From: Holly Copeland
To: Juliusson, Lara
Cc: Kevin_Doherty@fws.gov
Subject: RE: Geology Layers Energy Risk Map
Date: Tuesday, May 13, 2014 4:55:14 PM

Hi Lara,

Here is an updated gdb with the well depth layer included.
https://www.dropbox.com/sh/10dsrmwarhswlrh/AAA96uAooZmgADNGIVSvjRwza

Let me know if you have additional questions--Holly

From: Juliusson, Lara [mailto:lara_juliusson@fws.gov]
Sent: Tuesday, May 13, 2014 10:43 AM
To: Holly Copeland
Cc: Kevin_Doherty@fws.gov
Subject: Re: Geology Layers Energy Risk Map

Thanks Holly, that all makes sense. We will not be acquiring the well data from IHS this time, and I haven't seen the well data we will be using yet, so I am not sure if well depth will be a consistently included attribute across states. If you could provide the depth to bedrock data, that would be helpful for us to have just in case, and/or to compare against a new bedrock model we might generate.

Cheers,
Lara

Lara Juliusson, Geographer/Ecologist
Sage-grouse Energy Team
U.S. Fish and Wildlife Service,
Region 6, Lakewood, CO
Lara_Juliusson@fws.gov
303-236-9876

On Tue, May 13, 2014 at 10:19 AM, Holly Copeland <hcopeland@tnc.org> wrote:

Hi Lara,

Yes, your interpretation of the data layers is correct. I didn't actually send you depth to bedrock, though I can… because I assumed that you would create a new one using the more recent and complete wells data, but I'm happy to share it, if needed.

I mistakenly sent you the physiomodel – that is actually one of the final oil and gas predictive models for the West using physiographic provinces to run the model separately and then combine it for 1 west-wide model. I only published the Rocky Mountain version in the PLOS paper because the far west had so little oil and gas well data that it didn't validate as well as I would have liked.

Holly

From: Juliusson, Lara [mailto:lara_juliusson@fws.gov]
Sent: Monday, May 12, 2014 3:17 PM
To: Holly Copeland
Subject: Re: Geology Layers Energy Risk Map

Hello Holly,

I am going through the geology data you provided and gathering some metadata for each of the files based on the 2009 PLOS paper. I have them all figured out (I think) but am hoping you can confirm for me that I have them right as listed below.

bouggrav = Bouguer gravity
elevati = NED (resampled)
geology = Generalized Geologic Map of the Coterminous U.S.
isograv = Isostatic anomaly gravity
magneti = Aeromagnetic anomalies

That leaves one dataset called "physiomodel" with values from 0 to 100. Is this the depth to bedrock model (IHS, 2007)? If so, is the value feet?

Thanks in advance for your help,
Lara

Lara Juliusson, Geographer/Ecologist
Sage-grouse Energy Team
U.S. Fish and Wildlife Service,
Region 6, Lakewood, CO
Lara_Juliusson@fws.gov
303-236-9876

On Fri, May 9, 2014 at 6:09 AM, Holly Copeland <hcopeland@tnc.org> wrote:

Hi Kevin,
Here is a link to a dropbox folder with a geodatabase of the data.

https://www.dropbox.com/sh/10dsrmwarhswlrh/AAA96uAooZmgADNGIVSvjRwza

The sources of the dataset are listed in the 2009 PLOS paper, as I think you know. Also recall that originally I did try run a full West-wide model – I have it, but it just didn't test out satisfactorily to include in the paper, so I cut it back to just the Rockies. I think it's because we has such scarce oil and gas data for the far West. So, if you are planning to re-run it for the entire West, you'll hopefully have more wells now thanks to shale gas to create a better model.

Let me know if you have any questions.
Holly

From: Doherty, Kevin [mailto:kevin_doherty@fws.gov]
Sent: Thursday, May 08, 2014 10:53 AM
To: Holly Copeland
Cc: Lara Juliusson
Subject: Geology Layers Energy Risk Map

Holly,

Last time we chatted you indicated you still had the geology layers that you used to create the energy potential grid using random forest. I am getting layers together and was hoping to get them from you. What is the best way to get them?

Cheers
Kevin

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Kevin Doherty, PhD

Spatial Ecologist

United States Fish & Wildlife Service

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