Connecticut River Pilot Core Team Meeting in
Hadley, Massachusetts
June 12 2015, 10:00 a.m. to 12:00 p.m.

SAVE THE DATE: Thursday, October 1st in Hadley. 10am-2pm. We'd like you to save this date for a core team meeting in which we meet to discuss lessons learned from implementation over the summer and early fall.

Attendees (in person): Scott Schwenk, Maritza Mallek, Nancy McGarigal, Randy Dettmers, BJ Richardson, Renee Vieira, Andrew Milliken, Jeff Horan, Dean Rhine, Mitch Hartley, Dave Eisenhauer

Attendees (by phone): Bill Jenkins, Andy Fisk, Bill Labich, Bob Houston, Kevin McGarigal, Chad Rittenhouse, Patrick Comins, Marvin Moriarty, Catherine Doyle-Capitman, Andy French, Georgia Basso, Pete Murdoch

Intro (Nancy)

The email I sent out announcing this meeting included a table partitioning the comments received so far and our plans for resolving or addressing them. That included doing some small group discussions and bringing back recommendations to the full team for resolution. Our purpose today is to bring forward those recommendations, discuss them, and hopefully resolve them and get that much closer to version 1.0 of this design.

Scott Schwenk: Thanks everyone for participating today. We have here a final set of recommendations, that we are pleased to present as the last set to consider before wrapping up Version 1.0. Not only do we have these recommendations, but we actually have the implemented recommendations from Kevin's team so that we could look at them. Thanks to the DSL team for providing scenarios for us to look at. It was a short turnaround again and it really helps to have that visual to help evaluate the recommendations. Renee was able to put them up on Data Basin, so if you sign in to the Connecticut River Pilot workspace then you can view the newest design including the three tiers. Renee created a folder called "Updated Cores June 2015." We really appreciate that Renee was able to do this for us on short notice.

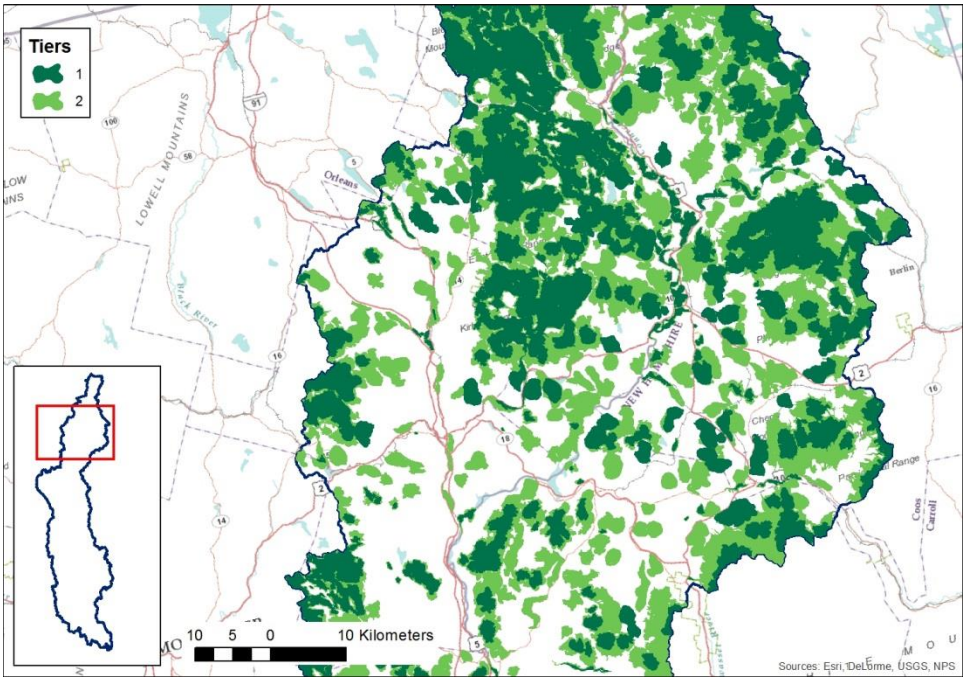
I want to recognize that a number of us had discussions to come up with these recommendations, in small groups and individual calls with several members of the core team. We've tried to reflect feedback from all those conversations.

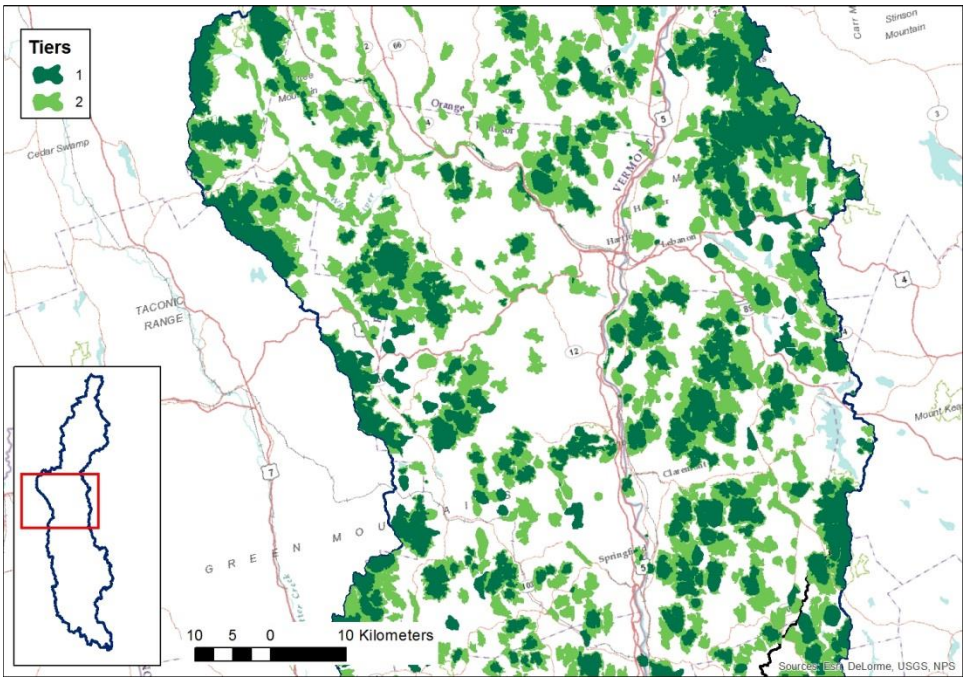
Part I: Going beyond the 25% cap in terrestrial and aquatic core areas

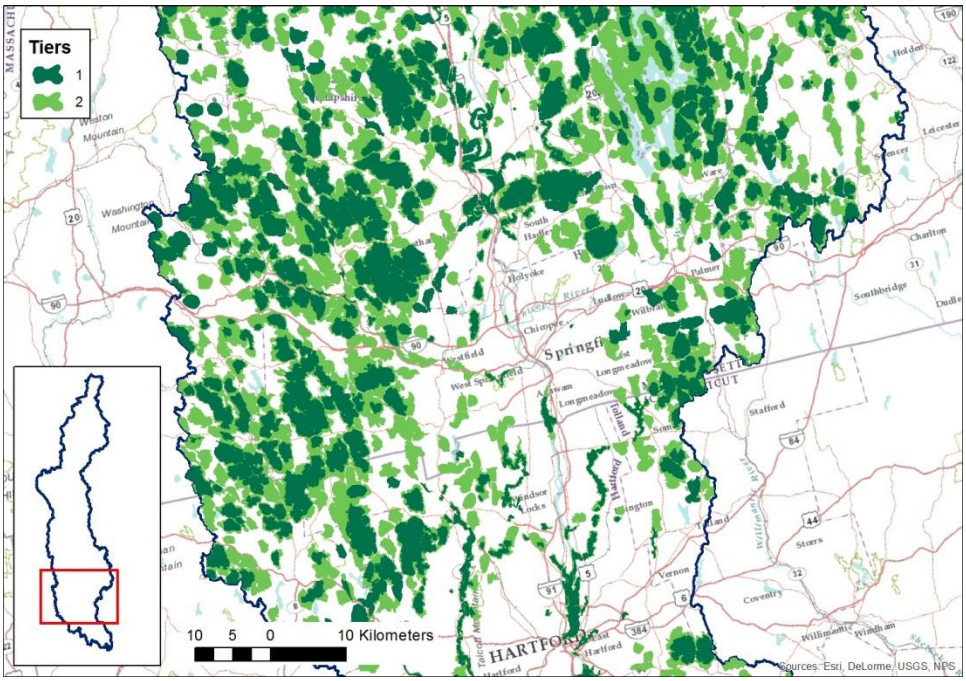
Recommendation 1: Adding a second tier to the terrestrial cores

Outcome: The team reached consensus that adding a second tier, as proposed, would add value to the design. This tier would be considered optional, in contrast to the top 25% tier 1 cores and their connectors.

Note, images below are taken from the solution derived without meadowlark as a representative species.







Scott Schwenk: A key starting point for discussion about these recommendations is that the current terrestrial and aquatic core areas (including aquatic "zones of influence") comprising 25% of the landscape/aquascape will be retained, reflecting the considerable efforts of the core team to agree on this network and the importance of a strategic focus for conservation activities. We are not reopening that for discussion.

Several core team members have emphasized that they want to make sure that the addition of priorities beyond the current core areas does not dilute the importance or divert attention from the

original set of core areas. This issue should be addressed in the way additional priorities are depicted and described.

The overall recommended approach is to add 2 additional tiers to the current terrestrial core area network (now "Tier 1") and 2 potential contributors to an additional tier for the current aquatic core area network. The purpose of these tiers is primarily to emphasize and reflect the importance of additional areas beyond the core area network---their landscape context---because:

- The integrity of core areas depends on them being embedded in a wider matrix of intact lands.
- The broad goals of fully functioning ecosystems and healthy and sustainable fish and wildlife populations cannot be completely met by the core areas alone.

Like other elements of the design, there is no obligation for the additional tiers be used in conservation planning. For users who find the additional tiers to be valuable, they will be available as part of the package. For users who do not see a need for the tiers, either because they will use the original core-connector network or because they will use individual products, they need not use these tiers.

Method for creating Tier 2: UMass has developed an approach for defining the second tier that is conceptually consistent with that used for the first tier. The result is that, collectively, 40% of the landscape is derived using the ecosystem-based core approach and 10% from the species-based core approach (consistent with the 20% ecosystem / 5% species approach for the Tier 1). Some Tier 2 core areas are "grown out" from existing Tier 1 cores. Other core areas are in new locations, either to meet remaining habitat objectives for species or because relatively high value ecosystem areas that could serve as "seeds" for cores were not incorporated into Tier 1 cores.

<We viewed the new three-tier terrestrial core design on Data Basin.>

Patrick Comins: This looks good, at first glance..

Scott Schwenk: This version includes meadowlark cores.

Bill Labich: How does the increase of total area in the design with additional tiers affect the linkage areas?

Scott Schwenk: We were going to keep the original set of connectors. There will be no additional connectors derived explicitly for Tier 2 cores.

Bill Labich: However we choose to do that from a modeling standpoint, we need to know what that means for purposes of communicating about the design.

Scott Schwenk: Yes, I should have pointed that out. The original connectors would be retained.

Georgia Basso: Did you say you're updating the grassland bird data?

Scott Schwenk: Yes, we're planning to discuss that in the second part of the call. We want to take advantage of other known grassland bird areas. Are there any objections to including the second tier?

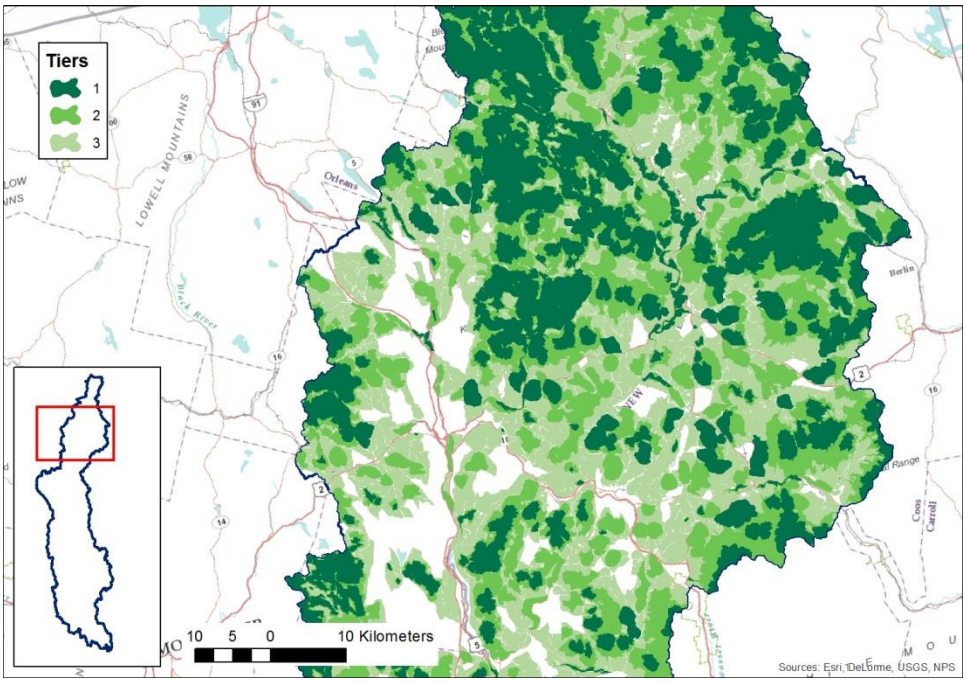
Patrick Comins: I support this.

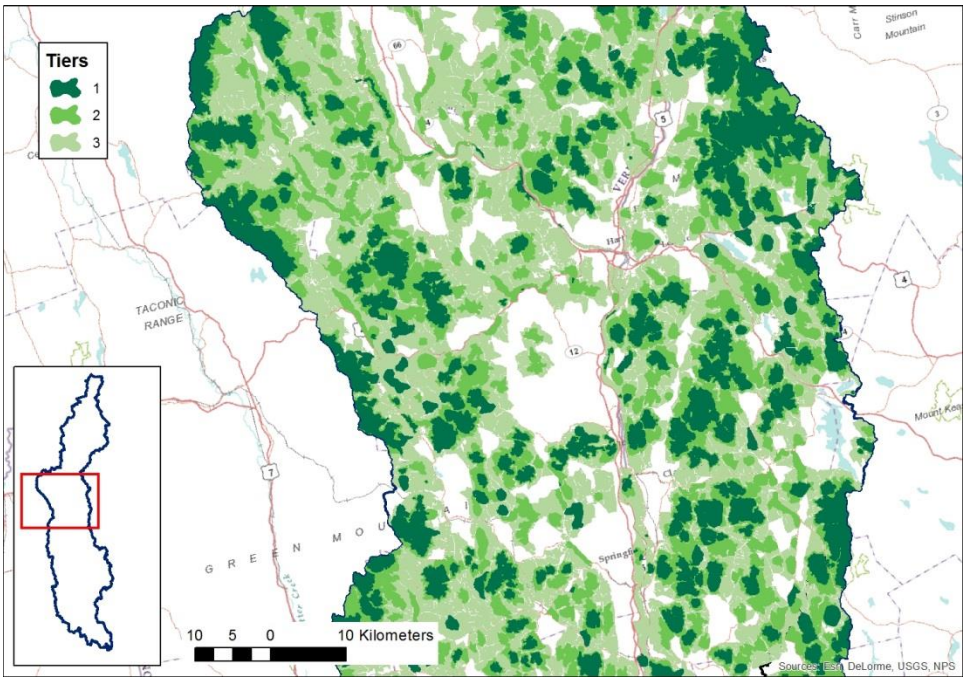
<general agreement on the phone; no objections>

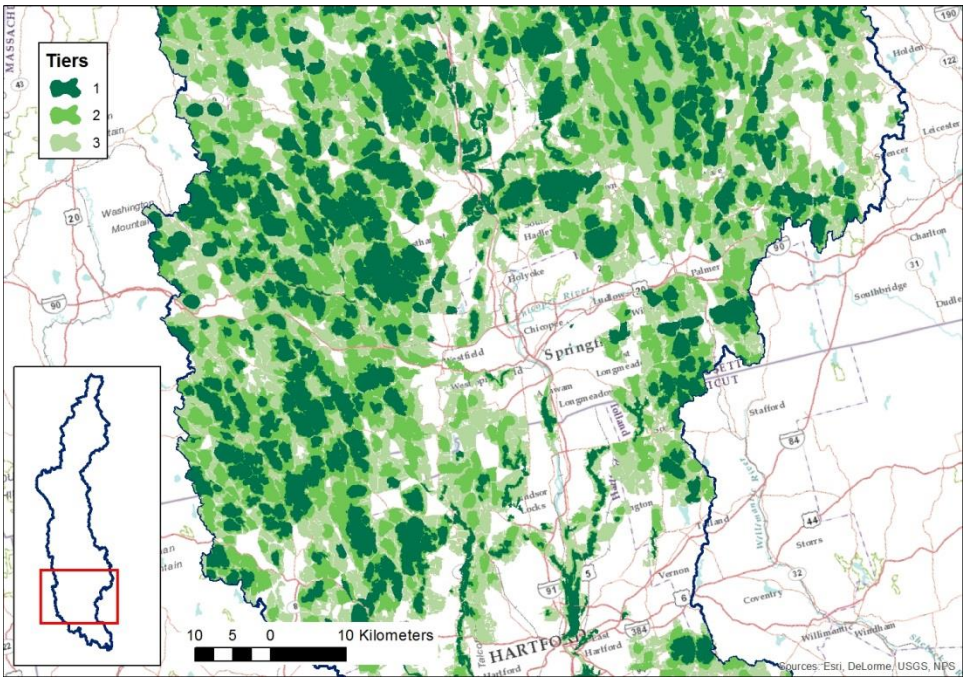
Scott Schwenk: OK, let's move on to the second recommendation.

Recommendation 2: Adding a third tier to the terrestrial cores (Webinar time: 19:55)

Outcome: The team reached consensus that adding a third tier, as proposed, would add value to the design. However, we agreed that it should not be called a "tier," indicating a third level of priority. Some on the team suggested calling this tier the "Supporting Landscape." This tier would also be considered optional, in contrast to the top 25% tier 1 cores and their connectors.







Scott Schwenk: This was another point of emphasis from the comments we received from Vermont. They saw a lot of value in tying the network to road-bounded forest blocks. The first reason is practical. Since the core area boundaries are "fuzzy," they are challenging to operationalize. But if they are bounded by a road then there are features that people can easily recognize. The second part of it is that the core areas' integrity depends on them being embedded in a larger matrix that retains some ecological value. Eric Sorenson suggested using the TNC's road-bounded blocks. UMass has done an update and customization of the road network, based on Open Street Map, and used that roads network. There have been opinions on both sides about whether we should include

this tier. If this tier is included in the package, it would be optional, as the second tier and additional data products are. Tier 1 is still the primary focus of the design.

Kevin McGarigal: I will clarify that low intensity development can be included in a roadless block. Also, the team should be aware that any intersection with a roadless block by the Tier 1-2 cores, even a single cell, results in that entire roadless block being added to the third tier.

<We reviewed the layers on Data Basin again.>

Andrew Milliken: I think we'll need to be careful about communicating this. I'm concerned with characterizing this as a *priority tier*, given the small influence that a core has to have to create it, and that it includes low intensity development. Calling it Tier 3 makes it sound like a third ring of high priority area, which is debatable.

Patrick Comins: I think they may be important ecologically. If there is an opportunity in the third tier, I'd like to have a justification for taking action there. If they are adjacent or proximal to our core areas, then they can contribute to protecting the integrity of the core area.

Andy French: I agree with Patrick.

Kevin McGarigal: Just to clarify also, these aren't strictly "forest blocks." Agriculture and low intensity development are included in them.

Patrick Comins: I think that's ok. They contribute to a habitat matrix. There can be value in non-forested land. Perhaps some would serve as early successional habitat.

Kevin McGarigal: I agree; I think we need to be clear and not call them forest blocks.

Andy French: I think they are important from a land conservation standpoint. I'd take a look at it. The Tier 1 core areas are the first priority, clearly. But there is still value in Tiers 2 and 3. As Andrew said earlier, we need to present it in such a way that it's clear that not all of Tier 3 is a priority, but some of it might be integral to what you're trying to accomplish as you work to create a conservation mosaic.

Bill Jenkins: I can see the Tier 3 roadless blocks also presenting some restoration opportunities as well. Maybe they can be described in that light, along with helping to buffer the cores.

Andy French: Those Tier 3 areas, if you're looking at this layer, working farms and working forests could be a target, rather than having a block broken up for less desirable uses. This could be a helpful tool for working with NRCS and enrolling landowners in voluntary incentive programs.

Georgia Basso: I agree with everything that's been said. I wonder if working backwards, we can look at core areas that are surrounded by high intensity development as being higher priority, or more threatened.

Scott Schwenk: I don't think we've assigned a degree of threat to different cores, but it's a good idea. We do have some projections of development, but I'm not sure we've tried to assign a ranking.

Jeff Horan: Does this third tier add to the integrity of the core network in any way similar to the connectors earlier? Maybe that's a question that should wait until we add on the stream networks. I'm curious about how this adds to the integrity and resilience of the network.

Scott Schwenk: Yes, this was one point for including it. If the core areas that are spaced from development became adjacent to development, we expect that their overall integrity would decrease. At least this confers some integrity on the core areas themselves.

Andy French: We have a number of refuges where we can show that being near development is a threat to integrity. We have some cores where the Tier 2 and Tier 3 land has been developed – so we know what it looks like. These blocks have opportunity, and have opportunity for non-acquisition conservation measures like working forests and farms. At the same time, you could enhance the integrity of the Tier 1 cores. I think this is really good stuff. It gives us options. I think it looks great.

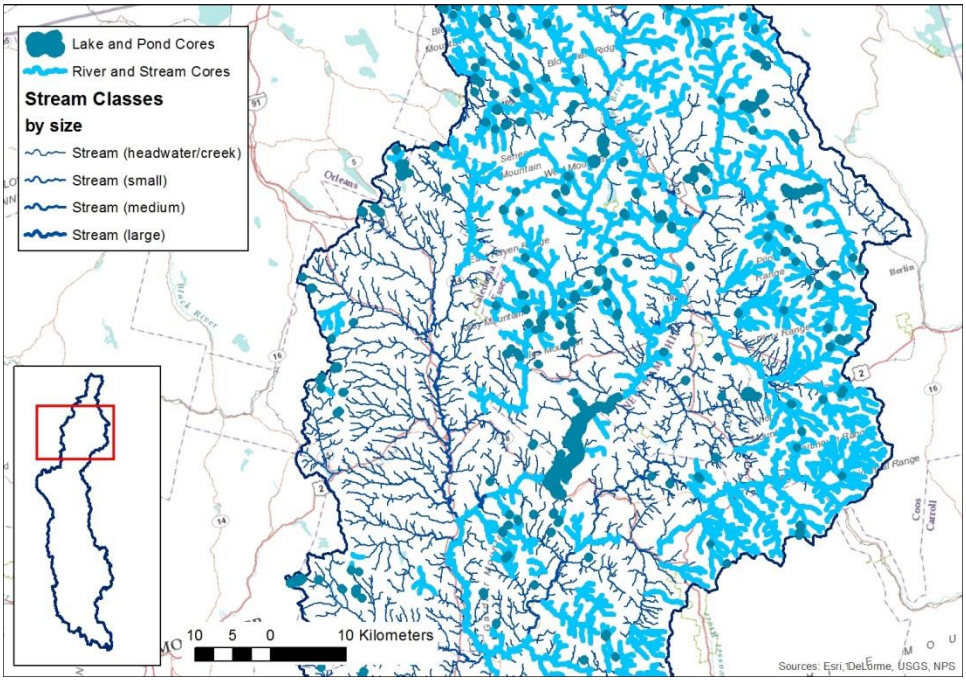
Patrick Comins: One thing CT-Audubon is going through is evaluating our current holdings. A lot of our holdings are in Tier 2 and Tier 3. If this went through the process and there was only Tier 1, then some people would argue for Audubon disposing of those lands that aren't in Tier 1. With the ability to look at lands in Tier 2 and 3 as serving an ecological purpose, it would allow us to do a better evaluation of the contribution of our holdings, and provide a rationale for people who want to keep lands, assuming they show up in Tier 2 and 3. Believe me, when we go into those properties (that are Tier 2 and 3 on this map) we do see the forest birds that we care about.

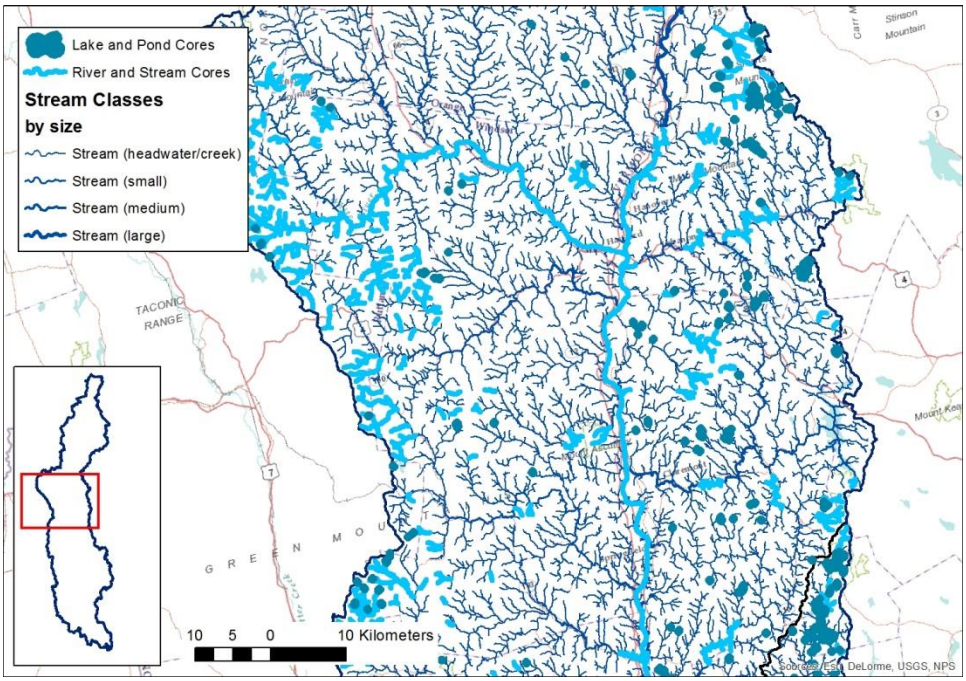
Scott Schwenk: The big issue is whether this is included as part of the package. I've not heard any objections to that at this point. The next issue is what do we call it and how do we characterize it.

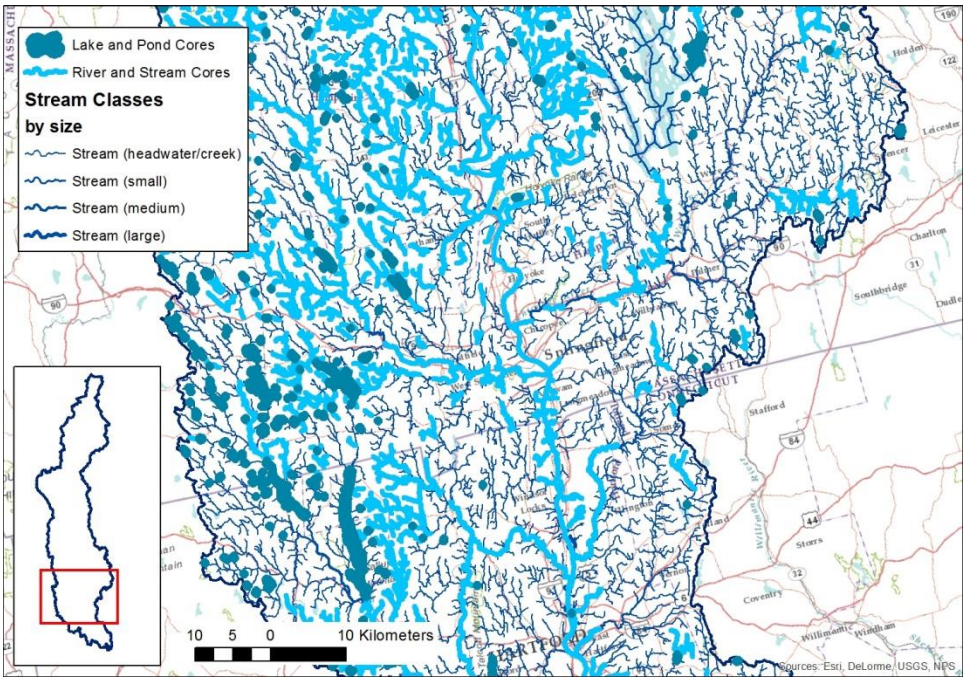
<In discussions after the call ended, the 'in-room' attendees discussed the use of the term "supporting landscape," employed by the Massachusetts BioMap. Those present felt that calling the Tier 3 areas the "supporting landscape" – for both terrestrial and aquatic – was a useful and clarifying term.>

Recommendation 3: Adding a tier to the aquatic cores consisting of all rivers and streams (Webinar time: 36:25)

Outcome: The team reached consensus that this could be useful. As with the terrestrial network, we agreed not to call this a tier. One option would be the "Supporting Aquascape." For the purposes of calculating the area covered by this network, the vectorized version of the streams and rivers would be used. The data could be made available either as a vector or as a raster layer (with the caveat that a raster will inflate the apparent size of streams <30m wide).







Scott Schwenk: There was another request from Vermont's Fish and Wildlife Department. They made the point that because stream networks are interconnected, the whole stream network contributes to the integrity of any point on the landscape. You can't have an isolated aquatic core. So we have a simple approach – this is analogous to a Tier 3: add all rivers and streams.

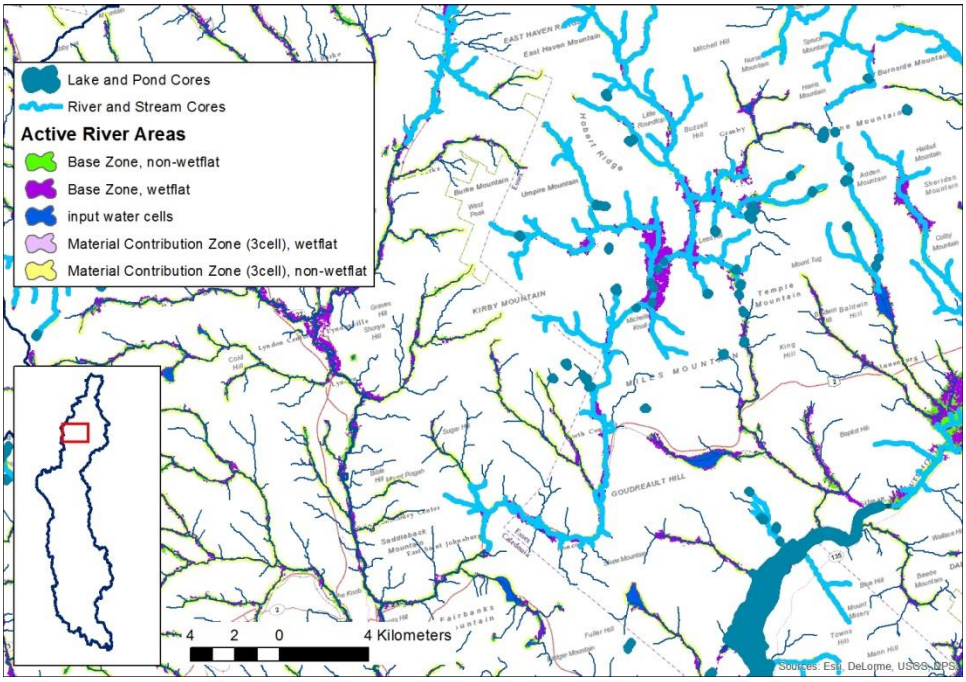
Jeff Horan: Do we know how much additional area that adds to the Tier 3 component of the network?

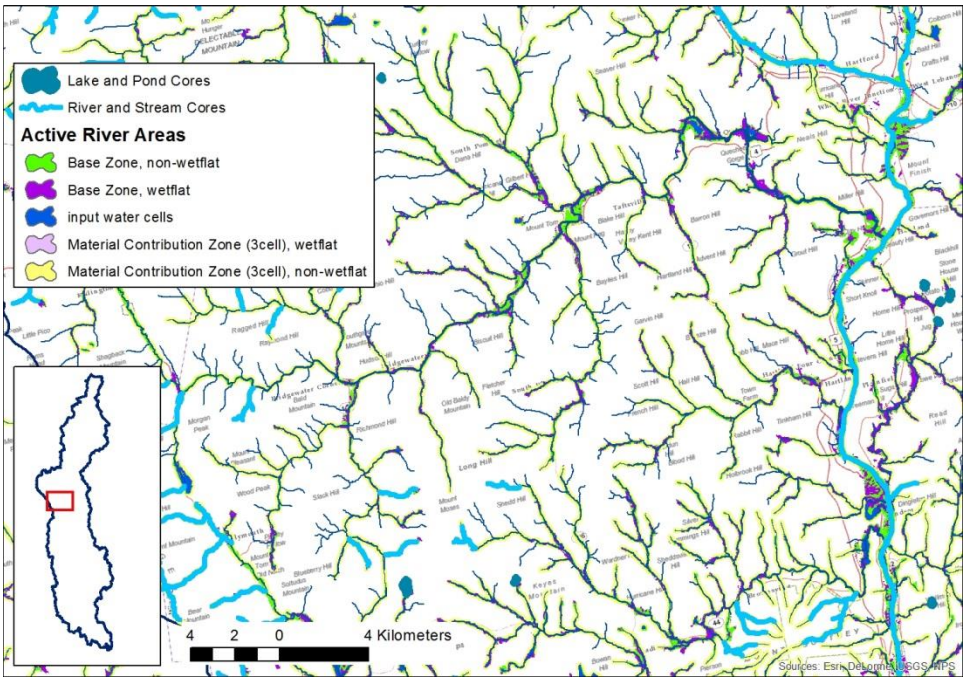
Kevin McGarigal: It depends on how you represent it. As a grid, then it takes up a lot of area (30m pixels). As a vector, it doesn't take up very much space at all.

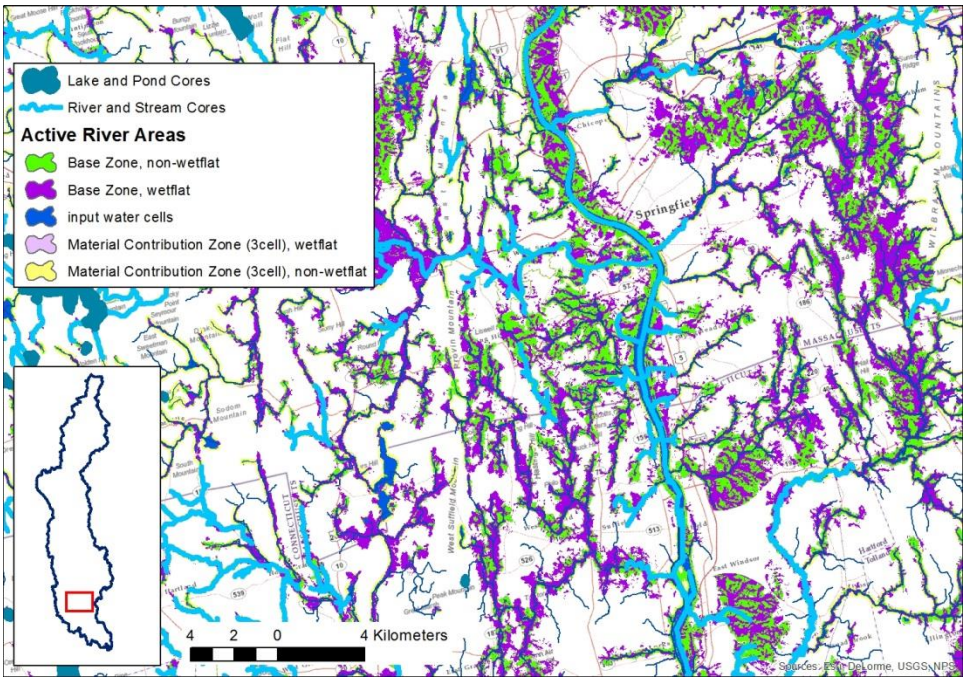
Scott Schwenk: My sense is that we don't want to have small streams overwriting non-aquatic habitat. It's more just depicting the network as lines.

Recommendation 4: Adding a tier to the aquatic cores consisting of a buffer of the aquatic network (Webinar time: 39:25)

Outcome: The team reached consensus to not incorporate such a buffer. Although the Active River Areas are, theoretically, a useful buffer, there are issues with adding this into the design, especially the fact that the core area network and the active river areas are based on different hydrography datasets. The team suggested that the North Atlantic LCC consider this unmet science need in its annual science needs and funding process. Because this layer could be of value to some partners, the team recommended noting its existence as a potentially complementary product to the conservation design, but did not recommend formally including it in the data package.







Scott Schwenk: Vermont's Fish and Wildlife Department also recommended that there be some sort of riparian buffer zone around rivers and streams. In low gradient areas, many streams meander. During high water events, they spread out into the floodplain, and this is an important ecological function. Also, terrestrial components contribute to the aquatic feature. In addition, the riparian areas are important habitat and often serve as corridors. Recognizing this, the idea is to add some kind of buffer, as part of this Tier 3, to rivers and streams. The most comprehensive dataset that we have available at a regional scale is the Active River Areas layer developed by TNC.

Kevin McGarigal: I want to point out three issues with using Active River Areas that are important. First, the buffer for the contributing areas (the "base zone") they put a fixed width buffer of 3 cells on either side of the stream: so that's 90m on each side. Second, because the algorithm for creating that was aspatial, you get a lot of disjunct areas – single pixels. So that is probably due to some elevation differential. Third and most importantly, this product was based on the low resolution NHD+, not the high resolution. Not only do we have an alignment issue, there are lots of streams and creeks that are not in this dataset but are in ours. I think the best solution would be for us to develop our own algorithmic approach and apply it to our high resolution dataset.

Scott Schwenk: Thank you for bringing these up. Those are really good points. We can address those comments in a few ways. One is to make clear what the drawbacks are of using the Active River Areas. I don't know at this point, since we're trying to wrap up Version 1.0, that we would want to implement the changes you describe, even if they are preferable. If the group feels like the drawbacks are too great, then we could elect to not include it at all. Or we could include it but clearly describe the shortcomings.

Kevin McGarigal: Are you going to show the group what this looks like? I showed it at one point, but I can't remember if it was the full core team or the aquatic subteam. As you're suggesting, to take the product as-is, if we were to plop that product down over our products, there will be some alignment issues and it will be messy.

Scott Schwenk: We did not have a chance to do an in-depth analysis. Maritza made some maps that are included in this form we put up on the website. We can make this available on Data Basin if people would like. The map section for the southern part of the watershed shows the most active river areas.

<Scott walked us through the maps online.>

Kevin McGarigal: Here you can see the pixilation. The material contribution zones are not pixelated but they are a forced 3-cell buffer.

Andrew Milliken: One of the science needs that the North Atlantic LCC is considering for future project funding relates to floodplains. If approved, then there would be an additional RFP for floodplains that could help us do a better job. It's not exactly the same as active river areas, but it would incorporate similar data. So an option is to hold off on this until we have better datasets to work with.

Bill Labich: What does the aquatic team think about this?

Scott Schwenk: We have not had the chance to talk this through with them.

Bill Labich: Here is my overall comment about the process; it relates to Tier 3 and much of these recommended changes. We went through a whole long process and came up with a design. We had one participating group, who made recommendations and complaints, and based on that we've made all these changes, and now we have a tight timeframe and we're making pretty significant

decisions. Most of which I think we're comfortable with, taking into consideration the need for consensus on what these mean and how we communicate about them. If you're in central Vermont around ag lands or the city, you can communicate that design to the public and there will be a whole lot of heads nodding. In other areas, where it's mostly woodlands, you'll see a whole lot of heads shaking, because everything is forest. So it goes back to what does the design mean, and do we agree on what it means, and how do we consistently communicate about that. Going back to aquatics, I have no background and we had a whole aquatics team to review this stuff. Why is this coming up so late in the game? Why wasn't this discussed by them earlier in the process?

Andrew Milliken: I wasn't at all their meetings, but I tried to attend many of them. I will say that Active River Areas were discussed, kind of related to connectivity between core areas as much as everything. Given some of the issues that Kevin brought up, they decided not to add them to the design.

Andy Fisk: I wasn't part of those conversations with the aquatic subcommittee, and I don't have the expertise to comment on them.

Patrick Comins: I would also prefer to defer to the aquatic team.

Scott Schwenk: OK, so I think I have a couple of takeaways. First, these proposals seem late in the process. For those of you who want to focus on the 25% core areas, that is still the key front page. If that's what will resonate with your team, then you can only use that. For audiences where it helps to have the additional tiers, we have that as well. I guess we have to figure out the implications for communications. We're trying to have it both ways, essentially: a focused core network and additional supporting tiers.

Jeff Horan: I like how Bill laid that out, because communications will be huge. I think the design will be more useful with a second tier. I'm still struggling with how to define the third tier. I've always been a proponent of buffering streams and using Active River Areas. I guess I'm concerned with making the whole product look imprecise if some of the most visually apparent landscape features like streams don't look well aligned. So as much as I love stream buffers, until we have a better way to show them, I think maybe we shouldn't include them. I think a third tier is important if we can describe it as supporting the integrity of the cores.

Scott Schwenk: So at this point I have not really heard any support for the active river areas, except maybe defer it to a larger aquatic group. We could take it off the table now, or try to convene the aquatics team. Dave Perkins has taken an additional position and it may be a challenge for him to play a large role.

Marvin Moriarty: Kevin mentioned the possibility of doing an effort to fix those issues.

Kevin McGarigal: It's not in our scope of work or current budget, but it's something that could easily be done, and would be fun and good to do.

Marvin Moriarty: I think the comments that Eric and Vermont put forth regarding the inclusion of Active River Areas was compelling and if it's not too expensive or time-consuming we should do it.

Nancy McGarigal: I'm hearing that for the most part people are not supportive of this. I also want to point out that this is a published data set that people could use if they wanted, but we don't have to include it as part of our primary design products.

Scott Schwenk: We have a list of future data products that are desired, and we can certainly capture this on that list.

Marvin Moriarty: I think Nancy's point is a good one.

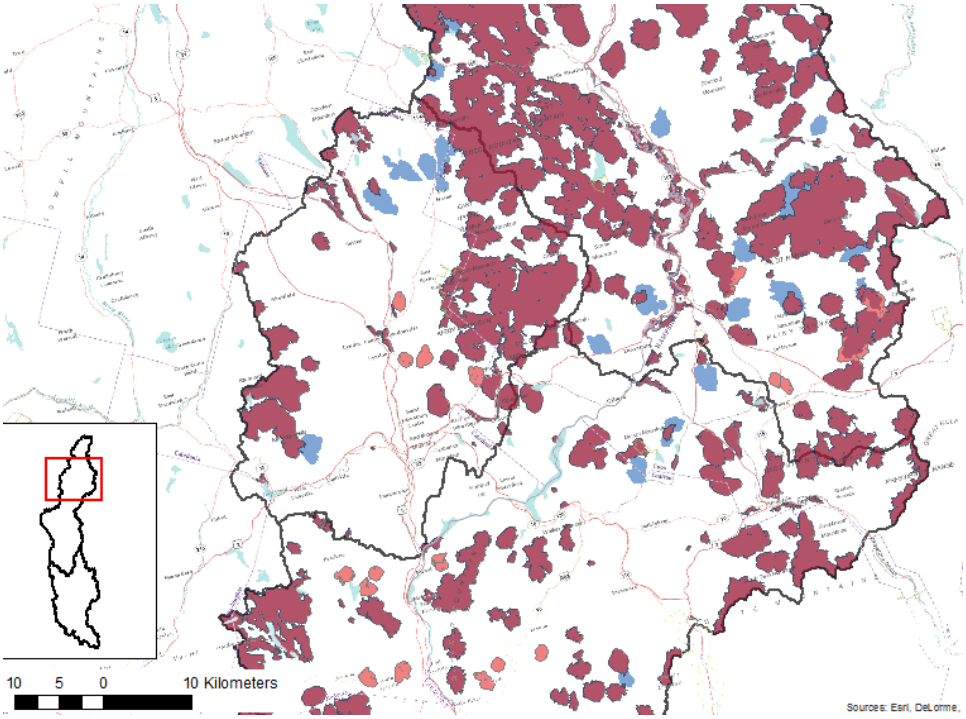
Scott Schwenk: So far there appears to be, at least for those of us on the call today, general support for the first three recommendations, and no support for the fourth. We still will have some work to do in terms of communication and perhaps, the naming of this third tier. Next we'll move on to Part II – grassland species

Part II: Grassland species and their habitats in relation to the terrestrial cores (Webinar time: 1:03:12)

Recommendation 5: Build a core area network without using Eastern meadowlark as a representative species, and separately develop grassland species focal areas (Webinar time: 39:25)

Randy Dettmers: This again stemmed from some of the comments that came in from Vermont's Fish and Wildlife Department, but also from other partners, to the effect of core areas derived from grassland bird needs didn't fit well with species needs and management requirements. We talked about this with a small group earlier in the month. We looked at the core areas derived primarily for grassland birds. In general, those core areas were capturing about 1/3 grassland habitat and 2/3 non-grassland habitat. We discussed the fact that this doesn't align well with our typical management approach to grassland birds. We also talked about connectivity between those areas. There isn't a huge need to design connectors between grassland habitat cores. We did acknowledge that openness and proximity do matter to these species. What came out of this small group discussion was to consider removing the meadowlark from the current approach and build the core area network leaving out that species. If we did that, there would consequently not be connectors between these cores. A separate team would work on developing grassland bird focus areas, using the meadowlark model, landscape composition, and data from the states on important grassland birds areas. This group will work on producing this separate product, which would eventually be available as an overlay.

We've done some comparisons between the core area network with and without meadowlark, which are presented below: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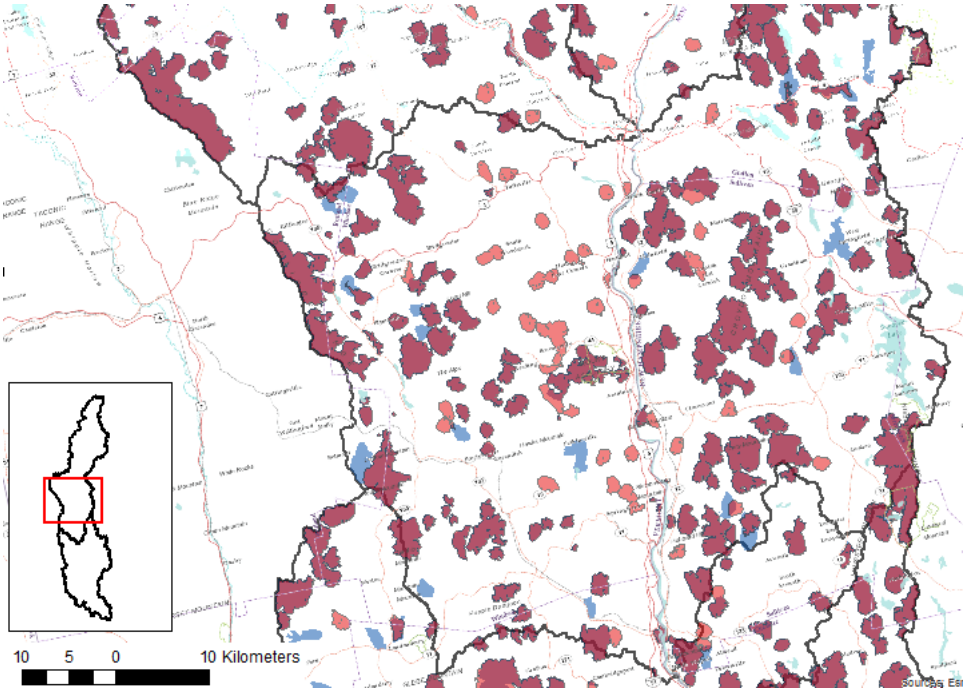
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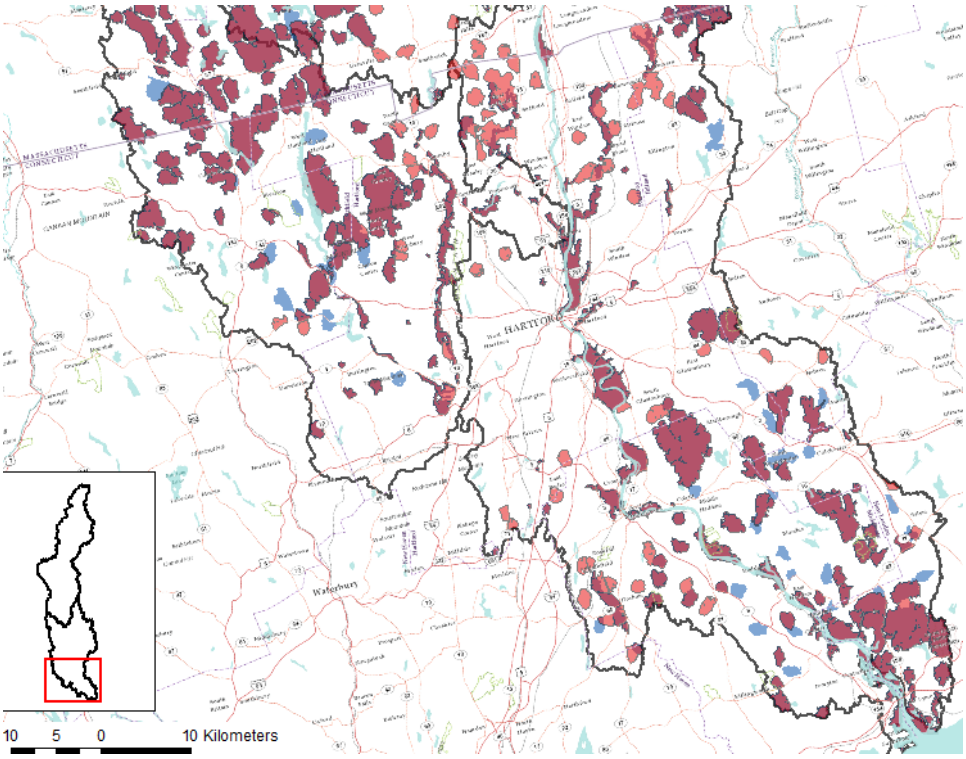

The grassland birds team would hope to have the focal areas available for integration into the design by the end of June.

Andrew Milliken: Are the new areas in blue additions to the Tier 1 cores that pick up the species and ecosystems that were lost when we dropped the meadowlark cores, since they provided habitat for other species besides meadowlark?

Kevin McGarigal: Yes, there's a compensation. The area that was targeting meadowlark, as you pointed out, wasn't just grassland, because it also targeted undeveloped areas around them. Since those cores go away, you're compensating and building cores in non-grassland habitats to meet the needs of those species, and those cores are being placed in forests and wetlands. Also, more often than not, the meadowlark cores were disjunct. When we made up for that, they often aggregated into other cores, so the total number of cores is fewer when meadowlark is not included. The new blue cores tend to be close to existing cores.

Patrick Comins: Have we tried comparing this to eBird data to see what lines up better?

Kevin McGarigal: The solution that does not have meadowlark in it, will do worse at picking up the meadowlark distribution data from eBird. We did not target grasslands, although some cores will include grasslands.

Randy Dettmers: If we choose the option without meadowlark cores, we'll ultimately be adding back in additional areas that would capture the primary areas we'd want to include for grassland birds. But, these are not pictured now.

Jeff Horan: I have a question about when you would add the grassland focal areas. When you add those in, do they become part of the Tier 1 cores? Do they have connectors?

Kevin McGarigal: They would not have connectors.

Jeff Horan: Would you union in those grassland cores before you do the next 25% to get to 50?

Kevin McGarigal: We can do whatever you guys want. We haven't talked through what our recommendation would be, so it depends on what you want.

Randy Dettmers: Do people accept the recommendation?

Jeff Horan: I would like to hear exactly what the recommendation is. Are the grassland cores to be included within the core area network? Or as an overlay?

Randy Dettmers: The former.

BJ Richardson: So just to be clear, that would be incorporated into the design, rather than just being an overlay.

Randy Dettmers: I would think of it as part of Tier 1.

BJ Richardson: So we get fewer larger cores on that run, and then we add them in after because we don't want them to be part of the connectivity modeling?

Randy Dettmers: Correct

Kevin McGarigal: One issue I see is the how to constrain the total amount of cores in the first Tier. The procedure you're describing…it's not clear how we'd constrain the total amount of the landscape in Tier 1 cores. You'd have to hold back a percentage, and then for example, we could grow cores out to a smaller amount. Let's say you want to allocate 2% to grassland. We'd run our algorithm to 23% and then add the grassland. The way our algorithm currently works is that you don't allocate percentages to species, because they are all being met simultaneously and collectively in a complementary fashion. There's no allocation of area to each species in the current approach. So this would be deviating from that. Either that or you do the 25% solution and then add some arbitrary amount for the meadowlarks on top. Either way you have an arbitrary decision.

BJ Richardson: Do we have any idea on what percent of the landscape the meadowlark cores currently represent? If it's a moderate amount, it might not be that big a deal to add it on to the 25%.

Kevin McGarigal: The problem is that no one core represents a single species or system. Even the seed for each species core is about a weighted combination. It's possible that all of the weight would be on meadowlark to start some cores, but as you grow it other species landscape capability needs

are taken into account. So you can't say a core is a "meadowlark core." I guess you could look at the percent in ag lands. We could run our other solution to 23.7% and add on the 1.7% in ag for grassland birds. So we could probably back ourselves into it that way.

Scott Schwenk: Since only 1.7% of the watershed is grassland, the total amount added for cores would probably be less than 1%. It would probably be a very small addition, so we could probably add it to the Tier 1 solution without causing any weirdness.

Marvin Moriarty: I agree with that.

BJ Richardson: This would be an inconsistency in the model, which is a legitimate concern, but it sounds like people are mostly comfortable with just adding it in.

Randy Dettmers: This is something we can discuss in more depth in the small group, as long as people are comfortable with that team doing that. We can use the strategy proposed by Kevin, or just add it on, which it sounds like people are comfortable with for now.

(Webinar time: 1:25:45)

Kevin McGarigal: I think we're on a slippery slope to treat one of the representative species differently. Yes it is true that among the 14 species considered, perhaps it has the most distinct and non-overlapping habitat compared to the other species. It is a little bit different. But it's also a gradient of species that grade from very generalist to very specific. We just happen to have meadowlark here that has specific requirements that mostly doesn't overlap with the other species. If for every species with highly specialized habitat, that's not being captured by the ecosystem approach, you decide you want to do a single-species approach, it's going to create a process that's very hard to communicate, that's not internally consistent. I'm trying to understand what the issue is. If the issue is that connectors from grasslands to forests bothers people, I'm not sure that's such a bad thing. If the issue is that the meadowlark model isn't picking up places known to be meadowlark habitat, that's an issue of fixing the meadowlark model, not creating a separate product. It's a slippery slope here when you say you want to adopt an optimal, complementary approach, where we try to identify places that meet the maximum complementary needs across species, for all species except one, you've separated that species out as being somehow special. I think it's a gradient, and species all fall along that gradient of being specialized. As we think about the other representative species, would you also sacrifice complementarity for trying to capture a single species' unique needs in its own separate approach? I'm concerned about the slope we're on.

Mitch Hartley: To me it does not make sense, with a species whose habitat requirements are so clear and finite on the landscape, that we would have cores on the landscape that are driven by so many other things. I think we have a communication problem either way. I think if anyone is working on grassland birds, if they look at the cores that we say are good for meadowlarks, they'll call them junk and not use them at all because of the mismatch between good habitat and what's in the cores. I think if we stick with the status quo, we have to recognize that people won't like that

part of the design. And I think that by taking them out, it makes the design much better for the species they are supporting.

Kevin McGarigal: My argument is that we're trying to manage for grassland and supporting grassland, which does include areas near grasslands. I don't really see meadowlark and grassland as any different from Louisiana waterthrush and wetlands. The species cores for Louisiana Waterthrush pick up forest in addition to wetlands. Those cores are not just for that species, either, they have habitat for other species. The core is an area of relatively intact natural land, that has within it good habitat for a certain species. So I don't see this as any different as any other species with specialized habitat needs.

Mitch Hartley: I think Louisiana Waterthrush is very different, because they use a feature on the dominant landscape, which is forest. You only find it in a matrix forest landscape where there are wetlands. I think the context is, what are the species that use the dominant part of the landscape? Species like meadowlark are not using that habitat. Grasslands were historically rare and/or limited to a specific part of the landscape. We're never going to get saltmarsh sparrows outside of saltmarsh either. If we can map that, and say these are the saltmarsh sparrow areas, I absolutely think that's what we should do. I think that's the parsimonious approach to defining where their needs are. I think eastern meadowlark is the same.

Kevin McGarigal: What you're proposing means that down the road when you have 40 or 50 species, you're going to have to categorize which ones deserve their own special, independent approach and differentiate those from the other species. For the other species you're taking into account complementarity, and the special species, you're not.

Marvin Moriarty: If we were to take meadowlark out and not have any special provisions, which seems to be what your recommendation is, how would we account for grasslands?

Kevin McGarigal: I wasn't recommending that we take meadowlark out. Rather, whatever species are identified as representative, the approach that we have developed is one that optimizes complementarity across species. So you're building cores not to represent habitat for only one species, but rather habitat across many species. I'm just saying that we're on a road where we could potentially separate out several other unique habitat types and the species represented to select them. So you have a split in approaches. Some species would be dealt with in a complementary fashion, recognizing that that group includes habitat specialists and generalists, and another set of species whose habitat needs you're dealing with on a case-by-case basis. I'm not bothered with the fact that grasslands that have been identified are embedded in areas with habitat for other species. And yes, it comes at the cost of adding more acreage that is just grassland habitat. That's the tradeoff for meeting multiple species needs at the same time.

Randy Dettmers: I think we've come up against a fundamental issue: the benefit of multi-species complementarity and the practical realities of management on the ground. For some species and managers, a multi-species complementary approach doesn't fit or isn't appropriate for their goals.

It's not to say that either is wrong, but we have an interesting clash of ideas right now. I don't think we're going to resolve this right now.

Nancy McGarigal: Is it adequate to create the focal grassland layer but use it as an overlay? Or is that not adequate? Similar to the other rare species.

Kevin McGarigal: If you were going to have an overlay, then I would take them out of the core network. In that case I think it would be more consistent and preferable to use the 13 species base to develop the cores, and then have a separate overlay. Essentially you're treating meadowlark as a rare species with its own overlay. It may not matter from a conservation standpoint if it's part of the cores or an overlay.

BJ Richardson: What is the problem with meadowlark being included?

Randy Dettmers: I think Mitch expressed it. If you have these focus areas that were derived from meadowlark habitat as the core and then grown out, and they are more than half some habitat that's not grassland or pasture, then people who are interested in implementing grassland habitat conservation are going to look at those core areas and wonder why we identified core areas to support grassland birds that are more than 50% non-grassland. It clearly becomes a communication issue. I think there's also just a concern that grassland bird habitat – not just meadowlark – but grassland bird habitat in general, isn't complementary to a lot of forest habitat for some of these other habitats, it actually decreases the value of the grassland habitat. So people don't see the utility of identifying core areas for grassland birds in that way.

BJ Richardson: Maybe it's a question of whether this is a multi-species approach, or if we're trying to capture everything individual species need. If grassland birds have such specific needs, and managers only want this, then I think people are interested in these species will go out and look for the data layers that make sense to them, which is not the multi-species framework we're offering.

Randy Dettmers: I think that's the crux of the question. Does a multi-species approach that doesn't include the specialists' needs serve the needs of multi-species? Do we want the approach to make sense from a single-species perspective as well? There are limits to what we can do.

BJ Richardson: I'm thinking there are already people very focused on grassland conservation. We're not trying to replace that. We're looking at a landscape approach here that does include multiple species. Our goal isn't and shouldn't be to build the best grassland bird model out there.

Mitch Hartley: BJ, I agree with you. We're trying to do a multi-species landscape approach. What I would argue is that taking meadowlark out does a better job of that. It's facetious to throw meadowlark in and say "This is multi-species. It even includes meadowlark." Because it really doesn't. And, you're diluting the core model for all the other species, and you're not helping meadowlark. We do the best job by taking meadowlark out. To me meadowlark is similar to rare and endangered species. We weren't going to model them either. To me, meadowlark is like those rare

species. They have a layer for those, and we don't have the same layer for meadowlark, but we could create one.

BJ Richardson: Does the meadowlark landscape capability model address that?

Kevin McGarigal: I think the meadowlark LC model does the best job available identifying patches that are good for meadowlark. If there is a problem with that model, then we can look at it. It's been empirically evaluated. If it's wrong, then it's probably because the input data is wrong.

Randy Dettmers: I think we're proposing that this meadowlark focal areas would be based on the meadowlark model, as well as state-identified important areas for meadowlark. But we would certainly include the meadowlark model to identify those places.

Nancy McGarigal: Ok, that was a long pause. Are there any objections to that? I guess we're back to the original proposal: work over the next few weeks with a small group to better inform the meadowlark model.

Randy Dettmers: Also, the proposal on the table is to build cores without meadowlark. And use the meadowlark model and some other data to identify grassland core areas that would be an overlay in addition to the core-building process with the 13 species.

Nancy McGarigal: It looks like people in the room are on board. Any major objections on the phone?

Three "No's" from the phone.

Nancy McGarigal: So we'll move forward with that plan.

Randy Dettmers: I think most of the small group people know who they are, but if you want to participate let me know.

Part III: Communications update(Webinar time: 1:52:20)

Nancy McGarigal: Not hearing any objections, do people have 10 minutes for Dave to speak? Here's Dave Eisenhauer.

Dave Eisenhauer: The question in my mind is whether we're at the point where we can have more conversations about outreach strategies in the near and long-term.

Andy Fisk: I haven't followed the details since the last conversation, so my question is: we had a very earnest discussion about pilot vs. not pilot, and I was wondering how that was resolved.

Dave Eisenhauer: There were definitely two versions of where we might be with that. People argued for both sides. I don't think we have consensus on that yet.

Andrew Milliken: I wasn't part of those calls, but one of the most important steps in this process is the core team and their agencies and organizations implementing this design as part of the learning process. So I think it's a pilot for an approach to conservation design, but it's also a design that the core team members will implement. Based on lessons learned through that process, we may modify the design in the future. I'm not sure if that's what you were getting at Andy – by calling it a Pilot, I would not intend for it not to be used.

Bill Labich: I like what you just said Andrew. It's called a Pilot; I think we lead with that. People could have a tendency to write it off. If we communicate about it as a pilot being implemented that may be adapted in light of new information, we can have success.

Bill Jenkins: I agree with Andrew and Bill. My fear is that when people hear Pilot they'll wait for the final version to enact it. I like the 1.0 idea. It resonates with me.

Andy French: Realistically, how much stuff do we roll out and when is it ever done? I agree. I think we should roll it out for what it is. It's finished for now. We'll fix it if there's important new information. I think we're good to go. We just have to say what it is.

Andy Fisk: That all sounds good to me. I wanted to see if it was a constraint.

Marvin Moriarty: I'm attracted to using the term Pilot because that's what it is and what we've been calling it all along. If it's not a pilot, then we need to make it clear that we plan to adapt this plan over time. I think the term pilot actually helps make that clear.

Andy French: What is the group leaning toward right now?

Dave Eisenhauer: What I'm hearing is that the really important thing is to describe that this is something that's a beginning, from which we'll continue to learn, partners are testing and implementing, and we're looking at feedback from that. Just the word pilot can indicate incompleteness. My inclination is not to describe it as a pilot, but as a product and process that's initiating a way of using information.

Mitch Hartley: If you go back, the LCCs and the Joint Ventures, and SHC have at their foundation this model of adaptive management. Some of this language around this being a start, or a beginning – I think if we reference the adaptive management approach, that is how we want to frame this, at least to those audiences. We want to communicate that. Some of our partners want to hear that we're implementing that adaptive management framework.

Dave Eisenhauer: I appreciate that. It sounds to me like we need to revisit our messaging, and then I'd like to talk at some point about practical next steps to communicate this. I appreciate the discussion and I'm interested in hearing views on those next steps. We'll be talking about capacity to communicate as well as process and an outreach plan.

Nancy McGarigal: So there will be some work going on this month by the grassland birds team and the communications team. We're hoping to get together in early October to go over lessons learned from implementation so far. I'll throw out Thursday, October 1st as a date – save that date (but check the website and your email for any changes). Thanks to everyone for hanging in on this last call, we got a great mix of team members and partners. Thank you so much, take care, and we'll be in touch.