2016_339_ISEGS	WIWA	ACC	90	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_340_ISEGS	CLSW	Power Block	60	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_341_ISEGS	UNID	Power Block	22	Small	Feather Spot	unknown	Fatality Search	14	Yes	X	X	
2016_342_ISEGS	MOD0	Power Block	20	Large	Feather Spot	singed	Fatality Search	14	Yes	X	X	
2016_343_ISEGS	BHGR	ACC	80	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_344_ISEGS	LUWA	ACC	68	Small	Small Carcass	other (entrapment)	Fatality Search	21	Yes	X	X	
2016_345_ISEGS	YWAR	ACC	72	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_346_ISEGS	WIWA	ACC	64	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_347_ISEGS	BHCO	ACC	62	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	
2016_348_ISEGS	BCHU	Power Block	97	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X	
2016_349_ISEGS	YWAR	Power Block	60	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X	

2016_350_ISEGS	MODO	Power Block	13	Large	Feather Spot	unknown	Fatality Search	14	No	X	X	Older than Search Interval	
2016_351_ISEGS	UNSW	Power Block	113	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X		
2016_352_ISEGS	BTYW	Power Block	15	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_353_ISEGS	UNID	Power Block	14	Small	Feather Spot	singed	Fatality Search	14	Yes	X	X		
2016_354_ISEGS	UNID	Power Block	15	Small	Feather Spot	singed	Fatality Search	14	Yes	X	X		
2016_355_ISEGS	NRWS	Power Block	100	Small	Small Carcass	singed	Fatality Search	14	Yes	X	X		
2016_356_ISEGS	CITE	Inner HD	236	Large	Feather Spot	unknown	Fatality Search	21	Yes	X		X	
2016_357_ISEGS	UNID	Inner HD	272	Small	Small Carcass	unknown	Fatality Search	21	Yes	X		X	
2016_358_ISEGS	TEAL	Outer Segment	1190	Large	Large Carcass	unknown	Fatality Search	20	Yes			X	
2016_359_ISEGS	UNID	Inner HD	138	Small	Feather Spot	singed	Fatality Search	14	Yes	X		X	
2016_360_ISEGS	TRES	Power Block	41	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_361_ISEGS	WETA	Inner HD	NA	Small	Small Carcass	singed	Incidental	22	Yes	X		X	
2016_362_ISEGS	MODO	Inner HD	230	Large	Feather Spot	unknown	Fatality Search	14	Yes	X		X	
2016_363_ISEGS	ROPI	Inner HD	180	Large	Feather Spot	singed	Fatality Search	14	No	X		X	Older than Search Interval
2016_364_ISEGS	TEAL	Outer Segment	1151	Large	Feather Spot	unknown	Fatality Search	20	Yes			X	
2016_365_ISEGS	CITE	Outer Segment	1087	Large	Large Carcass	collision	Fatality Search	29	Yes			X	
2016_366_ISEGS	WETA	Outer Segment	742	Small	Small Carcass	unknown	Fatality Search	29	Yes			X	
2016_367_ISEGS	GRRO	Outer Segment	891	Large	Feather Spot	collision	Fatality Search	18	No			X	Older than Search Interval
2016_368_ISEGS	MODO	Outer Segment	999	Large	Large Carcass	unknown	Fatality Search	18	Yes			X	
2016_369_ISEGS	UNID	Outer Segment	747	Small	Small Carcass	unknown	Incidental	NA	No			X	Older than Search Interval
2016_370_ISEGS	SESA	Power Block	49	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval	
2016_371_ISEGS	YWAR	Inner HD	144	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_372_ISEGS	UNHU	ACC	38	Small	Small	singed	Fatality	7	Yes	X	X		

					Carcass		Search				
2016_373_ISEGS	YWAR	ACC	65	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_374_ISEGS	YWAR	ACC	65	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_375_ISEGS	YWAR	ACC	72	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_376_ISEGS	WETA	Power Block	68	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_377_ISEGS	YWAR	Inner HD	127	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_378_ISEGS	LEGO	Inner HD	239	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_379_ISEGS	YWAR	Inner HD	136	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X
2016_380_ISEGS	WETA	Power Block	21	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_381_ISEGS	BHCO	Power Block	54	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_382_ISEGS	YWAR	Power Block	41	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_383_ISEGS	YWAR	Power Block	17	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_384_ISEGS	YWAR	Power Block	NA	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_385_ISEGS	YWAR	Power Block	71	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_386_ISEGS	YWAR	Power Block	61	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_387_ISEGS	YWAR	Power Block	52	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_388_ISEGS	YWAR	Inner HD	118	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_389_ISEGS	WIWA	Inner HD	97	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_390_ISEGS	UNID	Power Block	105	Small	Feather Spot	unknown	Fatality Search	7	Yes	X	X
2016_391_ISEGS	LAZB	Inner HD	121	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X
2016_392_ISEGS	YWAR	ACC	66	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X
2016_393_ISEGS	TRES	ACC	43	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X
2016_394_ISEGS	YWAR	ACC	42	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X

2016_395_ISEGS	UNID	Power Block	44	Small	Small Carcass	unknown	Fatality Search	6	No	X	X	Older than Search Interval
2016_396_ISEGS	UNID	Power Block	21	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_397_ISEGS	YWAR	Power Block	23	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_398_ISEGS	YWAR	Power Block	21	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_399_ISEGS	BHCO	Power Block	50	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_400_ISEGS	MODO	Power Block	15	Large	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_401_ISEGS	NAWA	Power Block	99	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_402_ISEGS	LAZB	Power Block	93	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_403_ISEGS	UNBU	Power Block	27	Large	Large Carcass	singed	Fatality Search	6	Yes	X	X	
2016_404_ISEGS	BGGN	Power Block	86	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_405_ISEGS	CACW	Inner HD	169	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X
2016_406_ISEGS	MODO	Inner HD	251	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X
2016_407_ISEGS	UNOR	Inner HD	190	Small	Feather Spot	singed	Fatality Search	7	No	X		X
2016_408_ISEGS	CHSP	Power Block	53	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_409_ISEGS	OCWA	Power Block	52	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_410_ISEGS	BTYW	Power Block	56	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_411_ISEGS	LAZB	Power Block	31	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_412_ISEGS	UNDV	Inner HD	185	Large	Feather Spot	singed	Fatality Search	7	No	X		X
2016_413_ISEGS	UNWF	Inner HD	110	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X
2016_414_ISEGS	LAZB	Power Block	31	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_415_ISEGS	AMAV	Outer Segment	1368	Large	Large Carcass	unknown	Fatality Search	7	No			X
2016_416_ISEGS	YWAR	Power Block	83	Small	Feather Spot	singed	Incidental	1(1)	No	X	X	Older than Search Interval

2016_417_ISEGS	YWAR	Power Block	93	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_418_ISEGS	HEWA	Power Block	84	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_419_ISEGS	BHCO	Outside Search - Tower	0	Small	Small Carcass	singed	Incidental	NA	No			Outside Standard Search Area
2016_420_ISEGS	BGGN	Outside Search - Tower	0	Small	Small Carcass	singed	Incidental	NA	No			Outside Standard Search Area
2016_421_ISEGS	BTSP	Power Block	18	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X	Older than Search Interval
2016_422_ISEGS	OCWA	Power Block	41	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_423_ISEGS	CLSW	Power Block	83	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_424_ISEGS	YWAR	ACC	33	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_425_ISEGS	SAPH	ACC	51	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_426_ISEGS	YWAR	ACC	63	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_427_ISEGS	NRWS	ACC	45	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_428_ISEGS	YWAR	Power Block	57	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_429_ISEGS	UNWA	Power Block	73	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_430_ISEGS	LISP	Inner HD	227	Small	Small Carcass	unknown	Fatality Search	7	Yes	X		X
2016_431_ISEGS	UNID	Power Block	75	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_432_ISEGS	MOD0	Power Block	62	Large	Large Carcass	unknown	Fatality Search	7	Yes	X	X	
2016_433_ISEGS	YWAR	Power Block	76	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_434_ISEGS	YWAR	Power Block	66	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_435_ISEGS	HOLA	Power Block	72	Small	Small Carcass	unknown	Fatality Search	7	No	X	X	Older than Search Interval
2016_436_ISEGS	YWAR	Power Block	51	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_437_ISEGS	UNID	Inner Segment	479	Small	Feather Spot	unknown	Fatality Search	6	No		X	Older than Search Interval

2016_438_ISEGS	LAZB	Power Block	31	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_439_ISEGS	OCWA	Inner HD	236	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_440_ISEGS	CSWA	Power Block	31	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_441_ISEGS	YWAR	Power Block	20	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_442_ISEGS	UNID	Power Block	18	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_443_ISEGS	YWAR	Power Block	7	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_444_ISEGS	YWAR	Power Block	20	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_445_ISEGS	UNDV	Power Block	18	Large	Large Carcass	singed	Fatality Search	7	Yes	X	X		
2016_446_ISEGS	BTYW	Power Block	28	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_447_ISEGS	YWAR	Power Block	99	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_448_ISEGS	UNID	Inner HD	147	Small	Small Carcass	singed	Fatality Search	7	No	X		X	Older than Search Interval
2016_449_ISEGS	SAPH	Power Block	93	Small	Small Carcass	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_450_ISEGS	YWAR	Power Block	89	Small	Small Carcass	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_451_ISEGS	YWAR	Power Block	103	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_452_ISEGS	UNID	Power Block	101	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_453_ISEGS	BGGN	Power Block	126	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_454_ISEGS	UNGN	Power Block	46	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_455_ISEGS	BGGN	Power Block	22	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_456_ISEGS	YWAR	ACC	47	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_457_ISEGS	BRSP	Power Block	97	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_458_ISEGS	YWAR	ACC	34	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_459_ISEGS	ANHU	Power Block	75	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		

2016_460_ISEGS	HEWA	ACC	47	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_461_ISEGS	CHSP	ACC	40	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_462_ISEGS	BRSP	ACC	54	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_463_ISEGS	NRWS	ACC	35	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_464_ISEGS	WIWA	ACC	35	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_465_ISEGS	PEFA	Power Block	37	Large	Large Carcass	singed	Fatality Search	7	Yes	X	X		
2016_466_ISEGS	UNFL	Power Block	66	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_467_ISEGS	HOFI	Power Block	87	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_468_ISEGS	YWAR	Inner HD	82	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_469_ISEGS	UNSP	Inner HD	233	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_470_ISEGS	YWAR	Power Block	23	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_471_ISEGS	UNID	Power Block	23	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_472_ISEGS	UNID	Power Block	20	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_473_ISEGS	UNID	Power Block	20	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_474_ISEGS	LENI	Power Block	25	Small	Feather Spot	unknown	Fatality Search	7	Yes	X	X		
2016_475_ISEGS	LOSH	Power Block	6	Small	Feather Spot	unknown	Fatality Search	7	No	X	X	Older than Search Interval	
2016_476_ISEGS	UNID	Power Block	71	Small	Feather Spot	unknown	Fatality Search	8	Yes	X	X		
2016_477_ISEGS	YWAR	Inner HD	185	Small	Small Carcass	singed	Fatality Search	7	No	X		X	Older than Search Interval
2016_478_ISEGS	YWAR	Power Block	23	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_479_ISEGS	OCWA	Inner HD	207	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_480_ISEGS	LENI	Inner HD	90	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_481_ISEGS	WEKI	Inner HD	222	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_482_ISEGS	OCWA	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		

2016_483_ISEGS	BRSP	Power Block	55	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_484_ISEGS	CAKI	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_485_ISEGS	LEGO	Power Block	19	Small	Small Carcass	unknown	Incidental	1(1)	No	X	X	Older than Search Interval
2016_486_ISEGS	YWAR	Power Block	69	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_487_ISEGS	YRWA	Power Block	55	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_488_ISEGS	TOWA	Inner HD	NA	Small	Small Carcass	unknown	Incidental	4	Yes	X		X
2016_489_ISEGS	VGSW	ACC	30	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_490_ISEGS	VGSW	ACC	28	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_491_ISEGS	UNID	Inner HD	110	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_492_ISEGS	BTYW	ACC	42	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_493_ISEGS	VGSW	ACC	38	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_494_ISEGS	VGSW	ACC	53	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_495_ISEGS	VGSW	Power Block	15	Small	Small Carcass	singed	Fatality Search	6	Yes	X	X	
2016_496_ISEGS	RNPH	Power Block	102	Large	Large Carcass	singed	Fatality Search	6	Yes	X	X	
2016_497_ISEGS	BTGN	Power Block	33	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X	
2016_498_ISEGS	YWAR	Power Block	33	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X	
2016_499_ISEGS	UNID	Power Block	72	Small	Feather Spot	singed	Fatality Search	6	Yes	X	X	
2016_500_ISEGS	WETA	Inner Segment	589	Small	Small Carcass	singed	Fatality Search	8	Yes			X
2016_501_ISEGS	OCWA	ACC	44	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_502_ISEGS	BGGN	ACC	78	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_503_ISEGS	VASW	ACC	57	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_504_ISEGS	UNID	Power Block	47	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_505_ISEGS	CHSP	Power Block	26	Small	Small Carcass	unknown	Fatality Search	7	Yes	X	X	

2016_506_ISEGS	GRRO	Inner Segment	497	Large	Feather Spot	unknown	Fatality Search	8	No			X	Older than Search Interval
2016_507_ISEGS	MOD0	Power Block	19	Large	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_508_ISEGS	YWAR	Power Block	17	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_509_ISEGS	BGGN	Power Block	58	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_510_ISEGS	YWAR	ACC	52	Small	Small Carcass	singed	Incidental	1	Yes	X	X		
2016_511_ISEGS	HOLA	Power Block	67	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_512_ISEGS	VGSW	Power Block	30	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_513_ISEGS	LOSH	Inner Segment	404	Small	Feather Spot	unknown	Fatality Search	8	Yes			X	
2016_514_ISEGS	GWTE	Outer Segment	1260	Large	Feather Spot	unknown	Incidental	NA	No			X	Older than Search Interval
2016_515_ISEGS	ROPI	Inner HD	237	Large	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_516_ISEGS	VASW	Inner HD	133	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_517_ISEGS	NRWS	Inner HD	158	Small	Feather Spot	unknown	Fatality Search	7	No	X		X	Older than Search Interval
2016_518_ISEGS	LISP	Outer Segment	1019	Small	Small Carcass	singed	Fatality Search	7	Yes			X	
2016_519_ISEGS	UNWF	Inner HD	120	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_520_ISEGS	VASW	Inner HD	156	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_521_ISEGS	VASW	Inner HD	131	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_522_ISEGS	UNID	Inner HD	123	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_523_ISEGS	UNGR	Inner HD	215	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_524_ISEGS	WIWA	Power Block	42	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_525_ISEGS	GTTO	Inner HD	218	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_526_ISEGS	WEKI	Inner HD	216	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_527_ISEGS	WETA	Outer Segment	784	Small	Feather Spot	collision	Fatality Search	8	Yes			X	
2016_528_ISEGS	UNID	ACC	28	Small	Small Carcass	singed	Fatality Search	7	No	X	X		Older than Search Interval

2016_529_ISEGS	TEAL	Outer Segment	852	Large	Feather Spot	unknown	Fatality Search	11	Yes				X
2016_530_ISEGS	HEWA	ACC	68	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_531_ISEGS	NRWS	Power Block	64	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_532_ISEGS	YRWA	Inner HD	155	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_533_ISEGS	SWIF	Inner HD	150	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_534_ISEGS	YRWA	Inner HD	115	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_535_ISEGS	UNID	Inner HD	100	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_536_ISEGS	UNID	Power Block	21	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_537_ISEGS	UNID	Power Block	17	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_538_ISEGS	YWAR	Power Block	17	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_539_ISEGS	UNWA	Power Block	25	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_540_ISEGS	UNID	Power Block	80	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_541_ISEGS	LISP	Outer Segment	1228	Small	Small Carcass	unknown	Fatality Search	11	Yes				X
2016_542_ISEGS	MOD0	Power Block	118	Large	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_543_ISEGS	NRWS	Inner HD	196	Small	Feather Spot	singed	Fatality Search	7	No	X		X	Older than Search Interval
2016_544_ISEGS	ANHU	Power Block	133	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_545_ISEGS	NRWS	Inner HD	255	Small	Feather Spot	singed	Fatality Search	7	No	X		X	Older than Search Interval
2016_546_ISEGS	OCWA	Power Block	86	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_547_ISEGS	LOSH	Inner Segment	410	Small	Feather Spot	unknown	Fatality Search	7	Yes				X
2016_548_ISEGS	YRWA	Inner HD	249	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_549_ISEGS	UNSW	Power Block	76	Small	Small Carcass	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_550_ISEGS	UNID	Power Block	10	Small	Feather Spot	unknown	Fatality Search	7	Yes	X	X		
2016_551_ISEGS	BHCO	Inner HD	179	Small	Feather	unknown	Fatality	7	Yes	X		X	

							Spot						Search		
2016_552_ISEGS	UNSW	Inner HD	183	Small	Feather Spot	singed	Fatality Search	7	No	X		X		Older than Search Interval	
2016_553_ISEGS	CHSP	Power Block	19	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X				
2016_554_ISEGS	UNHU	Inner HD	182	Small	Small Carcass	unknown	Fatality Search	7	No	X		X		Older than Search Interval	
2016_555_ISEGS	VASW	Power Block	21	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X				
2016_556_ISEGS	WEKI	Inner HD	236	Small	Feather Spot	unknown	Fatality Search	7	No	X		X		Older than Search Interval	
2016_557_ISEGS	UNSP	Inner HD	221	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_558_ISEGS	YWAR	Inner HD	244	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_559_ISEGS	UNSP	Inner HD	232	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_560_ISEGS	MOD0	Inner HD	239	Large	Feather Spot	unknown	Fatality Search	7	No	X		X		Older than Search Interval	
2016_561_ISEGS	UNSP	Inner HD	194	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X			
2016_562_ISEGS	AMPI	Outer Segment	1172	Small	Feather Spot	unknown	Fatality Search	7	Yes				X		
2016_563_ISEGS	LENI	Inner HD	99	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_564_ISEGS	UNGR	Inner HD	NA	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_565_ISEGS	WEME	Outer Segment	1396	Small	Feather Spot	unknown	Fatality Search	7	Yes				X		
2016_566_ISEGS	MOD0	Outer Segment	1423	Large	Feather Spot	unknown	Fatality Search	7	Yes				X		
2016_567_ISEGS	UNGR	Inner HD	241	Large	Large Carcass	unknown	Fatality Search	7	No	X		X		Older than Search Interval	
2016_568_ISEGS	VASW	Inner HD	149	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_569_ISEGS	YRWA	Inner HD	114	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_570_ISEGS	VASW	Inner HD	174	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X			
2016_571_ISEGS	ROWR	Inner HD	255	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_572_ISEGS	MOD0	Inner HD	244	Large	Feather Spot	unknown	Fatality Search	7	Yes	X		X			
2016_573_ISEGS	UNSP	Outer Segment	1172	Small	Feather Spot	unknown	Fatality Search	7	Yes				X		
2016_574_ISEGS	LAZB	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	No	X	X			Older than Search Interval	

2016_575_ISEGS	NRWS	Power Block	0	Small	Small Carcass	singed	Incidental	1(1)	No	X	X	Older than Search Interval
2016_576_ISEGS	GRRO	Outer Segment	1060	Large	Feather Spot	collision	Fatality Search	6	Yes			X
2016_577_ISEGS	UNID	Inner HD	160	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_578_ISEGS	UNSA	Inner HD	154	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X
2016_579_ISEGS	UNHU	ACC	33	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_580_ISEGS	UNSP	Inner Segment	544	Small	Feather Spot	unknown	Fatality Search	6	Yes			X
2016_581_ISEGS	UNWA	Inner HD	144	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_582_ISEGS	UNSP	Inner HD	148	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_583_ISEGS	YRWA	Power Block	71	Small	Small Carcass	singed	Fatality Search	8	Yes	X	X	
2016_584_ISEGS	LISP	Inner HD	150	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X
2016_585_ISEGS	ANHU	Inner HD	141	Small	Small Carcass	unknown	Fatality Search	7	Yes	X		X
2016_586_ISEGS	WEME	Inner HD	190	Small	Feather Spot	collision	Fatality Search	7	Yes	X		X
2016_587_ISEGS	UNSP	Inner HD	191	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X
2016_588_ISEGS	RCKI	ACC	42	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_589_ISEGS	UNSW	ACC	55	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X	
2016_590_ISEGS	CLSW	Power Block	67	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X	
2016_591_ISEGS	UNBD	Power Block	98	Large	Feather Spot	unknown	Fatality Search	7	Yes	X	X	
2016_592_ISEGS	WCSP	Inner HD	229	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_593_ISEGS	MODO	Inner HD	236	Large	Feather Spot	singed	Fatality Search	7	Yes	X		X
2016_594_ISEGS	YRWA	Power Block	52	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_595_ISEGS	YRWA	Power Block	68	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_596_ISEGS	YRWA	Power Block	71	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	
2016_597_ISEGS	LEGO	Power Block	75	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X	

2016_598_ISEGS	UNSP	Outer Segment	948	Small	Feather Spot	unknown	Fatality Search	7	Yes				X
2016_599_ISEGS	LISP	Inner HD	260	Small	Small Carcass	collision	Fatality Search	7	Yes	X		X	
2016_600_ISEGS	UNID	Inner HD	196	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_601_ISEGS	LISP	Inner HD	253	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_602_ISEGS	YRWA	Inner HD	175	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_603_ISEGS	MOD0	Outer Segment	888	Large	Feather Spot	unknown	Fatality Search	4	Yes				X
2016_604_ISEGS	WCSP	Inner HD	242	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_605_ISEGS	YWAR	Inner HD	240	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_606_ISEGS	UNID	Inner HD	206	Small	Feather Spot	collision	Fatality Search	7	Yes	X		X	
2016_607_ISEGS	RUBL	Inner HD	195	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_608_ISEGS	YRWA	Inner HD	128	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_609_ISEGS	MOD0	Inner Segment	425	Large	Feather Spot	unknown	Fatality Search	7	Yes				X
2016_610_ISEGS	BGGN	ACC	49	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_611_ISEGS	YWAR	Power Block	28	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_612_ISEGS	UNID	Inner HD	146	Small	Small Carcass	unknown	Fatality Search	7	Yes	X		X	
2016_613_ISEGS	MOD0	Power Block	28	Large	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_614_ISEGS	UNSS	Power Block	11	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_615_ISEGS	GRRO	Inner Segment	447	Large	Feather Spot	unknown	Fatality Search	7	Yes				X
2016_616_ISEGS	UNSW	Power Block	28	Small	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_617_ISEGS	BRBL	Inner HD	242	Small	Feather Spot	collision	Fatality Search	7	Yes	X		X	
2016_618_ISEGS	WCSP	Outer Segment	952	Small	Feather Spot	unknown	Fatality Search	7	Yes				X
2016_619_ISEGS	VASW	Inner HD	193	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_620_ISEGS	YRWA	Inner HD	111	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	

2016_621_ISEGS	UNID	Outer Segment	991	Small	Feather Spot	unknown	Fatality Search	7	Yes			X	
2016_622_ISEGS	UNSP	Inner HD	135	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_623_ISEGS	SAGS	Outer Segment	819	Small	Small Carcass	collision	Incidental	NA	No			X	Older than Search Interval
2016_624_ISEGS	SAVS	Inner HD	224	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_625_ISEGS	LOSH	Inner Segment	645	Small	Feather Spot	unknown	Fatality Search	11	Yes			X	
2016_626_ISEGS	YRWA	Power Block	45	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_627_ISEGS	BARS	Inner HD	235	Small	Small Carcass	singed	Fatality Search	7	Yes	X		X	
2016_628_ISEGS	WCSP	Power Block	42	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_629_ISEGS	UNSB	Inner HD	151	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_630_ISEGS	UNBD	Inner HD	111	Large	Feather Spot	unknown	Fatality Search	7	No	X		X	Older than Search Interval
2016_631_ISEGS	LEGO	Inner HD	108	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_632_ISEGS	UNID	Power Block	33	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_633_ISEGS	UNID	Inner HD	222	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_634_ISEGS	YRWA	ACC	51	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_635_ISEGS	WCSP	Outer Segment	890	Small	Feather Spot	unknown	Fatality Search	8	Yes			X	
2016_636_ISEGS	UNID	Power Block	16	Small	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_637_ISEGS	UNID	Inner HD	187	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_638_ISEGS	UNID	Power Block	34	Small	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval
2016_639_ISEGS	VGSW	ACC	36	Small	Small Carcass	singed	Fatality Search	7	Yes	X	X		
2016_640_ISEGS	WCSP	Inner HD	215	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X	
2016_641_ISEGS	UNSS	Power Block	20	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X		
2016_642_ISEGS	YWAR	Inner HD	186	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X	
2016_643_ISEGS	UNID	Power Block	20	Small	Feather Spot	singed	Fatality Search	7	No	X	X		Older than Search Interval

2016_644_ISEGS	AMPI	Inner HD	234	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X		
2016_645_ISEGS	UNID	Power Block	18	Small	Feather Spot	singed	Fatality Search	7	Yes	X	X			
2016_646_ISEGS	WCSP	Power Block	110	Small	Feather Spot	unknown	Fatality Search	7	Yes	X	X			
2016_647_ISEGS	UNID	Inner HD	160	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X		
2016_648_ISEGS	AMPI	Inner HD	161	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X		
2016_649_ISEGS	SWSP	Inner HD	NA	Small	Feather Spot	singed	Fatality Search	7	Yes	X		X		
2016_650_ISEGS	YWAR	Power Block	17	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval	
2016_651_ISEGS	ANHU	Power Block	12	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval	
2016_652_ISEGS	UNID	Inner HD	232	Small	Feather Spot	unknown	Fatality Search	7	No	X		X	Older than Search Interval	
2016_653_ISEGS	UNSP	Inner HD	211	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X		
2016_654_ISEGS	BTSP	Outer Segment	1128	Small	Feather Spot	unknown	Fatality Search	7	Yes				X	
2016_655_ISEGS	AMAV	Outer Segment	1364	Large	Feather Spot	unknown	Fatality Search	6	No				X	Older than Search Interval
2016_656_ISEGS	UNSP	Inner HD	235	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X		
2016_657_ISEGS	UNSP	Outer Segment	776	Small	Feather Spot	unknown	Fatality Search	6	Yes				X	
2016_658_ISEGS	UNSP	Inner HD	235	Small	Feather Spot	unknown	Fatality Search	7	Yes	X		X		
2016_659_ISEGS	LBCU	Outer Segment	695	Large	Feather Spot	unknown	Fatality Search	7	No				X	Older than Search Interval
2016_660_ISEGS	SAGS	Outer Segment	1129	Small	Feather Spot	unknown	Fatality Search	8	Yes				X	
2016_661_ISEGS	WEME	Outer Segment	1381	Small	Feather Spot	unknown	Fatality Search	8	Yes				X	
2016_662_ISEGS	UNSP	Outer Segment	690	Small	Feather Spot	unknown	Fatality Search	5	Yes				X	
2016_663_ISEGS	BARS	Power Block	59	Small	Small Carcass	singed	Fatality Search	7	No	X	X			Older than Search Interval
2016_664_ISEGS	AMPI	Inner HD	234	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X		
2016_665_ISEGS	BHCO	Inner HD	218	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X		
2016_666_ISEGS	SAGS	Inner HD	236	Small	Feather Spot	singed	Fatality Search	6	Yes	X		X		

2016_667_ISEGS	WCSP	Inner HD	241	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X	
2016_668_ISEGS	UNID	Inner HD	244	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X	
2016_669_ISEGS	AMPI	Inner HD	216	Small	Feather Spot	unknown	Fatality Search	6	Yes	X		X	
2016_670_ISEGS	YRWA	Power Block	49	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_671_ISEGS	WEME	Inner Segment	580	Small	Feather Spot	unknown	Incidental	NA	No			X	Older than Search Interval
2016_672_ISEGS	WCSP	Power Block	54	Small	Feather Spot	unknown	Fatality Search	21	Yes	X	X		
2016_673_ISEGS	YRWA	ACC	65	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X		
2016_674_ISEGS	UNID	Power Block	8	Small	Small Carcass	singed	Fatality Search	21	Yes	X	X		
2016_675_ISEGS	UNID	Outer Segment	826	Small	Feather Spot	unknown	Fatality Search	22	Yes			X	
2016_676_ISEGS	AMPI	Inner HD	103	Small	Feather Spot	unknown	Fatality Search	22	Yes	X		X	
2016_677_ISEGS	AMRO	Inner HD	136	Small	Feather Spot	unknown	Fatality Search	22	Yes	X		X	
2016_678_ISEGS	UNID	Inner Segment	630	Small	Feather Spot	unknown	Fatality Search	21	Yes			X	
2016_679_ISEGS	YRWA	Power Block	7	Small	Small Carcass	singed	Incidental	1(1)	Yes	X	X		
2016_680_ISEGS	WEME	Inner HD	191	Small	Feather Spot	unknown	Fatality Search	26	Yes	X		X	
2016_681_ISEGS	YRWA	Inner HD	123	Small	Feather Spot	unknown	Fatality Search	26	Yes	X		X	
2016_682_ISEGS	UNLB	Power Block	24	Large	Feather Spot	singed	Fatality Search	27	Yes	X	X		
2016_683_ISEGS	YRWA	Power Block	151	Small	Feather Spot	unknown	Fatality Search	27	Yes	X	X		
2016_684_ISEGS	UNID	Inner HD	194	Small	Feather Spot	unknown	Fatality Search	26	Yes	X		X	
2016_685_ISEGS	YWAR	Power Block	107	Small	Feather Spot	singed	Fatality Search	17	No	X	X		Older than Search Interval
2016_686_ISEGS	UNID	Inner HD	212	Small	Feather Spot	unknown	Fatality Search	20	Yes	X		X	
2016_687_ISEGS	WCSP	Inner HD	261	Small	Feather Spot	unknown	Fatality Search	20	Yes	X		X	
2016_688_ISEGS	UNID	Inner HD	228	Small	Feather Spot	unknown	Fatality Search	20	Yes	X		X	
2016_689_ISEGS	WEME	Inner HD	185	Small	Feather Spot	unknown	Fatality Search	20	Yes	X		X	

2016_690_ISEGS	UNID	Inner HD	238	Small	Feather Spot	singed	Fatality Search	20	No	X		X	Older than Search Interval
2016_691_ISEGS	MOD0	Inner HD	218	Large	Feather Spot	unknown	Incidental	12	No	X		X	Older than Search Interval
2016_692_ISEGS	BTYW	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_693_ISEGS	YWAR	Power Block	40	Small	Small Carcass	singed	Incidental	1(1)	No	X	X		Older than Search Interval
2016_694_ISEGS	NOFL	Inner Segment	534	Large	Feather Spot	unknown	Fatality Search	25	Yes			X	
2016_695_ISEGS	UNSP	Power Block	38	Small	Feather Spot	singed	Fatality Search	22	Yes	X	X		
2016_696_ISEGS	UNID	Power Block	2	Small	Small Carcass	singed	Fatality Search	21	No	X	X		Older than Search Interval
2016_697_ISEGS	MOD0	Power Block	6	Large	Feather Spot	unknown	Fatality Search	21	Yes	X	X		
2016_698_ISEGS	BUSH	Power Block	6	Small	Feather Spot	unknown	Fatality Search	21	Yes	X	X		
2016_699_ISEGS	AMKE	Power Block	53	Large	Large Carcass	singed	Fatality Search	6	Yes	X	X		
2016_700_ISEGS	BRBL	Inner HD	239	Small	Feather Spot	unknown	Fatality Search	22	Yes	X		X	
2016_701_ISEGS	UNID	Power Block	4	Small	Feather Spot	singed	Fatality Search	24	Yes	X	X		
2016_702_ISEGS	YRWA	Outside Search - TOWER	0	Small	Small Carcass	singed	Incidental	NA	No				Outside Standard Search Area