

Carbon Farm Planning for Multiple Benefits

Mel Preston, January 25th, 2018
EcoFarm Conference

Point Blue Conservation Science

Our mission is to advance the conservation of birds, other wildlife, and ecosystems through science, partnerships, and outreach





Education and Outreach

providing healthy foods on working lands in a way that sustains the planet and inspires others to action



Regenerative Ranching



Food for Good

Point Blue at TomKat Ranch

On-site science partners since 2010

Data Collection:

- Weather
- Stream
- Soils
- Vegetation
- Birds
- Special Projects



Point Blue at TomKat Ranch

← → ↻ https://tomkatranch.org/projects/state-of-the-ranch/



Providing healthy food on working lands in a way that sustains the planet and inspires others to action

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State of the Ranch

[Home](#) > [Projects](#) > State of the Ranch

State of the Ranch

Bird Data

Soil Data

Vegetation Data

Stream Data

Weather Data

TIMM



In addition to helping further rangeland ecological science, Point Blue's Rangeland Monitoring Network (RMN) is especially useful to landowners and producers who are interested in understanding and measuring the ecological function of rangelands and increasing the communication and collaboration among managers across California.

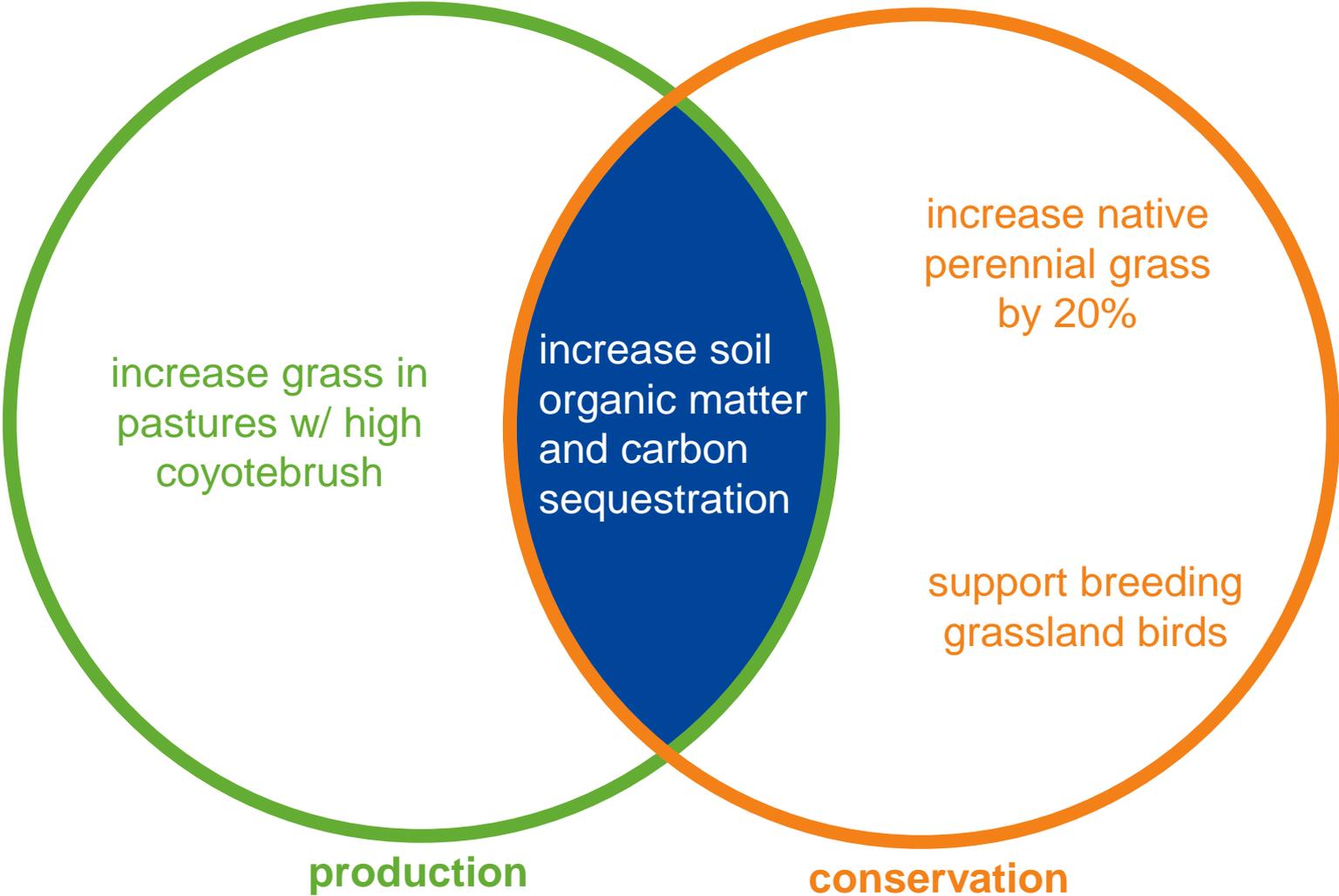
TomKat Ranch: Regenerative Ranching

- 1800 acres, 800 grazeable
- Permanent herd 100-150 animals (cow-calf)
- Planned grazing since 2011



Bill Milliot

Grazing Plan Goals



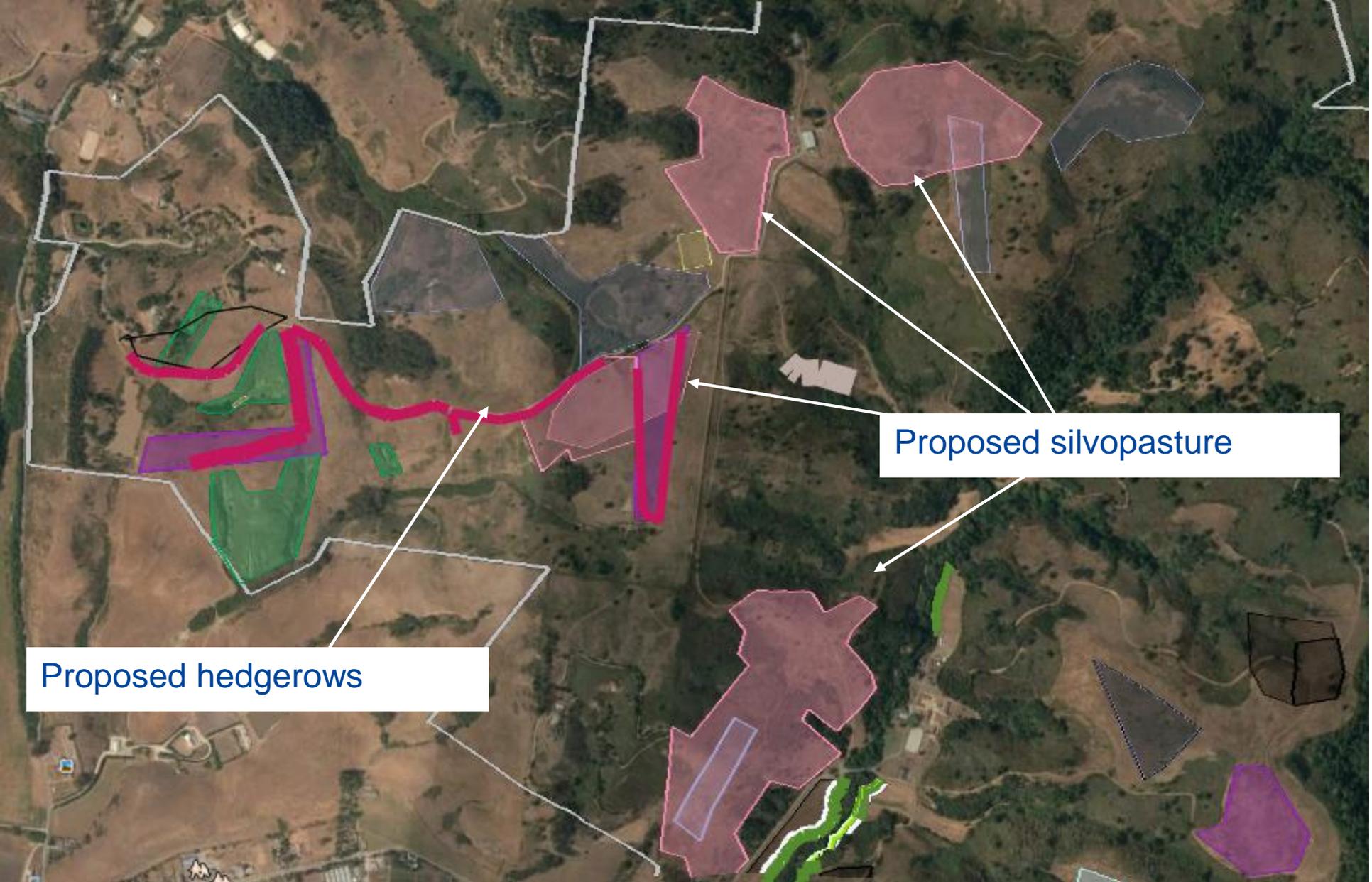
TomKat Ranch Carbon Farm Plan

- Diverse team: TomKat Land & Livestock, San Mateo RCD, NRCS, Jeff Creque (Carbon Cycle Institute), Point Blue
- Multiple prior ranch/ grazing plans
- Long term data sets

TomKat Ranch Carbon Farm Plan

First Draft:

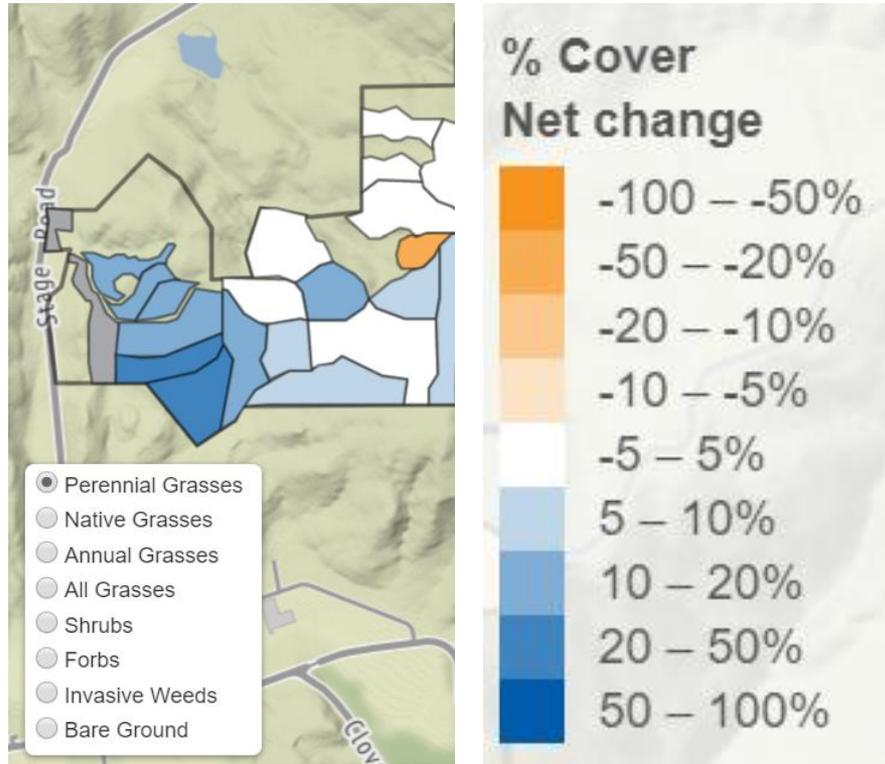
- Silvopasture & Shelterbelts (~120 acres)
- Range seeding (41 acres)
- Rangeland compost (29 acres)
- Riparian restoration (18 acres)



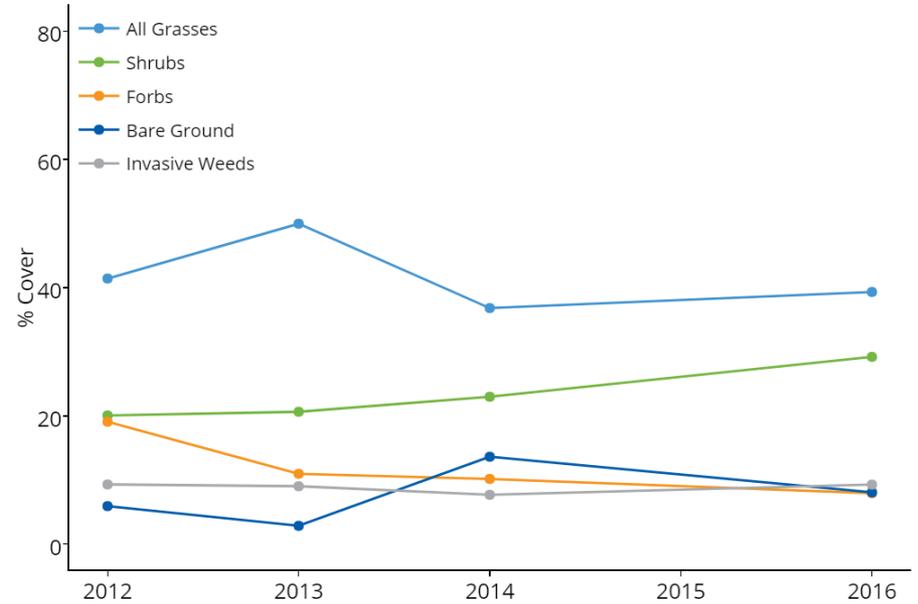
Proposed silvopasture

Proposed hedgerows

State of the Ranch: vegetation

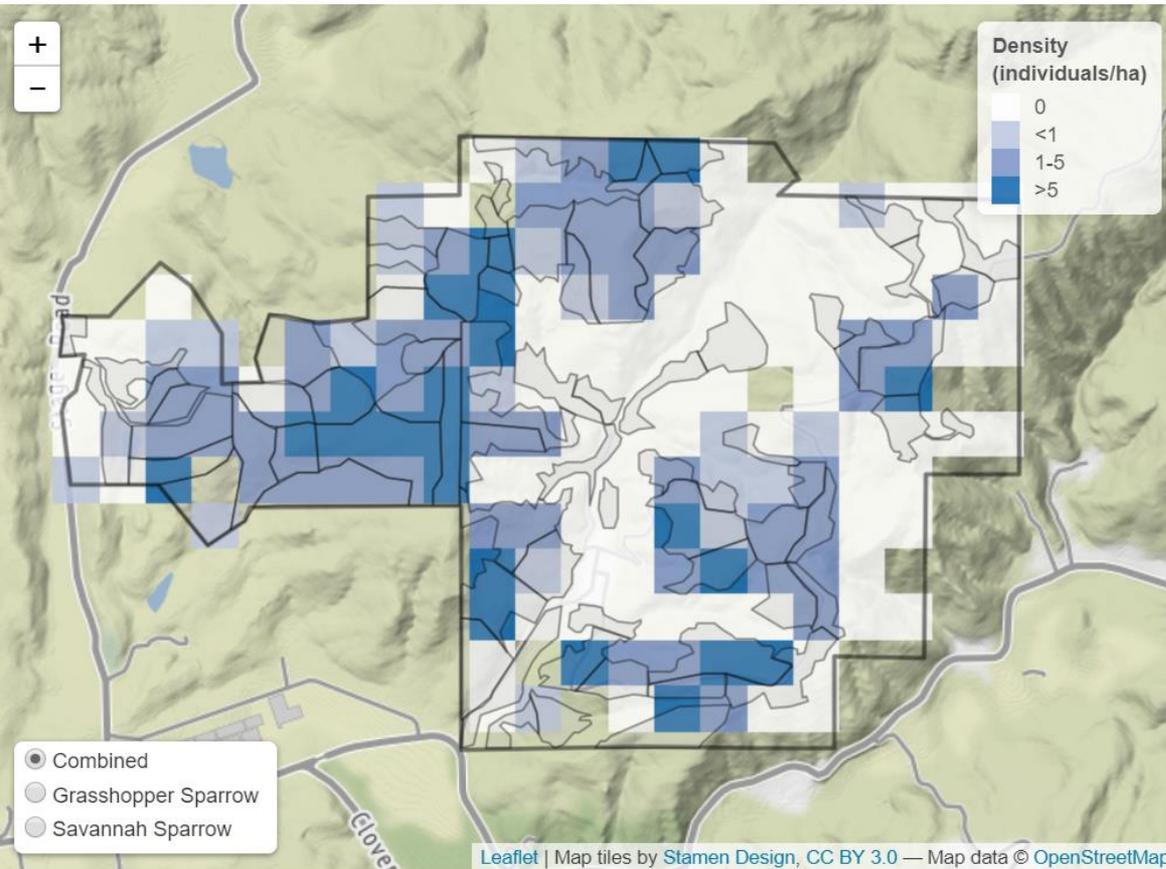


perennial grass increase on west side of ranch 2012-2016



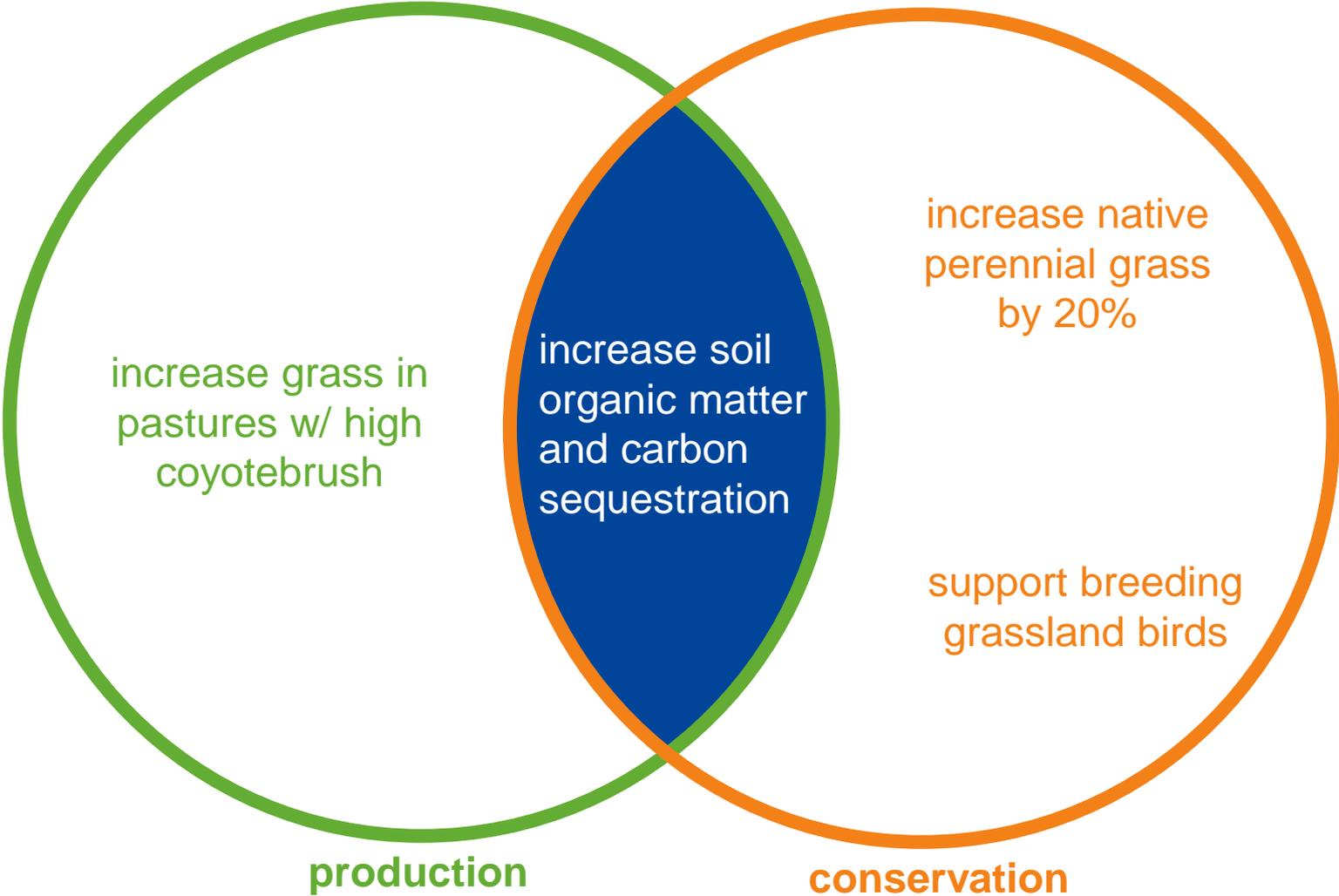
shrub increase on all TK's grazing lands 2012-2016

State of the Ranch: birds



- Breeding grassland birds concentrated on West side
- need open, treeless grasslands to breed (aerial predators)

Grazing Plan Goals



TomKat Ranch Carbon Farm Plan

Proposed silvopasture & shelterbelts on West side may interfere with ranch goals:

- Forage quality for production (woody perennial encroachment)
- Breeding grassland bird habitat
- Increasing native perennial grass

TomKat Ranch Carbon Farm Plan

Final Recommendations (top 3):

Table 7. Summary of recommended carbon farming practices for future implementation on TomKat Ranch.

	Practice	Pasture	Acres	CO2e (tonnes) capture/ yr
◆	Compost Application – Apply ¼" Compost to Pasture Not Previously Treated. 1.49 tonnes/CO2e/acre/year (*Alternative practice: Mulching (CPS 484))	Hay	7.5	11.2
		Mike's Meadow	10	14.9
		Stage South*	11	16.3
◻	Range Planting (CPS 550) – Seeding Forages to Improve Rangeland Condition 0.5 tonnes CO2e/acre/year	Stage South	11	5.5
		Hay	10	5
		Koko	10	5
		Lane Hill	10	5
▲	Riparian Forest Buffer (CPS 391) – Replace a Strip of Grassland/Cropland Near Water-courses or Water Bodies with Woody Plants 2 tonnes CO2e/acre/year	Front	1.6	3.2
		North Barn	0.7	1.4
		Rose	0.6	1.2
		South Barn	0.7	1.4

Prioritize Multiple Benefit Solutions



riparian restoration



rangeland compost and seeding



silvoculture: manage existing woody perennials



Thank you!

Carbon Cycle Institute



mpreston@pointblue.org