

Ryan Lisson

From: Joyal, Lisa (DNR) [Lisa.Joyal@state.mn.us]
Sent: Monday, February 13, 2012 9:31 AM
To: Ryan Lisson
Subject: RE: NorthMet Rare/Listed Species Request

Yes, you have it right. An EO would be considered one population. That's how I calculated the total statewide numbers.

Feel free to call if you would like to discuss. I am in the office today.

Thanks,
 Lisa

From: Ryan Lisson [mailto:Ryan.Lisson@erm.com]
Sent: Monday, February 13, 2012 9:16 AM
To: Joyal, Lisa (DNR)
Subject: RE: NorthMet Rare/Listed Species Request

Good morning Lisa,

I have a quick question about the NHIS data. In looking through the MDNR NHIS training PowerPoint notes, it specifically mentions, "In essence, an EO often corresponds to the local population of a particular species. If multiple observations of a single species are within close enough proximity to one another to allow for gene flow and there are no known barriers to movement (e.g., a dam), then the observations are all part of the same EO."

Do the total statewide populations you presented below correspond directly to the number of Element Occurrences? In essence, should we be defining population as EO_ID? If the polygons in the data are close enough to allow for gene flow, etc. from above, they generally have the same EO_ID. Therefore, should we say that where there is one EO_ID but multiple polygons, there is still only one "population"?

I want to be sure we are comparing local Project data to statewide data correctly. If it would be easier to explain, I am available to call you at your convenience, as well.

Thank you very much for your help.

Ryan J. Lisson

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From: Joyal, Lisa (DNR) [mailto:Lisa.Joyal@state.mn.us]
Sent: Thursday, December 22, 2011 12:33 AM
To: Ryan Lisson
Subject: RE: NorthMet Rare/Listed Species Request

Hi Ryan,

I added the number of populations for each species to your table below. To get number of individuals you would have to manually go through each record and look for the number of individuals in the comments, which

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may or may not include information on the number of individuals. If you already have this information from 2009 you might want to first check to see if there has been any change in the number of populations. If not, go with your previous numbers. If so, it might be reasonable to use an average indiv/pop from 2009 to estimate current number of individuals. Or I can create database reports on just the new populations (if any) so there would be fewer records to go through.

I am out of the office until January 3rd, but will likely check email and/or come in one day next week.

Let me know if you would like to discuss this in more detail.

Thank you,

Lisa Joyal

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**From:** Ryan Lisson [mailto:Ryan.Lisson@erm.com]  
**Sent:** Monday, November 14, 2011 2:37 PM  
**To:** Joyal, Lisa (DNR)  
**Subject:** NorthMet Rare/Listed Species Request

Hello Lisa,

I am updating the Vegetation section of the Draft Environmental Impact Statement (DEIS) for the NorthMet Mining Project, and have emailed you a few times regarding it. I am updating the Endangered, Threatened, and Special Concern species section right now. It says in the DEIS that you provided statewide population data for selected state-listed species on March 27, 2009. The species are the same (listed below) plus an additional three at the bottom, but we are seeking to update the statewide populations now. Our NHIS license agreement provides data on locations of listed species for the 3 counties the Project is located in, but we do not have statewide data. Could I request updated statewide data (#1 and 2 below) for the species listed below? Please let me know if I can answer any questions at all.

Data Requested

1. Statewide number of populations for each species below
2. Statewide number of individuals for each species below

| Plant Species               | Number of populations |
|-----------------------------|-----------------------|
| <i>Botrychium campestre</i> | 68                    |
|                             |                       |

|                                              |     |
|----------------------------------------------|-----|
| <i>Botrychium pallidum</i>                   | 77  |
| <i>Botrychium rugulosum</i>                  | 66  |
| <i>Botrychium simplex</i>                    | 167 |
| <i>Caltha natans</i>                         | 12  |
| <i>Eleocharis nitida</i>                     | 46  |
| <i>Ranunculus lapponicus</i>                 | 73  |
| <i>Sparganium glomeratum</i>                 | 155 |
| <i>Torreyochloa pallida</i>                  | 74  |
| <i>Juncus stygius</i> var. <i>americanus</i> | 26  |
| <i>Platanthera clavellata</i>                | 115 |
| <i>Pyrola minor</i>                          | 49  |

Thank you very much,

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**Ryan J. Lisson**

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