PACIFIC BIRDS

HABITAT JOINT VENTURE

CREATING THE IDEAL ENVIRONMENT FOR BIRD HABITAT CONSERVATION

Streaked Horned Lark Conservation - Willamette Valley

Niles Brinton

BY THE NUMBERS

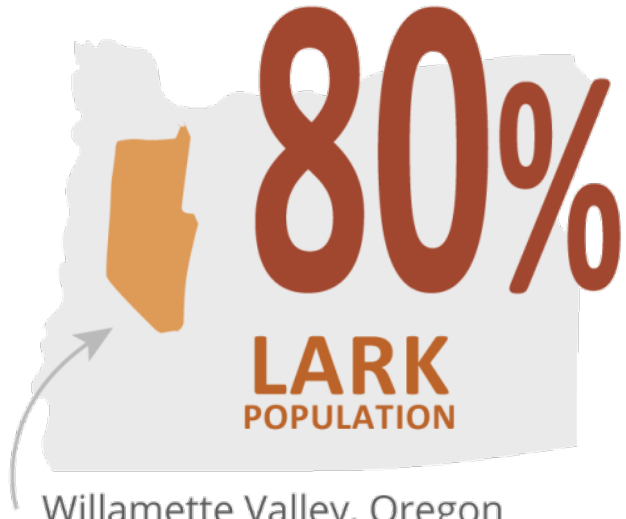
Streaked Horned Larks

The most significant factor in the decline of the Streaked Horned Lark is habitat loss. Native prairies and grasslands have been converted to agriculture and residential uses, and non-native plants have encroached upon and degraded native habitats.

LESS THAN 2000

It is estimated that less than 2,000 Streaked Horned Larks remain. They no longer occur in British Columbia and their historic range in the U.S. is greatly diminished.





About 80 percent of the lark's population is found in the Willamette Valley of Oregon. Most of the larks breeding in Washington migrate to Oregon to overwinter.

PacificBirds.org

©Pacific Birds Habitat Joint Venture

COOPERATIVE POSITION

Streaked Horned Lark Conservation

Timeline and Location

- 2 year contract began January 2017
- Office @ Salem NRCS
- Focal area: all lark range upstream of Portland



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AMERICAN BIRD CONSERVANCY

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NRCS

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR



WORKING LANDS



PRIMARY DUTIES

Streaked Horned Lark Conservation

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Perform Landowner and Stakeholder Outreach

Identify Conservation Practices and Funding Programs



Help Landowners Receive Conservation Incentives







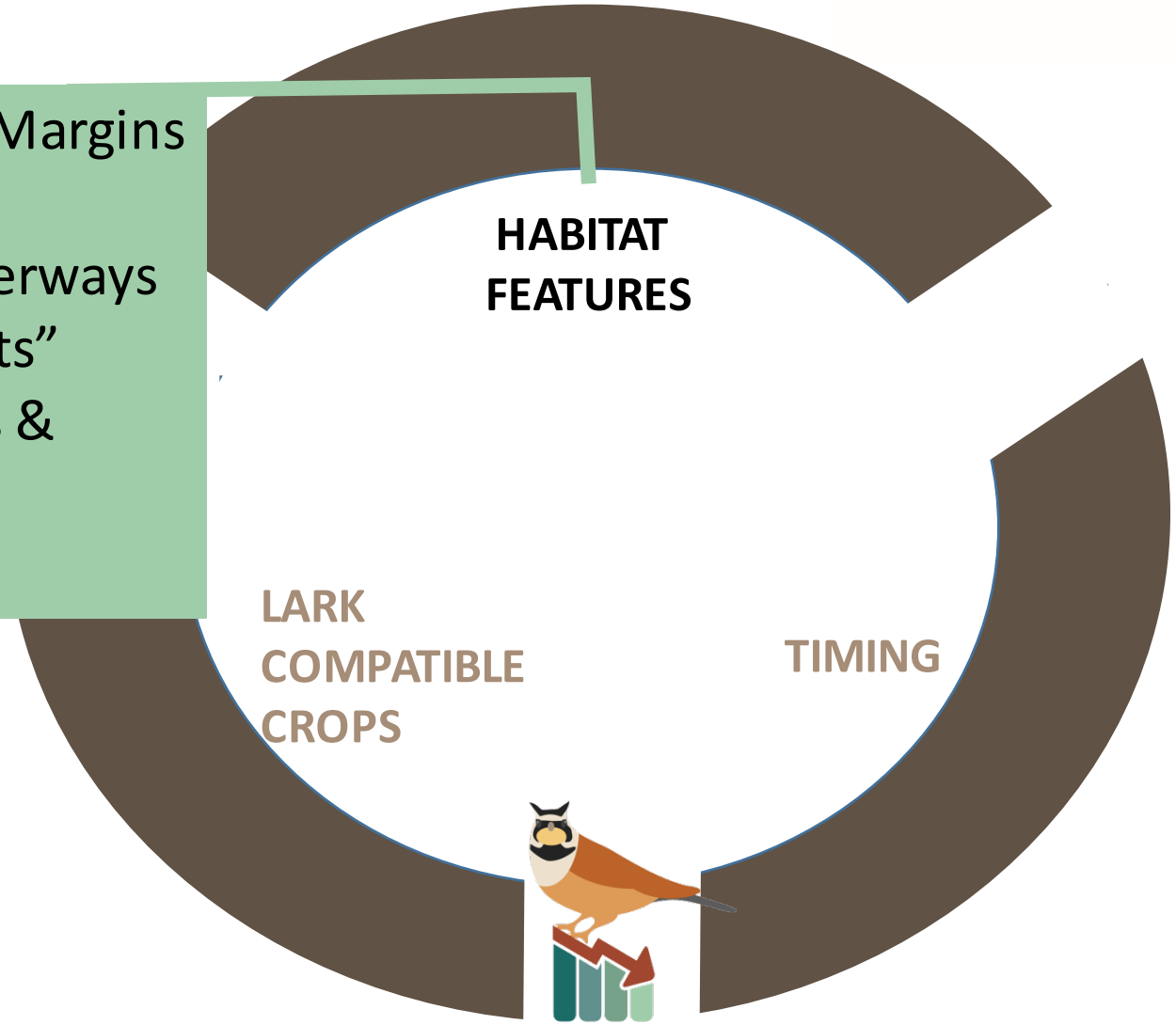


BENEFICIAL HABITAT FEATURES

Conservation Practices

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- Gravel Road Margins
- Farm Lanes
- Grassed Waterways & “Drownouts”
- Field Borders & Corners
- Bare Patches



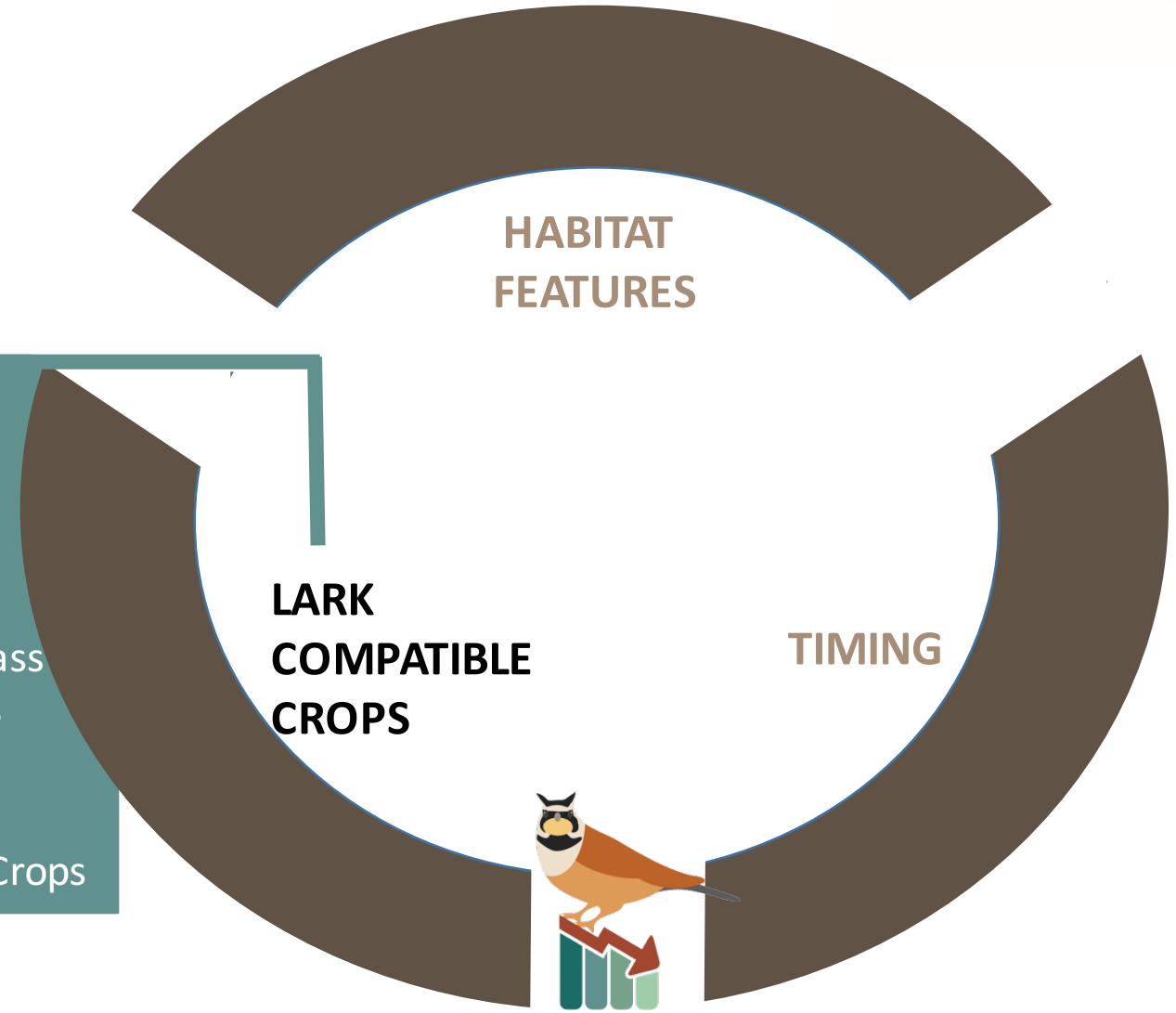


COMPATIBLE CROPS

Conservation Practices

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- Tall Fescue
- Clover
- Fallow
- Corn
- Small grains
- Perennial Ryegrass
- Annual Ryegrass
- Orchardgrass
- Meadowfoam
- Vegetable Row Crops





TIMING

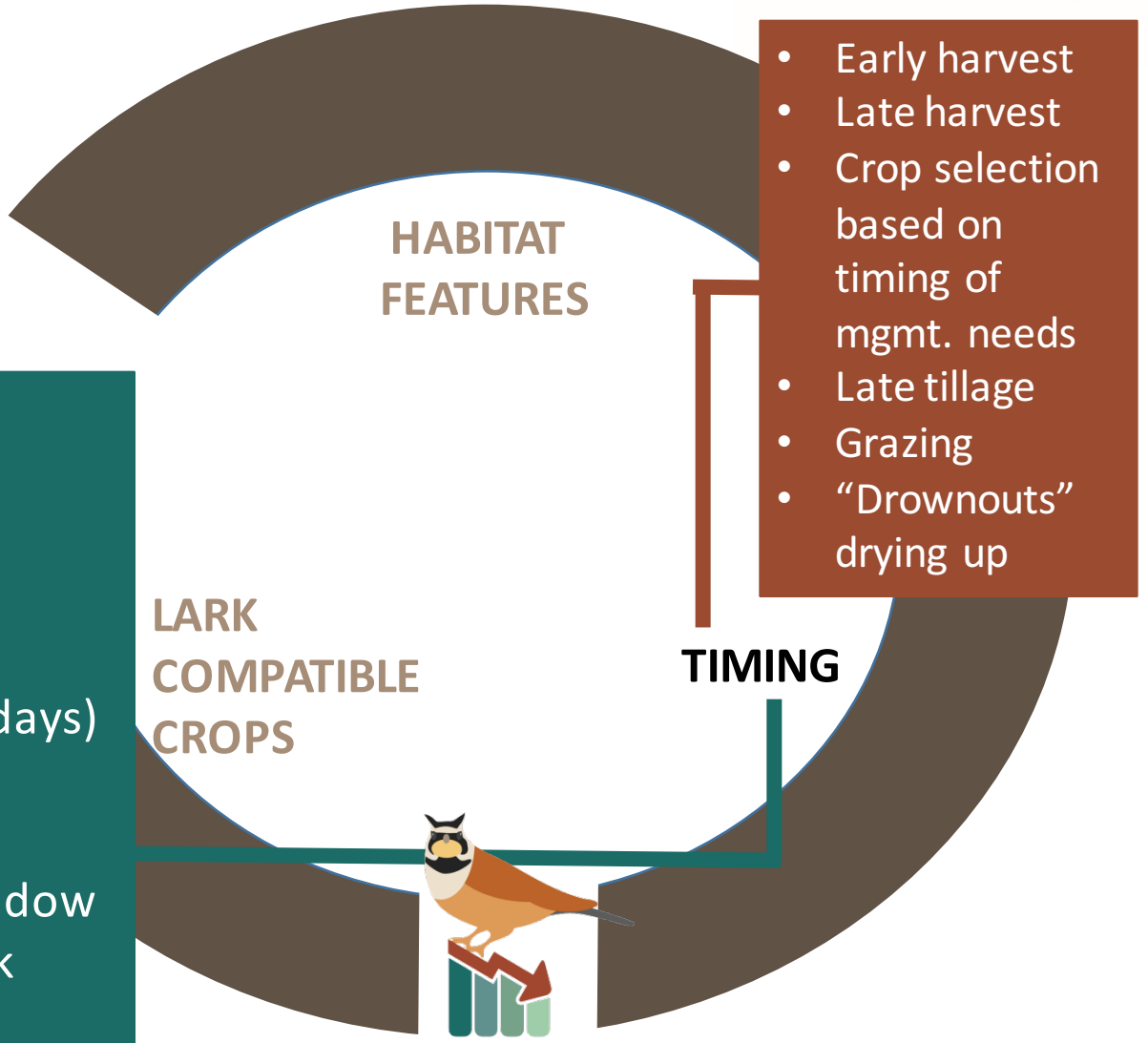
Conservation Practices

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- ~ 19 week breeding *season*:
  April 1- Aug 15
- ~ 33 day breeding *cycle*:

Nest Building (7 days)
Laying and Incubating Eggs (12 days)
Hatching and Fledging (14 days)

- How to build a 30-40 day window somewhere in to the 19 week breeding season?
  - For any crop



- Early harvest
- Late harvest
- Crop selection based on timing of mgmt. needs
- Late tillage
- Grazing
- “Drownouts” drying up

USDA
United States Department of Agriculture

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STREAKED HORNED LARK BREEDING SEASON TIMELINE | Habitat Management Guidelines

APRIL 1 — APRIL — MAY — JUNE — JULY — AUGUST — AUG. 15

GRASS SEED FARMING

SEED PRODUCTION — HARVEST — TILLAGE

LARK BEHAVIOR

APRIL - MID MAY

1. SEEKING BREEDING HABITAT
2. ESTABLISHING TERRITORIES
3. ATTRACTING MATES

MAY- AUGUST 15

1. NEST BUILDING (MINIMUM 7 DAYS)
2. LAYING AND INCUBATING EGGS (MINIMUM 12 DAYS)
3. HATCHING AND FLEDGING YOUNG (MINIMUM 14 DAYS)

HABITAT MANAGEMENT ACTIVITIES

APRIL - MID MAY

SPRAY/ DISC/ MOW FIELD BORDERS AND ROAD MARGINS

MID MAY-JUNE

1. SPRAY DRIED DROWN OUTS IF WEEDY VEGETATION IS ENCROACHING
2. MINIMIZE FURTHER DISTURBANCE OF DROWN OUT AREAS, FIELD BORDERS AND ROAD MARGINS

MID JUNE- JULY

1. HARVEST *PRIORITY FIELDS EARLY
2. AVOID BARE PATCHES DURING MOWING AND HARVESTING

LATE JULY- AUG. 15

POSTPONE TILLAGE OF *PRIORITY FIELDS

* Fields are prioritized based on proximity to existing lark colonies, field size (bigger is better), lack of nearby tall objects like treelines, or presence of habitat features such as gravel road margins, farm lanes and drown out areas or shallow ditches. Ideally, priority fields are planted with early harvested crops, such as meadow foam, orchardgrass, tall fescue or short stature crops, such as clover. Tillage (if necessary) is postponed on these fields until after August 15.

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STREAKED HORNED LARK HABITAT MANAGEMENT PLANNING

LOCATION: _____

YEAR: _____

APRIL 1 | APRIL | MAY | JUNE | JULY | AUGUST | AUG. 15

LARK BREEDING SEASON BEHAVIOR

APRIL - MID MAY

1. SEEKING BREEDING HABITAT
2. ESTABLISHING TERRITORIES
3. ATTRACTING MATES

MID MAY- AUGUST 15

1. NEST BUILDING (MINIMUM 7 DAYS)
2. LAYING AND INCUBATING EGGS (MINIMUM 12 DAYS)
3. HATCHING AND FLEDGING YOUNG (MINIMUM 14 DAYS)

CROP MANAGEMENT ACTIVITIES FOR: _____

_____

(crop type)

STAND AGE: _____

(years)

HABITAT MANAGEMENT ACTIVITIES

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USDA United States Department of Agriculture Natural Resources Conservation Service

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Streaked Horned Lark Management Planning

Location:	Acres:	Crop:
Client's Wildlife Objectives:	Assisted By:	Date:

Client's Management Objectives:

Habitat Management Theme:	**1) create/maintain habitat through disturbance**	**2) avoid further activity to enourage undisturbed breeding**	
Habitat Features Options	**EARLY (before May 1)**	**MID (May 1 - July 10)**	**LATE (July 10 - Aug 15)**
Farm Lanes & Access Roads	graze/mow/spray	graze/mow/spray if necessary*	avoid
Gravel Road Margins	graze/mow/spray	graze/mow/spray if necessary*	avoid
Drownouts, Waterways	avoid / mow / spray if necessary*	mow / spray if necessary*	avoid
Field Borders, Corners	manage as usual	avoid	avoid; defer harvest
Bare Patches	avoid	avoid	avoid; defer harvest
Crop Management Activity Options			
Harvest	i) Delay harvest until after August 15 **OR**		
	ii) Harvest before July 10 & avoid activity from July 10- Aug 15		
Residue Management	i) Delay flailing / bale removal until after Aug 15 **OR**		
	ii) Flail or remove bales before July 10 & avoid activity from July 10- Aug 15		
Tillage	i) Delay tillage until after August 15 **OR**		
	ii) Tillage before July 10 & avoid further activity until Aug 15		
Grazing	i) Short (1-2 weeks), intense grazing period until vegetation is low (3-6") **AND**		
	ii) remove stock until forage regrowth allows for another grazing rotation		

* if necessary: no disturbance action necessary until canopy cover exceeds 50%
no disturbance action necessary in or near standing water or in saturated soil

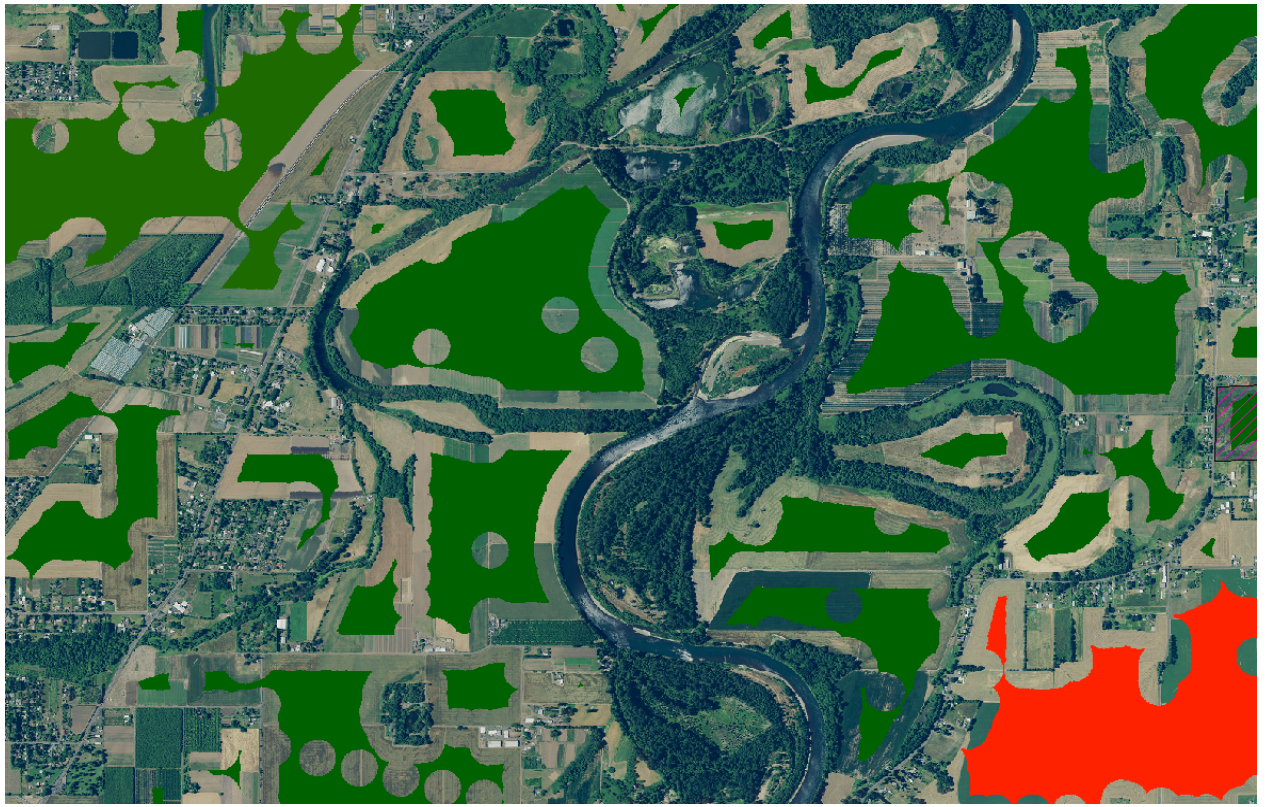
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SPATIAL ANALYSIS

Developing an ”Openness Index”

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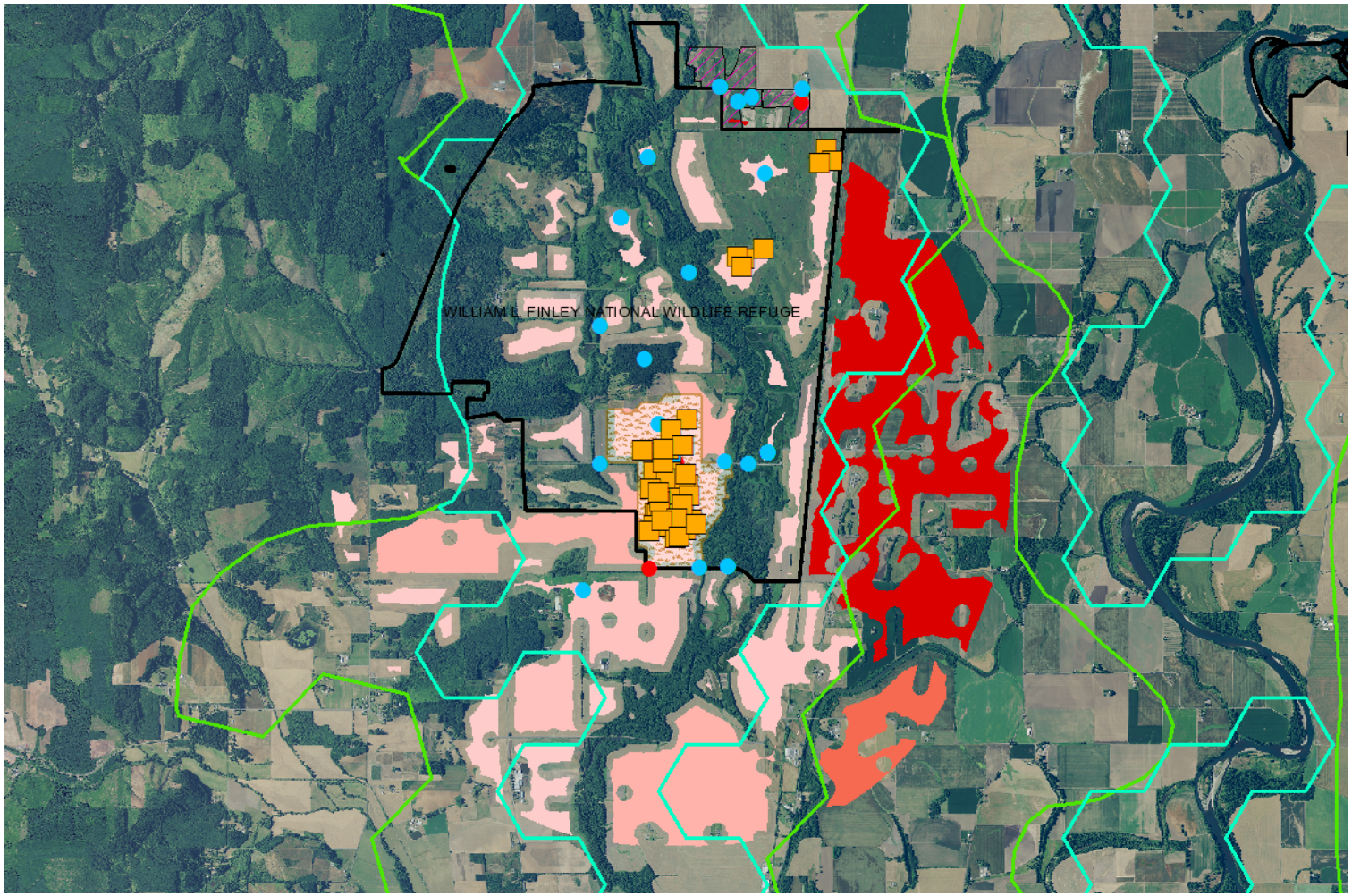


Open areas AKA *Potential* Lark Habitat
Everywhere at least 100yd. from anything over 10ft. tall

SPATIAL ANALYSIS

Developing an ”Openness Index”

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Open areas AKA *Potential* Lark Habitat
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Mossy Female SHLA © Adrian Wolf

SPATIAL ANALYSIS

Developing an "Openness Index"

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Potential Habitat in…	Acres	Square Miles
NRCS Willamette Valley Lark Range	404,916.04	632.68
ODFW Conservation Opportunity Areas	91,037.47	142.25
USFWS Priority Conservation Areas	24,366.52	38.07
NRCS Customers Lands (last 10 yrs)	50,128.63	78.33
Designated Critical Habitat (2 mi buffer)	13,728.31	21.45
Designated Critical Habitat (5 mi buffer)	51,916.63	81.12
Top 4 Lark Airports (2 mi buffer)	12,880.47	20.13
Top 4 Lark Airports (5 mi buffer)	52,336.15	81.78
Lane County	26,344.52	41.16
Linn County	137,730.68	215.20
Benton County	33,097.97	51.72
Marion County	96,189.67	150.30
Polk County	46,410.66	72.52
Yamhill County	40,375.19	63.09
Washington County	N/A	N/A

MOVING FORWARD

Outreach

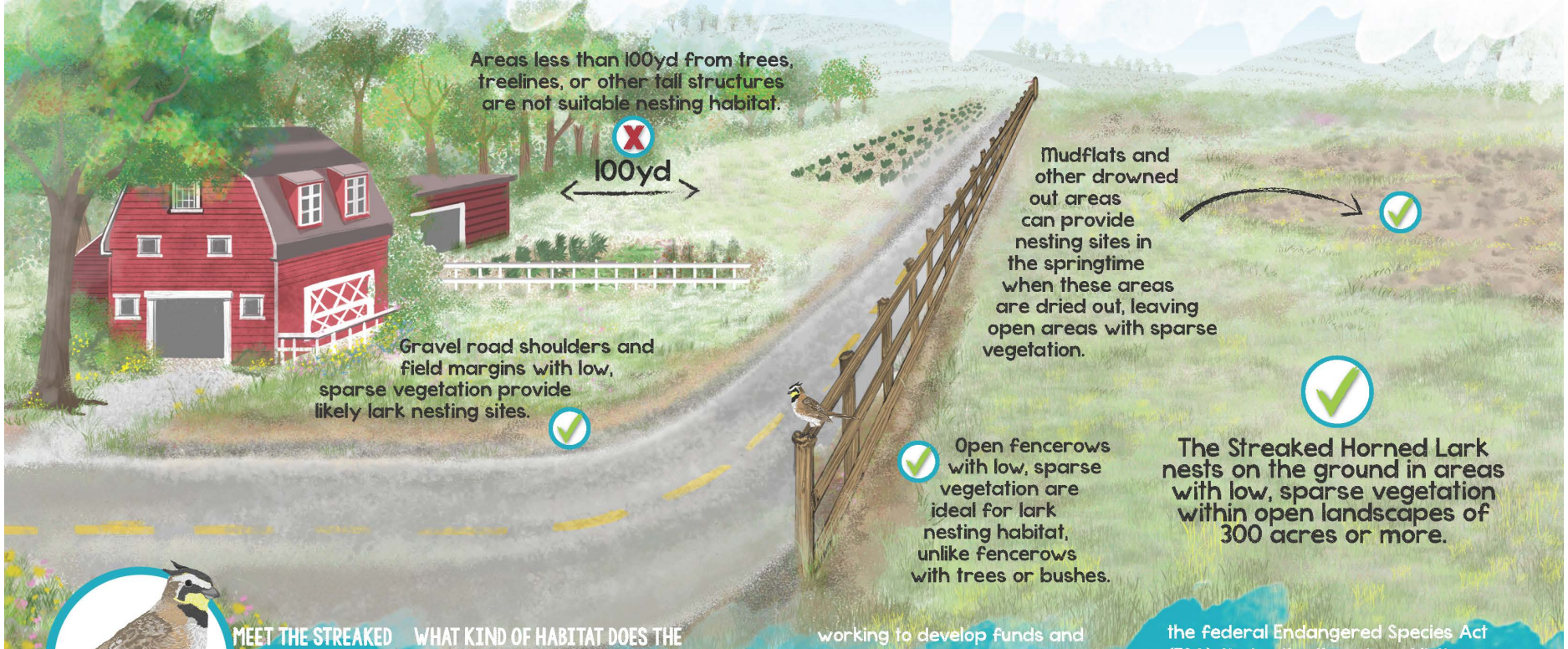
Targeted Approach

- Prioritized Landowners
- Ag Companies, Farm Bureau & Industry Assns., NRCS Staff, Soil & Water Cons. Districts, Land Trusts, Watershed Councils…
- Article in Oregon Seed magazine

Materials

- Postcard
- Brochure
- Grass Seed Farming Timeline
- Crop Management Planning Timeline





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MEET THE STREAKED HORNED LARK

The Streaked Horned Lark is a small ground-dwelling bird with a brown back, a black mask, and yellow and white markings on its head, plus a couple small feathers or 'horns' which earn it the name.

Streaked Horned Larks nest in the spring and summer on Willamette Valley farmlands. They prefer open, disturbed landscapes and tend to nest in field edges, dried mudflats, gravel roads, grazed pastures or fallow fields.

WHAT KIND OF HABITAT DOES THE STREAKED HORNED LARK PREFER?

The Streaked Horned Lark nests on the ground in sites with low, sparse vegetation. Historically, this type of habitat was found in prairies in western Oregon and Washington, usually after disturbances such as flooding or fire. Today in the Willamette Valley, the Streaked Horned Lark nests and winters in native prairies, agricultural fields, sparsely vegetated edges of grass seed fields, bare ground, gravel roads and shoulders and other similar areas.

ABOUT THE LARK PARTNERSHIP

The Lark Partnership is a group of agencies and organizations working to develop funds and voluntary incentive programs to help land managers, including farmers, enhance nesting habitat for the Steaked Horned Lark.

Potential management opportunities for farmers include:

- ✓ Management of field borders and corners
- ✓ Road shoulders and access roads
- ✓ Drown out / mudflat management
- ✓ Late-season tillage management
- ✓ ...and more

WHY THE STREAKED HORNED LARK?

In October 2013, the U.S. Fish and Wildlife Service listed the Streaked Horned Lark as threatened under the federal Endangered Species Act (ESA). Under the threatened listing, a special rule exempts farmers from ESA violations when performing agricultural operations in areas where the lark is found. However, the continued loss of breeding habitat is pushing this bird closer to extinction. The Lark Partnership is seeking opportunities to reverse the decline because an endangered listing would eliminate the special rule.

www.larkpartnership.org

TO LEARN MORE, CONTACT:

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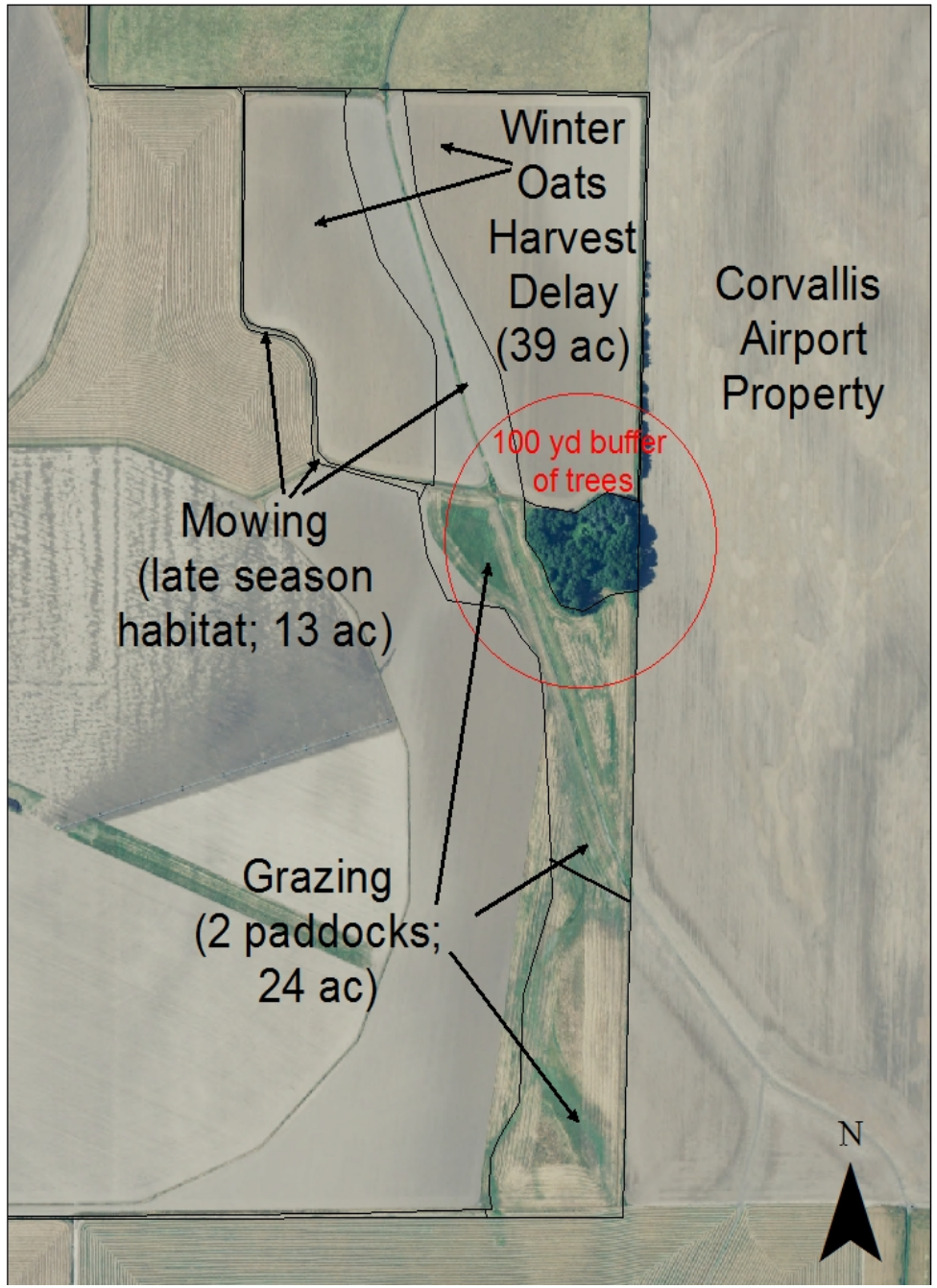
MOVING FORWARD

Pilot Project

Tests 3 conservation practices: harvest delay, planned grazing, mowing

Regular monitoring during 2018 breeding season

Will have decoys, song playback to attract larks



Lark Conservation Pilot Project
Corvallis Oregon

$14.21 / acre
Implementation Costs
(paid to landowner)



MOVING FORWARD

Safe Harbor Agreement

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Landowners want assurances when managing for listed species

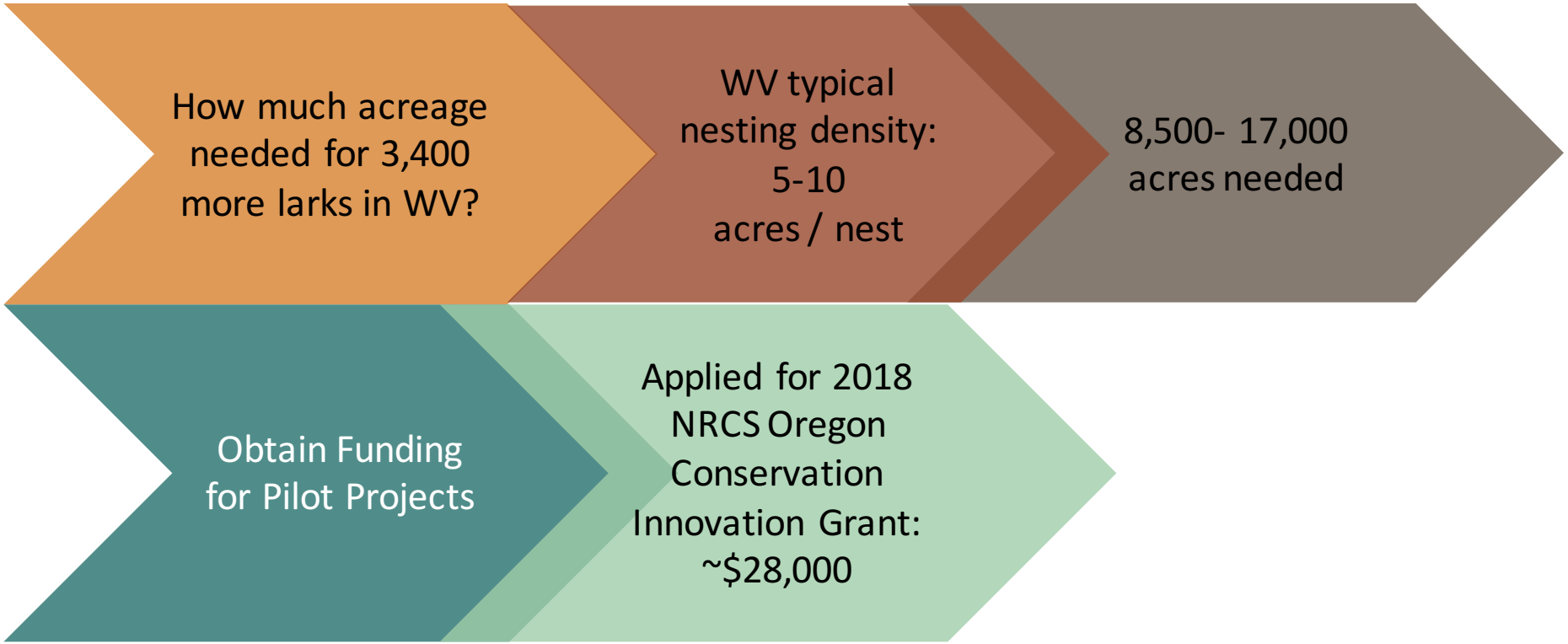
Programmatic SHA provides sufficient protections plus efficiency: includes multiple landowners

Effort to implement programmatic SHA for Willamette Valley Streaked Horned Larks this year

MOVING FORWARD

Practical Considerations

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