

Rebecca Fox/R4/USEPA/US

04/23/2009 12:09 PM

To Palmer Hough/DC/USEPA/US@EPA CC

bcc

Subject Fw: Question about Bonnerton Hardwood Flat

fyi

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Forwarded by Rebecca Fox/R4/USEPA/US on 04/23/2009 12:07 PM ----



"Schafale, Michael" <michael.schafale@ncdenr.g

To "Dorney, John" <john.dorney@ncdenr.gov>

04/23/2009 10:07 AM

cc "Payne, John" < JPAYNE@ncdoj.gov>, Rebecca

Fox/R4/USEPA/US@EPA

Subject RE: Question about Bonnerton Hardwood Flat

John,

As I said in response to these questions in earlier meetings, the northern part is the least ecologically significant of the three parts of this site, but it is still part of the site and is still highly significant. It is the least significant because the forest is less mature and the patch is smaller. If the site loses this portion, it will still be larger than the next-best comparable site in North Carolina. So, the site as a whole will still be nationally significant, except in the unlikely event that a second site in Virginia turned out to be better or a new, better site was discovered in North Carolina. Given the level of inventory effort, a new site this large Is unlikely to be found in North Carolina, but the more marginal this site becomes, the easier it is for another site to be

There is a lot of uncertainty about what will happen to the eastern part of the site if the corridor between it and the western part is mined through. Besides the loss of acreage involved, the eastern part will be isolated from sheet flow, as well as substantially biologically isolated, from the west until the mined corridor is successfully restored. IF hydrology is successfully restored promptly, I think the eastern part probably will not be seriously degraded further. I think this because it looks like water is probably perched at the site, so that drainage of the adjacent area will not have as much indirect effect as it would with more permeable substrate. The existing mining to the east has not dried out the site. And, though wetness will be reduced for the duration of mining because of the loss of sheet flow, the vegetation and soils should not be inevitably irreversibly altered in the space of a few years.

There is one serious potential exception to this however. The site will also be subject to increased edge effect until vegetation is restored in the corridor and other adjacent mined area, and this in combination with reduced wetness will make it very susceptible to invasion by non-native species such as Microstegium and Japanese honeysuckle. If such an invasion is not caught and managed promptly, the degradation will become effectively irreversible.

While the site will marginally remain nationally significant in the best-case scenario for mining the corridor, barring discovery of a better site, failure of any component in the best-case scenario would likely lead to degradation of the eastern part and loss of that significance. This includes unsuccessful restoration, delayed restoration, invasive plants, and being wrong about perching of water.

From: Dorney, John [mailto:john.dorney@ncdenr.gov]

Sent: Tuesday, April 21, 2009 4:20 PM To: michael.schafale@ncmail.neth e

Cc: Payne, John

Subject: Question about Bonnerton Hardwood Flat

Mike - please confirm the following result of our earlier meeting with respect to the Bonnerton Hardwood Flat. As you recall, there are three specific locations that make up the Bonnerton Hardwood Flat - the eastern part adjacent to the uppermost end of Porter Creek, the western part adjacent to the Suffolk Scarp and the northern part. Please confirm that 1) the northern part has less ecological value than the western or eastern parts, and 2) that with a mining corridor as permitted in the 401 Certification through the narrowest part of the Hardwood Flat between the eastern and western parts as well as the mining of the northern part, the Bonnerton Hardwood Flat would still be a Nationally Significant Natural Heritage Area. Please call me at 733-9646 if you have any questions. Thankx.

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