



State of Ohio Environmental Protection Agency

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January 22, 2002

Mr. Johnny Reising
USDOE FEMP
P.O. Box 538705
Cincinnati, OH 45253-8705

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RE: Comments-- 2001 Consolidated Monitoring Report

Dear Mr. Reising,

Ohio EPA has reviewed DOE's December 19, 2001 submittal, "Transmittal of the Draft 2001 Consolidated Monitoring Report for Restored Areas at the FEMP." Attached are Ohio EPA comments on the document

If you have any questions, please contact me at (937) 285-6466.

Sincerely,

Thomas A. Schneider
Fernald Project Manager
Office of Federal Facilities Oversight

cc: Jim Saric, U.S. EPA
Terry Hagen, FDF
Mark Shupe, HSI GeoTrans
Francie Hodge, Tetra Tech EM Inc.
Ruth Vandergrift, ODH
Bill Kurey, USFWS

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2001 CONSOLIDATED MONITORING REPORT

- 1) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 2.1.2 Pg #: 2-32 Line #: 25-28 Code: C
 Original Comment #:
 Comment: It is stated that distinct communities would be discussed (section 2.1, lines 19-20, page 2-1), however results are reported by basin and by patch. Although this information is useful and appreciated, results should also be reported by community and success of implementation monitoring judged by community. Although the percentage survival is important to report, since it was stated previously that the implementation monitoring is a pass/fail result, a summary of pass/fail by community should also be presented.
- 2) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.2.2 Pg #: 2-5 Line #: 27-31 Code: C
 Original Comment #:
 Comment: The text incorrectly states the percent cover goal as 80% rather than 90%. It was never the intent of the Trustees to allow weeds to be counted in attainment of the % cover goal. This cover requirement was developed from the construction seeding spec that required the contractor to get 90% coverage of the area with the specified seed. Therefore we do not believe the % cover requirement was met for any basin. However, we understand that 90% cover is a lofty goal and believe that adaptive management actions within A1P1 as well as the % native cover trend are positive and appropriate. The text should be revised to state the % cover requirement has not been met.
- 3) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.2.2 Pg #: 2-6 Line #: 6-7 Code: C
 Original Comment #:
 Comment: Though Ohio EPA agrees the amount of hydrophytic vegetation has improved, we are unclear what is meant by the statement "Basins 1, 4, and 6 met the hydrophytic vegetation requirements established by COE (1987)." Is this to suggest the basin meets the COE requirement or just one sample location within the basin? A later sentence in the same paragraph, states "the extent of data collection was too limited to characterize the entire basin." It would seem the conclusions in this paragraph need revision to more clearly state what is supported by the data collected. At present it is confusing.
- 4) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 2.1.2.3 Pg #: 2-6 Line #: 31-33 Code: C
 Original Comment #:
 Comment: Dissolved oxygen levels below 5 mg/L are generally considered very low. Your data shows some low levels of dissolved oxygen (e.g. basins 5 and 6). How do these results compare with prior years and can you speculate on the cause of the low results?
- 5) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.1.2.4 Pg #: 2-7 Line #: 6-7 Code: C

Mr. Reising
January 22, 2002
Page 2

Original Comment #:

Comment: Based upon the Mack (2001) visit, it appeared quite obvious that limited creation of hydric soils was occurring. Hydric soils appeared to only be found in or near standing water within the basins. The actual extent of hydric soils within the basins is unlikely to be any larger than the areas of normal standing water at this point. In the end, this limited generation of hydric soils will likely affect the actual mitigated area. This again points to the need to better manage water levels within the basins to maximize the area meeting the wetland delineation requirements.

- 6) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.3 Pg #: 2-7 Line #: 26-32 Code: C

Original Comment #:

Comment: Include within the justification for not planting additional woody material, the potential to damage established woody and herbaceous material during installation of replacements. This is a primary concern for Ohio EPA in our consideration of replanting.

- 7) Commenting Organization: Ohio EPA Commentor: OFFO/DSW
Section #: 2.1.3 Pg #: 2-8 Line #: 11-12 Code: C

Original Comment #:

Comment: Abandonment of restoration actions within Basin 8 does not seem appropriate. Herbaceous cover in basin 8 could be greatly improved by the planting of plugs of prairie forbs and grasses. This basin is the basin most visible from the public roadway and an effort in improving the native cover should be made in it as well.

- 8) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.3 Pg #: 2-8 Line #: 27-33 Code: C

Original Comment #:

Comment: During the late 2001 NRT meeting, DOE recommended the installation of an electric fence around the Radium Hotspot nursery planting. The other NRTs concurred with this concept do to the importance and fragility of the nursery, small area, the opportunity to evaluate an additional control mechanism, and the close proximity to a power supply. Ohio EPA believes DOE should install the electric fence to control deer impacts on this important resource for future activities.

- 9) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.1.3 Pg #: 2-9 Line #: 1-3 Code: C

Original Comment #:

Comment: More information should be provided on the proposed fertilizer/systemic repellent tablets. Manufacturers info would be useful. Additionally are these tablets approved for use in or near water? Does the systemic repellent affect other wildlife uses?

Mr. Reising
 January 22, 2002
 Page 2

- 10) Commenting Organization: Ohio EPA Commentor: OFFO/DSW
 Section #: 2.1.4 Pg #: 2-9 Line #: NA Code: C
 Original Comment #:
 Comment: Include detail on maintenance such as type of herbicide used and in which basins, numbers and type of fish stocked, etc. Additional detail on maintenance activities will assist in better understanding the impacts of such impacts. Including copies of log book notes on maintenance activities as an appendix would be useful.
- 11) Commenting Organization: Ohio EPA Commentor: DSW
 Section #: 2.2 Pg #: 2-10 Line #: NA Code: C
 Original Comment #:
 Comment: Is there any report on monitoring for the research as outlined in Appendix C of the NRRDP (see response to comment 6 in letter from DOE dated June 19, 2000). I believe this included planting for deer browsing strategies, densities, volunteer recruitment, etc.
- 12) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.5 Pg #: 2-15 Line #: NA Code: C
 Original Comment #:
 Comment: A discussion should be included addressing possible reasons for the low germination/success rate with native vegetation within the savanna area.
- 13) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: 2.2.5 Pg #: 2-15 Line #: NA Code: C
 Original Comment #:
 Comment: Planting of the shrubs in patches of similar species might be more beneficial to the plants as well as making maintenance and monitoring easier. This would probably be how they would be found in a natural system, clumps of similar shrubs in association with each other or with a tree.
- 14) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Table 2-8 Pg #: 2-22 Line #: NA Code: C
 Original Comment #:
 Comment: "Propigation (sic) method" column is confusing. Is this the type of material to be planted or the method of propagation for future projects?
- 15) Commenting Organization: Ohio EPA Commentor: OFFO
 Section #: Table 2-11 Pg #: 2-24 Line #: NA Code: C
 Original Comment #:
 Comment: The selection of shrubs proposed for Replant Area 3 is inconsistent with the original NRRDP and not consistent with what would be expected in a savanna. Remove the following species from the

Mr. Reising
January 22, 2002
Page 2

list: choke cherry, smooth sumac, black raspberry. Add the following species: new jersey tea, st. john wort, lead plant.

- 16) Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.0 Pg #: 3-1 Line #: 17-26 Code: C
Original Comment #:
Comment: The concept of open water habitat should not include species found out of water. Only emergent, and submergent aquatic vegetation should be included in this habitat. This would limit your list to cattail and be more accurate of the habitat. Then this can be compared to constructed open water habitats such as the water filled areas of A1PI and A8PII which contain a much more diverse aquatic plant community. This comparison more accurately reflects what we see.
- 17) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-1 Pg #: 3-3 Line #: NA Code: C
Original Comment #:
Comment: This table as well as subsequent ones are confusing and assume the reader understands the acronyms used. Reference to the monitoring plan or brief footnotes would make it more understandable. However, Total Cover not even defined in the monitoring plan.
- 18) Commenting Organization: Ohio EPA Commentor: OFFO/DSW
Section #: Appendix C Pg #: C1-5 Line #: NA Code: C
Original Comment #:
Comment: Several species are listed as "na" for a CC value (e.g. *Schizachyrium scoparius* and *Viola sororia* in Table C-1), why aren't they given a CC value? Also, these tables could use some explanation, for example we assume that the CC refers to coefficient of conservatism and not cover class, but it is not stated anywhere. We are unclear on what Avg. Cover refers to.

Some of the identifications are in question, for example *Smilax tannoides* is found along the Atlantic coast from Delaware to Georgia according to Gleason and Cronquist, but shows up in your list of plants in table C-2, as does *Schizachyrium scoparius* which we suspect may be *Andropogon virginicus*. Also, please use Gleason and Cronquist for names of plants, as it contains the generally accepted nomenclature (e.g. we had trouble with your name for wingstem, *Actinomeris alternifolia* rather than *Verbesina alternifolia* and *Agrostis alba* instead of *A. gigantea* etc.). Using this nomenclature will aid in finding appropriate CC values for plants.

It has been our experience, that if we can't find a CC value for it, then it is either some strange weed or we mis-identified the plant. We'd be glad to assist in anyway with plant identification. Our knowledge comes from our mistakes more than our successes. In most cases, we've found that if it seems too good to be true (e.g., Little Bluestem in a pasture) it probably is. We can also forward plant specimens to our

Mr. Reising
January 22, 2002
Page 2

folks in Columbus for verification if you would like.

The tables should be revised to replace incorrect nomenclature, add CC values and re-evaluate questionable species. Then a recalculation of values and conclusions completed.

- 19) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table C-5 Pg #: C-5 Line #: NA Code: C
Original Comment #:
Comment: What do the asterisks signify within the table?
- 20) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: E.3.2 Pg #: E-5 Line #: NA Code: C
Original Comment #:
Comment: Voucher specimens should be collected for both native and non-native species. We've found that non-natives can be some of the most challenging to identify. Having a voucher specimen to reference can be quite helpful.
- 21) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: E.3.2 Pg #: E-5 Line #: NA Code: C
Original Comment #:
Comment: In reading this section it is unclear at what point the species specific cover classes are documented. It may have been left out of this section.
- 22) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: E.3.3 Pg #: E-5 Line #: NA Code: C
Original Comment #:
Comment: Is there a technical reference for the method used to calculate MSI for herbaceous species? The lumping of cover classes may overweight the value for a single specimen of a species thus taking it from a 5% value to a 25% cover value. Additionally the actual calculation of cover classes is rather confusing. How is the number 30 selected for dividing? Some discussion at a future meeting is warranted to help us better understand the calculation of this metric.
- 23) Commenting Organization: Ohio EPA Commentor: OFFO
Section #: E.3. Pg #: E-5 Line #: NA Code: C
Original Comment #:
Comment: Should the area calculation be $A = \Pi r^2$?

6