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**RESULTS OF SURVEYS FOR MOUNTAIN BINDWEED - FERNALD
ENVIRONMENTAL MANAGEMENT PROJECT**

09/23/94

**RUST
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REPORT**

FERNALD ENVIRONMENTAL
MANAGEMENT PROJECT

RESULTS OF SURVEYS FOR
MOUNTAIN BINDWEED

PREPARED BY:

RUST Environment & Infrastructure Inc.
PROJECT NO. 72740.000

September 23, 1994

September 23, 1994

Ms. Becky Bixby
FERMCO
P.O. Box 398704
Cincinnati, Ohio 45239-8706

Regarding: Field Surveys for Mountain Bindweed at the FEMP Site
Project No. 72740.000

Dear Ms. Bixby:

RUST Environment & Infrastructure Inc. (RUST) has completed field surveys at the Fernald Environmental Management Project (FEMP) property in order to determine the presence or absence of Mountain Bindweed (*Polygonum cilinode*), a state endangered species. Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulations (Section 121), FEMP must meet the substantive requirements of the Federal Endangered Species Act of 1973, the Ohio Revised Code of 1975, the Ohio Division of Wildlife Order of 1976, and the Ohio Endangered Plant Law of 1978. The survey was conducted in accordance with our proposal number CP-3205 dated March 24, 1994.

Despite actively searching for Mountain Bindweed in its preferred habitats, this species was not observed at the FEMP property. Marginally suitable habitat exists for this species near the Inactive Flyash Pile and the pine plantations; however, historically, Mountain Bindweed has only been reported to occur in Northeastern Ohio. One species of bindweed was observed in these habitats at the FEMP property; however, this species was determined to be Climbing Buckwheat (*Polygonum convolvulus*), a common species that occurs throughout Ohio.

Ms. Becky Bixby
FERMCO
Project No. 72740.000
September 23, 1994
Page 2

RUST has appreciated this opportunity to provide environmental services to FERMCO for this project. Should you have any questions or comments regarding any of the information provided in this report, please feel free to contact the undersigned.

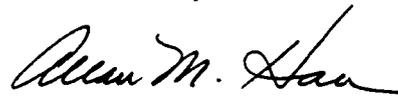
Respectfully submitted,

RUST Environment & Infrastructure, Inc.



Karen A. Fields
Staff Biologist

Reviewed by:



Allan M. Hale, Ph.D.
Senior Ecologist

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 SURVEY METHODS	1
3.0 RESULTS AND CONCLUSIONS	3

LIST OF FIGURES

	<u>Figure</u>
Sampling Transects for Mountain Bindweed	1

LIST OF APPENDICES

	<u>Appendix</u>
Species Identification and Taxonomic Information	I

1.0 INTRODUCTION

Mountain Bindweed (*Polygonum cilinode*) is a state endangered plant species. Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulations (Section 121), the Fernald Environmental Management Project (FEMP) must meet the substantive requirements of the Federal Endangered Species Act of 1973, the Ohio Revised Code of 1975, the Ohio Division of Wildlife Order of 1976, and the Ohio Endangered Plant Law of 1978. As such, RUST Environment & Infrastructure, Inc. (RUST) has completed field surveys at the FEMP property in order to determine the presence or absence of Mountain Bindweed at the property.

Mountain Bindweed blooms from late June through August with fruiting occurring from July through September. The preferred habitat of Mountain Bindweed is dry woods and thickets, rocky slopes, and the borders of woods and roadsides. All of the most recent observations of this species in Ohio have been from the northeast portion of the state. However, in a 1986 survey of the FEMP property (conducted by Miami University), this species was reported to occur in the riparian woods and pine plantations of the property. Thus, field surveys for this species were conducted in the riparian woodlands (along Paddys Run and in the northern woodlands), both pine plantations, and in the Inactive Flyash Pile, since it is more representative of the reported preferred habitat of Mountain Bindweed at the FEMP property. Surveys for Mountain Bindweed were conducted by three biologists from RUST on June 15 and 16, and August 23 and 24, 1994.

2.0 SURVEY METHODS

Prior to conducting the field sampling, each of the team members were given taxonomic descriptions of Mountain Bindweed and identifying characteristics of the species. Examples of this information are provided in Appendix I. On June 15, 1994, the northern woodland area, both pine plantations, and the western pasture areas adjacent to Paddys Run were surveyed for Mountain Bindweed (Figure 1). This survey was done in conjunction with a similar survey conducted for Running Buffalo Clover (*Trifolium stoloniferum*), a federally endangered species. A species of bindweed was observed in the eastern half of the northern woodlands and in the pine plantations; however, since the species was not in flower, a positive determination of the species could not be made at this time. These locations were marked with engineering flagging for future reference for re-evaluation during the August survey period. No species of bindweed were observed in the western pasture area.

On June 16, 1994, the Inactive Flyash Pile and the southern portion of the west pasture were surveyed for Mountain Bindweed. Once again, a species of bindweed was observed in the Inactive Flyash Pile; however, a positive determination of the species could not be made at this time since the species was not in flower. This area was noted on the field map and the populations were marked for future reference for re-evaluation during the August survey period. Mountain Bindweed was not identified in any of the other areas surveyed.

On August 23, 1994, the northern pine plantation, the northern woodland area, and the riparian areas along Paddys Run were surveyed for Mountain Bindweed. The species of bindweed previously observed during the June survey was relocated in the pine plantation and in the eastern half of the northern woodland. This population was identified as Climbing Buckwheat (*Polygonum convolvulus*) by its beardless ocreae (the basal paired appendages of a leaf) and the

*Fernald Environmental Management Project
Results of Surveys for Mountain Bindweed*

nutlets were dull black in color. Climbing Buckwheat is a common species found throughout Ohio. No species of bindweed were observed along the riparian areas of Paddys Run.

On August 24, 1994, the Inactive Flyash Pile, the southern pine plantation, the riparian areas near the storm sewer outfall ditch, and the running track were surveyed for Mountain Bindweed. The species of bindweed previously noted as occurring in the Inactive Flyash Pile and the southern pine plantation was also identified as Climbing Buckwheat and not Mountain Bindweed. No species of bindweed were observed in any of the other locations surveyed.

3.0 RESULTS AND CONCLUSIONS

Several populations of bindweed were observed during the surveys conducted in June and August 1994 at the FEMP property. However, these populations were all identified as being Climbing Buckwheat, a common species occurring throughout Ohio. This identification was based on the beardless ocreae and dull black nutlets observed in these populations. Mountain Bindweed has retrorsely bearded ocreae and glossy black nutlets. Despite actively searching for Mountain Bindweed in suitable habitats at the FEMP property, this species was not observed in any of the areas surveyed.