

Streaked Horned Lark Working Group Meeting

13-14 November 2012

9:30 – 3:30

Portland International Airport

Organized and facilitated by Center for Natural Lands Management

Hosted by Port of Portland

Supported by US Fish and Wildlife Service

AGENDA and MINUTES

13 November 2012

9:30	Welcome and Purpose Updates and Information Sharing	<i>H. Anderson</i>
9:45 – 10:00	Announcements Cascadia Prairie-Oak Partnership Conference Willamette Valley Prairie Working Group STHL ID Training Available	<i>H. Anderson</i> <i>A. Kreager</i> <i>H. Anderson</i>
10:00 -10:30	Surveys and Monitoring Occupied site monitoring method Results: WA sites +Portland New occupied sites	<i>M. Linders +</i> <i>H. Anderson +</i>
10:30 – 11:15	Proposed Rule Proposed listing timeline and comment periods “Take” and Proposed Critical Habitat 4d Exclusions, Proposed and Considered Conferencing & Consultation	<i>C. Brown</i>
11:15 – 11:45	Larks and Airports Port of Portland Actions Airport working group objective FAA participation	<i>D. Green</i> <i>H. Anderson +</i>
11:45 – 12:45	LUNCH (on your own)	
12:45 – 1:15	Protection ODFW Mitigation Land Acquisition Program Lark and Ag: NRCS Incentive Programs	<i>L. Tesler</i>

1:15 – 3:30	Research & Management Juvenile Survivorship Genetic Rescue Conspecific Attraction Col River Habitat Analysis Update	<i>R. Moore</i> <i>A. Wolf +</i> <i>H. Anderson</i> <i>H. Anderson</i>
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3:30	ADJOURN
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14 November 2012

9:30	Welcome and Purpose Discussion and Planning
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9:45 – 10:15	Planned Research / Actions JBLM habitat management WV Larks and Ag Workshop
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10:15 – 10:45	Existing data / data needs / data sharing? Nest initiation curves – predictable timing in WV? STHL movement and banded birds? Transect surveys in OR?
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10:45 – 11:30	Conservation Action Planning (part I)
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11:30 – 12:30	LUNCH (on your own)
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12:30 – End	Conservation Action Planning (part II)
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3:30	ADJOURN
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ATTENDEES (in order signed in)

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MINUTES

Meeting Purpose

Since 2007 professionals and individuals interested in conservation and recovery of the streaked horned lark have come together annually to share the latest information and discuss conservation priorities. A wide variety of entities participate including those more traditionally focused on conservation, such as natural resource agencies, as well as other stakeholders who hold shared goals with streaked horned lark conservation, such as airports. The meeting is divided into two main portions – updates and action planning – and interactive discussion is encouraged throughout.

Announcements

CPOP Conference

The Cascadia Prairie-Oak Partnership (CPOP) is holding their 2nd ecoregional conference focused on prairie and oak habitats and species throughout western BC, WA, & OR. As in 2010, the conference is held in conjunction with the Northwest Scientific Association. Join CPOP at University Place Hotel, 20-23 March, in Portland, Oregon. Special sessions include a half-day workshop on prairie-oak birds of the Pacific Northwest, incorporating climate change considerations into prairie-oak land management decisions, and floral/faunal reintroductions and translocations. Several key streaked horned lark projects will be presented.

Willamette Valley Prairie Working Group

There is interest by several in the Willamette Valley to initiate a local working group that would share information and address issues specific to Willamette Valley prairies. Oregon Dept. of Fish and Wildlife along with Institute for Applied Ecology are leading the formation of this group. Contact Ann Kreager at ODFW for more information.

Streaked Horned Lark Identification Training

A PowerPoint training for streaked horned larks is available. Training components include distribution, identification, habitat, breeding/wintering, and monitoring. The monitoring scheme presented is the WDFW draft breeding season transect survey protocol (Appendix 1). The training was commissioned by the Port of Portland, and put together by Center for Natural Lands Management. The PowerPoint was accompanied by a half-day presentation of the material and a field visit to an occupied site.

Surveys and Monitoring

STHL occur on sparse, open landscapes of western Oregon and Washington. Figure 1 shows the estimated historic range and current known breeding sites. Three new breeding sites were discovered in 2012, including 2 along the Columbia River and one on the Washington Coast. A standardized monitoring protocol is in use by WDFW and partners. The purpose is to conduct breeding season surveys for STHL to estimate relative abundance and trends in relative abundance at occupied sites in Washington. Occupied sites are mapped with transects and bird detections recorded (Figure 2). The monitoring protocol (Appendix A) has been applied to known breeding sites in WA for three years and one year at sites in Portland, OR. Using the maximum number of males detected at any one visit, and assuming

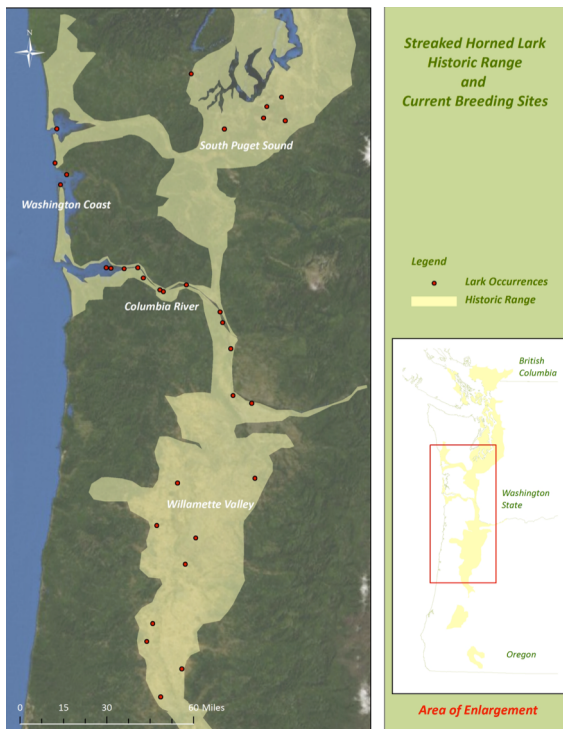


Figure 1. Streaked horned lark estimated historic range and known current occupied breeding sites.



Figure 2. Streaked horned lark survey transects and detections at Gray Army Airfield, Joint Base Lewis-McChord, Washington State, 2012.

all males are paired it is estimated that in 2012 there are 132 STHL breeding pairs in Washington State. These data have not yet been analyzed for trend.

There was some discussion at the meeting of plans for developing a range-wide survey and monitoring protocol. A follow-up meeting to address the different potentials is scheduled for January 23, 2013.

Streaked Horned Lark Proposed as Threatened under ESA

On October 11, 2012, US Fish and Wildlife Service published its proposal to list the streaked horned lark as a threatened species under the Endangered Species Act. Find the proposal here: <http://www.gpo.gov/fdsys/pkg/FR-2012-10-11/pdf/2012-24465.pdf> The proposed rule has 3 parts: 1) proposed threatened status for the streaked horned lark; 2) proposed critical habitat designations; and 3) a special rule under section 4(d) that would exempt certain activities from “take” (e.g., airports, agriculture). The Service is soliciting comments on the proposed rule until December 11, 2012. A second comment period will open after the Service publishes their economic analysis for the proposed critical habitat. Cat Brown with the Portland office provided extensive information about the listing and its potential impact (Appendix 2). Also attached to the email that distributed these minutes is the powerpoint presented.

Recovery Planning and Role of Action Plan

Should the species become listed, the Service will be charged to develop a recovery plan that identifies measurable recovery goals and the actions required to achieve that goal. A

recovery outline will be developed within 3 months of final rule and then there are two years to develop a full-fledged recovery plan. Pacific Coast Joint Venture has developed recovery goals for all their species of interest, including streaked horned lark, which could provide a starting place for the official Recovery Plan. The Action Plans that have been developed over the past several years will continue to be a useful tool for short-term implementation of “next best tasks” as opposed to the typically more broad objectives of Recovery Plans.

Habitat Protection in the Willamette Valley

Laura Tesler at ODFW introduced the Willamette Valley Mitigation Program to the group. ODFW is coordinating conservation acquisitions in the Willamette Valley resulting from BPA mitigation settlement. The program has \$117mil to acquire upland habitats in the valley and is focused on Oregon Strategy Habitats and Species. The program does not provide management funding in perpetuity, but can provide seed money that can be leveraged for restoration. There are a few potential acquisition sites near Corvallis that may protect habitat for streaked horned larks (e.g., Herbert Natural Area, Bald Hill, Fern Ridge).

Incorporating Larks into NRCS Programs

NRCS was well represented at the meeting and were eager to be gathering information about streaked horned lark habitat requirements and brainstorming on how to incorporate into their existing programs. There is some overlap between lark’s needs and prairie habitat restoration projects. There are some Wetland Reserve Program projects underway that have been focused on western meadowlark habitat, there are possibilities to refocus some of their efforts toward streaked horned larks. In a typical prairie restoration project, habitat is only suitable for larks for the first few years before the vegetation becomes well established. In OR agricultural landscapes they use a lot of tall dense grasses for restoration, which ultimately only contribute short-term benefit to larks. There are many objectives with prairie management. Because larks do not use typical high quality prairie habitat, addressing to what degree prairie restoration objectives could be compromised or adjusted to include larks is the challenge.

Regarding incentive programs, there are not currently any wide-ranging strategies or funding that would be appropriate. Currently the district offices come up discrete plans for their area. However, they are seeking opportunities to become better coordinated. The National office has a number of Special Initiatives, but there are none at the State level.

A meeting at Basket-Slough NWR will be set up in March 2013 to further discuss NRCS opportunities and how the STHL working group can support or guide incorporating larks into WV agricultural land projects and NRCS incentive programs. Having the meeting in March will also provide an opportunity to do a field visit to an occupied site and discuss the habitat management going on there.

Larks and Airports

FWS has proposed to designate critical habitat on all airports that are known to support streaked horned larks throughout the range. While the proposed 4(d) rule would allow airports to continue to manage their sites for aircraft safety without impact from the listing,

the designation of critical habitat could affect their ability to fully develop their sites as planned. At many airports, land in the immediate vicinity of the existing airport footprint was purchased with FAA grant money with the express intention to develop in the future. The FAA and Port of Portland were present at the meeting and both engaged in discussion about the issue of larks on airports. Janelle Barrilleaux, FAA, sees the initial conversation as a positive step and agrees that there are shared goals between conserving larks and maintaining airport sustainability. FAA and regional airports are interested in furthering the conversation and evaluating how and what is appropriate for streaked horned lark conservation on airport lands. CNLM will facilitate a larks and airports working group to address the issue.

Genetic Rescue

Adrian Wolf, CNLM, gave a brief summary of the lark genetic rescue project. Larks in south Puget Sound exhibit very low egg hatchability, thought to be a result of inbreeding depression. The project aims to address this issue by bringing in eggs from a Willamette Valley population not exhibiting low egg hatchability. The project began in 2011, when four clutches from the Corvallis airport were placed into nests of south Puget Sound birds. In 2012, there was one returning individual resulting from those swaps, dubbed "Oregon male." He was not observed breeding in 2012. While it was the intent to bring an additional 5 clutches to WA from OR in 2012, no actual swaps were achieved. Weather and mass predation in Corvallis were affecting that population, and it was decided to not remove any eggs. The project is planned to continue in 2013, provided funding is secured. This project is a collaborative between CNLM, WDFW, OSU and is funded by US Fish and Wildlife Service and Department of Defense.

Conspecific Attraction Feasibility Study

Hannah Anderson, CNLM summarized the state of this study. The objective is to better understand if larks respond to conspecific cues when selecting breeding sites. Paired 5-acre plots at three sites are being managed for streaked horned lark habitat quality – a pair of plots at St. Johns prairie in Portland and two pairs of plots on JBLM, in South Sound. Lark song playbacks and lark decoys were deployed in treatment plots throughout the breeding season, and a second combination of lark calls and decoys deployed in late Sept and Oct. Both control and treatment plots were monitored at least 2x/wk when treatments were underway. Larks were detected in treatment plots 3 times, and detected once in a control plot. No breeding occurred in the plots. A mixed flock of horned larks were detected using St. Johns prairie in winter 2011-12, but not yet been detected winter 2012-13. The project is planned to continue through 2013. There are many variables that can affect the results of this work including degree of lark saturation of the surrounding habitat and surrounding habitat quality and land management. This project is a collaborative between CNLM, JBLM, Metro and is funded by US Fish and Wildlife Service, JBLM, and Port of Portland.

Juvenile Survivorship and south WV occupied sites

Randy Moore, OSU, has been monitoring reproductive success at several sites in WV for 4-5 years. In 2012 he monitored at Corvallis Airport (CVO) and Finley NWR. CVO has an exceptional population of larks. Finley numbers were about half of what they were in 2011, but is within the range of its normal variation. This year demonstrated the worst reproductive success in years with almost 100% failure early in season. Mid-season was a

little better, late season was phenomenal. Very late breeding season this year, with the last lark chicks leaving the nest Sept 15, one to two months later than usual. Video surveillance on nests indicates that northern harriers are the primary avian predator at CVO (there are 7 individual harriers resident). Kestrels are not known to eat lark eggs, meadowlarks have not been documented depredating in OR (although they have in WA), and skunks were first documented this year. There appears to be a relationship between avian (i.e. harrier) predation rates and grass-seed harvest in agricultural fields surrounding lark occupied areas. Prior to the grass-seed harvest harriers prey heavily on lark nests. Once the harvest has begun the small mammal populations in the grass-seed fields are exposed and the harriers shift to this prey base relieving the pressure on lark chicks.

Radio telemetry work was initiated on lark chicks in 2012 to understand survivorship. Hoping to continue that work in 2013 and potentially some experimental predation control, pending funding support. Also will continue predator ID work, reproductive success, and banding chicks to assess adult survivorship.

Columbia River Habitat Analysis and Management Planning

A study was conducted in 2010 to assess habitat conditions in relationship to the timing of dredged material deposition. The study found that optimal lark habitat occurred 3.25-5yrs after deposition. However, we know larks are using dredged material islands within a wider range of post-deposition dates that the study suggest. These data are being re-analyzed using more local groupings of islands or individuals islands, in an attempt to provide more precise guidance. The results of the study will be incorporated into a dredged management plan for the islands. Initial discussions are underway with Col River partners – US Army Corps of Engineers, Port of Portland, FWS, and other Port sponsors. This project is led by CNLM with input from Core GIS and ENVIRON and is supported by US Fish and Wildlife Service and Port of Portland.

Lark Movement

The group discussed the possibilities of using existing band data to gain a better understanding of lark movement and site colonization. One consideration needs to be what difference would increased knowledge of movement make relative to our existing conservation actions. There needs to be careful evaluation of the resources, time, and effort of each conservation action. In a listed future, there may be more pressure to mitigate for existing occupied sites, and create new ones. How do we know they will use what we create? Little is documented of why larks occupy only some of the apparently suitable available habitat. In the Willamette Valley they appear to occupy available habitat. The most proximate a site to an existing population is assumed to be most likely to recruit animals. But what is that distance threshold?

Directing Management with Nest Initiation Curves

In South Sound, from Pearson's work 2002-2005, there are 2 clear peaks of nest initiation during the breeding season, with a lull typically in mid-June. For sites that have management needs, such as mowing at an airport, the recommendation has been to conduct necessary mowing in the lull when there are likely to be fewer nests on the ground. The question was raised if there are clear peaks and valleys in Oregon as well, so that necessary management could be directed to times when there would be the least negative

impact to lark populations. In Oregon, the first initiation appears to be solidly established and is synchronous. However, there were several cautions raised and reasons to think carefully about using that information to recommend management. We might not have the ability to fine-tune those kinds of management decisions. May be better to recommend complete avoidance during the breeding season. First initiation could be so variable year to year, based on climate or predation pressure. Also, while there may be fewer nests on the ground, there could be flightless juveniles on the ground instead. These juveniles may be more vulnerable and susceptible to mowing than nests.

However, at airports and other sites that require management, avoiding mowing during the breeding season may not be possible. So, limiting impact of management actions during the breeding season seems like a good plan. Gives rise to discussion regarding the ultimate role of airports in recovery. We may have some flexibility to make airports a little bit better for larks, but they are never going to be (or should be?) a conservation site.

Additional Plans for 2013

Habitat Characteristics and Nest Success at JBLM

WDFW has put forward a proposal for funding to analyze existing data to look for habitat characteristics associated with successful nests. If associated characteristics are discovered, the site will be mapped for those characteristics leading to development of habitat restoration plan for the site, with lark nesting in mind. Similar analyses in OR have not yielded predictable habitat factors associated with nest success.

Restoration at Ledbetter

USFWS has put forward a proposal to continue and expand the very successful restoration actions for streaked horned larks (and western snowy plover) at Ledbetter.

St. Johns Prairie

An additional 10 acres will be actively managed for larks at this site.

2013 Grassland Bird Survey in Willamette Valley

ODFW is conducting a survey that will include several sites in northern Yamhill and parts of Washington counties. The survey will be inclusive of agricultural lands in roadside surveys. This effort will be additive to the 544 roadside surveys and will cover a spatial gap that was not covered in 1996 & 2008. Bob Altman will also be adding roadside counts scattered throughout the Valley to cover gaps, primarily for vesper sparrows, but may pick up larks too.

JBLM Broom Management

A relatively large prescribed fire in 2012 succeeded in killing several stands of Scot's broom at an important breeding site, 13th Division Prairie. CNLM will be following up that treatment by spraying sparse broom plants in areas where the fire intensity was low and therefore did not kill them. Also will be mowing down the standing dead broom and planting fescue to create favorable structure for breeding larks. These areas where these actions are implemented are prioritized to expand on lark high use areas.

Nest Enclosures at JBLM

While nest exclosures were not shown to improve nest success (Pearson, S. F., Moore, R. and Knapp, S. M. (2012), Nest exclosures do not improve Streaked Horned Lark nest success. *Journal of Field Ornithology*, 83: 315–322) they may still be a useful tool at certain sites if structure is modified to reduce propensity for predator perching, and implemented within an adaptive management framework. Pending funding, plans are underway to use the exclosures at 13th Division prairie on JBLM, where the past exclosures did have a positive effect on lark fecundity at the site.

Action Planning

The majority of day 2 was focused on updating the streaked horned lark action plan. The Action Plan is a list of next best tasks to undertake that work toward conservation and recovery of the lark range-wide. While all items on the plan are a priority, a subset is numerically ranked.

Top ranked priority actions are:

1. Secure long-term commitment for land management on important occupied sites
2. Implement habitat restoration activities on breeding and wintering grounds in Willamette Valley
3. Determine factors limiting juvenile and adult survivorship in OR & WA (e.g. predation, airstrike).
4. Conduct genetic rescue (egg-swapping) aiming at stabilizing South Sound population
5. As part of a long-term plan, systematically create lark habitat by directing dredge material deposition and implementing a complementary strategy to control structure-modifying vegetation
6. Determine the effect of habitat types on nest success, especially on private working lands.
7. Finalize standardized survey and monitoring protocols range-wide that address abundance, trends and spatial distribution
8. Conduct a workshop for NRCS and SWCDs to disseminate lark information and brainstorm on how to implement programs.
9. Implement habitat restoration activities on breeding grounds in South Sound using all available tools
10. Implement habitat restoration activities on breeding and wintering grounds on the WA coast.
11. Maintain a working group and coordination
12. Evaluate appropriateness and feasibility of population augmentation, relocation or reintroduction
13. Evaluate the role of disturbances (e.g., recreation, military activities, industrial uses, agriculture), including interaction with predation, that affect survival in all life stages (e.g., nests, juveniles, adults).

The full action plan can be obtained by emailing Hannah Anderson at handerson@cnlm.org.

Appendix 1. Washington Department of Fish and Wildlife Draft Survey Protocol for Streaked Horned Lark

Brief description of proposed activity (copy from Form A):	Conduct breeding season surveys for Streaked Horned (<i>Eremophila alpestris strigata</i>) to estimate abundance based on visual and/or auditory detection along line transects in occupied habitat.
1. Species:	Streaked Horned Lark (<i>Eremophila alpestris</i>)
2. Objectives:	■ Estimate relative abundance and trends in relative abundance at all occupied sites in Washington.
3. Describe in detail the methods that will be used to complete the above activity (Or attach description to this form): Methods: To obtain unbiased estimates of Streaked Horned Lark abundance during the breeding season, line transect surveys will be conducted by trained observers up to three times each year in May-July at each occupied Washington site. Sites - One-to-many line transects will be positioned 75 m inside the habitat boundary and spaced 150 m apart at each site. Transects should be of sufficient length and distribution to include all potentially suitable lark habitat. Transects will be identified in GIS and overlaid on a high quality digital orthophoto. Tick marks should be placed every 150 m along the length of each transect to demarcate way stations used by observers in the field. Printed maps must be supplied to each observer for each survey conducted, as well as a single clean copy on which final survey results will be combined for submission. Timing - Three surveys will be conducted at each site during the breeding season according to the following schedule: Survey 1: middle two weeks of May Survey 2: middle two weeks of June Survey 3: first week of July (Puget lowlands) through the second week of July (outer coast and Columbia River islands). Additional surveys may be conducted for management purposes, but these data will not be included in trend analyses. Surveys should commence no sooner than one half hour after sunrise and be completed by noon on days when wind is less than 20 mph with little to no precipitation (light drizzle and brief showers are fine). Surveys should end by 11:00 a.m. or earlier on days when the predicted maximum temperature is 80° F or higher. Every effort should be made to complete surveys within the designated time frames, however if that is not feasible the survey should be conducted as soon as possible rather than omitting it altogether. Columbia River surveys will also need to consider tidal conditions when planning and implementing surveys. Surveyors - Surveyors must be adept at recognizing streaked horned larks by song and call, in flight or on the ground, and differentiating larks by sex and age. Periodic testing	

and training may be required to insure consistency between observers.

Each survey will have a designated Lead Observer, who is responsible for providing a Bird Detection form and maps to each observer participating in the survey. Lead Observers will make all decisions regarding delays for lighting or weather conditions. They are also responsible for compiling and submitting a single set of completed survey forms and maps (see Data Recording below). The Lead Observer will be responsible for communicating with ground security or the tower when airfield surveys are conducted. All observers are expected to adhere to FAA/DOD regulations and instructions.

In the field - Lead Observers are responsible for completing the Survey Cover Sheet (see below), including weather conditions. All observers should complete the top portion of their Bird Detection Form and be in position at their transect start location prior to survey initiation. Observers should begin the survey by walking at a moderate, synchronous pace and stopping at mapped station locations every 150 m as mapped, to look and listen for larks. At each station, first try to detect larks by sight and sound (it is easier to hear when not walking), before using your binoculars to scan for birds. Spotting scopes should only be used after a bird is detected to gather additional information (e.g., sex, age), and are recommended for that purpose. If a bird is detected in between stations, stop and get an ID before moving on; other observers should pause and remain in formation during that time. Pacing to establish a station location is discouraged as it detracts from your ability to detect birds; if you must do so, minimize the effort involved. Observers may briefly leave a line to avoid flushing birds or disturbing nests.

Within their designated transect area, observers will record all larks seen or heard 75 m on either side of their line, including those flying overhead or in front of the observer; observer should only record larks detected behind them if they are certain that they have not been counted by any observer. Communicate with adjacent observers as needed, to avoid double counting. This can be done during the survey, or via notes and post-survey discussion.

When a lark is detected, record the observation on the Bird Detection Form. Forms are pre-filled with the Bird Number. Observers will also record Transect Number, Time, Age and Sex (if known), Initial Position (Flight vs. Ground), Initial Audio (Vocal vs. Silent) and Other Behaviors (see Data Recording below). The approximate detection location of each bird should be mapped by its Bird Number corresponding to the field form. This should be done even if the bird was only heard. Observers may communicate with each other by radio or cell phone, if necessary, to avoid double counting.

All observers should also tally abundance of predators and competitors (e.g., crows, ravens, meadowlarks, etc.). See Data Recording and the Bird Detection Form for a list of species of interest.

Every effort should be made to cover all areas of suitable habitat, each time a site is

surveyed. On subsequent surveys, observers should rotate between transects and walk the transects in the opposite direction to vary visitation time by subarea.

Completing the survey – At the end of each survey, all observers will gather and compare mapped locations of birds and survey notes to identify and delete birds thought to be counted twice. All data will be compiled onto a one set of Bird Detection Forms and Maps with one Survey Cover Sheet. Only the final set of forms and maps will be submitted; however, the lead observer will make the final decision if questions arise. Please do not leave the site unless all survey forms have been completed and reconciled.

Data Recording: (field forms attached)

Data forms consist of three components:

- Survey Cover Sheet
- Bird Detection Form
- Maps of the survey area showing transects with identifiers and 150 m stopping locations.

All maps and forms will contain the following information:

- Site Name
- Date - recorded using the format DD-Mon-YYYY (e.g., 26 Feb 2010).
- Observer - recorded as full name or initials.

Survey Cover Sheet

- The lead observer will record the full names (not just initials) and affiliations of each surveyor AND the transect(s) surveyed by each person.
- The lead observer will record weather data [Temperature in °F; Wind in average miles per hour; Cloud Cover (CLR (0-10 %); SCT (11-50%); BRK (51-90); OVC (91-100%); and Precipitation (N=None, R=Rain, F=Fog, D=Drizzle)].
- The lead observer will record the Survey Start/Stop time and survey duration. Time should be recorded on a 24-hour clock (e.g., 1:00 PM should be recorded as 1300 hrs).
- Lead observer will record total abundance of all Predators/Competitors observed by everyone during the entire survey.
- The lead observer will collect all Bird Detection Forms and Maps for the survey and consolidate results onto a single set of Bird Detection Forms and Maps.
- **The lead observer will be responsible for entering all data digitally into the electronic Streaked Horned Lark Survey Database, which will be distributed prior at the beginning of each survey season.**

Bird Detection Form

- Each observer will record individual bird detections on their own data forms.
- Required data for each lark detection includes:

TRANSECT # - refer to ortho map for an observer's transect position

TIME – use 24-hour clock (e.g., 0900)

AGE – A (adult), YOY (young of the year), U (unknown)

SEX – M (male), F (female), U (unknown and young of the year)

INITIAL POSITION - when first observed; circle one. **FLT** = in flight **VS.** **GRD** = on ground

INITIAL AUDIO - when first detected; circle one. **VCL** = vocal **VS.** **SIL** = silent

If VCL on Initial Audio - **S** = Song, **C** = call (males or females call from an elevated height); circle one.

OTHER BEHAVIOR - subsequent to detection; circle all that apply.

F = Forage, **AL** = alert posture (erect w/ neck extended; not vocalizing), **A** = agonistic behavior (chase or aggressive contact), **CO** = copulation, **FC** = food carry, **FD** = flight display, **FL** = flying, **FS** = flushed, **NM** = carrying nest material, **R** = rest

NOTES – Indicate any birds that are associated with one another or other observations of interest.

- Each observer will also tally the numbers of predators and competitors observed on their transect.
 - **WEME** – Western meadowlark
 - **AMCR** – American crow
 - **CORA** – Common raven
 - **CORVID** – unknown corvid
 - **NOHA** – Northern harrier
 - **KILL** - Killdeer
 - **VESP** – Vesper sparrow
 - **AMKE** – American kestrel
 - **Other** – indicate

Maps

- Each observer will record the location of each lark detection on their orthographic map as it corresponds to the Bird Number on the data form. It is also helpful to record the direction of travel if in flight.
- Record any incidental nests found on the map. Include GPS coordinates and nest contents in field notes if available.

Legible copies of one final set of data forms including a Survey Cover Sheet, Bird Detection Form(s), and Map(s) AND the completed electronic Streaked Horned Lark Survey Database MUST BE submitted to Mary Linders at WDFW by 30 September in the same year data are collected.

Appendix 2. A User's Guide to the Proposed Rule to List the Streaked Horned Lark as Threatened, Designate Critical Habitat, and Promulgate a Special Rule under Section 4(d) of the Endangered Species Act

*Prepared by Cat Brown, US Fish and Wildlife Service
For the Streaked Horned Lark Working Group, November 13, 2012*

The proposed rule has 3 components with 3 separate regulations:

1. Proposed **threatened status** for the streaked horned lark (based on “best scientific and commercial data available ONLY”)
 - a. Background and Factors A-E: pp. 61938-61972
 - b. Regulation: p. 62006
2. Proposed **critical habitat designation** (requires analysis of economic impacts; Economic Analysis to be published later & comment period reopened)
 - a. Background pp. 61973-5 and pp. 61979-80
 - b. Regulations:
 - i. Primary Constituent Elements (PCEs) p. 62007
 - ii. Maps pp. 62008-62037
3. **Special rule under section 4(d)** of the ESA to remove the take prohibitions for certain activities (airports and agriculture). Allows flexibility in the implementation of the Act and acknowledges certain activities that create habitat
 - a. Background pp. 61972-3
 - b. Regulation p. 62007

What are the effects of the 3 regulations, should they be finalized?

1. Listing the lark: section 9 prohibitions against take, requirement for section 7 consultation, section 10 permits for non-fed actions and scientific research, recovery planning and implementation.
2. Critical habitat designation: section 7 consultation for actions with effects to critical habitat and a Federal nexus.
3. 4(d) rule: removes the section 9 prohibition on take of the species for specified activities, no bearing on critical habitat.

Comments and review should focus on each of the 3 aspects:

1. Proposed threatened status – do we have our facts correct? Is there information we haven't considered?
2. Proposed critical habitat designation – have we identified the appropriate sites? PCEs? Do the economic impacts of designation outweigh the benefits to the species?
3. Is the 4(d) rule appropriate? Have we adequately described the covered activities?

A Selective Concordance to Certain Sections of the Endangered Species Act of 1973

§4 DETERMINATION OF ENDANGERED SPECIES AND THREATENED SPECIES

Listing: species may be added to the lists based on analysis of 5 factors [(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence].

Critical Habitat: defined as: (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Designation of critical habitat is the only part of the ESA that requires consideration of economic impacts.

Special Rules [= 4(d) rules]: Whenever any species is listed as a threatened species, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species. The Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2) in the case of plants, with respect to endangered species.

Recovery Planning and Implementation: The Secretary shall develop and implement plans for the conservation and survival of endangered and threatened species... (recovery plans must include site-specific management actions and objective, measurable criteria for recovery).

§7 INTERAGENCY COOPERATION

Applies to Federal agencies.

7(a)(1) “The affirmative conservation mandate.” All Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 4 of this Act.

7(a)(2) “The requirement to avoid jeopardy.” Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action

authorized, funded or carried out by such agency... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat. (Consultation concludes with a Biological Opinion and an Incidental Take Statement).

§9 PROHIBITED ACTS

Applies to everyone.

For animal species listed as endangered, “take” is prohibited. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

The take prohibition in the Act does not apply to threatened species, but the USFWS applied those prohibitions to threatened animals by regulation in 1978. There is no take prohibition for critical habitat (or plants, but that’s another subject).

§10 PERMITS

10(a)(1)(A) allows scientific research permits for activities that will result in take.

10(a)(1)(B) allows take permits for actions without a Federal nexus (*i.e.*, projects not eligible for consultation under section 7). This is where the requirement for an HCP (Habitat Conservation Plan) comes from; if an action is likely to take a listed species, and there is no Federal nexus to provide consultation and an exemption from the take prohibition, a permit for take can be issued under section 10(a)(1)(B) as long as the taking will not reduce the likelihood of the survival and recovery of the species in the wild.