

**2014-2015 Streaked Horned Lark Action Plan - Updated 29 October 2014**

The purpose of this action plan is to identify the next-best conservation actions that can be conducted over the next 3-5 years to support SHLA recovery. [Ranking Key: The top 15 tasks are ranked. The 9 tasks marked with an \* for the rank signifies increased emphasis, but not at the level of ranking.]

Category	Ref#	Task	Rank	Implementing Party
1. Determine population status, current distribution and limiting factors	1.1	<b>1. Finalize standardized survey and monitoring protocols range-wide that address occupancy, abundance, trends, use and spatial distribution.</b>	3	Working Group
	1.2	<b>2. Identify threats to population viability.</b>		
	1.2.a	a. Determine factors limiting juvenile and adult survivorship in OR & WA (e.g. predation). Does adult and juvenile survivorship limit population growth in OR (answered in WA)?	5	OSU
	1.2.b	b. Evaluate need to control predators (e.g., at airports) and if implemented, evaluate the effect of predator management (e.g., at Coast).	10	
	1.2.c	c. Evaluate current state of knowledge and the role of disturbances (e.g., recreation, military activities, industrial uses, researchers, restoration actions, dredge material deposition, airfield management actions, agricultural activities) that may affect survival in all life stages (i.e. nests, juveniles, adults) and prioritize development of BMPs for certain actions.	11	WDFW, OSU/ Randy does have some quantified mowing regime, so does CNLM/JBLM.
	1.2.d	d. Evaluate effect of pest control agents (e.g., zinc phosphide, maki) to larks (i.e., are they affected?) and if so, are there different application techniques that can eliminate negative effect?	13	
	1.2.e	e. Identify potential sink habitats (e.g., airports) and identify a process for potential management actions (e.g., creating recipient habitats, dissuasion at current sites), use qualitative approach as first step.	*	
	1.2.f	f. Track current climate change science to inform the role of climate change to streaked horned lark conservation decision making, e.g. northward expansion of prairie habitat		WDFW, OSU, USFWS, CNLM
	1.2.g	g. Examine genetic variability and population structuring.		WDFW, Smithsonian
	1.2.h	h. Determine factors limiting reproductive success in private working lands of the Willamette Valley.		
	1.2.i	i. Evaluate effect of different crops and agricultural management techniques to larks.		
	1.3	<b>3. Utilize and collect data from color band resights.</b>		
	1.3.a	a. Collect and integrate existing color banded resight information from Oregon and Washington to inform conservation planning and habitat management.	14	
	1.3.b	b. Inform and mobilize citizen science efforts (e.g., Audubon) to collect new color band resights.		
	1.4	<b>4. Develop SHLA ID training and a certification process that integrates potential surveyors with (to be) established protocols.</b>	*	
	1.5	<b>5. Develop criteria to determine if habitat is suitable for all life history stages (i.e. How can I tell if I have habitat?).</b>	*	
	1.5.a	a. Apply criteria to develop a range wide map of potential habitat.		
	1.6	<b>6. Survey and monitor for larks.</b>		
1.6.a	a. Conduct annual monitoring at occupied breeding sites.	*	WDFW, OSU, CNLM, JBLM, PDX, ODFW	
1.6.b	b. Survey new and historic sites. Potential examples: Rogue River valley, Roger's Washington townships, OR Coast, Cowlitz River, Port of Longview industrial area & coast, regional airports.	*	Portland Audubon, WDFW, CNLM, Metro, Port of Portland, ODFW	
1.7	<b>7. Identify important features that affect habitat quality and lark productivity.</b>			
1.7.a	a. Determine the effect of habitat parameters and seasonality on nest success (use existing WA data), and on private working lands in OR.	*		
1.7.b	b. Understand habitat quality in relation to food availability, including wintering habitat quality.			
1.8	<b>8. Address the need for coordinated and consolidated database for lark data (e.g., lark database manager and lead, FWS? WDFW? Other?).</b>			
2. Protect Existing Populations and Habitats	2.1	<b>1. Seek opportunities to secure sites dedicated to lark conservation (e.g. lark preserves).</b>	1	
	2.2	<b>2. Secure protection commitment on priority occupied sites (e.g. management plans, Safe Harbor).</b>	2	Working Group
	2.3	<b>3. Define and identify core sites for recovery.</b>		
	2.4	<b>4. Work with the regulatory community to identify mitigation opportunities including conservation banks.</b>		
	2.5	<b>5. Encourage partners to include management for larks in land protection plans when opportunities are available (e.g. Great American Outdoors Initiative, Willamette Wildlife Mitigation Program, SWAPs, legislative initiatives).</b>		
	2.6	<b>6. Work with NRCS and others to ensure larks are a priority for funding programs (e.g., easements) and landowner assistance (e.g. Partner Biologists).</b>		FWS, ODFW, WDFW, CNLM
	2.7	<b>7. Identify mechanisms to establish long-term management funding for important sites (e.g. endowments).</b>		
	2.8	<b>8. Address identified threats range-wide: Initiate protection measures, reduce predator impacts, redirect recreation, airport disturbance.</b>		Working Group
	2.8.a	a. Redirect, adapt, or modify timing of incompatible aspects of land uses, e.g. airshows, police training, dog trials, model airplane use, ATVs, dredged material placement, airport management practices.		OSU, WDFW, FWS Refuges, CNLM, JBLM

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Category	Ref#	Task	Rank	Implementing Party
3. Enhance viability of extant populations and habitats	3.1	<b>1. Enhance existing habitat and increase amount of available habitat in the Willamette Valley.</b>		OSU, WDFW, FWS Refuges, CNLM, JBLM
	3.1.a	a. Implement habitat restoration activities on breeding and wintering grounds.	4	NRCS, Private, Refuges, USFWS
	3.1.b	b. Update and implement management prescriptions to create breeding habitat and develop winter habitat prescription in agricultural matrix.		
	3.1.c	c. Investigate the value and feasibility of conservation burning for larks and its potential as an incentive for private landowners.		OSU, USFWS, NWR, NRCS
	3.2	<b>2. Conduct genetic rescue aiming at stabilizing South Sound population. Evaluate success.</b>	6	WDFW, ODFW, OSU, CNLM
	3.3	<b>3. Evaluate appropriateness and feasibility of population augmentation, relocation or reintroduction (e.g., investigate lark colonization, captive rearing, hacking, cross fostering).</b>	7	WDFW, OSU, Oregon Zoo, CNLM
	3.4	<b>4. Conduct habitat restoration in South Puget Sound to increase and improve lark habitat.</b>		
	3.4.a	a. Implement habitat restoration activities on breeding ground using all available tools (e.g., herbicide, fire). Focus on invasives that change the structure of the habitat - ongoing.	9	JBLM, CNLM, FWS, WDFW
	3.5	<b>5. Conduct habitat restoration on the Columbia River and Coast to increase and improve lark habitat</b>		
	3.5.a	a. Implement habitat restoration activities on breeding and wintering grounds (e.g. Damon Point, Midway Beach)	12	FWS, WDFW, WSP, ACOE, CNLM, WDNR
	3.5.b	b. Implement and monitor effectiveness of created lark habitat by dredge material deposition and implementing complementary strategy to control structure-modifying vegetation.	*	ACOE, CNLM, Port of Portland, FWS
	3.5.c	c. Implement habitat restoration activities on unoccupied sites within the breeding and wintering range (e.g. St. John's, Sauvie, Gov't island).		City of Portland, Port of Portland, Metro, OSU, USFWS, NRCS
3.5.d	d. (Coast) Remove beach grass (use Leadbetter plover restoration HRA as demo project). Ongoing.		FWS, WDFW, WSP	
3.6	<b>6. Develop strategy for compatible airport and lark use, develop management guidelines specific for each airport (e.g., Manage habitat to attract birds outside areas that the airport identifies as high risk for airport safety).</b>		CNLM, Ports, FAA, WDFW, ODFW, OSU	
4. Coordination, Education, and Outreach	4.1	<b>1. Facilitate habitat restoration on private lands through incentive programs or other means.</b>	8	
	4.1.a	a. Disseminate lark information to NRCS and SWCDs and brainstorm on how to implement programs (first).		
	4.1.b	b. Encourage federal & state agencies to promote incentive programs.		WDFW, FWS
	4.2	<b>2. Facilitate coordination and information sharing.</b>		
	4.2.a	a. Maintain range-wide working group and coordination.	15	CNLM, FWS, Port of Portland, WDFW
	4.2.b	b. Open and maintain working groups/informational sharing forums about larks revolving around industry-specific issues (e.g. airports, ports, agriculture, developers/land use planning).	*	
	4.2.c	c. Maintain WA airports working group and maintain SHLA awareness in OAMA meetings.	*	CNLM, Port of Portland, FWS, WDFW, regional airports
	4.2.d	d. Columbia River port lark working group/ informational sharing meetings.		
	4.3	<b>3. Develop outreach and educational materials.</b>		
	4.3.a	a. Package existing habitat prescriptions specifically for agricultural producers (i.e., abridge Tech Note for lay audience) and distribute to agricultural community.		
4.3.b	b. Conduct outreach to permitting entities (e.g. counties/cities, ODSL) regarding potential for lark impacts from development and other permitted activities.			
4.3.c	c. Develop materials on habitat management and restoration for land managers including habitat targets.			
4.3.d	d. Reach out to additional partners by promoting regional recovery and habitat management (e.g. DNR aquatic lands, WA/OR State Parks, land trusts, mitigation banks, OR Dept. of State Lands).			