STREAKED HORNED LARK

Conservation of a threatened species in an industrial landscape

Cat Brown
US Fish and Wildlife Service

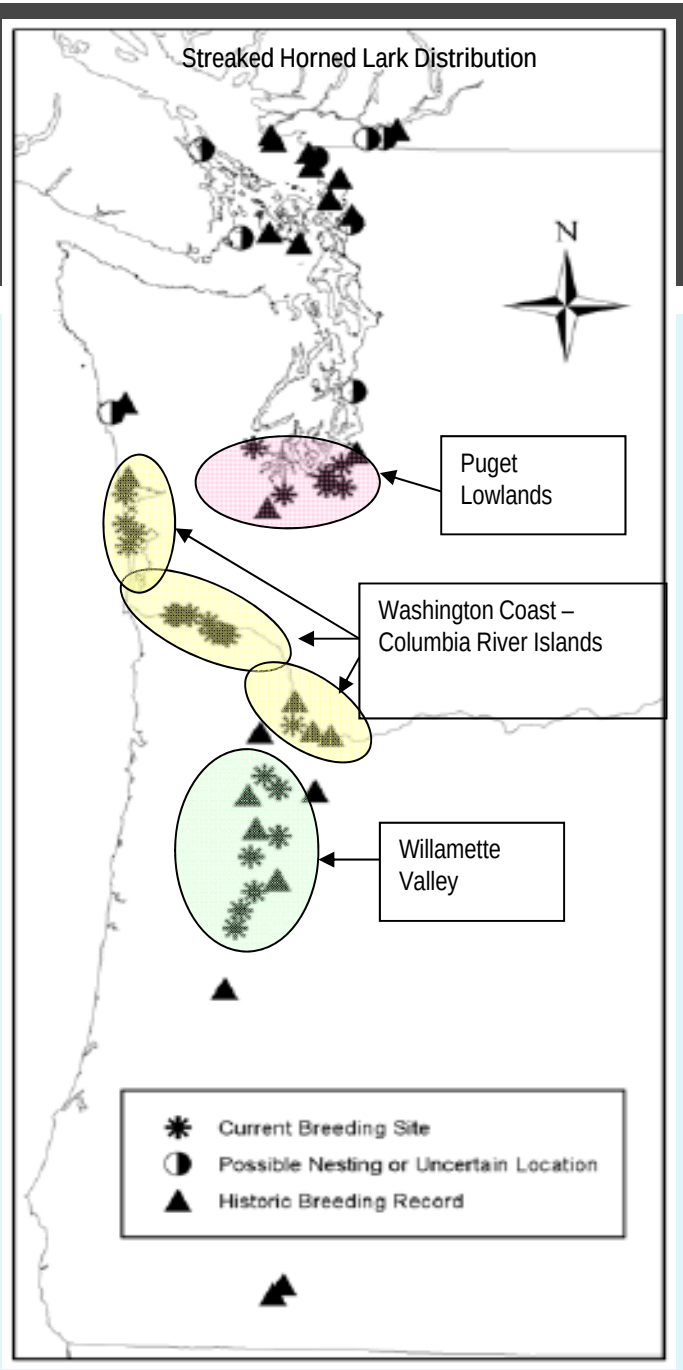
HISTORICAL & CURRENT RANGE

Historical Range:

- British Columbia, Canada
- Northern Puget trough
- San Juan Islands
- Puget lowlands
- WA coast and Columbia River Islands
- Oregon Coast
- Willamette Valley
- Rogue and Umpqua Valleys

Current Range:

- Puget lowlands
- WA coast and Columbia River Islands
- Willamette Valley



LARK HABITAT

- Large
- Flat
- Open, treeless
- Frequently disturbed, sparse vegetation, lots of open ground

LARK HABITAT – THEN…

- Willamette and Puget prairies
- Scoured floodplains and islands of the Columbia and Willamette Rivers
- Ocean beaches

LARK HABITAT – NOW…

- Airports
- Puget prairies
- WA coast*
- Columbia River dredge spoil islands
- Willamette Valley agricultural lands


Corvallis Airport aka "Larktopia"

* The only place where habitat is maintained by natural processes

AIRPORTS

Any place you can land a plane...

DREDGE SPOIL SITES

Huge piles of sand in the Columbia River…

WILLAMETTE VALLEY AG LANDS

Underperforming grass seed fields…

Gravel road margins

CURRENT POPULATION

Region	Number of Sites	Population Size
Puget Lowlands, WA (Olympia Airport, JBLM)	6	150-170
Washington coast and lower Columbia River islands (including sites in Portland)	~ 15	120-140
Willamette Valley (Airports, Wildlife Refuges, Ag Lands)	??	900-1300

RANGEWIDE POPULATION ESTIMATE ≤ 2,000 BIRDS

FINAL LISTINGS 10/3/2013

Action: List the streaked horned lark as Threatened	Action: Designate Critical Habitat	Action: Promulgate a Special Rule pursuant to section 4(d)
New regulation: 50 CFR §17.11 List of Endangered and Threatened Wildlife	New regulation: 50 CFR §17.95 Critical Habitat – fish and wildlife	New regulation: 50 CFR §17.41 Special Rules – Birds

IN A NORMAL LISTING…

- Find the few existing, high quality natural habitats that will form the core of the recovery effort
- Recovery = saving the last, best remaining habitats, and working to restore or recreate other suitable natural sites

This model doesn't really work for larks

WHAT WILL RECOVERY LOOK LIKE FOR THE LARK?

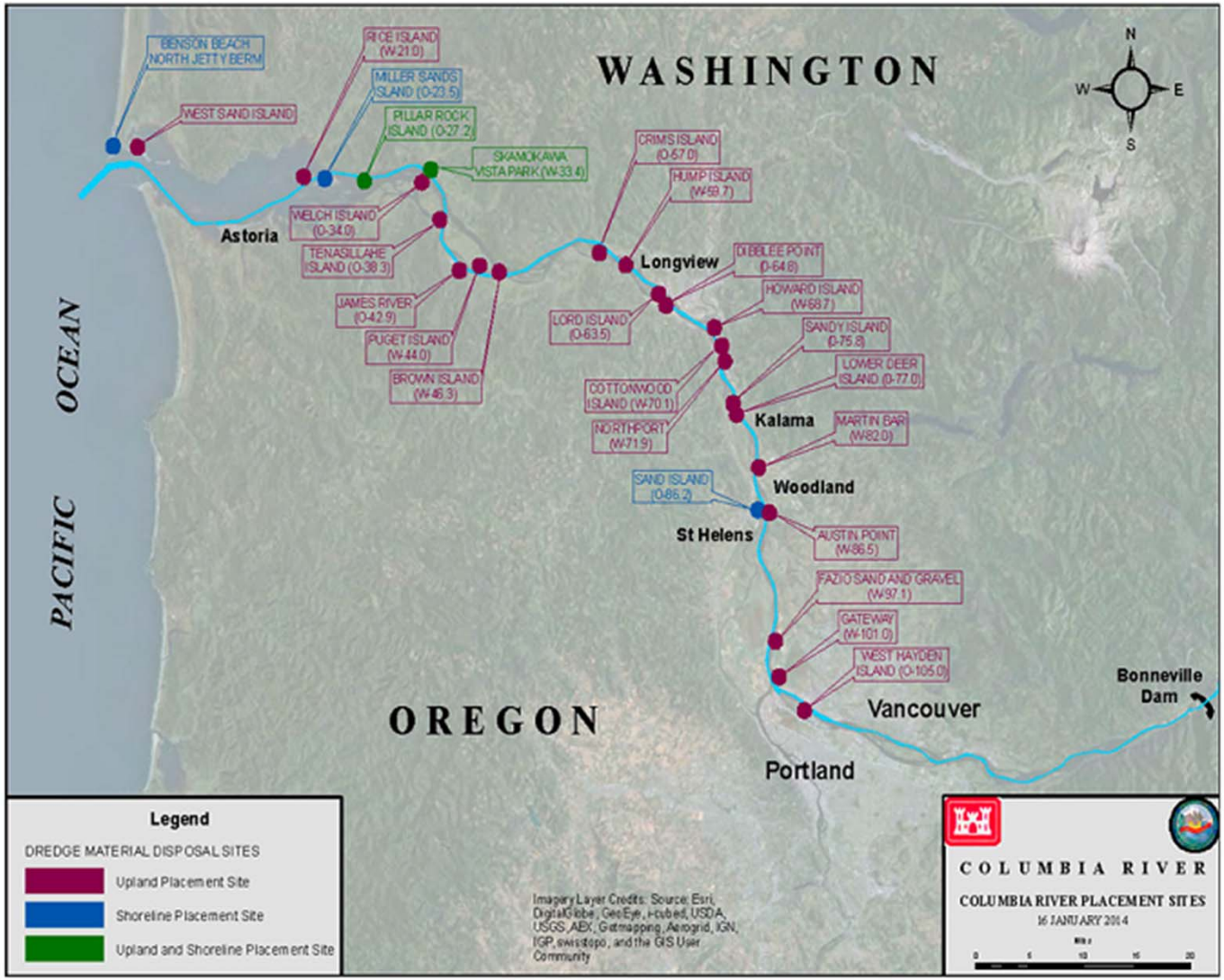
- Restore some “natural” habitats (managed prairies and beaches)
- Work with what we have now – industrial and working lands that incidentally create habitat

THE ARMY CORPS V. LARKS

- US Army Corps of Engineers has been dredging the Columbia River navigation channel since 1884 with no consideration for streaked horned larks

- Currently ~61 breeding pairs and ~314 acres of habitat on the dredged material disposal network

THE NETWORK


WASHINGTON
OREGON
PACIFIC OCEAN
N
W
E
S
BENSON BEACH NORTH JETTY BERM
WEST SAND ISLAND
RICE ISLAND (W-21.0)
MILLER SANDS ISLAND (O-23.5)
PILLAR ROCK ISLAND (O-27.2)
SKAMOKAWA VISTA PARK (W-33.4)
WELCH ISLAND (O-34.0)
TENASILLAHE ISLAND (O-36.3)
JAMES RIVER (O-42.9)
PUGET ISLAND (W-44.0)
BROWN ISLAND (W-46.3)
CRIMS ISLAND (O-57.0)
HUMP ISLAND (W-59.7)
LORD ISLAND (O-63.5)
DIBBLEE POINT (O-64.8)
HOWARD ISLAND (W-68.7)
SANDY ISLAND (O-75.8)
LOWER DEER ISLAND (O-77.0)
COTTONWOOD ISLAND (W-70.1)
NORTHPORT (W-71.9)
MARTIN BAR (W-82.0)
SAND ISLAND (O-86.2)
AUSTIN POINT (W-86.5)
FAZIO SAND AND GRAVEL (W-97.1)
GATEWAY (W-101.0)
WEST HAYDEN ISLAND (O-105.0)
Astoria
Longview
Kalama
Woodland
St Helens
Vancouver
Portland
Bonneville Dam
Legend
DREDGE MATERIAL DISPOSAL SITES
Upland Placement Site
Shoreline Placement Site
Upland and Shoreline Placement Site
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COLUMBIA RIVER
COLUMBIA RIVER PLACEMENT SITES
16 JANUARY 2014

SECTION 7 CONSULTATION

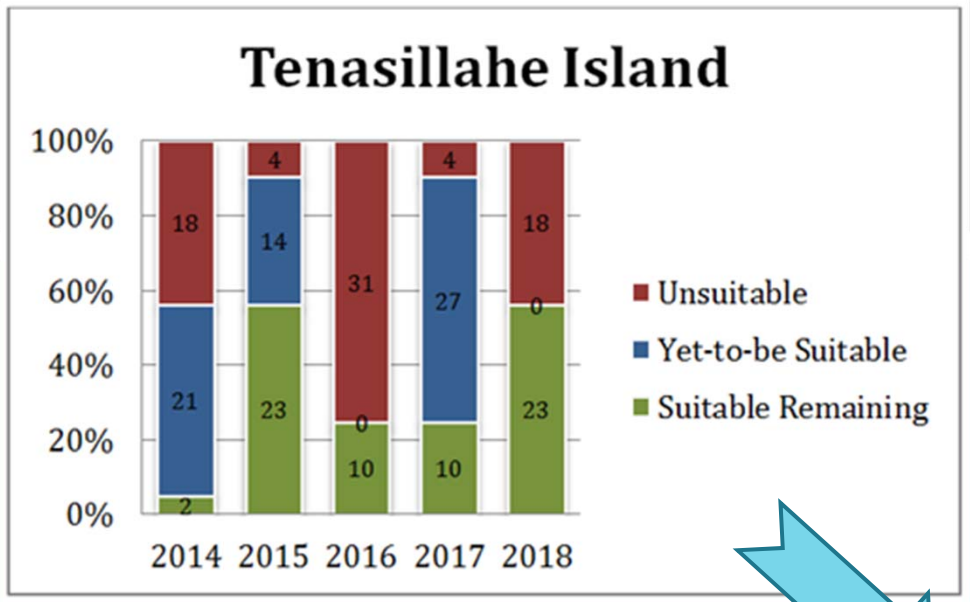
- The Corps must consult under section 7 of the Endangered Species Act for any actions that may affect the streaked horned lark
- Givens:
  - The channel must be dredged
  - Larks conservation must be part of the equation
- *MINDFUL dredge material placement*

UNDERSTANDING HABITAT DYNAMICS

- USFWS funded a recent analysis of lark habitat in the lower Columbia River to understand the progression from fresh deposition of material → suitable habitat → too vegetated for larks
- Use this info to inform the Corps' consultation

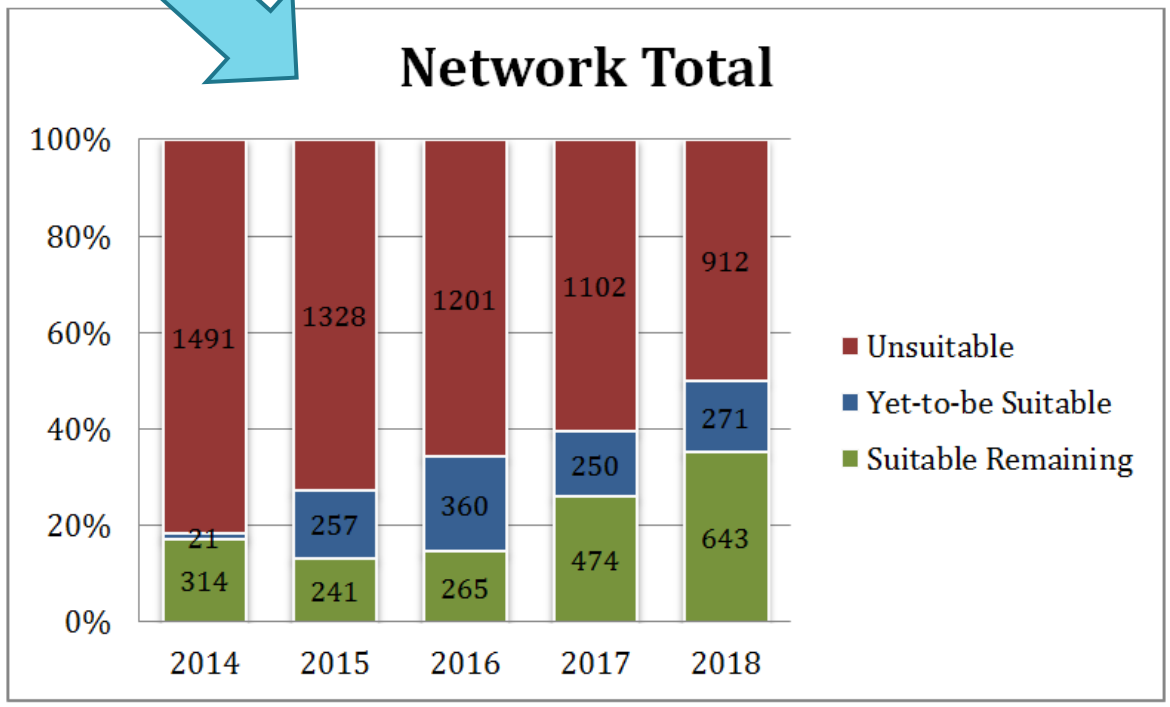
5-YEAR PLAN

- The 5-year plan directs dredge material deposition to maintain a ***shifting mosaic*** of suitable habitat in the Network:
- Deposit on only a portion of any occupied site in any year
- Place material after the breeding season, if feasible
- Sites slated for deposition in the breeding season will be modified before nesting begins to dissuade lark use (avoid creating habitat sinks)
- Maintain enough acreage of suitable habitat every year to support the ≥ current population of larks



Each site has an annual deposition plan

Deposition plan
+ habitat succession modeling
= projected habitat availability



MONITOR AND ADAPT

- Comprehensive monitoring program to track habitat conditions and lark response
- At end of 5 years, projected ~100% increase in suitable habitat
  - From 314 acres in 2014 to 643 acres in 2018
  - → ***More larks?***
- Use this info to inform the next consultation for future navigation channel dredging

ROLL ON COLUMBIA RIVER LARKS!