



Benton County Prairie Species Habitat Conservation Plan

Butterfly & Lupine Technical Advisory Committee Meeting
9/4/2008 2pm-4pm

Benton County Natural Areas and Parks
360 SW Avery Ave, Corvallis

Technical Advisory Committee Attendees:

Carolyn Menke
Lori Wisehart
Tom Kaye
Al Kitzman
Mark Wilson
Cheryl Schultz
Michelle Michaud
Dana Ross

Public Attendees:

Duncan Thomas
Rhiannon Thomas
Rana Foster
Karen Fleck Harding
Adam Novick

Meeting Summary

- I. Introductions
- II. Overview of topics for today
 - a. Estimating Impact (FBB habitat)
 - i. Habitat is defined as Kincaid's lupine cover and nectar cover (mg sugar)
 - ii. Amount of lupine and nectar across the landscape is estimated using data from HCP surveys.
 - iii. Fender's were assumed to use Kincaid's lupine within the Dispersal Zone (within 2 km of known Fender's populations)
 - iv. Fender's were assumed to use nectar species within the Nectar zone (within 0.5 km of known Fender's populations.
 - a. Impact area on private lands are estimated using building permit requests within FBB habitat and where you can actually build (appropriate zoning is RR (Rural Residential-2, -5, -10, -20), Urban Residential- inside urban growth boundary, but outside City Limits)
 - i. How many building permit requests?
 - ii. How much space for each request?
 - b. What will be the conservation measures to offset impacts?
 - i. Figure out footprint of impacts:
 1. If no survey completed- landowner would pay fee based on estimated impact-money will go toward conservation (enhancement of known habitat)
 2. If survey were completed, landowner would pay fee for level of impact from project (if impacts not avoidable), fees would go to conservation (enhancement of known habitat)

- Dana Ross - it seems like you need to attach amount of butterflies to your estimates of impacts?
- Tom Kaye – We are emphasizing habitat instead of butterflies; we are assuming all available habitat is occupied, instead of using butterfly numbers, because they fluctuate so much.
- Dana Ross - The amounts seemed reasonable- I was pleased to see the numbers were based on ground-truthed information.
- Cheryl Schultz-Landowners can do impact first and then we will assume enhancement will work?
- Carolyn Menke -The enhancement would start as soon as the easements were acquired- so until enhancement was completed, incidental take (take) would not be available (from the County)
- Tom Kaye-that's the conservative approach. Those coming along at the beginning may not be able to take advantage of the permit. Until the mitigation is completed there is no take available.
- Duncan Thomas-Do lupine and nectar limit Fender's blue population sizes?
- Cheryl Schultz-yes-in the absence of lupine and nectar there won't be butterflies.
- Tom Kaye-is it a linear relationship
- Cheryl Schultz-No data to answer that completely. Patch size may also be a factor.
- Tom Kaye-Where were you headed with that question?
- Duncan Thomas-It just seems like there is plenty of nectar relative to lupine?
- Cheryl Schultz-But at Fir Butte you have lupine but no high quality nectar.
- Tom Kaye-That may also be the case at Soap Creek, where there is abundant lupine, little nectar, and no butterflies.
- Carolyn Menke-The opposite is true at EE Wilson there is abundant high quality nectar, some lupine and no butterflies.
- Tom Kaye-We struggle with the nectar issue a lot we measure plants but that's not necessarily indicative of flower number or sugar amount. In absence of better information that is what we have to work with.

Goal was to figure out how much butterfly habitat will be taken over 50 years. There are many assumptions in that but it gives us a target to estimate how much take could be needed by landowners. If the number is low, it just means the County won't be able to permit take beyond the forecasted amount.

- Dana Ross-have we done the analysis to determine if current population sizes are sustainable?
- Cheryl Schultz-No we haven't done that. We've started to look at population sizes to meet recovery goals but don't know the answer to that.
- Dana Ross- if we don't know that the current pop is stable, what do we do?
- Cheryl Schultz-Certain parcels are going to be more important than others and will be high priorities for enhancement. (large, well-connected)

Dana Ross-if you found new lupine that became occupied, would you would put a new 0.5 km circle (nectar zone) around it?

- Carolyn Menke: Yes.

Duncan Thomas-There are Fender's blue butterflies in Kings Valley.

- Carolyn Menke-There are no currently confirmed populations. Most of land around Kings Valley is zoned EFU (Exclusive Farm Use) or FC (Forest Conservation)- so development would be limited.

Mark Wilson-On Figure 1 (Fender's Blue Draft Hotspot Map)- the blue areas within the zones are the only areas in the calculations.

- Carolyn Menke- Yes- Blue includes current and historic prairie.

Mark Wilson-it's not clear how hotspots outside dispersal buffers were included in your analysis.

- Tom Kaye-we were trying to be conservative and include some relevant habitat outside the buffers. Criteria were not followed strictly so we could be overestimating habitat take.

III. Determining occupancy levels. Used data from HCP surveys-

- a. Kincaid's lupine occupancy (m^2 Kincaid's lupine cover in hotspot areas /total surveyed areas within hotspot areas) is 0.02% .
- b. nectar occupancy- determine with averages of species cover data from 5m x 5 m plots sampled during HCP surveys- average of 5.8% nectar cover-1.8% native, 4% non-native
 - i. Nectar species lists will be modified to include Iris, maybe Plectritis and strawberry.

Dana Ross- Most butterflies are usually generalists usually- perhaps you can just look at what other butterflies use?

- Cheryl Schultz- Fender's are less generalist, they can be picky.

Mark Wilson-were all the vegetation plots zoned in the UR/RR areas?

- Carolyn Menke-No, we used data from all areas in hotspot zones, so data taken in EFU were included. Lupine and nectar occupancy could be overestimated because those areas (EFU) are generally less disturbed.
- Mark Wilson- you might want to use data from the zones there will be development in.
- Tom Kaye- We want to use the best data we have- bigger data set will hopefully give us a more accurate mean. Because of differences in land use there could be differences in lupine presence, but we are most likely over estimating the amount because there is more likely to be greater lupine amounts on EFU. We made a conscious decision to err on the safe side. Would you suggest we only use the data from UR?
- Mark Wilson-Not necessarily. There are other analysis issues to consider.

Duncan Thomas-I am worried about nectar- about what would actually happen with plan and overall implications. Would be better to have threshold- above which there is more nectar than the butterfly can use and below which nectar is limiting to the butterfly? If you had an idea of how much nectar and what species they need?

- Cheryl Schultz-It is also diversity and phenology- not just abundance that matters. From Eugene area- we are also seeing the importance of reliability. Also- we saw they're not really using non-native nectar.

Mark Wilson-Stepping back- this is impact because there might actually be butterflies at the impact area and it might be habitat where butterflies could migrate to in the future.

Is there an additional impact on the loss of potential enhancement sites?

- Carolyn Menke- that's not an impact we have tried to incorporate. How would that work?
- Mark Wilson-you would include isolated lupine patches regardless of presence of nectar.
- Mark Wilson-do the subsequent chapters involve enhancement of new sites?
- Carolyn Menke-They only include enhancement of existing sites. The County is hoping to introduce Lupine on County and conservation lands but too difficult to predict voluntary enhancement on private lands.
- Dana Ross- it may be that we are just left with the best of the best. You can have larval host plant over a give area but butterflies will only be present in a portion of that area.
- Cheryl Schultz-It is hard to know whether a butterfly is not there because of habitat quality or because it has not been colonized.

Carolyn Menke-How can we try to get at nectar quality/abundance question better?

- Mark Wilson- I suggest developing scatterplots relating habitat quality to the amount of lupine and nectar at sample sites. Then plot site frequency against habitat quality. Then you have a more realistic assessment- there are a higher proportion of low quality sites.
- Cheryl Schultz- It makes sense to set the bar high for someone not willing to wait.
- Carolyn Menke-if you set the bar too high you risk creating a negative atmosphere for the species.
- Rhiannon Thomas-By not surveying you're missing out on information. If someone thinks they might have lupine, they might opt to just pay the fee instead of have a survey, and you wouldn't have that information.

IV. Determining Impact Area

- a. Used combination of GIS and existing County data on project sizes to estimate impacts likely to occur.
 - i. On currently Vacant lots estimate 0.93 acres impact
 - Added 30 ft buffer to house and accessory structure- to account for firebreak, disturbance from construction and landscaping
 - Assume will build 2 acc structures- current average is 1.2.
 - ii. For occupied developed lots- we assumed average of .8 increase of accessory structure and add utilities (0.15 acres impact)
- b. 754 occupied lots, 193 vacant lots

Al Kitzman- can there be on site mitigation?

- Tom Kaye- Absolutely, but they would have to work with USFWS.
- Duncan Thomas-maybe the landowners could work with Greenbelt (Land Trust) to put protections on their property so they can do on site mitigation?

How is hotspot outside dispersal zone treated?

- It's treated as dispersal zone in the analysis.

Public comment-

- Adam Novick- Thank you for mentioning concern about creating disincentives. Do you have some idea yet of what the mitigation fees will be?
- Carolyn Menke- This is still in development- we're proposing thresholds based on size- they range from about \$300-\$1500 dollars. With an estimate of 16 permits per year- it's not a big number but it will hopefully offset some of the cost of managing conservation areas for Fender's blue.
- Adam Novick-My main point to convey- I am concerned process is missing opportunity to help species by looking at a different approach. Looking at impacts to species from development but not from inadvertent regulatory disincentives. Worried about turning iris into a liability- that doing habitat work you are working against your own financial interest. Sees process as having incredible opportunity to turn this around- if it's not raising that much money and you look at the biological cost- hope somewhere in process we can look up and see a fuller picture of the landscape.
- Carolyn Menke- can you suggest ways to modify process?
- Adam Novick- Yes-section 10 says that based on assumption species can survive in wild. If USFWS determine species can not survive in wild then money can be raised other ways and used moneys avail in truly voluntary approach.
- Carolyn Menke- So keep impact estimate but don't charge fee- find another way to fund conservation?
- Adam Novick- No- consider an alternate approach where species are not regulated at all on private land. To encourage voluntary maintenance of habitat.
- Mark Wilson-you would prefer not to have a HCP in place?
- Adam Novick- zero mitigation requirements but using HCP. No fee on private lands.
- Karen Fleck Harding-Worried that neighbors will be disappointed. Worried about people in hotspots who are in hotspot because their neighbor cooperated with surveys for this project or is working with USFWS on other projects. Increasing populations on one site can have effects neighboring landowners. Funds needed might be more easily/positively raised.
- Duncan-Are fees necessary under the HCP?
- Mark Wilson- From technical perspective- most of the landowners being charged the fees are in the low habitat quality category. It doesn't seem right to burden them when the entire community benefits from having the species.
- Al-Supportive of a levy and think the community would support a levy.
- Adam Novick-Seems by taking that approach you have the opportunity to set nationwide example. For species that depend on active management for their survival- this could be really important.
- Mark Wilson-the research that you cited that there is a cost to the species from having those fees might be important in making this decision, it's not intuitive.