From: Wiechman, Lief
To: DElia, Jesse
Cc: Pat Deibert; Dawn Davis
Subject: Re: GRSG Wild horses and some FAA stuff
Date: Tuesday, March 24, 2015 9:52:06 AM

I think we are beginning to see the downside to having authors work directly with GIS personnel without us having any opportunity to comment. It's hard for us to know what's being done until we get everything next week.

LW

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On Tue, Mar 24, 2015 at 10:15 AM, DElia, Jesse <jesse_delia@fws.gov> wrote:

> I'm concerned that we are creating all of these new datasets and investing so much time in doing so. The BER compiled datasets on herd management areas and comm towers (FCC) and other vertical structures (FAA). My suggestion is that we use the BER data unless there is a compelling reason to supplement, augment, or exchange it with something better. Otherwise, I'm afraid we will run out of time developing new datasets from scratch.
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> Another agenda item for tomorrow?
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> On Tue, Mar 24, 2015 at 6:45 AM, Wiechman, Lief <lief_wiechman@fws.gov> wrote:
>
>> Just forwarding this along as an FYI so you can see some of the issues we have.
>> This particular one seems to involve a bunch of BLM/FS data that doesn't jive and its impacting our Equid analysis.
>> You don't have to read the entire email, but can if you feel like getting a headache this morning ;)
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---------- Forwarded message ----------
From: **Turner, Ed** <ed_turner@fws.gov>
Date: Mon, Mar 23, 2015 at 5:59 PM
Subject: GRSG Wild horses and some FAA stuff
To: Lief Wiechman <lief_wiechman@fws.gov>
Cc: Lara Juliusson <lara_juliusson@fws.gov>

Hello Leif, I wanted to try to bring you up to speed on the Wild Horse and Burro stuff. We obtained BLM polygon data for the WH/B management areas, and for USFS we obtained 2007 data. After speaking with Tom Frolli, Inter-Regional Coordinator Wild Horse & Burro Program, Forest Service; we held off until receiving updated data from 2014/15 (best I can tell). These data came from individual forests offices and I had to combine them into one set with Territory Name. Then using the table (attached), that Tom provided I was able to determine which USFS areas were considered active or not.

For the on ground footprint effort, I simply combined both the USFS product I created with that of the BLM data. There were overlapping polygons and areas where polygons from the two sources did not match causing slivers. For the footprint effort, this was no issue as I just dissolved any active area into a blob polygon representing the footprint of what both agencies considered a management unit or area. That seemed the best we could do with these data and we didn't care who initiated it or managed it. We just needed the area on the ground.

Last week I was asked about the following from Genevieve's email *" One of my reviewers asked if the map could show which HMAs are over AML. Does the GIS data you have a column showing % of AML? or do you have the Min/max or high/low AML columns?"*

Neither of the base data have this information and because of overlap and slivers I didn't know what we could do, but started trying to create data sets as of last Thursday and feel as I have been spinning my wheels. I have attached the BLM and USFS tables.

I went back and took a copy of my combined USFS/BLM data with all the overlap and using the tables I'm attempting to code for animal AML. As for the slivers either choice I make is wrong, but I chose to dissolve any small slivers to BLM's favor. The real issue comes when the overlap is large, when the two agencies have contradicting values, or in cases like Devil's area (listed in the excel I sent and the map), where the 2007 single polygon area has now been divided into two portions. Yet the table accounts for total area values. In this case, the BLM has an area that overlaps, but according to Tom; the area is to be included in the USFS numbers, but BLM list numbers. If we assume BLM's listed numbers at inclusive in the USFS totals, we should just zero BLM's numbers in the table.

If BLM's polygon were to fit exactly within the USFS area, I assume we could just merge it in thus deleting the BLM's source data record. Problem is BLM's data doesn't exactly match USFS data, so what to do with the portions of the BLM record that fall beyond USFS area. The next issue with this area is the division to two areas and totaled as one. I spoke with Tom and he indicated that USFS initiated this area and that BLM should be included in USFS numbers, but that changes from area to area so with these data we will have to address all overlapping. Before I knew all this I simply chose to dissolve the USFS portion of the overlap into BLM as it fits, BLM portion does not. I had to go back and fix all this. Tom corrected me on this and again said it is area to area dependent if BLM counts it or USFS counts it. As for how to even divide the listed total for the area, Tom said he would have to go back to reports and try to determine how much value to divide to each section, and then I'd have to remove from BLM to add to USFS. If you look, at my table, you see records of overlap and this is the kind of stuff I have to cleanup for USFS, and then have to do for BLM (I'm only showing two record examples from the data set).

Right now, I'm just trying to populate min/max and Est total numbers where I can based on the tables. I am also removing the slivers and again I had to choose one source to put them to, so I chose BLM. Could be right could be wrong. The main goal is to look at all areas and simply determine if the Est. total is above or below the Max value. I will know more once I finish the table/coding polygons and removing slivers. Tuesday if all goes well. Just do not know if I can represent them with any level of confidence in a map, as I have to make assumptions. I am altering two varying non-matching source data with assumptions and edits. I guess regardless if USFS or BLM names and claims the area; as long as the recorded numbers are over or blow I can at least try to map. Just these data cannot be used for any analysis as there is just too much overlap and that would be double dipping.

Sorry if this sounds so confusing, just trying to make something work.

Also on another note, I've been looking at the FAA tower locations in relation to records Jim had for MET towers and FCC records. There is redundancy in these data and I'm assuming because Jim covered the Met towers, I should remove these records from the FAA data or FCC data before reprocessing for footprint work. Also, according to the latest 2015 FAA data some of the towers Jim had are considered dismantled. We'll have to look into that more. In addition, the FCC data and the FAA data are showing redundancy too. This could be because any tower could have multiple records associated with it (more than one antenna on any given tower). Problem with that is we are dealing with two different source data and those records for the same tower may be off spatially. The trick is to represent one tower on the grown and eliminate the redundant records, just determining which to keep and which to remove is key. With the MET to FAA, I am dealing with about 125-133 towers or so and I did find a way to determine if they were redundant based on maximum distance to each other. If they fell within a set distance I selected them and am using record numbers that seem to match on some of the 125-133 across the sources. If they match, I assume simply delete that matching record from

FAA's data because Jim is addressing those already.

I stopped working on the towers to try to build horse data that will work for this AML map. I'll keep working on the horse data unless you think I should go back to the towers.

Sorry for all this and thanks for any input, Ed

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