



Benton County Prairie Species Habitat Conservation Plan

Butterfly & Lupine

Technical Advisory Committee Meeting

April 25, 2008, 9:30 am- Noon

Benton Plaza Mezzanine Meeting Room

Technical Committee Attendees:

Dana Ross, Oregon State University
Paul Hammond, Oregon State University
Cheryl Schultz, Washington State University, Vancouver
Mark Wilson, Oregon State University
Nick Testa, Oregon Department of Transportation
Ann Kreager, Oregon Department of Fish and Wildlife
Al Kitzman, Benton County Natural Areas and Parks
Tom Kaye, Institute for Applied Ecology
Lori Wisheart, Institute for Applied Ecology

Public/Interested Party Attendees:

Adam Novick
Rana Foster
Steve Northway

Meeting Summary:

Taylor's Checkerspot update/summary:

Lori Wisheart: Taylor's checkerspot (Covered species on public lands only):

- No impacts anticipated
- Management plan being developed for Benton County occurrences (Bezell, Fitton Green, adjacent private parcels)
- Monitoring will be developed through plan

Dana Ross- Taylor's checkerspot needs are very locally specific.

- Cheryl Schultz-in S. Puget Sound- remnant populations have other hosts besides *Plantago*.
- Dana Ross-But I think we have to treat *Plantago lanceolata* as a valuable plant (although it is non-native).
- Tom Kaye-But what about other food sources? Should we try to enhance their availability?
- Dana Ross-Maybe, but need to be aware that Taylor's has already adapted to *Plantago*.
- Cheryl Schultz-As a group they (checkerspots) are flexible with regard to host and nectar species.

Rana Foster (public)- Make sure to survey Rock Creek area prairie for butterflies.

Fender’s blue update/summary:

Lori Wisheart: Impacts to Fender’s blue from covered activities identified in the plan include harm resulting from construction activities on private lands. The plan currently does not propose coverage for subdivisions or zoning changes, but does cover construction of single-family residences and additional structures such as shops/garages. We conducted a zoning analysis to determine the extent of construction on lands identified as potential Fender’s blue butterfly habitat (“hotspots”).

The impact area identified (in accordance with zoning) is approximately 27.89 acres.

		Impact area (acres)	
	# Taxlots	IF build 1000 sq ft structure:	IF Build 3500 sq ft house:
Already built on	629	13.98	---
No buildings	139	3.09	10.81
	Total:	27.89 acres	

Cheryl Schultz-What do you mean by no sub-divisions. Can they get a permit for that?

- Tom Kaye-No, they could not get coverage under the HCP. In that case, the individual would have to go to USFWS.
- Lori Wisheart-Some of the lots could be subdivided (depending on zoning) but the plan currently proposes coverage for only the lots as they exist today (not subdivisions of lots or changes in zoning). County would not be able to permit development on these types of lots until the landowner/developer has met USFWS requirements for avoidance, minimization and mitigation.
- Tom Kaye-We can only cover those things covered by County permits. They may have issues with USFWS but are not covered with the County.
- Paul Hammond-Not part of their (the County’s) regulatory function.
- Cheryl Schultz-What about driveways?
- Tom Kaye-Driveway construction is considered a separate covered activity but we haven’t really addressed it in our initial calculations of impacts.

Mark Wilson-HCPs are supposed to balance impacts, not just permitted processes. Even indirect effects, effects beyond the project area need to be considered. But, those acreages are mostly not prime habitat.

Tom Kaye-This is one approach- but there are others. There are other assumptions here. Zoning laws and overlay will stay the same. Hard to predict the future given what we know now and what the permitted footprint is, that’s where the numbers come from.

Paul Hammond-That is a conservative estimate.

Tom Kaye-(When trying to estimate the amount of habitat impacted) do you say all area contains prairie habitat (with varying qualities) or do you go by proportion? We could scale up to consider broader impacts or adjust in various ways based on input from the group. We can and should try a number of different approaches to see a range of impacts.

Ann Kreager-Mark made a good point about indirect impacts. Burden of proof should be on developer to show where impacts would occur. Most HCPs assume that the entire taxlot is occupied. Surveys would have to show otherwise. People are not mindful of activities on land.

- Tom Kaye- Although that may be a common model for HCPs, they can be anything. We can propose a plan that meets conservation needs and serves the community.
- Paul Hammond-With approval of USFWS.
- Ann Kreager-But the plan still needs to address indirect impacts.
- Mark Wilson-I think we can clarify this by recognizing the values you presented are construction areas or project areas, but not overall impact areas. The impact areas will encompass more area because indirect effects are included.
- Ann Kreager-Also, it might work to identify subcategories, direct and indirect (other construction activities and associated land activities).

Tom Kaye-People aren't all going to do worst case scenario (build the biggest structure). If they know they're in the hotspot, there could be interest in doing restoration and improving habitat. HCP will set up process of doing outreach to landowners to promote voluntary avoidance and minimization. I want to make sure we (the TAC) remember the importance of maintaining a positive atmosphere.

- Al Kitzman-These strategies have been effective in Wren area. Landowners were leery at first because agency people were involved, but then a voluntary strategy to give ideas got community involvement. Now there are more that want to participate than there is money and resources available.
- Tom Kaye-Current atmosphere in Wren is very positive.

Cheryl Schultz-How is the impact estimate going to be used? What about potential cumulative impact from urban growth?

- Tom Kaye-We have to be careful about making estimates beyond what County is responsible for.
- Cheryl Schultz-We can't be the one's saying who is responsible.
- Tom Kaye-We came up with numbers to determine County responsibility. We can analyze different numbers about amount of impact that should be considered. What do we do about it? Do we prohibit development? Can we facilitate it in a way that serves the community and does more for the butterfly? How do we take this number and decide what to do with it? The County will take on the responsibility for mitigating up front and looking for opportunities to conserve high quality areas to protect viability of local population. This strategy will be better than piecemeal mitigation with greater assurance that management will happen in perpetuity. It is important to not overestimate numbers, because County needs to include scope of what County permits.

Ann Kreager-Need to recognize that they have to consider indirect and cumulative impacts. By issuing permit to develop a lot- there are other indirect impacts. Your estimate of impact area may be adequate but the plan needs to identify the indirect impacts.

Cheryl Schultz-If the permitted piece is a footprint of the house but the landowner still needs take coverage from USFWS for non-County permitted activities, that's not helpful. The landowner will have to go to both the County and USFWS. By identifying the greatest extent you're making the process easier for the landowner, the goal should be having a simple set of covered activities for the landowner to keep them engaged.

- Tom Kaye- To a point, but there are so many activities that are not permitted, we want to make it as sophisticated as we can.
- Cheryl Schultz-But can estimate activities associated with development.
- Tom Kaye-Direct impacts, indirect impacts (building and living there would be two separate subcategories. Let's try to put numbers on typical levels of activity. Also think about what a typical occupancy rate of acreage habitat would be.

Ann Kreager-When County goes to landowner they could have an assessment done. Don't necessarily need seasonal surveys.

- Cheryl Schultz-They would have to be seasonal surveys.
- Tom Kaye-There is a political reluctance to do surveys.
- Cheryl Schultz-County has responsibility of letting landowners know about the species and their habitat so that avoidance and minimization may be integrated in project planning.
- Tom Kaye-BOC said they didn't want to require public to do surveys.
- Ann Kreager-They also have an obligation so serve the environment.
- Tom Kaye-They're looking to do both.

Mark Wilson-Purpose of numbers is to figure out how much mitigation the County needs to do. I like idea of weighting numbers by quality of habitat. Will be straightforward to get approval, considering plans for protection of lands in Wren. Run the numbers to see how it works out.

- Tom Kaye-Lets come up with some numbers and see how it works out. Requiring surveys sets up a negative attitude. We should focus on science and not politics.
- Al Kitzman-County needs to continue to conserve pockets outside the conservation areas.
- Tom Kaye-we're learning more about habitats
- Paul Hammond-What about learning about an unexpected surprise? If you find a large property with lupine in future.
- Tom Kaye-There is a no surprises clause. There could be a process for altering hotspots. Also, with an approved HCP, the County is only allotted a certain amount of take. If you exceed that you have to go through the process again. County will have to report how many acres of habitat in area supported.
- Mark Wilson-presumably that would be a zoning change

Tom Kaye-What about a part of the County where we made assumptions about no butterflies. How do we deal with that?

Tom Kaye-Within these hotspots (map) this is where you would need to mitigate and do surveys. Assume there will be take here.

- Cheryl Schultz- Are actual butterflies treated differently than just habitat?
- Tom Kaye- Inside 2km from known populations, all habitat is protected regardless of butterfly.
- Paul Hammond-So lupine by Adair is not considered occupied at this time?
- Tom Kaye-Right, unless our surveys find them.

It's hard to talk about the science without the policy.

Dana Ross- Use the science to get the policy.

Tom Kaye-I made the proposal earlier to get numbers and put best guesses down for estimating impacts. It would help us.

- Dana Ross- Based on what a known general population size is, you're trying to say that if XX amount of habitat is impacted, will affect x amount of butterflies?
- Tom Kaye- No, only impacts to habitat are measured. We have information about amount of developable habitat. There's also the amount of impact relative to development. There are also indirect activities within development and landscape use. Also, the information about the average % of habitat in any particular piece of land. What might be useful is to put down ranges- see table
- Ann Kreager- Need to assume the greatest amount of impacts from cumulative effects. Doesn't mean you have to mitigate for that.

Al-What about changes in zoning?

- Lori Wisheart-As it's proposed right now, land use changes won't be covered. They could be but it would affect the calculations.
- Mark Wilson-That would be good if zoning changes weren't covered.

Tom Kaye-3500 square feet is our estimate of project area impacts (per home).

- Dana Ross- Wants to think about sq ft of a driveway- that could be thousands of sq. ft.
- Cheryl Schultz-Need to find out what an average driveway size is.
- Ann Kreager-Is there going to be an opportunity to provide guidance to placement of housing and structures etc?
- Tom Kaye-It hasn't been discussed yet, but it would be great to provide that info to landowners.
- Cheryl Schultz-Successful case studies from CA have strong avoidance and minimization guidance.
- Ann Kreager-They are required of the HCPs, written in as conservation measures. Other measures should be considered after avoidance and minimization.
- Mark Wilson-If that is built in it could dramatically reduce the impact.
- Tom Kaye-Can we get some numbers for impacts?

	Direct	Indirect	Landscape Use	Average Habitat Occupancy	"Cumulative impacts"
Amnt. Developable habitat	House: 3500 ft ² Driveway: 1000-10000 ft ² Septic: 700-1500 ft ² Well: 50-500 ft ² Utilities: 100-300 ft ² Additional structures: 800-1800 ft ²	2-3 times the area of the house and additional structures	0.5-2 acres	0.5-2%	

- Ann Kreager-How about starting with percentages? So we know proportions relative to original impacts.
- Mark Wilson-I am comfortable with 3500 sq ft.
- Rana Foster (public)- What about solar, wind, utilities?
- Adam Novick (public)-Why not assume worst case? (Largest amount in range)
- Cheryl Schultz-If they change the zoning, the issue is moot because they're outside the HCP. Also, if they use up take, then the HCP is over, or has to be modified.
- Rana Foster (public)- What about ponds?
 - IAE will check with county to see if ponds are permitted, how common they are.

Tom Kaye- In Wren area now most of properties are kept in wild condition.

- Mark Wilson-would land use vary by quality of habitat?
- Tom Kaye-Don't know.
- Cheryl Schultz- Landscape use probably varies with lot size.
- Mark Wilson- Could you look at that information?
- IAE has acreage information.
- Ann Kreager-WHCMP assumes an acre of impact on each property.
- Cheryl Schultz-would prefer using that data over not using any data.

Mark Wilson- It seems like our estimate is getting close to an acre. Purpose of this is to determine how much mitigation the County needs to do?

- Tom Kaye- Also to see what the estimate loss of habitat is resulting from County permitted activities.
- Al Kitzman-So occupied habitat is lupine and nectar forb area that could support Fender's?
- Tom Kaye- Yes, out on the ground how much land has habitat.
- Paul Hammond- Need to look at the overall occupied area not just the patch size of the lupine.
- Tom Kaye-We looked at that data but we also need to account for nectar and other area of the habitat. That is how we quantified lupine but we need to do more than that to quantify habitat.

Al Kitzman-What would you suggest Tom ?

- Tom Kaye- Probably less than 1%. In terms of amount of occupied habitat it's really low.
- Dana Ross-But that is just little specks of nectar within the bigger picture.
- Tom Kaye-USFWS has given us guidance for doing this but it's really hard to quantify nectar.

- Dana Ross-Assuming you're building on from host plants, to nectar and beyond.

Mark Wilson-What is a minimum viable size of area of habitat. What makes sense for Fender's blue.

- Cheryl Schultz – has done work on minimum critical patch size. But in nature there isn't a minimum. Minimum would be on order of 5 hectares, but that is making a lot of assumptions. So it's hard to link the impact numbers we're developing with the critical patch size.
- Tom Kaye- except with mitigation- to make sure a solid amount of high quality habitat is acquired.
- Cheryl Schultz- HCP will be important and have greater conservation impact than doing it piecemeal.

Mark Wilson-From TAC perspective we could say average habitat occupancy is 0 outside 2 km. It would be nice to think about the potential for restoration instead of just the currently occupied habitat.

Al Kitzman-Total area with lupine and nectar over the area (larger mosaic they're utilizing) is their habitat.

Mark Wilson- So habitat area is 4% ?

Tom Kaye-We're looking for average occupancy across whole landscape, not just occupied areas. What is, on average, the amount of habitat that would be there? We don't have data on area of nectar so we need to increase our number

Dana Ross- but your number still just takes into account area of nectar and lupine.

Cheryl Schultz-Given the average lot size, what is the likelihood of any given lot having lupine?

Tom Kaye- On average, if you were to look at any particular lot, what proportion of that area would be butterfly habitat?

- Paul Hammond-It would probably be close the 0.0002 value.
- Al Kitzman-0.5-1 or 2%

Rana Foster (Public)-EE Wilson population is big and there is silvery blue why aren't you talking about connecting them?

- Tom Kaye- We will with the Prairie Conservation Strategy.

Dana Ross- Need to take into account the impacts from reducing connectivity. If the corridor gets developed it might affect the two populations.

- Cheryl Schultz-Can't take more than what you need for recovery. Need to make sure there is enough land for recovery
- Mark Wilson-What if there is mitigation?
- Cheryl Schultz-If you actually mitigate to the point of bringing up number of butterflies beyond baseline. Need to make sure that allowed take doesn't prevent recovery.

- Tom Kaye- HCPs aren't required to address recovery plans, but wouldn't it be nice to use the mitigation to get towards recovery instead of doing piecemeal recovery that doesn't get us towards recovery or good conservation. That is the goal of the HCP.

Al Kitzman-You may want to truth the numbers with the Community Development department.

- Tom Kaye-IAE will take the numbers to the Community Development Department and ask for adjustment.

Mark Wilson-under ideal situation HCP process is to allow take where habitat is not useful and mitigate where it is useful for recovery.

- Tom Kaye-yes, however, some valuable habitat could still be lost but the most effective conservation would be done.

Public Comment:

Rana Foster (public)-What about climate change? How will that affect the butterflies?

- Dana Ross-We don't really know.
- Tom Kaye-Without knowing what climate change effects will be, do we really try to plan for it?
- Ann Kreager-I went to climate change workshop. Service is being directed to address climate change. Some feedback about how adaptive management can be applied to address that.

Adam (public)-Would like to thank Tom Kaye for interest in working to determine how landowners can maintain positive attitude. Nowhere is process seriously considering risk to species from proposing mitigation from landowners. What impacts will we have on conservation easements if we're placing demands on them? HCP process has a tremendous opportunity to help species by laying down the sword. Should be funded by public and not by landowners.

- Mark Wilson-What is the incentive (for private landowners to do voluntary conservation)?
- Adam-Land ethic, love for nature.

Steve Northway (public)-Great deal of scientific uncertainty creates a great deal of costs and uncertainties for mitigations. In order to get landowner cooperation, you have argued that we have to subsidize development. Need to explore having a two tiered system. 50 years of no surprises, uncertainty, etc. with unsecured funding and uncertain population sizes.

- Paul Hammond-Cheryl has thought about that during research on PVA for the butterfly.
- Cheryl Schultz-That would give current levels of vulnerability. Smaller populations have smaller variability. How to reduce vulnerability?
- Steve Northway (public)-Don't have baseline info on what recovery would look like.
- Tom Kaye- In the absence of an HCP we won't be better off.

Steve Northway (public) -The average duration of land ownership is short, while landowners now might voluntarily do the right thing, future landowners might not.